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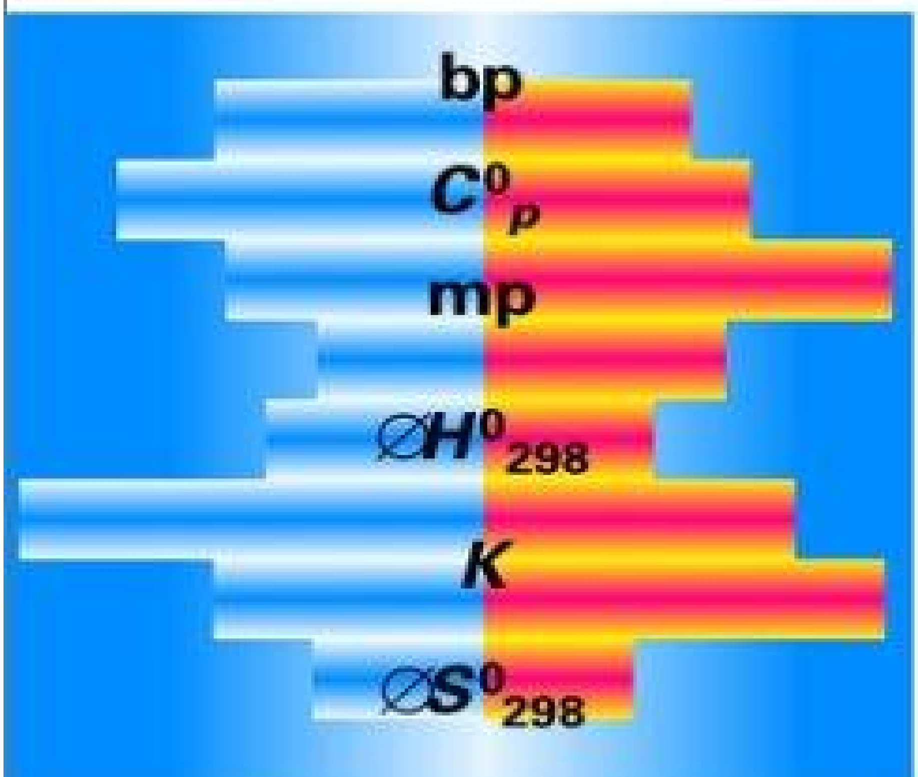
Thermochemical Data of Elements and Compounds

Second, Revised and Extended Edition



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1 Introduction

This book contains a compact collection of thermochemical data of elements of many inorganic and some organic compounds. In this second edition well established selected values (references [1]...[8]) are compiled together with about 500 original references. In several cases roughly estimated entropy and molar heat data are given in addition to measured enthalpy data.

We deliberately limited our enthalpy and entropy data to a temperature of 298 K, because by using the C_p-data it is very simple to calculate thermochemical data for other temperatures. Thus, it was possible to collect about 5200 entries in one volume.

Formulae are given in alphabetical order of the elements present in a compound: e.g. $AlCl_3$ but Cl_2Mg. The next principle of arrangement is the number of atoms: e.g. P_2 appears before P_4 and CCl_2 before CCl_4. Due to this principle of order, we obtain a very unambigious criterion for compound searching, even though the formulae are presented in an unusual way. For clarity, customary chemical formulae and names are also given. So, it should be no problem to find a certain substance, even if the rules of nomenclature have in some cases not been followed.

It is a great pleasure for us to thank Dr. T. Plaggenborg and C. Rose for her help.

Hannover (Germany) 2002

M. Binnewies, E. Milke

2 Comments on the Data

The following data are (maximally) given (standard pressure 1 bar)

1st line: **alphabetical formula (state)** **name** **alphabetical formula (state)**

((s) =solid, (l) = liquid, (g) = gaseous)

2nd line: **chemical formula (state)** **chemical formula (state)**

(not given if alphabetical and chemical formula are identical)

3rd line: **melting point (K) and (°C)** **boiling point (K) and (°C)**

(These values are always listed at the first entry of a substance)

4th line: **heat of formation at 298 K [reference], entropy at 298 K [reference]**

or **heat of formation at *T* [reference], entropy at *T* [reference]**

5th line: **molar heat capacity at constant pressure** as a fixed value or in the form of the polynomial

$C_p^0 = a + b \cdot 10^{-3}\, T + c \cdot 10^{6} T^{-2} + d \cdot 10^{-6} T^{2}$ (*T*-range) [reference]

(In many cases not all of the four coefficients a...d are given. In these cases the polynomial becomes somewhat simpler.)

6th line: **special equilibrium constant as a function of temperature** in the form of the equation

$\lg(p, K) = e \cdot 10^3\ T^{-1} + f \cdot \lg(T) + g$ (T-range) [reference]

(often values are given for evaporation, sublimation (p) or decomposition reactions (K))

7th line: Remarks to line 6

Estimated values are given in [ ].

In many cases data are given for one substance in several states (for instance several solid states, liquid or gaseous states). For each state a new entry is made. Usually data are given for the minimum and the maximum of the stability range.

Example cobalt: $\alpha\text{-Co} \xrightarrow{700\text{K}} \beta\text{-Co} \xrightarrow{1768\text{K}} \text{Co(l)} \longrightarrow \text{Co(g)}$

1st entry	Data at 298 K	α-Co
2nd entry	Data at 700 K	α-Co
3rd entry	Data at 700 K	β-Co
4th entry	Data at 1768 K	β-Co
5th entry	Data at 1768 K	Co(l)
6th entry	Data at 298 K	Co(l)
7th entry	Data at 298 K	Co(g)

Enthalpies of transformation, melting and evaporation can simply be calculated from these values.

Calculation of Enthalpy and Entropy Values for Other Temperatures:

$$\Delta_R H_T^0 = \Delta_R H_{298}^0 + \int_{298}^{T} C_p^0 \mathrm{d}T$$

$$C_p^0 = \mathrm{a} + \mathrm{b}\cdot 10^{-3}\cdot T + \mathrm{c}\cdot 10^{6}\cdot T^{-2} + \mathrm{d}\cdot 10^{-6} T^2$$

$$\int_{298}^{T} C_p^0 \mathrm{d}T = \mathrm{a}\cdot[T-298] + \mathrm{b}\cdot\left[0.5\cdot 10^{-3}\left(T^2-298^2\right)\right]$$
$$+\mathrm{c}\cdot\left[10^{6}\left(298^{-1}-T^{-1}\right)\right] + \mathrm{d}\cdot\left[\frac{1}{3}\cdot 10^{-6}\left(T^3-298^3\right)\right]$$

$$S_T^0 = S_{298}^0 + \int_{298}^{T} C_p^0 \frac{\mathrm{d}T}{T}$$

$$\int_{298}^{T} C_p^0 \frac{\mathrm{d}T}{T} = \mathrm{a}\cdot\ln\frac{T}{298} + \mathrm{b}\cdot 10^{-3}\cdot(T-298)$$
$$-\frac{1}{2}\cdot\mathrm{c}\cdot 10^{6}\left(T^{-2}-298^{-2}\right) + \mathrm{d}\cdot\left[0.5\cdot 10^{-6}\left(T^2-298^2\right)\right]$$

3 List of Symbols

bp	boiling point
C_p^0	standard molar heat capacity (298 K, 1 bar)
g	gaseous
ΔH_{298}^0	standard heat of formation (298 K, 1 bar) (kJ·mol^{-1})
ΔH_T^0	heat of formation (T, 1 bar) (kJ·mol^{-1})
K	equilibrium constant K_p
l	liquid
mp	melting point
p	pressure/bar
s	solid
S_{298}^0	standard entropy (298 K, 1 bar) (J·K^{-1}·mol^{-1})
S_T^0	entropy (T, 1 bar) (J·K^{-1}·mol^{-1})
[ ]	estimated values

4 Conversion Factors and Fundamental Constants

Energy Units

	$kJ \cdot mol^{-1}$	$kcal \cdot mol^{-1}$	eV	cm^{-1}
1 $kJ \cdot mol^{-1}$	1	0.239006	0.0103644	85.53947
1 $kcal \cdot mol^{-1}$	4.184	1	0.0433645	349.7551
1 eV	96.4846	23.06036	1	8065.478
1 cm^{-1}	$1.196 \cdot 10^{-3}$	$2.859 \cdot 10^{-3}$	$1.240 \cdot 10^{-4}$	1

Pressure Units

	Pa	bar	atm	torr
1 Pa	1	10^{-5}	$9.869 \cdot 10^{-6}$	$7.501 \cdot 10^{-3}$
1 bar	10^{5}	1	0.986923	750.062
1 atm	101325	1.01325	1	760
1 torr	133.322	$1.333 \cdot 10^{-3}$	$1.316 \cdot 10^{-3}$	1

Fundamental Constants

e	electron charge	$1.602189 \cdot 10^{-19}$ A·s
h	Planck constant	$6.662176 \cdot 10^{-34}$ J·s
k	Boltzmann constant	$1.380662 \cdot 10^{-23}$ J·K^{-1}
R	molar gas constant	8.31441 J·K^{-1}·mol^{-1}
		0.08206 l·atm·K^{-1}·mol^{-1}
		0.08314 l·bar·K^{-1}·mol^{-1}
c	speed of light (vac.)	299792458 m·s^{-1}
F	Faraday constant	$9.648456 \cdot 10^{4}$ A·s·mol^{-1}

5 Data

Ag (s) Silver **Ag** (s)

mp = 1235 K (962 °C) bp = 2432 K (2159 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 42.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 24.22 + 2.74 \cdot 10^{-3} \cdot T + 2.84 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1235 K) [4]
$\lg(p,K) = -15.13 \cdot 10^3 \cdot T^{-1} - 1.21 \cdot \lg(T) + 10.58$ (1000 ... 1235 K) [4]
{Reaction: evaporation (total pressure)}

Ag (s) Silver **Ag** (s)

ΔH^0_{1235} = 26.4 kJ·mol^{-1} [4] S^0_{1235} = 81.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$ = 31.93 J·mol^{-1}·K^{-1} (1235 K) [4]

Ag (l) Silver **Ag** (l)

ΔH^0_{1235} = 37.7 kJ·mol^{-1} [4] S^0_{1235} = 90.9 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$ = 33.47 J·mol^{-1}·K^{-1} (1235 ... 2432 K) [4]
$\lg(p,K) = -14.71 \cdot 10^3 \cdot T^{-1} - 1.53 \cdot \lg(T) + 11.23$ (1235 ... 2300 K) [4]
{Reaction: evaporation (total pressure)}

Ag (g) Silver **Ag** (g)

ΔH^0_{298} = 284.1 kJ·mol^{-1} [2] S^0_{298} = 173 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$ = 20.79 J·mol^{-1}·K^{-1} (298 K) [4]

AgBr (s) Silver Bromide **AgBr** (s)

mp = 700 K (427 °C) bp = 1833 K (1560 °C)
ΔH^0_{298} = – 100.6 kJ·mol^{-1} [2] S^0_{298} = 107.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 33.18 + 64.43 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 700 K) [4]

AgBr (s) Silver Bromide **AgBr** (s)

ΔH^0_{700} = – 74.4 kJ·mol^{-1} [4] S^0_{700} = 161.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$ = 78.28 J·mol^{-1}·K^{-1} (700 K) [4]

$AgBr$ (l) Silver Bromide **$AgBr$ (l)**

$\Delta H^0_{700} = -65.2$ kJ·mol^{-1} [4] $S^0_{700} = 174.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 62.34$ J·mol^{-1}·K^{-1} (700 ... 1831 K) [4]
$\lg(p,K) = -12.43 \cdot 10^3 \cdot T^{-1} - 3.01 \cdot \lg(T) + 16.61$ (800 ... 1831 K) [4]
{Reaction: evaporation (total pressure)}

$AgBr$ (g) Silver Bromide **$AgBr$ (g)**

$\Delta H^0_{298} = 140.5$ kJ·mol^{-1} [4] $S^0_{298} = 272.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.41 - 0.14 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$AgBrO_3$ (s) Silver Bromate **$AgBrO_3$ (s)**

$\Delta H^0_{298} = -26.4$ kJ·mol^{-1} [3] $S^0_{298} = 154$ J·mol^{-1}·K^{-1} [3]

$AgCN$ (s) Silver Cyanide **$AgCN$ (s)**

$\Delta H^0_{298} = 146$ kJ·mol^{-1} [2] $S^0_{298} = 107.2$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 66.5$ J·mol^{-1}·K^{-1} (298 K) [2]

$AgCNO$ (s) Silver Cyanate **$AgCNO$ (s)**

$\Delta H^0_{298} = -95$ kJ·mol^{-1} [7] $S^0_{298} = 121$ J·mol^{-1}·K^{-1} [7]

$AgCNS$ (s) Silver Thiocyanate **$AgCNS$ (s)**
$AgSCN$ (s) $AgSCN$ (s)

$\Delta H^0_{298} = 88$ kJ·mol^{-1} [7] $S^0_{298} = 131$ J·mol^{-1}·K^{-1} [7]
$C_p^0 = 63$ J·mol^{-1}·K^{-1} (298 K) [7]

$AgC_2H_3O_2$ (s) Silver Acetate **$AgC_2H_3O_2$ (s)**

$\Delta H^0_{298} = -399$ kJ·mol^{-1} [7] $S^0_{298} = 150$ J·mol^{-1}·K^{-1} [7]

AgCl (s) Silver Chloride **AgCl (s)**

mp = 730 K (457 °C) bp = 1835 K (1562 °C)
ΔH^0_{298} = – 127.1 kJ·mol^{-1} [2] S^0_{298} = 96.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 30.1 + 52.96 \cdot 10^{-3} \cdot T + 0.63 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 730 K) [4]

AgCl (s) Silver Chloride **AgCl (s)**

ΔH^0_{730} = – 101.1 kJ·mol^{-1} [4] S^0_{730} = 149 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$ = 69.94 J·mol^{-1}·K^{-1} (730 K) [4]

AgCl (l) Silver Chloride **AgCl (l)**

ΔH^0_{730} = – 87.9 kJ·mol^{-1} [4] S^0_{730} = 167.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 67.66 - 8.87 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (730 ... 1835 K) [4]
$\lg(p,K) = -10.75 \cdot 10^3 \cdot T^{-1} - 2.29 \cdot \lg(T) + 13.33$ (730 ... 1835 K) [4]
{Reaction: evaporation (total pressure)}

AgCl (g) Silver Chloride **AgCl (g)**

ΔH^0_{298} = 89 kJ·mol^{-1} [4] S^0_{298} = 246.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.41 - 0.14 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [4]

$AgClO_3$ (s) Silver Chlorate **$AgClO_3$ (s)**

mp = 528 K (255 °C)
ΔH^0_{298} = – 30.3 kJ·mol^{-1} [2] S^0_{298} = 141.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$ = 100.18 J·mol^{-1}·K^{-1} (298 K) [2]

AgF (s) Silver Fluoride **AgF (s)**

mp = 708 K (435 °C) bp = 1420 K (1147 °C)
ΔH^0_{298} = – 204.6 kJ·mol^{-1} [2] S^0_{298} = 83.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 53.05 + 16.15 \cdot 10^{-3} \cdot T - 0.88 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 708 K) [4]

AgF (g) Silver Fluoride **AgF (g)**

ΔH^0_{298} = 7.1 kJ·mol^{-1} [2] S^0_{298} = 235.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$ = 34 J·mol^{-1}·K^{-1} (298 K) [2]

AgF_6U (s) Silver Uranium Fluoride **AgF_6U (s)**
$AgUF_6$ (s) $AgUF_6$ (s)

$\Delta H^0_{298} = -2353.3 \pm 8.3$ kJ·mol⁻¹ [245] $S^0_{298} = [263.2]$ J·mol⁻¹·K⁻¹ [246, 8]
$C_p^0 = [180.22]$ J·mol⁻¹·K⁻¹ (298 K) [271]

AgI (s) Silver Iodide gamma **AgI (s)**

mp = 830 K (557 °C) bp = 1773 K (1500 °C)
$\Delta H^0_{298} = -61.8$ kJ·mol⁻¹ [2] $S^0_{298} = 115.5$ J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 35.77 + 71.13 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 420 K) [4]

AgI (s) Silver Iodide gamma **AgI (s)**

$\Delta H^0_{420} = -54.5$ kJ·mol⁻¹ [4] $S^0_{420} = 136.4$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 65.65$ J·mol⁻¹·K⁻¹ (420 K) [4]

AgI (s) Silver Iodide alpha **AgI (s)**

$\Delta H^0_{420} = -48.2$ kJ·mol⁻¹ [4] $S^0_{420} = 151.3$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 43.66 + 14.83 \cdot 10^{-3} \cdot T + 1.52 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (420 ... 830 K) [4]
$\lg(p,K) = -11.32 \cdot 10^{3} \cdot T^{-1} + 2.28 \cdot \lg(T) + 14.12$ (700 ... 830 K) [4]
{Reaction: evaporation (total pressure)}

AgI (s) Silver Iodide alpha **AgI (s)**

$\Delta H^0_{830} = -24.7$ kJ·mol⁻¹ [4] $S^0_{830} = 190.4$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 58.18$ J·mol⁻¹·K⁻¹ (830 K) [4]

AgI (l) Silver Iodide **AgI (l)**

$\Delta H^0_{830} = -15.3$ kJ·mol⁻¹ [4] $S^0_{830} = 201.7$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 58.58$ J·mol⁻¹·K⁻¹ (830 ... 1773 K) [4]
$\lg(p,K) = -10.87 \cdot 10^{3} \cdot T^{-1} - 2.38 \cdot \lg(T) + 13.86$ (830 ... 1773 K) [4]
{Reaction: evaporation as AgI(g)}

AgI (l) Silver Iodide **AgI (l)**

$\Delta H^0_{1773} = 40$ kJ·mol^{-1} [4] $S^0_{1773} = 246.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 58.58$ J·mol^{-1}·K^{-1} (1773 K) [4]

AgI (g) Silver Iodide **AgI (g)**

$\Delta H^0_{1773} = 212.9$ kJ·mol^{-1} [4] $S^0_{1773} = 343.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 38.88$ J·mol^{-1}·K^{-1} (1773 K) [4]

AgI (g) Silver Iodide **AgI (g)**

$\Delta H^0_{298} = 155.9$ kJ·mol^{-1} [4] $S^0_{298} = 275.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 38.92 - 0.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$AgNO_2$ (s) Silver Nitrite **$AgNO_2$ (s)**

$\Delta H^0_{298} = -45.1$ kJ·mol^{-1} [4] $S^0_{298} = 128.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 42.89 + 129.03 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 517 K) [4]
$\lg(p,K) = -4.56 \cdot 10^3 \cdot T^{-1} - 3.54 \cdot \lg(T) + 18.43$ (298 ... 517 K) [4]
{Reaction: $AgNO_2$(s) = Ag(s) + NO_2(g)}

$AgNO_3$ (s) Silver Nitrate alpha **$AgNO_3$ (s)**

mp = 483 K (210 °C)
$\Delta H^0_{298} = -124.4$ kJ·mol^{-1} [4] $S^0_{298} = 140.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 36.65 + 189.12 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 433 K) [4]

$AgNO_3$ (s) Silver Nitrate alpha **$AgNO_3$ (s)**

$\Delta H^0_{433} = -110.1$ kJ·mol^{-1} [4] $S^0_{433} = 180.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 118.54$ J·mol^{-1}·K^{-1} (433 K) [4]

$AgNO_3$ (s) Silver Nitrate beta **$AgNO_3$ (s)**

$\Delta H^0_{433} = -107.6$ kJ·mol^{-1} [4] $S^0_{433} = 185.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 106.69$ J·mol^{-1}·K^{-1} (433 ... 483 K) [4]

$AgNO_3$ (s) Silver Nitrate beta **$AgNO_3$ (s)**

$\Delta H^0_{483} = -102.3$ kJ·mol^{-1} [4] $S^0_{483} = 197.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 106.69$ J·mol^{-1}·K^{-1} (483 K) [4]

$AgNO_3$ (l) Silver Nitrate **$AgNO_3$ (l)**

$\Delta H^0_{483} = -90.6$ kJ·mol^{-1} [4] $S^0_{483} = 221.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 128.03$ J·mol^{-1}·K^{-1} (483 ... 665 K) [4]

AgO_4Re (s) Silver Perrhenate **AgO_4Re (s)**
$AgReO_4$ (s) $AgReO_4$ (s)

mp = 728 K (455 °C)
$\Delta H^0_{298} = -736$ kJ·mol^{-1} [4] $S^0_{298} = 153.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 90.65 + 112.45 \cdot 10^{-3} \cdot T - 0.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 500 K) [4]

AgP_2 (s) Silver Diphosphide **AgP_2 (s)**

$\Delta H^0_{298} = -43.3$ kJ·mol^{-1} [2] $S^0_{298} = 87.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 72.6$ J·mol^{-1}·K^{-1} (298 K) [2]

AgP_3 (s) Silver Triphosphide **AgP_3 (s)**

$\Delta H^0_{298} = -69.5$ kJ·mol^{-1} [2] $S^0_{298} = 105.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 103.9$ J·mol^{-1}·K^{-1} (298 K) [2]

AgS (g) Silver Sulfide **AgS (g)**

$\Delta H^0_{298} = [393.3]$ kJ·mol^{-1} [5] $S^0_{298} = [261.2]$ J·mol^{-1}·K^{-1} [5]
$C_p^0 = [37.36] + [0.03] \cdot 10^{-3} \cdot T + [0.12] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

$Ag_{1.64}S$ (s) Silver Sulfide **$Ag_{1.64}S$ (s)**

$\Delta H^0_{298} = -31.4$ kJ·mol^{-1} [5] $S^0_{298} = 133.9$ J·mol^{-1}·K^{-1} [5]

$C_p^0 = [66.7]$ J·mol^{-1}·K^{-1} (298 K) [15]

Ag_2CO_3 (s) Silver Carbonate alpha **Ag_2CO_3 (s)**

$\Delta H^0_{298} = -509.9$ kJ·mol^{-1} [4] $S^0_{298} = 170.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 79.37 + 108.16 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 457 K) [4]

Ag_2CO_3 (s) Silver Carbonate alpha **Ag_2CO_3 (s)**

$\Delta H^0_{457} = -490.8$ kJ·mol^{-1} [4] $S^0_{457} = 221.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 128.8$ J·mol^{-1}·K^{-1} (457 K) [4]

Ag_2CO_3 (s) Silver Carbonate beta **Ag_2CO_3 (s)**

$\Delta H^0_{457} = -485.8$ kJ·mol^{-1} [4] $S^0_{457} = 232.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 79.37 + 108.16 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (457 ... 491 K) [4]

$Ag_2C_2O_4$ (s) Silver Oxalate **$Ag_2C_2O_4$ (s)**

$\Delta H^0_{298} = -673$ kJ·mol^{-1} [7] $S^0_{298} = 209$ J·mol^{-1}·K^{-1} [7]

Ag_2CrO_4 (s) Silver Chromate **Ag_2CrO_4 (s)**

$\Delta H^0_{298} = -731.8$ kJ·mol^{-1} [2] $S^0_{298} = 217.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 132.21 + 66.94 \cdot 10^{-3} \cdot T - 0.89 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 500 K) [3]

Ag_2O (s) Silver Oxide **Ag_2O (s)**

$\Delta H^0_{298} = -31$ kJ·mol^{-1} [2] $S^0_{298} = 121.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 59.33 + 40.79 \cdot 10^{-3} \cdot T - 0.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 460 K) [4]
$\lg(p,K) = -3.38 \cdot 10^3 \cdot T^{-1} - 1.14 \cdot \lg(T) + 10.39$ (298 ... 460 K) [4]
{Reaction: $2Ag_2O(s) = 4Ag(s) + O_2(g)$}

Ag_2O_4S (s) Silver Sulfate **Ag_2O_4S (s)**
Ag_2SO_4 (s) alpha Ag_2SO_4 (s)

mp = 933 K (660 °C)
$\Delta H^0_{298} = -717.1$ kJ·mol^{-1} [4] $S^0_{298} = 199.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 96.65 + 116.73 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 703 K) [4]

Ag_2O_4S (s) Silver Sulfate **Ag_2O_4S (s)**
Ag_2SO_4 (s) alpha Ag_2SO_4 (s)

$\Delta H^0_{703} = -654.4$ kJ·mol^{-1} [4] $S^0_{703} = 330$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 178.71$ J·mol^{-1}·K^{-1} (703 K) [4]

Ag_2O_4S (s) Silver Sulfate **Ag_2O_4S (s)**
Ag_2SO_4 (s) beta Ag_2SO_4 (s)

$\Delta H^0_{703} = -638.7$ kJ·mol^{-1} [4] $S^0_{703} = 352.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 96.65 + 116.73 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (703 ... 933 K) [4]

Ag_2O_4S (s) Silver Sulfate **Ag_2O_4S (s)**
Ag_2SO_4 (s) beta Ag_2SO_4 (s)

$\Delta H^0_{933} = -594.5$ kJ·mol^{-1} [4] $S^0_{933} = 406.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 205.56$ J·mol^{-1}·K^{-1} (933 K) [4]

Ag_2O_4S (l) Silver Sulfate **Ag_2O_4S (l)**
Ag_2SO_4 (l) Ag_2SO_4 (l)

$\Delta H^0_{933} = -576.5$ kJ·mol^{-1} [4] $S^0_{933} = 425.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 205.02$ J·mol^{-1}·K^{-1} (933 ... 1300 K) [4]

Ag_2O_4W (s) Silver Tungstate **Ag_2O_4W (s)**

Ag_2WO_4 (s) Ag_2WO_4 (s)

$\Delta H^0_{298} = -925.5$ kJ·mol^{-1} [2] $S^0_{298} = 205$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 148.4$ J·mol^{-1}·K^{-1} (298 K) [2]

Ag_2S (s) Silver Sulfide alpha **Ag_2S (s)**

mp = 1115 K (842 °C)

$\Delta H^0_{298} = -31.6$ kJ·mol^{-1} [4] $S^0_{298} = 143.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 64.6 + 39.96 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 451 K) [4]

Ag_2S (s) Silver Sulfide alpha **Ag_2S (s)**

$\Delta H^0_{451} = -19.4$ kJ·mol^{-1} [4] $S^0_{451} = 176.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 82.62$ J·mol^{-1}·K^{-1} (451 K) [4]

Ag_2S (s) Silver Sulfide beta **Ag_2S (s)**

$\Delta H^0_{451} = -15.5$ kJ·mol^{-1} [4] $S^0_{451} = 185.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 81.34 + 2.93 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (451 ... 895 K) [4]

$\lg(p,K) = -9.75 \cdot 10^3 \cdot T^{-1} - 2.11 \cdot \lg(T) + 10.81$ (800 ... 895 K) [4]

{Reaction: $2Ag_2S(s) = 4Ag(s) + S_2(g)$}

Ag_2S (s) Silver Sulfide beta **Ag_2S (s)**

$\Delta H^0_{895} = 21.5$ kJ·mol^{-1} [4] $S^0_{895} = 242.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 83.96$ J·mol^{-1}·K^{-1} (895 K) [4]

Ag_2S (s) Silver Sulfide gamma **Ag_2S (s)**

$\Delta H^0_{895} = 22.0$ kJ·mol^{-1} [4]
$S^0_{895} = 242.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 82.72$ J·mol^{-1}·K^{-1} (895 ... 1115 K) [4]
$\lg(p,K) = -9.31 \cdot 10^3 \cdot T^{-1} - 1.12 \cdot \lg(T) + 7.39$ (895 ... 1079 K) [4]
{Reaction: $2Ag_2S(s) = 4Ag(s) + S_2(g)$}

Ag_2S (s) Silver Sulfide gamma **Ag_2S (s)**

$\Delta H^0_{1115} = 40.2$ kJ·mol^{-1} [4]
$S^0_{1115} = 261$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 82.72$ J·mol^{-1}·K^{-1} (1115 K) [4]

Ag_2S (l) Silver Sulfide **Ag_2S (l)**

$\Delta H^0_{1115} = 48.1$ kJ·mol^{-1} [4]
$S^0_{1115} = 268$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 93.09$ J·mol^{-1}·K^{-1} (1115 K) [4]

Ag_2Se (s) Silver Selenide alpha **Ag_2Se (s)**

mp = 1170 K (897 °C)
$\Delta H^0_{298} = -16.1$ kJ·mol^{-1} [4]
$S^0_{298} = 150.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 65.15 + 54.89 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 406 K) [4]

Ag_2Se (s) Silver Selenide alpha **Ag_2Se (s)**

$\Delta H^0_{406} = -7.0$ kJ·mol^{-1} [4]
$S^0_{406} = 176.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 87.43$ J·mol^{-1}·K^{-1} (406 K) [4]

Ag_2Se (s) Silver Selenide beta **Ag_2Se (s)**

$\Delta H^0_{406} = 0$ kJ·mol^{-1} [4] $S^0_{406} = 193.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 80.5 + 9.45 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (406 ... 1170 K) [4]
$\lg(p,K) = -8.22 \cdot 10^3 \cdot T^{-1} - 2.18 \cdot \lg(T) + 10.2$ (700 ... 1170 K) [4]
{Reaction: $2Ag_2Se(s) = 4Ag(s) + Se_2(g)$}

Ag_2Te (s) Silver Telluride alpha **Ag_2Te (s)**

mp = 1232 K (959 °C)
$\Delta H^0_{298} = -36$ kJ·mol^{-1} [2] $S^0_{298} = 153.6$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 49.2 + 109.62 \cdot 10^{-3} \cdot T + 0.28 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 421 K) [4]

Ag_2Te (s) Silver Telluride alpha **Ag_2Te (s)**

$\Delta H^0_{421} = -24.9$ kJ·mol^{-1} [4] $S^0_{421} = 184.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 96.9$ J·mol^{-1}·K^{-1} (421 K) [4]

Ag_2Te (s) Silver Telluride beta **Ag_2Te (s)**

$\Delta H^0_{421} = -18.3$ kJ·mol^{-1} [4] $S^0_{421} = 200.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 84.02$ J·mol^{-1}·K^{-1} (421 ... 1232 K) [4]
$\lg(p,K) = -10.77 \cdot 10^3 \cdot T^{-1} - 0.32 \cdot \lg(T) + 4.22$ (900 ... 1232 K) [4]
{Reaction: $2Ag_2Te(s) = 4Ag(s) + Te_2(g)$}

Ag_3AsO_4 (s) Silver Arsenate **Ag_3AsO_4 (s)**

$\Delta H^0_{298} = -634.3$ kJ·mol^{-1} [2] $S^0_{298} = 275.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 173.86$ J·mol^{-1}·K^{-1} (298 K) [2]

Ag_3Cl_3 (g) Silver Chloride **Ag_3Cl_3 (g)**
$(AgCl)_3$ (g) $(AgCl)_3$ (g)

$\Delta H^0_{298} = -146.4$ kJ·mol^{-1} [70] $S^0_{298} = 455.2$ J·mol^{-1}·K^{-1} [70]

Ag_3I_3 (g) Silver Iodide **Ag_3I_3 (g)**
$(AgI)_3$ (g) $(AgI)_3$ (g)

$\Delta H^0_{298} = -405.4$ kJ·mol^{-1} [71] $S^0_{298} = [510.4]$ J·mol^{-1}·K^{-1} [71]

Al (s) Aluminium **Al (s)**

mp = 933 K (660 °C) bp = 2790 K (2517 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 28.3 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 20.11 + 13.17 \cdot 10^{-3} \cdot T + 0.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 933 K) [4]

Al (s) Aluminium **Al (s)**

$\Delta H^0_{933} = 18.0$ kJ·mol^{-1} [4] $S^0_{933} = 59.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 32.43$ J·mol^{-1}·K^{-1} (933 K) [4]

Al (l) Aluminium **Al (l)**

$\Delta H^0_{933} = 28.7$ kJ·mol^{-1} [4] $S^0_{933} = 71.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 31.75$ J·mol^{-1}·K^{-1} (933 ... 2790 K) [4]
$\lg(p,K) = -16.95 \cdot 10^3 \cdot T^{-1} - 1.32 \cdot \lg(T) + 10.62$ (1100 ... 2790 K) [4]
{Reaction: evaporation (total pressure)}

Al (l) Aluminium **Al (l)**

$\Delta H^0_{298} = 10.6$ kJ·mol^{-1} [1] $S^0_{298} = 39.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 31.75$ J·mol^{-1}·K^{-1} (933 ... 2790 K) [4]

Al (g) Aluminium **Al (g)**

$\Delta H^0_{298} = 329.7 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 164.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 20.78 + 0.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

AlAs (s) Aluminium Arsenide **AlAs (s)**

mp = 2013 K (1740 °C)
$\Delta H^0_{298} = -116.3$ kJ·mol^{-1} [2] $S^0_{298} = 60.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 43.93 + 6.28 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2013 K) [4]

$AlAsO_4$ (s) Aluminium Arsenate **$AlAsO_4$ (s)**

$\Delta H^0_{298} = -1431.1$ kJ·mol^{-1} [2] $S^0_{298} = 145.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 118.3$ J·mol^{-1}·K^{-1} (298 K) [2]

AlAu (s) Aluminium Gold **AlAu (s)**
AuAl (s) AuAl (s)

$\Delta H^0_{298} = -77.4$ kJ·mol^{-1} [3] $S^0_{298} = [75.8]$ J·mol^{-1}·K^{-1} [234, 8]

$AlBO_2$ (g) Aluminium Borate **$AlBO_2$ (g)**

$\Delta H^0_{298} = -541.4 \pm 17$ kJ·mol^{-1} [1] $S^0_{298} = 269.6 \pm 10$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 52.83$ J·mol^{-1}·K^{-1} (298 K) [1]

AlB_2 (s) Aluminium Boride **AlB_2 (s)**

$\Delta H^0_{298} = -151$ kJ·mol^{-1} [2] $S^0_{298} = 34.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 43.6$ J·mol^{-1}·K^{-1} (298 K) [2]

AlB_{12} (s) Aluminium Boride **AlB_{12} (s)**

$\Delta H^0_{298} = -266.1$ kJ·mol^{-1} [2] $S^0_{298} = 118.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 211.29 + 115.06 \cdot 10^{-3} \cdot T - 8.54 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... mp K) [3]

AlBr (g) Aluminium(I) Bromide **AlBr (g)**

$\Delta H^0_{298} = 15.9 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 239.6 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.26 + 0.59 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$AlBr_3$ (s) Aluminium(III) Bromide **$AlBr_3$ (s)**

mp = 371 K (98 °C) bp = 527 K (254 °C)
$\Delta H^0_{298} = -511.3$ kJ·mol^{-1} [1] $S^0_{298} = 180.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 50.17 + 169.03 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 371 K) [4]

$AlBr_3$ (s) Aluminium(III) Bromide **$AlBr_3$ (s)**

$\Delta H^0_{371} = -503.5$ kJ·mol^{-1} [4] $S^0_{371} = 203.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 112.88$ J·mol^{-1}·K^{-1} (371 K) [4]

$AlBr_3$ (l) Aluminium(III) Bromide **$AlBr_3$ (l)**

$\Delta H^0_{371} = -492.3$ kJ·mol^{-1} [4] $S^0_{371} = 233.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 125$ J·mol^{-1}·K^{-1} (371 K) [4]

$AlBr_3$ (l) Aluminium(III) Bromide **$AlBr_3$ (l)**

$\Delta H^0_{298} = -501.4$ kJ·mol^{-1} [1] $S^0_{298} = 206.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 125$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlBr_3$ (g) Aluminium(III) Bromide **$AlBr_3$ (g)**

$\Delta H^0_{298} = -410.5 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 349.4 \pm 1.26$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 80.71 + 2.81 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AlC (g) Aluminium Carbide **AlC (g)**

$\Delta H^0_{298} = 689.5 \pm 10$ kJ·mol^{-1} [1] $S^0_{298} = 223.4 \pm 4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 32.26$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlCeO_3$ (s) Cerium Aluminium Oxide **$AlCeO_3$ (s)**
$CeAlO_3$ (s) $CeAlO_3$ (s)

$\Delta H^0_{298} = -1753.5$ kJ·mol^{-1} [2] $S^0_{298} = 109.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 94.54$ J·mol^{-1}·K^{-1} (298 K) [2]

AlCl (g) Aluminium(I) Chloride **AlCl (g)**

$\Delta H^0_{298} = -51.5 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 228 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.38 + 0.46 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$AlClF$ (g) Aluminium Chloride Fluoride **$AlClF$ (g)**

$\Delta H^0_{298} = -489.5 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 282.9 \pm 4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 48.81$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlClF_2$ (g) Aluminium Chloride Difluoride **$AlClF_2$ (g)**

$\Delta H^0_{298} = -999.1 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 297.8 \pm 4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 65.45$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlClO$ (s) Aluminium Chloride Oxide **$AlClO$ (s)**
$AlOCl$ (s) $AlOCl$ (s)

$\Delta H^0_{298} = -793.3 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 54.4 \pm 4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 55.35 + 34.35 \cdot 10^{-3} \cdot T - 0.78 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 452 K) [4]

$AlClO$ (g) Aluminium Chloride Oxide **$AlClO$ (g)**
$AlOCl$ (g) $AlOCl$ (g)

$\Delta H^0_{298} = -348.1 \pm 20$ kJ·mol^{-1} [1] $S^0_{298} = 248.9 \pm 20$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 60.36 + 1.05 \cdot 10^{-3} \cdot T - 1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$AlCl_2$ (g) Aluminium(II) Chloride **$AlCl_2$ (g)**

$\Delta H^0_{298} = -280.3 \pm 20$ kJ·mol^{-1} [1] $S^0_{298} = 289.4 \pm 2.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 57.68 + 0.28 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$AlCl_2F$ (g) Aluminium Dichloride Fluoride **$AlCl_2F$ (g)**

$\Delta H^0_{298} = -790.8 \pm 6$ kJ·mol^{-1} [1] $S^0_{298} = 311.4 \pm 4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 68.8$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlCl_3$ (s) Aluminium(III) Chloride **$AlCl_3$ (s)**

mp = 466 K (193 °C) bp = 454 K (181 °C)
$\Delta H^0_{298} = -705.6 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 109.3 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 64.94 + 87.86 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 454 K) [4]

$AlCl_3$ (l) Aluminium(III) Chloride **$AlCl_3$ (l)**

$\Delta H^0_{298} = -674.8$ kJ·mol^{-1} [1] $S^0_{298} = 172.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 125.5$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlCl_3$ (g) Aluminium(III) Chloride **$AlCl_3$ (g)**

$\Delta H^0_{298} = -584.6 \pm 2.9$ kJ·mol^{-1} [1] $S^0_{298} = 314.5 \pm 2.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 81.97 + 0.63 \cdot 10^{-3} \cdot T - 0.99 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$AlCl_3H_{12}O_6$ (s) Aluminium(III) Chloride **$AlCl_3H_{12}O_6$ (s)**
$AlCl_3 \cdot 6H_2O$ (s) Hexahydrate $AlCl_3 \cdot 6H_2O$ (s)

$\Delta H^0_{298} = -2691.6$ kJ·mol^{-1} [2] $S^0_{298} = 318$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 296.2$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlCl_4K$ (s) Potassium Tetrachloroaluminate **$AlCl_4K$ (s)**
$KAlCl_4$ (s) $KAlCl_4$ (s)

mp = 529 K (256 °C)
$\Delta H^0_{298} = -1196.6 \pm 10$ kJ·mol^{-1} [1] $S^0_{298} = 196.6 \pm 8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 130.14 + 88.38 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 529 K) [4]

$AlCl_4Na$ (s) Sodium Tetrachloroaluminate **$AlCl_4Na$ (s)**
$NaAlCl_4$ (s) $NaAlCl_4$ (s)

mp = 426 K (153 °C)
$\Delta H^0_{298} = -1138.5$ kJ·mol^{-1} [4] $S^0_{298} = 184.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 126.8 + 94.56 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 426 K) [4]

$AlCl_4Na$ (g) Sodium Tetrachloroaluminate **$AlCl_4Na$ (g)**
$NaAlCl_4$ (g) $NaAlCl_4$ (g)

$\Delta H^0_{298} = -994.8 \pm 8$ kJ·mol^{-1} [11] $S^0_{298} = 397.1 \pm 10$ J·mol^{-1}·K^{-1} [11]
$C_p{}^0 = 119.5$ J·mol^{-1}·K^{-1} (298 K) [11]

$AlCl_5Mn$ (g) Manganese Aluminium Chloride **$AlCl_5Mn$ (g)**

$MnAlCl_5$ (g) $MnAlCl_5$ (g)

$\Delta H^0_{298} = -\ 992.3$ kJ·mol^{-1} [283] $S^0_{298} = 468$ J·mol^{-1}·K^{-1} [283]

$AlCl_6K_3$ (s) Tripotassium Hexachloroaluminate **$AlCl_6K_3$ (s)**

K_3AlCl_6 (s) K_3AlCl_6 (s)

mp = 800 K (527 °C)

$\Delta H^0_{298} = -\ 2092 \pm 4$ kJ·mol^{-1} [1] $S^0_{298} = 376.6 \pm 8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 219 + 100.73 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 800 K) [4]

$AlCl_6La$ (s) Lanthanum Aluminium Chloride **$AlCl_6La$ (s)**

$LaAlCl_6$ (s) $LaAlCl_6$ (s)

$\Delta H^0_{298} = -\ 1787 \pm 10.5$ kJ·mol^{-1} [26] $S^0_{298} = 252.2 \pm 10.5$ J·mol^{-1}·K^{-1} [26]

$C_p{}^0 = [189.25]$ J·mol^{-1}·K^{-1} (298 K) [271]

$AlCl_6Na_3$ (s) Trisodium Hexachloroaluminate **$AlCl_6Na_3$ (s)**

Na_3AlCl_6 (s) Na_3AlCl_6 (s)

$\Delta H^0_{298} = -\ 1979 \pm 4$ kJ·mol^{-1} [1] $S^0_{298} = 347.3 \pm 8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 244.1$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlCl_6V$ (g) Vanadium Aluminium Chloride **$AlCl_6V$ (g)**

$VAlCl_6$ (g) $VAlCl_6$ (g)

$\Delta H^0_{298} = -\ 1121.9$ kJ·mol^{-1} [134] $S^0_{298} = 464.7$ J·mol^{-1}·K^{-1} [134]

AlCo (s) Aluminium Cobalt **AlCo (s)**

CoAl (s) CoAl (s)

mp = 1921 K (1648 °C)

$\Delta H^0_{298} = -\ 110.5$ kJ·mol^{-1} [2] $S^0_{298} = 54.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 42.68 + 12.55 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1921 K) [4]

AlCo (s) Aluminium Cobalt **AlCo (s)**
CoAl (s) CoAl (s)

$\Delta H^0_{1921} = -18.6$ kJ·mol^{-1} [4] $S^0_{1921} = 154.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 66.79$ J·mol^{-1}·K^{-1} (1921 K) [4]

AlCo (l) Aluminium Cobalt **AlCo (l)**
CoAl (l) CoAl (l)

$\Delta H^0_{1921} = 44.2$ kJ·mol^{-1} [4] $S^0_{1921} = 186.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 71.13$ J·mol^{-1}·K^{-1} (1921 K) [4]

AlF (g) Aluminium(I) Fluoride **AlF (g)**

$\Delta H^0_{298} = -265.7 \pm 3.4$ kJ·mol^{-1} [1] $S^0_{298} = 215.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.28 + 0.44 \cdot 10^{-3} \cdot T - 0.77 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AlFO (g) Aluminium Oxide Fluoride **AlFO (g)**
AlOF (g) AlOF (g)

$\Delta H^0_{298} = -581.6$ kJ·mol^{-1} [4] $S^0_{298} = 237.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 58.66 + 2.05 \cdot 10^{-3} \cdot T - 1.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AlF_2 (g) Aluminium(II) Fluoride **AlF_2 (g)**

$\Delta H^0_{298} = -695 \pm 40$ kJ·mol^{-1} [1] $S^0_{298} = 264.2 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 57.87 + 0.13 \cdot 10^{-3} \cdot T - 1.73 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AlF_2O (g) Aluminium Oxide Difluoride **AlF_2O (g)**
$AlOF_2$ (g) $AlOF_2$ (g)

$\Delta H^0_{298} = -1108.8 \pm 30$ kJ·mol^{-1} [1] $S^0_{298} = 292.7 \pm 13$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 63.39$ J·mol^{-1}·K^{-1} (298 K) [1]

AlF_3 (s) Aluminium(III) Fluoride **AlF_3 (s)**

bp = 1548 K (1275 °C)

$\Delta H^0_{298} = -1510.4 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 66.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 70.58 + 51.09 \cdot 10^{-3} \cdot T - 0.92 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 728 K) [4]

AlF_3 (l) Aluminium(III) Fluoride **AlF_3 (l)**

$\Delta H^0_{298} = -1422.8$ kJ·mol^{-1} [1] $S^0_{298} = 95.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 97.48$ J·mol^{-1}·K^{-1} (298 K) [1]

AlF_3 (g) Aluminium(III) Fluoride **AlF_3 (g)**

$\Delta H^0_{298} = -1209.3 \pm 2.5$ kJ·mol^{-1} [1] $S^0_{298} = 276.7 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 79.16 + 2.26 \cdot 10^{-3} \cdot T - 1.54 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AlF_4Li (g) Lithium Tetrafluoroaluminate **AlF_4Li (g)**

$LiAlF_4$ (g) $LiAlF_4$ (g)

$\Delta H^0_{298} = -1854 \pm 12$ kJ·mol^{-1} [1] $S^0_{298} = 326.5 \pm 8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 132.76 + 0.11 \cdot 10^{-3} \cdot T - 4.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2200 K) [4]

AlF_4Na (g) Sodium Tetrafluoroaluminate **AlF_4Na (g)**

$NaAlF_4$ (g) $NaAlF_4$ (g)

$\Delta H^0_{298} = -1841 \pm 12$ kJ·mol^{-1} [1] $S^0_{298} = 344.9 \pm 8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 128.67 + 2.42 \cdot 10^{-3} \cdot T - 2.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AlF_6K_3 (s) Tripotassium Hexafluoroaluminate **AlF_6K_3 (s)**

K_3AlF_6 (s) K_3AlF_6 (s)

mp = 1247 K (974 °C)

$\Delta H^0_{298} = -3326 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 284.5 \pm 4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 238.61 + 41 \cdot 10^{-3} \cdot T - 2.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1247 K) [4]

AlF_6Li_3 (s) Trilithium Hexafluoroaluminate **AlF_6Li_3 (s)**
Li_3AlF_6 (s) alpha Li_3AlF_6 (s)

mp = 1058 K (785 °C)
ΔH^0_{298} = – 3380.5 kJ·mol^{-1} [4] S^0_{298} = 187.9 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 205.94 + 109.83 ·10^{-3}·T – 3.23 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 748 K) [4]

AlF_6Li_3 (s) Trilithium Hexafluoroaluminate **AlF_6Li_3 (s)**
Li_3AlF_6 (s) alpha Li_3AlF_6 (s)

ΔH^0_{748} = – 3268.5 kJ·mol^{-1} [4] S^0_{748} = 411.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 282.32 J·mol^{-1}·K^{-1} (748 K) [4]

AlF_6Li_3 (s) Trilithium Hexafluoroaluminate **AlF_6Li_3 (s)**
Li_3AlF_6 (s) beta Li_3AlF_6 (s)

ΔH^0_{748} = – 3266.4 kJ·mol^{-1} [4] S^0_{748} = 414.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 284.51 J·mol^{-1}·K^{-1} (748 K) [4]

AlF_6Li_3 (s) Trilithium Hexafluoroaluminate **AlF_6Li_3 (s)**
Li_3AlF_6 (s) beta Li_3AlF_6 (s)

ΔH^0_{848} = – 3238 kJ·mol^{-1} [4] S^0_{848} = 449.9 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 284.51 J·mol^{-1}·K^{-1} (848 K) [4]

AlF_6Li_3 (s) Trilithium Hexafluoroaluminate **AlF_6Li_3 (s)**
Li_3AlF_6 (s) gamma Li_3AlF_6 (s)

ΔH^0_{848} = – 3236.7 kJ·mol^{-1} [4] S^0_{848} = 451.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 294.97 J·mol^{-1}·K^{-1} (848 K) [4]

AlF_6Li_3 (s) Trilithium Hexafluoroaluminate **AlF_6Li_3 (s)**
Li_3AlF_6 (s) gamma Li_3AlF_6 (s)

ΔH^0_{978} = – 3198.4 kJ·mol^{-1} [4] S^0_{978} = 493.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 294.97 J·mol^{-1}·K^{-1} (978 K) [4]

AlF_6Li_3 (s) Trilithium Hexafluoroaluminate **AlF_6Li_3 (s)**
Li_3AlF_6 (s) delta Li_3AlF_6 (s)

$\Delta H^0_{978} = -3198$ kJ·mol^{-1} [4] $S^0_{978} = 493.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 305.43$ J·mol^{-1}·K^{-1} (978 K) [4]

AlF_6Li_3 (s) Trilithium Hexafluoroaluminate **AlF_6Li_3 (s)**
Li_3AlF_6 (s) delta Li_3AlF_6 (s)

$\Delta H^0_{1058} = -3173.5$ kJ·mol^{-1} [4] $S^0_{1058} = 517.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 305.43$ J·mol^{-1}·K^{-1} (1058 K) [4]

AlF_6Li_3 (l) Trilithium Hexafluoroaluminate **AlF_6Li_3 (l)**
Li_3AlF_6 (l) Li_3AlF_6 (l)

$\Delta H^0_{1058} = -3087.3$ kJ·mol^{-1} [4] $S^0_{1058} = 599.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 359.82$ J·mol^{-1}·K^{-1} (1058 K) [4]

AlF_6Na_3 (s) Cryolite **AlF_6Na_3 (s)**
Na_3AlF_6 (s) alpha Na_3AlF_6 (s)

mp = 1285 K (1012 °C)
$\Delta H^0_{298} = -3304$ kJ·mol^{-1} [4] $S^0_{298} = 238.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 181 + 140 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 836 K) [4]

AlF_6Na_3 (s) Cryolite **AlF_6Na_3 (s)**
Na_3AlF_6 (s) alpha Na_3AlF_6 (s)

$\Delta H^0_{836} = -3163.9$ kJ·mol^{-1} [4] $S^0_{836} = 500.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 298.04$ J·mol^{-1}·K^{-1} (836 K) [4]

AlF_6Na_3 (s) Cryolite **AlF_6Na_3 (s)**
Na_3AlF_6 (s) beta Na_3AlF_6 (s)

$\Delta H^0_{836} = -3155.2$ kJ·mol^{-1} [4] $S^0_{836} = 510.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 294.89$ J·mol^{-1}·K^{-1} (836 K) [4]

AlF_6Na_3 (s) Cryolite beta **AlF_6Na_3 (s)**

Na_3AlF_6 (s) Na_3AlF_6 (s)

$\Delta H^0_{1153} = -3061.7$ kJ·mol^{-1} [4] $S^0_{1153} = 605.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 294.89$ J·mol^{-1}·K^{-1} (1153 K) [4]

AlF_6Na_3 (s) Cryolite gamma **AlF_6Na_3 (s)**

Na_3AlF_6 (s) Na_3AlF_6 (s)

$\Delta H^0_{1153} = -3061.3$ kJ·mol^{-1} [4] $S^0_{1153} = 606$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 355.64$ J·mol^{-1}·K^{-1} (1153 K) [4]

AlF_6Na_3 (s) Cryolite gamma **AlF_6Na_3 (s)**

Na_3AlF_6 (s) Na_3AlF_6 (s)

$\Delta H^0_{1285} = -3014.4$ kJ·mol^{-1} [4] $S^0_{1285} = 644.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 355.64$ J·mol^{-1}·K^{-1} (1285 K) [4]

AlF_6Na_3 (l) Cryolite **AlF_6Na_3 (l)**

Na_3AlF_6 (l) Na_3AlF_6 (l)

$\Delta H^0_{1285} = -2904.3$ kJ·mol^{-1} [4] $S^0_{1285} = 730.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 395.81$ J·mol^{-1}·K^{-1} (1285 K) [4]

AlH (g) Aluminium Hydride **AlH (g)**

$\Delta H^0_{298} = 259.4 \pm 20$ kJ·mol^{-1} [1] $S^0_{298} = 187.9 \pm 0.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 29.46 + 4.52 \cdot 10^{-3} \cdot T - 0.14 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

AlHO (g) Aluminium Hydride Oxide **AlHO (g)**

OAlH (g) OAlH (g)

$\Delta H^0_{298} = 33.5 \pm 84$ kJ·mol^{-1} [1] $S^0_{298} = 215.3 \pm 2.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 34.57$ J·mol^{-1}·K^{-1} (298 K) [1]

AlHO (g) Aluminium Hydroxide **AlHO (g)**
AlOH (g) AlOH (g)

$\Delta H^0_{298} = -179.9 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 216.4 \pm 2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 31.92$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlHO_2$ (s) Aluminium Oxide Hydroxide **$AlHO_2$ (s)**
AlOOH (s) Boehmite AlOOH (s)

$\Delta H^0_{298} = -985.3$ kJ·mol^{-1} [4] $S^0_{298} = 46.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 60.42$ J·mol^{-1}·K^{-1} (298 K) [4]

$AlHO_2$ (s) Aluminium Oxide Hydroxide **$AlHO_2$ (s)**
AlOOH (s) Diaspore AlOOH (s)

$\Delta H^0_{298} = -1002.1$ kJ·mol^{-1} [4] $S^0_{298} = 35.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 52.76$ J·mol^{-1}·K^{-1} (298 K) [4]

$AlHO_2$ (g) Aluminium Hydroxide Oxide **$AlHO_2$ (g)**
OAlOH (g) OAlOH (g)

$\Delta H^0_{298} = -460 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 254.4 \pm 6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 50.14$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlH_2NaO_7Si_2$ (s) Analcite **$AlH_2NaO_7Si_2$ (s)**
$NaAlSi_2O_6 \cdot H_2O$ (s) Monohydrate $NaAlSi_2O_6 \cdot H_2O$ (s)

$\Delta H^0_{298} = -3302.9$ kJ·mol^{-1} [2] $S^0_{298} = 209.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 204.8$ J·mol^{-1}·K^{-1} (298 K) [2]

AlH_3 (s) Aluminium(III) Hydride **AlH_3 (s)**

$\Delta H^0_{298} = -11.4$ kJ·mol^{-1} [2] $S^0_{298} = 30$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 45.19$ J·mol^{-1}·K^{-1} (298 K) [4]

AlH_3O_3 (s) Aluminium(III) Hydroxide **AlH_3O_3 (s)**
$Al(OH)_3$ (s) amorphous, Hydrargillite $Al(OH)_3$ (s)

$\Delta H^0_{298} = -1276.1$ kJ·mol^{-1} [2] $S^0_{298} = 71.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 36.19 + 190.79 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 400 K) [4]

AlH_4Li (s) Lithium Tetrahydroaluminate **AlH_4Li (s)**
$LiAlH_4$ (s) $LiAlH_4$ (s)

$\Delta H^0_{298} = -117.2 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 87.9 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 86.4$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlH_4NO_8S_2$ (s) Aluminium Ammonium Sulfate **$AlH_4NO_8S_2$ (s)**
$AlNH_4(SO_4)_2$ (s) $AlNH_4(SO_4)_2$ (s)

$\Delta H^0_{298} = -2352$ kJ·mol^{-1} [7] $S^0_{298} = 216$ J·mol^{-1}·K^{-1} [7]
$C_p^0 = 226$ J·mol^{-1}·K^{-1} (298 K) [7]

$AlH_6KO_{11}S_2$ (s) Potassium Aluminium Sulfate **$AlH_6KO_{11}S_2$ (s)**
$KAl(SO_4)_2 \cdot 3H_2O$ (s) Trihydrate $KAl(SO_4)_2 \cdot 3H_2O$ (s)

$\Delta H^0_{298} = -3381.1$ kJ·mol^{-1} [2] $S^0_{298} = 314$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 314.3$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlH_{24}KO_{20}S_2$ (s) Potassium Aluminium Sulfate **$AlH_{24}KO_{20}S_2$ (s)**
$KAl(SO_4)_2 \cdot 12H_2O$ (s) Dodecahydrate $KAl(SO_4)_2 \cdot 12H_2O$ (s)

$\Delta H^0_{298} = -6061.8$ kJ·mol^{-1} [2] $S^0_{298} = 687.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 651.9$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlH_{28}NO_{20}S_2$ (s) Aluminium Ammonium Sulfate **$AlH_{28}NO_{20}S_2$ (s)**
$AlNH_4(SO_4)_2 \cdot 12H_2O$ (s) Dodecahydrate $AlNH_4(SO_4)_2 \cdot 12H_2O$ (s)

$\Delta H^0_{298} = -5942$ kJ·mol^{-1} [7] $S^0_{298} = 697$ J·mol^{-1}·K^{-1} [7]
$C_p^0 = 683$ J·mol^{-1}·K^{-1} (298 K) [7]

AlI (g) Aluminium(I) Iodide **AlI (g)**

$\Delta H^0_{298} = 68 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 247.8 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 37.76 + 0.54 \cdot 10^{-3} \cdot T - 0.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AlI_3 (s) Aluminium(III) Iodide **AlI_3 (s)**

mp = 464 K (191 °C) bp = 647 K (374 °C)

$\Delta H^0_{298} = -302.9 \pm 2$ kJ·mol^{-1} [1] $S^0_{298} = 196.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 70.63 + 94.82 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 464 K) [4]

AlI_3 (s) Aluminium(III) Iodide **AlI_3 (s)**

$\Delta H^0_{464} = -285.2$ kJ·mol^{-1} [4] $S^0_{464} = 243.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 114.63$ J·mol^{-1}·K^{-1} (464 K) [4]

AlI_3 (l) Aluminium(III) Iodide **AlI_3 (l)**

$\Delta H^0_{464} = -269.3$ kJ·mol^{-1} [4] $S^0_{464} = 277.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 121.34$ J·mol^{-1}·K^{-1} (464 K) [4]

AlI_3 (l) Aluminium(III) Iodide **AlI_3 (l)**

$\Delta H^0_{298} = -289.4$ kJ·mol^{-1} [1] $S^0_{298} = 223.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 121.3$ J·mol^{-1}·K^{-1} (298 K) [1]

AlI_3 (g) Aluminium(III) Iodide **AlI_3 (g)**

$\Delta H^0_{298} = -193.3 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 373.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 82.76 + 0.21 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$AlKO_4Si$ (s) Kaliophilite **$AlKO_4Si$ (s)**

$KAlSiO_4$ (s) $KAlSiO_4$ (s)

$\Delta H^0_{298} = -2121.3$ kJ·mol^{-1} [2] $S^0_{298} = 133.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 119.8$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlKO_6Si_2$ (s) Leucite **$AlKO_6Si_2$ (s)**

$KAlSi_2O_6$ (s)

$\Delta H^0_{298} = -3034.2$ kJ·mol^{-1} [2] $S^0_{298} = 200$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 164.1$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlKO_8S_2$ (s) Potassium Aluminium Sulfate **$AlKO_8S_2$ (s)**

$KAl(SO_4)_2$ (s)

$\Delta H^0_{298} = -2470.2$ kJ·mol^{-1} [2] $S^0_{298} = 204.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 234.14 + 82.34 \cdot 10^{-3} \cdot T - 5.84 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1100 K) [4]

$AlKO_8Si_3$ (s) Microcline **$AlKO_8Si_3$ (s)**

$KAlSi_3O_8$ (s)

$\Delta H^0_{298} = -3968.1$ kJ·mol^{-1} [2] $S^0_{298} = 214.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 202.4$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlKO_8Si_3$ (s) Adularia **$AlKO_8Si_3$ (s)**

$KAlSi_3O_8$ (s)

$\Delta H^0_{298} = -3954.1$ kJ·mol^{-1} [2] $S^0_{298} = 234.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 190.5$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlKO_8Si_3$ (s) Sanidine **$AlKO_8Si_3$ (s)**

$KAlSi_3O_8$ (s)

$\Delta H^0_{298} = -3959.7$ kJ·mol^{-1} [2] $S^0_{298} = 232.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 204.5$ J·mol^{-1}·K^{-1} (298 K) [2]

AlLi (s) Lithium Aluminium **AlLi (s)**

mp = 973 K (700 °C)

$\Delta H^0_{298} = -49$ kJ·mol^{-1} [2] $S^0_{298} = 46.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 49$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlLiO_2$ (s) Lithium Aluminium Oxide **$AlLiO_2$ (s)**

$LiAlO_2$ (s) $LiAlO_2$ (s)

$\Delta H^0_{298} = -1188.7 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 53.3 \pm 1.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 67.78$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlLiO_2$ (l) Lithium Aluminium Oxide **$AlLiO_2$ (l)**

$LiAlO_2$ (l) $LiAlO_2$ (l)

$\Delta H^0_{298} = -1107.7$ kJ·mol^{-1} [1] $S^0_{298} = 93.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 67.78$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlLiO_4Si$ (s) Eucryptite **$AlLiO_4Si$ (s)**

$LiAlSiO_4$ (s) $LiAlSiO_4$ (s)

$\Delta H^0_{298} = -2124.2$ kJ·mol^{-1} [2] $S^0_{298} = 103.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 113.4$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlLiO_6Si_2$ (s) Spodumene **$AlLiO_6Si_2$ (s)**

$LiAlSi_2O_6$ (s) alpha $LiAlSi_2O_6$ (s)

$\Delta H^0_{298} = -3054.7$ kJ·mol^{-1} [2] $S^0_{298} = 129.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 159$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlLiO_6Si_2$ (s) Spodumene **$AlLiO_6Si_2$ (s)**

$LiAlSi_2O_6$ (s) beta $LiAlSi_2O_6$ (s)

$\Delta H^0_{298} = -3026.7$ kJ·mol^{-1} [2] $S^0_{298} = 154.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 162.8$ J·mol^{-1}·K^{-1} (298 K) [2]

AlN (s) Aluminium Nitride **AlN (s)**

$\Delta H^0_{298} = -318 \pm 2.5$ kJ·mol^{-1} [1] $S^0_{298} = 20.1 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 47.82 + 1.85 \cdot 10^{-3} \cdot T - 1.67 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

AlN (g) Aluminium Nitride **AlN (g)**

$\Delta H^0_{298} = 523 \pm 38$ kJ·mol^{-1} [1] $S^0_{298} = 228.6 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 32.37$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlNaO_2$ (s) Sodium Aluminate **$AlNaO_2$ (s)**
$NaAlO_2$ (s) $NaAlO_2$ (s)

$\Delta H^0_{298} = -1133.2 \pm 0.7$ kJ·mol^{-1} [1] $S^0_{298} = 70.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 73.6$ J·mol^{-1}·K^{-1} (298 K) [1]

$AlNaO_4Si$ (s) Nepheline **$AlNaO_4Si$ (s)**
$NaAlSiO_4$ (s) $NaAlSiO_4$ (s)

$\Delta H^0_{298} = -2094.7$ kJ·mol^{-1} [2] $S^0_{298} = 124.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 115.8$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlNaO_6Si_2$ (s) Jadeite **$AlNaO_6Si_2$ (s)**
$NaAlSi_2O_6$ (s) $NaAlSi_2O_6$ (s)

$\Delta H^0_{298} = -3032.8$ kJ·mol^{-1} [2] $S^0_{298} = 133.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 159.9$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlNaO_6Si_2$ (s) Analcite **$AlNaO_6Si_2$ (s)**
$NaAlSi_2O_6$ (s) $NaAlSi_2O_6$ (s)

$\Delta H^0_{298} = -2985.3$ kJ·mol^{-1} [2] $S^0_{298} = 175.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 164.4$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlNaO_8Si_3$ (s) Analbite **$AlNaO_8Si_3$ (s)**
$NaAlSi_3O_8$ (s) $NaAlSi_3O_8$ (s)

$\Delta H^0_{298} = -3927.7$ kJ·mol^{-1} [2] $S^0_{298} = 226.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 204.8$ J·mol^{-1}·K^{-1} (298 K) [2]

AlNi (s) Aluminium Nickel **AlNi (s)**

mp = 1911 K (1638 °C)
$\Delta H^0_{298} = -118.4$ kJ·mol^{-1} [2] $S^0_{298} = 54.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 46$ J·mol^{-1}·K^{-1} (298 K) [2]

$AlNi_3$ (s) Aluminium Nickel **$AlNi_3$ (s)**

$\Delta H^0_{298} = -153.1$ kJ·mol^{-1} [2] $S^0_{298} = 113.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 98.1$ J·mol^{-1}·K^{-1} (298 K) [2]

AlO (g) Aluminium(II) Oxide **AlO (g)**

$\Delta H^0_{298} = 66.9 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 218.4 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 30.34 + 7.39 \cdot 10^{-3} \cdot T - 0.13 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AlO_2 (g) Aluminium Oxide **AlO_2 (g)**

$\Delta H^0_{298} = -86.2 \pm 32$ kJ·mol^{-1} [1] $S^0_{298} = 251.8 \pm 8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 49.9$ J·mol^{-1}·K^{-1} (298 K) [1]

AlO_4P (s) Aluminium Phosphate **AlO_4P (s)**
$AlPO_4$ (s) alpha $AlPO_4$ (s)

mp = 2273 K (2000 °C)
$\Delta H^0_{298} = -1733.4$ kJ·mol^{-1} [2] $S^0_{298} = 90.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 51.46 + 139.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 853 K) [4]

AlO_4P (s) Aluminium Phosphate **AlO_4P (s)**
$AlPO_4$ (s) alpha $AlPO_4$ (s)

$\Delta H^0_{853} = -1660$ kJ·mol^{-1} [4] $S^0_{853} = 222.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 170.31$ J·mol^{-1}·K^{-1} (853 K) [4]

AlO_4P (s) Aluminium Phosphate **AlO_4P (s)**
$AlPO_4$ (s) beta $AlPO_4$ (s)

$\Delta H^0_{853} = -1659$ kJ·mol^{-1} [4] $S^0_{853} = 223.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 167.36$ J·mol^{-1}·K^{-1} (853 ... 978 K) [4]

AlO_4P (s) Aluminium Phosphate **AlO_4P (s)**
$AlPO_4$ (s) beta $AlPO_4$ (s)

$\Delta H^0_{978} = -1637.7$ kJ·mol^{-1} [4] $S^0_{978} = 246.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 167.36$ J·mol^{-1}·K^{-1} (978 K) [4]

AlO_4P (s) Aluminium Phosphate **AlO_4P (s)**
$AlPO_4$ (s) gamma $AlPO_4$ (s)

$\Delta H^0_{978} = -1636.7$ kJ·mol^{-1} [4] $S^0_{978} = 247.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 163.18$ J·mol^{-1}·K^{-1} (978 K) [4]

AlP (s) Aluminium Phosphide **AlP (s)**

$\Delta H^0_{298} = -164.4$ kJ·mol^{-1} [4] $S^0_{298} = 47.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 40.17 + 6.28 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1800 K) [4]

AlS (g) Aluminium(II) Sulfide **AlS (g)**

$\Delta H^0_{298} = 238.5 \pm 8.5$ kJ·mol^{-1} [1] $S^0_{298} = 230.6 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 36.84 + 0.7 \cdot 10^{-3} \cdot T - 0.33 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AlSb (s) Aluminium Antimonide **AlSb (s)**

mp = 1333 K (1060 °C)
$\Delta H^0_{298} = -50.4$ kJ·mol^{-1} [2] $S^0_{298} = 65$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 43.51 + 9.62 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1333 K) [4]

AlSb (s) Aluminium Antimonide **AlSb (s)**

$\Delta H^0_{1333} = 2.9$ kJ·mol^{-1} [4] $S^0_{1333} = 140$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 56.34$ J·mol^{-1}·K^{-1} (1333 K) [4]

AlSb (l) Aluminium Antimonide **AlSb (l)**

ΔH^0_{1333} = 85 kJ·mol^{-1} [4] S^0_{1333} = 201.5 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 58.99 J·mol^{-1}·K^{-1} (1333 K) [4]

AlSe (g) Aluminium(II) Selenide **AlSe (g)**

ΔH^0_{298} = 221.3 kJ·mol^{-1} [4] S^0_{298} = 243.2 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 37.25 + 0.08 \cdot 10^{-3} \cdot T - 0.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AlTe (g) Aluminium Telluride **AlTe (g)**

ΔH^0_{298} = 267.4 kJ·mol^{-1} [2] S^0_{298} = 251.4 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 35.6 J·mol^{-1}·K^{-1} (298 K) [2]

$AlTe_2$ (g) Aluminium Telluride **$AlTe_2$ (g)**

ΔH^0_{298} = 188.7 kJ·mol^{-1} [5] S^0_{298} = [305.4] J·mol^{-1}·K^{-1} [5]

AlTi (s) Aluminium Titanium **AlTi (s)**

ΔH^0_{298} = – 75.3 kJ·mol^{-1} [2] S^0_{298} = 52.3 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 49.2 J·mol^{-1}·K^{-1} (298 K) [2]

Al_2 (g) Aluminium **Al_2 (g)**

ΔH^0_{298} = 487 ± 3.5 kJ·mol^{-1} [1] S^0_{298} = 233.5 ± 0.3 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 38.45 J·mol^{-1}·K^{-1} (298 K) [1]

Al_2Au (s) Aluminium Gold **Al_2Au (s)**

$AuAl_2$ (s) $AuAl_2$ (s)

ΔH^0_{298} = – 126.4 kJ·mol^{-1} [3] S^0_{298} = [104.1] J·mol^{-1}·K^{-1} [235, 8]

Al_2BaO_4 (s) Barium Aluminate **Al_2BaO_4 (s)**
$BaO \cdot Al_2O_3$ (s) $BaO \cdot Al_2O_3$ (s)

mp = 2100 K (1827 °C)
$\Delta H^0_{298} = -2325.9$ kJ·mol^{-1} [2] $S^0_{298} = 148.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 143.3 + 73.89 \cdot 10^{-3} \cdot T - 4.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 600 K) [4]

$Al_2Ba_3O_6$ (s) Barium Aluminate **$Al_2Ba_3O_6$ (s)**
$3BaO \cdot Al_2O_3$ (s) $3BaO \cdot Al_2O_3$ (s)

mp = 2023 K (1750 °C)
$\Delta H^0_{298} = -3508.3$ kJ·mol^{-1} [4] $S^0_{298} = 301.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 266.52 + 30.84 \cdot 10^{-3} \cdot T - 5.36 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2023 K) [4]

Al_2BeCl_8 (g) Beryllium Aluminium Chloride **Al_2BeCl_8 (g)**
$BeAl_2Cl_8$ (g) $BeAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1762.6$ kJ·mol^{-1} [132] $S^0_{298} = 586.4$ J·mol^{-1}·K^{-1} [132]

Al_2BeO_4 (s) Beryllium Aluminate **Al_2BeO_4 (s)**
$BeO \cdot Al_2O_3$ (s) $BeO \cdot Al_2O_3$ (s)

mp = 2146 K (1873 °C)
$\Delta H^0_{298} = -2300.8 \pm 3.8$ kJ·mol^{-1} [1] $S^0_{298} = 66.3 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 151.98 + 25.97 \cdot 10^{-3} \cdot T - 4.87 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Al_2BeO_4 (l) Beryllium Aluminate **Al_2BeO_4 (l)**
$BeO \cdot Al_2O_3$ (l) $BeO \cdot Al_2O_3$ (l)

$\Delta H^0_{298} = -2163.8$ kJ·mol^{-1} [1] $S^0_{298} = 126.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 105.4$ J·mol^{-1}·K^{-1} (298 K) [1]

Al_2Br_6 (g) Aluminium(III) Bromide **Al_2Br_6 (g)**
$(AlBr_3)_2$ (g) $(AlBr_3)_2$ (g)

$\Delta H^0_{298} = -937.2 \pm 3.4$ kJ·mol^{-1} [1] $S^0_{298} = 547.2 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 182 + 0.47 \cdot 10^{-3} \cdot T - 1.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Al_2Ca (s) Calcium Aluminium **Al_2Ca (s)**

$CaAl_2$ (s) $CaAl_2$ (s)

mp = 1352 K (1079 °C)

$\Delta H^0_{298} = -219.7$ kJ·mol⁻¹ [2] $S^0_{298} = 85.4$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 82.84 + 7.95 \cdot 10^{-3} \cdot T - 1.12 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1352 K) [4]

Al_2Ca (s) Calcium Aluminium **Al_2Ca (s)**

$CaAl_2$ (s) $CaAl_2$ (s)

$\Delta H^0_{1352} = -128.4$ kJ·mol⁻¹ [4] $S^0_{1352} = 213$ J·mol⁻¹·K⁻¹ [4]

Al_2Ca (l) Calcium Aluminium **Al_2Ca (l)**

$CaAl_2$ (l) $CaAl_2$ (l)

$\Delta H^0_{1352} = -75.7$ kJ·mol⁻¹ [4] $S^0_{1352} = 252$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 94.14$ J·mol⁻¹·K⁻¹ (1352 K) [4]

Al_2CaCl_8 (g) Calcium Aluminium Chloride **Al_2CaCl_8 (g)**

$CaAl_2Cl_8$ (g) $CaAl_2Cl_8$ (g)

$\Delta H^0_{298} = -2047.6$ kJ·mol⁻¹ [132] $S^0_{298} = 615.6$ J·mol⁻¹·K⁻¹ [132]

Al_2CaO_4 (s) Calcium Aluminate **Al_2CaO_4 (s)**

$CaO \cdot Al_2O_3$ (s) $CaO \cdot Al_2O_3$ (s)

mp = 1873 K (1600 °C)

$\Delta H^0_{298} = -2326.3$ kJ·mol⁻¹ [2] $S^0_{298} = 114.2$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 150.62 + 24.94 \cdot 10^{-3} \cdot T - 3.33 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1873 K) [4]

Al_2CaO_6Si (s) Calcium Aluminium Silicate **Al_2CaO_6Si (s)**

$CaO \cdot Al_2O_3 \cdot SiO_2$ (s) Pyroxene $CaO \cdot Al_2O_3 \cdot SiO_2$ (s)

$\Delta H^0_{298} = -3293.2$ kJ·mol⁻¹ [4] $S^0_{298} = 144.8$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 233.22 + 21.13 \cdot 10^{-3} \cdot T - 7.37 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1700 K) [4]

$Al_2CaO_8Si_2$ (s) Calcium Aluminium Silicate **$Al_2CaO_8Si_2$ (s)**
$CaO \cdot Al_2O_3 \cdot 2SiO_2$ (s) Anorthite $CaO \cdot Al_2O_3 \cdot 2SiO_2$ (s)

mp = 1826 K (1553 °C)
$\Delta H^0_{298} = -4223.7$ kJ·mol^{-1} [4] $S^0_{298} = 202.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 297.02 + 43.39 \cdot 10^{-3} \cdot T - 13.54 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1826 K) [4]

$Al_2CaO_8Si_2$ (s) Calcium Aluminium Silicate **$Al_2CaO_8Si_2$ (s)**
$CaO \cdot Al_2O_3 \cdot 2SiO_2$ (s) $CaO \cdot Al_2O_3 \cdot 2SiO_2$ (s)

$\Delta H^0_{1826} = -3737.5$ kJ·mol^{-1} [4] $S^0_{1826} = 733$ J·mol^{-1}·K^{-1} [4]

$Al_2CaO_8Si_2$ (l) Calcium Aluminium Silicate **$Al_2CaO_8Si_2$ (l)**
$CaO \cdot Al_2O_3 \cdot 2SiO_2$ (l) $CaO \cdot Al_2O_3 \cdot 2SiO_2$ (l)

$\Delta H^0_{1826} = -3570.5$ kJ·mol^{-1} [4] $S^0_{1826} = 824.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 397.48$ J·mol^{-1}·K^{-1} (1826 K) [4]

$Al_2Ca_2O_5$ (s) Calcium Aluminate **$Al_2Ca_2O_5$ (s)**
$2CaO \cdot Al_2O_3$ (s) $2CaO \cdot Al_2O_3$ (s)

$\Delta H^0_{298} = -2958$ kJ·mol^{-1} [2] $S^0_{298} = 127.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 164.35$ J·mol^{-1}·K^{-1} (298 K) [2]

$Al_2Ca_2O_7Si$ (s) Calcium Aluminium Silicate **$Al_2Ca_2O_7Si$ (s)**
$2CaO \cdot Al_2O_3 \cdot SiO_2$ (s) Gehlenite $2CaO \cdot Al_2O_3 \cdot SiO_2$ (s)

$\Delta H^0_{298} = -3989.4$ kJ·mol^{-1} [4] $S^0_{298} = 198.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 275.48 + 27.91 \cdot 10^{-3} \cdot T - 7.82 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1863 K) [4]

$Al_2Ca_3O_6$ (s) Calcium Aluminate **$Al_2Ca_3O_6$ (s)**
$3CaO \cdot Al_2O_3$ (s) $3CaO \cdot Al_2O_3$ (s)

mp = 1808 K (1535 °C)
$\Delta H^0_{298} = -3587.8$ kJ·mol^{-1} [2] $S^0_{298} = 205.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 260.58 + 19.16 \cdot 10^{-3} \cdot T - 5.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1808 K) [4]

$Al_2Ca_3O_{12}Si_3$ (s) Calcium Aluminium Silicate **$Al_2Ca_3O_{12}Si_3$ (s)**

$3CaO \cdot Al_2O_3 \cdot 3SiO_2$ (s) Grossular $3CaO \cdot Al_2O_3 \cdot 3SiO_2$ (s)

$\Delta H^0_{298} = -6646.2$ kJ·mol^{-1} [2] $S^0_{298} = 241.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 456.31 + 49.2 \cdot 10^{-3} \cdot T - 13.14 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1700 K) [4]

Al_2CdCl_8 (g) Cadmium Aluminium Chloride **Al_2CdCl_8 (g)**

$CdAl_2Cl_8$ (g) $CdAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1641.6$ kJ·mol^{-1} [132] $S^0_{298} = 627.1$ J·mol^{-1}·K^{-1} [132]

Al_2CdO_4 (s) Cadmium Aluminate **Al_2CdO_4 (s)**

$CdO \cdot Al_2O_3$ (s) $CdO \cdot Al_2O_3$ (s)

$\Delta H^0_{298} = -1919$ kJ·mol^{-1} [4] $S^0_{298} = 125.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 160.04 + 23.85 \cdot 10^{-3} \cdot T - 3.31 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

Al_2Ce (s) Aluminium Cerium **Al_2Ce (s)**

$\Delta H^0_{298} = -163.2$ kJ·mol^{-1} [2] $S^0_{298} = 108.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 74.7$ J·mol^{-1}·K^{-1} (298 K) [2]

$Al_2Ce_2O_6$ (s) Cerium Aluminate **$Al_2Ce_2O_6$ (s)**

$Ce_2O_3 \cdot Al_2O_3$ (s) $Ce_2O_3 \cdot Al_2O_3$ (s)

mp = 2300 K (2027 °C)

$\Delta H^0_{298} = -3601.6$ kJ·mol^{-1} [4] $S^0_{298} = 190.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 214.39 + 59.16 \cdot 10^{-3} \cdot T - 3.77 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1253 K) [4]

Al_2Cl_6 (g) Aluminium(III) Chloride **Al_2Cl_6 (g)**

$(AlCl_3)_2$ (g) $(AlCl_3)_2$ (g)

$\Delta H^0_{298} = -1295.7 \pm 3.4$ kJ·mol^{-1} [1] $S^0_{298} = 475 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 180.92 + 1.05 \cdot 10^{-3} \cdot T - 2.04 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Al_2Cl_8Co (g) Cobalt Aluminium Chloride **Al_2Cl_8Co (g)**
$CoAl_2Cl_8$ (g) $CoAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1560.5$ kJ·mol⁻¹ [132] $S^0_{298} = 634.5$ J·mol⁻¹·K⁻¹ [132]

Al_2Cl_8Cr (g) Chromium Aluminium Chloride **Al_2Cl_8Cr (g)**
$CrAl_2Cl_8$ (g) $CrAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1653$ kJ·mol⁻¹ [133] $S^0_{298} = 634.7$ J·mol⁻¹·K⁻¹ [133]

Al_2Cl_8Cu (g) Copper Aluminium Chloride **Al_2Cl_8Cu (g)**
$CuAl_2Cl_8$ (g) $CuAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1475.6$ kJ·mol⁻¹ [132] $S^0_{298} = 634.9$ J·mol⁻¹·K⁻¹ [132]

Al_2Cl_8Fe (g) Iron Aluminium Chloride **Al_2Cl_8Fe (g)**
$FeAl_2Cl_8$ (g) $FeAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1585$ kJ·mol⁻¹ [132] $S^0_{298} = 648.1$ J·mol⁻¹·K⁻¹ [132]

Al_2Cl_8Mg (g) Magnesium Aluminium Chloride **Al_2Cl_8Mg (g)**
$MgAl_2Cl_8$ (g) $MgAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1889.7$ kJ·mol⁻¹ [132] $S^0_{298} = 610.5$ J·mol⁻¹·K⁻¹ [132]

Al_2Cl_8Mn (g) Manganese Aluminium Chloride **Al_2Cl_8Mn (g)**
$MnAl_2Cl_8$ (g) $MnAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1723.4$ kJ·mol⁻¹ [132] $S^0_{298} = 647.2$ J·mol⁻¹·K⁻¹ [132]

Al_2Cl_8Ni (g) Nickel Aluminium Chloride **Al_2Cl_8Ni (g)**
$NiAl_2Cl_8$ (g) $NiAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1543.9$ kJ·mol⁻¹ [4] $S^0_{298} = 611$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 251.38 + 8.58 \cdot 10^{-3} \cdot T - 2.52 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Al_2Cl_8Pd (g) Palladium Aluminium Chloride **Al_2Cl_8Pd (g)**

$PdAl_2Cl_8$ (g) $PdAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1439.6$ kJ·mol⁻¹ [132] $S^0_{298} = 618.8$ J·mol⁻¹·K⁻¹ [132]

Al_2Cl_8Pt (g) Platinum Aluminium Chloride **Al_2Cl_8Pt (g)**

$PtAl_2Cl_8$ (g) $PtAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1378.7$ kJ·mol⁻¹ [132] $S^0_{298} = 628.8$ J·mol⁻¹·K⁻¹ [132]

Al_2Cl_8Zn (g) Zinc Aluminium Chloride **Al_2Cl_8Zn (g)**

$ZnAl_2Cl_8$ (g) $ZnAl_2Cl_8$ (g)

$\Delta H^0_{298} = -1682.3$ kJ·mol⁻¹ [132] $S^0_{298} = 621.2$ J·mol⁻¹·K⁻¹ [132]

Al_2Cl_9Dy (g) Dysprosium Aluminium Chloride **Al_2Cl_9Dy (g)**

$DyAl_2Cl_9$ (g) $DyAl_2Cl_9$ (g)

$\Delta H^0_{298} = -2202$ kJ·mol⁻¹ [156] $S^0_{298} = 693.8$ J·mol⁻¹·K⁻¹ [156]

$Al_2Cl_9K_3$ (s) Potassium Aluminium Chloride **$Al_2Cl_9K_3$ (s)**

$3KCl \cdot 2AlCl_3$ (s) $3KCl \cdot 2AlCl_3$ (s)

$\Delta H^0_{298} = -2860 \pm 12$ kJ·mol⁻¹ [1] $S^0_{298} = 468.6$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 337.2$ J·mol⁻¹·K⁻¹ (298 K) [1]

$Al_2Cl_{10}U$ (g) Uranium Aluminium Chloride **$Al_2Cl_{10}U$ (g)**

UAl_2Cl_{10} (g) UAl_2Cl_{10} (g)

$\Delta H^0_{298} = -2268.5$ kJ·mol⁻¹ [169, 8] $S^0_{298} = 714$ J·mol⁻¹·K⁻¹ [169, 8]

Al_2CoO_4 (s) Cobalt Aluminate **Al_2CoO_4 (s)**

$CoO \cdot Al_2O_3$ (s) $CoO \cdot Al_2O_3$ (s)

$\Delta H^0_{298} = -1947.1$ kJ·mol⁻¹ [4] $S^0_{298} = 99.6$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 165.69 + 18.83 \cdot 10^{-3} \cdot T - 3.47 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1200 K) [4]

Al_2CuO_4 (s) Copper(II) Aluminate **Al_2CuO_4 (s)**

$CuO \cdot Al_2O_3$ (s) $CuO \cdot Al_2O_3$ (s)

$\Delta H^0_{298} = -1822.5$ kJ·mol^{-1} [4] $S^0_{298} = 102.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 155.65 + 34.1 \cdot 10^{-3} \cdot T - 3.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1550 K) [4]

$Al_2Cu_2O_4$ (s) Copper(I) Aluminate **$Al_2Cu_2O_4$ (s)**

$Cu_2O \cdot Al_2O_3$ (s) $Cu_2O \cdot Al_2O_3$ (s)

$\Delta H^0_{298} = -1870.2$ kJ·mol^{-1} [4] $S^0_{298} = 133.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 175.69 + 33.69 \cdot 10^{-3} \cdot T - 3.87 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1400 K) [4]

Al_2F_6 (g) Aluminium(III) Fluoride **Al_2F_6 (g)**

$(AlF_3)_2$ (g) $(AlF_3)_2$ (g)

bp = 1548 K (1275 °C)

$\Delta H^0_{298} = -2633.6 \pm 16$ kJ·mol^{-1} [1] $S^0_{298} = 387.3 \pm 12$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 182.05 + 0.33 \cdot 10^{-3} \cdot T - 6.56 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -21.21 \cdot 10^3 \cdot T^{-1} - 3.65 \cdot \lg(T) + 23.76$ (1000 ... 1548 K) [4]

{Reaction: evaporation of AlF_3(s)}

$Al_2F_8Na_2$ (g) Sodium Tetrafluoroaluminate **$Al_2F_8Na_2$ (g)**

$(NaAlF_4)_2$ (g) $(NaAlF_4)_2$ (g)

$\Delta H^0_{298} = -3894.8$ kJ·mol^{-1} [4] $S^0_{298} = 525.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 273.05 + 5.1 \cdot 10^{-3} \cdot T - 4.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -19.05 \cdot 10^3 \cdot T^{-1} - 6.91 \cdot \lg(T) + 36.03$ (800 ... 968 K) [4]

{Reaction: evaporation of $NaAlF_4$(s)}

Al_2FeO_4 (s) Iron Aluminate **Al_2FeO_4 (s)**

$FeO \cdot Al_2O_3$ (s) $FeO \cdot Al_2O_3$ (s)

mp = 2070 K (1797 °C)

$\Delta H^0_{298} = -1969.5$ kJ·mol^{-1} [4] $S^0_{298} = 106.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 155.31 + 26.15 \cdot 10^{-3} \cdot T - 3.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2070 K) [4]

$Al_2H_2O_4$ (s) Diaspore **$Al_2H_2O_4$ (s)**

$Al_2O_3 \cdot H_2O$ (s) Monohydrate $Al_2O_3 \cdot H_2O$ (s)

$\Delta H^0_{298} = -1999.1$ kJ·mol^{-1} [2] $S^0_{298} = 70.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 106.2$ J·mol^{-1}·K^{-1} (298 K) [2]

$Al_2H_4O_9Si_2$ (s) Kaolinite **$Al_2H_4O_9Si_2$ (s)**

$Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$ (s) Dihydrate $Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$ (s)

$\Delta H^0_{298} = -4095.8$ kJ·mol^{-1} [4] $S^0_{298} = 202.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 274.01 + 138.78 \cdot 10^{-3} \cdot T - 6.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 861 K) [4]

$Al_2H_6O_6$ (s) Gibbsite **$Al_2H_6O_6$ (s)**

$Al_2O_3 \cdot 3H_2O$ (s) Trihydrate $Al_2O_3 \cdot 3H_2O$ (s)

$\Delta H^0_{298} = -2586.5$ kJ·mol^{-1} [2] $S^0_{298} = 136.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 72.38 + 381.58 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 425 K) [3]

Al_2I_6 (g) Aluminium(III) Iodide **Al_2I_6 (g)**

$(AlI_3)_2$ (g) $(AlI_3)_2$ (g)

$\Delta H^0_{298} = -489.5 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 597.4 \pm 1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 182.42 + 0.26 \cdot 10^{-3} \cdot T - 1.02 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Al_2K_2O_8Si_2$ (s) Kaliophilite **$Al_2K_2O_8Si_2$ (s)**

$K_2O \cdot Al_2O_3 \cdot 2SiO_2$ (s) $K_2O \cdot Al_2O_3 \cdot 2SiO_2$ (s)

$\Delta H^0_{298} = -4215.4$ kJ·mol^{-1} [4] $S^0_{298} = 266.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 359.95 + 48.49 \cdot 10^{-3} \cdot T - 11.97 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$Al_2K_2O_{12}Si_4$ (s) Leucite **$Al_2K_2O_{12}Si_4$ (s)**

$K_2O \cdot Al_2O_3 \cdot 4SiO_2$ (s) $K_2O \cdot Al_2O_3 \cdot 4SiO_2$ (s)

$\Delta H^0_{298} = -6067.2$ kJ·mol^{-1} [4] $S^0_{298} = 368.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 490.7 + 68.83 \cdot 10^{-3} \cdot T - 16.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$Al_2K_2O_{16}Si_6$ (s) Microcline **$Al_2K_2O_{16}Si_6$ (s)**

$K_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s) $K_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s)

$\Delta H^0_{298} = -7912.4$ kJ·mol^{-1} [4] $S^0_{298} = 439.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 286.06 + 38.66 \cdot 10^{-3} \cdot T - 9.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1400 K) [4]

$Al_2K_2O_{16}Si_6$ (s) Sandine **$Al_2K_2O_{16}Si_6$ (s)**

$K_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s) $K_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s)

$\Delta H^0_{298} = -7901.5$ kJ·mol^{-1} [4] $S^0_{298} = 476.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 286.06 + 38.66 \cdot 10^{-3} \cdot T - 9.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1400 K) [4]

$Al_2K_2O_{16}Si_6$ (s) Adularia **$Al_2K_2O_{16}Si_6$ (s)**

$K_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s) $K_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s)

$\Delta H^0_{298} = -7906.5$ kJ·mol^{-1} [4] $S^0_{298} = 468.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 286.06 + 38.66 \cdot 10^{-3} \cdot T - 9.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1400 K) [4]

Al_2La (s) Lanthanum Aluminium **Al_2La (s)**

$LaAl_2$ (s) $LaAl_2$ (s)

mp = 1678 K (1405 °C)

$\Delta H^0_{298} = -151$ kJ·mol^{-1} [4] $S^0_{298} = 98.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 69.45 + 14.23 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1678 K) [4]

$Al_2La_2O_6$ (s) Lanthanum Aluminate **$Al_2La_2O_6$ (s)**

$La_2O_3 \cdot Al_2O_3$ (s) $La_2O_3 \cdot Al_2O_3$ (s)

mp = 2373 K (2100 °C)

$\Delta H^0_{298} = -3587.8$ kJ·mol^{-1} [4] $S^0_{298} = 170.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 223.59 + 30.96 \cdot 10^{-3} \cdot T - 4.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

$Al_2Li_2O_8Si_2$ (s) Eucryptite beta **$Al_2Li_2O_8Si_2$ (s)**

$Li_2O \cdot Al_2O_3 \cdot 2SiO_2$ (s) $Li_2O \cdot Al_2O_3 \cdot 2SiO_2$ (s)

mp = 1673 K (1400 °C)

$\Delta H^0_{298} = -4230$ kJ·mol^{-1} [4] $S^0_{298} = 207.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 308.53 + 56.9 \cdot 10^{-3} \cdot T - 8.79 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1300 K) [4]

$Al_2Li_2O_8Si_2$ (s) Eucryptite **$Al_2Li_2O_8Si_2$ (s)**
$Li_2O \cdot Al_2O_3 \cdot 2SiO_2$ (s) beta $Li_2O \cdot Al_2O_3 \cdot 2SiO_2$ (s)

$\Delta H^0_{1300} = -3898.1$ kJ·mol^{-1} [4] $S^0_{1300} = 672$ J·mol^{-1}·K^{-1} [4]

$Al_2Li_2O_8Si_2$ (s) Eucryptite **$Al_2Li_2O_8Si_2$ (s)**
$Li_2O \cdot Al_2O_3 \cdot 2SiO_2$ (s) gamma $Li_2O \cdot Al_2O_3 \cdot 2SiO_2$ (s)

$\Delta H^0_{1300} = -3896.8$ kJ·mol^{-1} [4] $S^0_{1300} = 673$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 255.22 + 100.42 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1300 ... 1673 K) [4]

$Al_2Li_2O_{12}Si_4$ (s) Spodumene **$Al_2Li_2O_{12}Si_4$ (s)**
$Li_2O \cdot Al_2O_3 \cdot 4SiO_2$ (s) alpha $Li_2O \cdot Al_2O_3 \cdot 4SiO_2$ (s)

$\Delta H^0_{298} = -6092.7$ kJ·mol^{-1} [4] $S^0_{298} = 258.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 370.95 + 137.57 \cdot 10^{-3} \cdot T - 8.37 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1150 K) [4]

$Al_2Li_2O_{12}Si_4$ (s) Spodumene **$Al_2Li_2O_{12}Si_4$ (s)**
$Li_2O \cdot Al_2O_3 \cdot 4SiO_2$ (s) beta $Li_2O \cdot Al_2O_3 \cdot 4SiO_2$ (s)

mp = 1696 K (1423 °C)
$\Delta H^0_{298} = -6036.7$ kJ·mol^{-1} [4] $S^0_{298} = 308.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 414.38 + 91.21 \cdot 10^{-3} \cdot T - 10.31 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1696 K) [4]

Al_2MgO_4 (s) Magnesium Aluminate **Al_2MgO_4 (s)**
$MgO \cdot Al_2O_3$ (s) $MgO \cdot Al_2O_3$ (s)

mp = 2408 K (2135 °C)
$\Delta H^0_{298} = -2299.1 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 88.7 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 146.78 + 35.56 \cdot 10^{-3} \cdot T - 3.68 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Al_2MgO_4 (l) Magnesium Aluminate **Al_2MgO_4 (l)**
$MgO \cdot Al_2O_3$ (l) $MgO \cdot Al_2O_3$ (l)

$\Delta H^0_{298} = -2106.5$ kJ·mol^{-1} [1] $S^0_{298} = 168.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 116.2$ J·mol^{-1}·K^{-1} (298 K) [1]

Al_2MnO_4 (s) Manganese Aluminate **Al_2MnO_4 (s)**
$MnO \cdot Al_2O_3$ (s) $MnO \cdot Al_2O_3$ (s)

mp = 2123 K (1850 °C)
$\Delta H^0_{298} = -2100.4$ kJ·mol^{-1} [4] $S^0_{298} = 103.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 153.13 + 25.94 \cdot 10^{-3} \cdot T - 3.22 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Al_2Na_2O_4$ (s) Sodium Aluminate **$Al_2Na_2O_4$ (s)**
$Na_2O \cdot Al_2O_3$ (s) alpha $Na_2O \cdot Al_2O_3$ (s)

$\Delta H^0_{298} = -2266.1$ kJ·mol^{-1} [4] $S^0_{298} = 141.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 178.32 + 30.54 \cdot 10^{-3} \cdot T - 3.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 740 K) [4]

$Al_2Na_2O_4$ (s) Sodium Aluminate **$Al_2Na_2O_4$ (s)**
$Na_2O \cdot Al_2O_3$ (s) alpha $Na_2O \cdot Al_2O_3$ (s)

$\Delta H^0_{740} = -2187.4$ kJ·mol^{-1} [4] $S^0_{740} = 300.1$ J·mol^{-1}·K^{-1} [4]

$Al_2Na_2O_4$ (s) Sodium Aluminate **$Al_2Na_2O_4$ (s)**
$Na_2O \cdot Al_2O_3$ (s) beta $Na_2O \cdot Al_2O_3$ (s)

$\Delta H^0_{740} = -2184.9$ kJ·mol^{-1} [4] $S^0_{740} = 303.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 178.32 + 30.54 \cdot 10^{-3} \cdot T - 3.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (740 ... 1900 K) [4]

$Al_2Na_2O_{12}Si_4$ (s) Jadeite **$Al_2Na_2O_{12}Si_4$ (s)**
$Na_2O \cdot Al_2O_3 \cdot 4SiO_2$ (s) $Na_2O \cdot Al_2O_3 \cdot 4SiO_2$ (s)

$\Delta H^0_{298} = -6039.6$ kJ·mol^{-1} [4] $S^0_{298} = 266.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 403 + 95.56 \cdot 10^{-3} \cdot T - 9.93 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

$Al_2Na_2O_{16}Si_6$ (s) Albite **$Al_2Na_2O_{16}Si_6$ (s)**
$Na_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s) alpha $Na_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s)

mp = 1391 K (1118 °C)
$\Delta H^0_{298} = -7841.2$ kJ·mol^{-1} [4] $S^0_{298} = 420.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 516.31 + 116.32 \cdot 10^{-3} \cdot T - 12.56 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 573 K) [4]

$Al_2Na_2O_{16}Si_6$ (s) Albite **$Al_2Na_2O_{16}Si_6$ (s)**

$Na_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s) alpha $Na_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s)

$\Delta H^0_{573} = -7705.6$ kJ·mol^{-1} [4] $S^0_{573} = 737.8$ J·mol^{-1}·K^{-1} [4]

$Al_2Na_2O_{16}Si_6$ (s) Albite **$Al_2Na_2O_{16}Si_6$ (s)**

$Na_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s) beta $Na_2O \cdot Al_2O_3 \cdot 6SiO_2$ (s)

$\Delta H^0_{573} = -7681.5$ kJ·mol^{-1} [4] $S^0_{573} = 779.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 565.68 + 81.67 \cdot 10^{-3} \cdot T - 17.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (573 ... 1391 K) [4]

Al_2NiO_4 (s) Nickel Aluminate **Al_2NiO_4 (s)**

$NiO \cdot Al_2O_3$ (s) $NiO \cdot Al_2O_3$ (s)

mp = 2383 K (2110 °C)

$\Delta H^0_{298} = -1921.5$ kJ·mol^{-1} [4] $S^0_{298} = 98.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 159.2 + 23.35 \cdot 10^{-3} \cdot T - 3.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Al_2O (g) Aluminium(I) Oxide **Al_2O (g)**

$\Delta H^0_{298} = -145.2 \pm 17$ kJ·mol^{-1} [1] $S^0_{298} = 252.3 \pm 3.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 59.97 + 1.24 \cdot 10^{-3} \cdot T - 0.8 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Al_2O_2 (g) Aluminium(II) Oxide **Al_2O_2 (g)**

$(AlO)_2$ (g) $(AlO)_2$ (g)

$\Delta H^0_{298} = -394.6 \pm 32$ kJ·mol^{-1} [1] $S^0_{298} = 281 \pm 12$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 81.58 + 0.83 \cdot 10^{-3} \cdot T - 1.36 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Al_2O_3 (s) Aluminium(III) Oxide alpha, Corundum **Al_2O_3 (s)**

mp = 2327 K (2054 °C)

$\Delta H^0_{298} = -1675.7 \pm 1.2$ kJ·mol^{-1} [1] $S^0_{298} = 51 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 117.49 + 10.38 \cdot 10^{-3} \cdot T - 3.71 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2327 K) [4]

Al_2O_3 (s)	Aluminium(III) Oxide gamma	Al_2O_3 (s)

$\Delta H^0_{298} = -1656.9 \pm 6.3$ kJ·mol⁻¹ [1] $S^0_{298} = 52.3 \pm 8$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 82.7$ J·mol⁻¹·K⁻¹ (298 K) [1]

Al_2O_3 (s)	Aluminium(III) Oxide delta	Al_2O_3 (s)

$\Delta H^0_{298} = -1666.5 \pm 4$ kJ·mol⁻¹ [1] $S^0_{298} = 50.6 \pm 4$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 81.4$ J·mol⁻¹·K⁻¹ (298 K) [1]

Al_2O_3 (s)	Aluminium(III) Oxide kappa	Al_2O_3 (s)

$\Delta H^0_{298} = -1662.3 \pm 4$ kJ·mol⁻¹ [1] $S^0_{298} = 53.6 \pm 4$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 80.8$ J·mol⁻¹·K⁻¹ (298 K) [1]

Al_2O_3 (l)	Aluminium(III) Oxide	Al_2O_3 (l)

$\Delta H^0_{298} = -1620.6$ kJ·mol⁻¹ [1] $S^0_{298} = 67.3$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 79$ J·mol⁻¹·K⁻¹ (298 K) [1]

Al_2O_4Sr (s) $SrO \cdot Al_2O_3$ (s)	Strontium Aluminate alpha	Al_2O_4Sr (s) $SrO \cdot Al_2O_3$ (s)

mp = 2063 K (1790 °C)

$\Delta H^0_{298} = -2338.9$ kJ·mol⁻¹ [4] $S^0_{298} = 108.8$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 177.19 + 4.94 \cdot 10^{-3} \cdot T - 5.3 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 932 K) [4]

Al_2O_4Sr (s) $SrO \cdot Al_2O_3$ (s)	Strontium Aluminate alpha	Al_2O_4Sr (s) $SrO \cdot Al_2O_3$ (s)

$\Delta H^0_{932} = -2236.7$ kJ·mol⁻¹ [4] $S^0_{932} = 287.1$ J·mol⁻¹·K⁻¹ [4]

Al_2O_4Sr (s) Strontium Aluminate **Al_2O_4Sr (s)**

$SrO \cdot Al_2O_3$ (s) beta $SrO \cdot Al_2O_3$ (s)

$\Delta H^0_{932} = -2234.8$ kJ·mol^{-1} [4] $S^0_{932} = 289.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 146.11 + 29.29 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (932 ... 2063 K) [4]

Al_2O_4Zn (s) Zinc Aluminate **Al_2O_4Zn (s)**

$ZnO \cdot Al_2O_3$ (s) $ZnO \cdot Al_2O_3$ (s)

$\Delta H^0_{298} = -2071.3$ kJ·mol^{-1} [4] $S^0_{298} = 87$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 166.52 + 15.48 \cdot 10^{-3} \cdot T - 4.6 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1300 K) [4]

Al_2O_5Si (s) Aluminium Silicate **Al_2O_5Si (s)**

$Al_2O_3 \cdot SiO_2$ (s) Andalusite $Al_2O_3 \cdot SiO_2$ (s)

$\Delta H^0_{298} = -2590.3$ kJ·mol^{-1} [4] $S^0_{298} = 93.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 161.84 + 35.17 \cdot 10^{-3} \cdot T - 4.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1800 K) [4]

Al_2O_5Si (s) Aluminium Silicate **Al_2O_5Si (s)**

$Al_2O_3 \cdot SiO_2$ (s) Kyanite $Al_2O_3 \cdot SiO_2$ (s)

$\Delta H^0_{298} = -2594.3 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 83.8 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 183.77 + 17.1 \cdot 10^{-3} \cdot T - 6.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1600 K) [4]

Al_2O_5Si (s) Aluminium Silicate **Al_2O_5Si (s)**

$Al_2O_3 \cdot SiO_2$ (s) Sillimanite $Al_2O_3 \cdot SiO_2$ (s)

$\Delta H^0_{298} = -2589.1 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 96.2 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 182.05 + 15.44 \cdot 10^{-3} \cdot T - 5.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1800 K) [4]

Al_2O_5Ti (s) Aluminium Titanate **Al_2O_5Ti (s)**

$Al_2O_3 \cdot TiO_2$ (s) $Al_2O_3 \cdot TiO_2$ (s)

$\Delta H^0_{298} = -2628.8$ kJ·mol^{-1} [2] $S^0_{298} = 109.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 182.55 + 22.18 \cdot 10^{-3} \cdot T - 4.69 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2133 K) [4]

$Al_2O_7Si_2$ (s) Aluminium Silicate **$Al_2O_7Si_2$ (s)**

$Al_2O_3 \cdot 2SiO_2$ (s) Metakaolinite $Al_2O_3 \cdot 2SiO_2$ (s)

$\Delta H^0_{298} = -3341.1$ kJ·mol^{-1} [4] $S^0_{298} = 136.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 229.49 + 36.82 \cdot 10^{-3} \cdot T - 1.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1800 K) [4]

$Al_2O_{12}S_3$ (s) Aluminium Sulfate **$Al_2O_{12}S_3$ (s)**

$Al_2(SO_4)_3$ (s) $Al_2(SO_4)_3$ (s)

$\Delta H^0_{298} = -3440.8$ kJ·mol^{-1} [2] $S^0_{298} = 239.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 366.31 + 62.59 \cdot 10^{-3} \cdot T - 11.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 989 K) [4]

Al_2S (g) Aluminium Sulfide **Al_2S (g)**

$\Delta H^0_{298} = 230.5$ kJ·mol^{-1} [5] $S^0_{298} = [275.3]$ J·mol^{-1}·K^{-1} [5]

Al_2S_2 (g) Aluminium Sulfide **Al_2S_2 (g)**

$\Delta H^0_{298} = 66.1$ kJ·mol^{-1} [5] $S^0_{298} = [285.8]$ J·mol^{-1}·K^{-1} [5]

Al_2S_3 (s) Aluminium(III) Sulfide **Al_2S_3 (s)**

mp = 1370 K (1097 °C)

$\Delta H^0_{298} = -723.4$ kJ·mol^{-1} [4] $S^0_{298} = 113$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 102.17 + 36.07 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1370 K) [4]

Al_2S_3 (s) Aluminium(III) Sulfide **Al_2S_3 (s)**

$\Delta H^0_{1370} = -581.7$ kJ·mol^{-1} [4] $S^0_{1370} = 307.4$ J·mol^{-1}·K^{-1} [4]

Al_2S_3 (l) Aluminium(III) Sulfide **Al_2S_3 (l)**

$\Delta H^0_{1370} = -525.2$ kJ·mol^{-1} [4] $S^0_{1370} = 348.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 156.9$ J·mol^{-1}·K^{-1} (1370 K) [4]

Al_2Se (g) Aluminium Selenide **Al_2Se (g)**

ΔH^0_{298} = 100.4 kJ·mol^{-1} [4] S^0_{298} = 287.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 59.97 + 1.24 ·10^{-3}·T – 0.8 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 -2000 K) [4]

Al_2Se_2 (g) Aluminium Selenide **Al_2Se_2 (g)**

ΔH^0_{298} = 75.7 kJ·mol^{-1} [2] S^0_{298} = 308.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 66.4 J·mol^{-1}·K^{-1} (298 K) [2]

Al_2Se_3 (s) Aluminium(III) Selenide **Al_2Se_3 (s)**

mp = 1220 K (947 °C)
ΔH^0_{298} = – 566.9 kJ·mol^{-1} [2] S^0_{298} = 154.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 107.74 + 34.31 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1220 K) [4]

Al_2Se_3 (s) Aluminium(III) Selenide **Al_2Se_3 (s)**

ΔH^0_{1220} = – 443.6 kJ·mol^{-1} [4] S^0_{1220} = 338.2 J·mol^{-1}·K^{-1} [4]

Al_2Se_3 (l) Aluminium(III) Selenide **Al_2Se_3 (l)**

ΔH^0_{1220} = – 437.6 kJ·mol^{-1} [4] S^0_{1220} = 343.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 156.9 J·mol^{-1}·K^{-1} (1220 K) [4]

Al_2Te (g) Aluminium Telluride **Al_2Te (g)**

ΔH^0_{298} = 315.1 kJ·mol^{-1} [5] S^0_{298} = [298.3] J·mol^{-1}·K^{-1} [5]

Al_2Te_2 (g) Aluminium Telluride **Al_2Te_2 (g)**

ΔH^0_{298} = 188.3 kJ·mol^{-1} [5] S^0_{298} = [327.6] J·mol^{-1}·K^{-1} [5]

Al_2Te_3 (s) Aluminium(III) Telluride **Al_2Te_3 (s)**

mp = 1163 K (890 °C)
ΔH^0_{298} = – 318.8 kJ·mol^{-1} [2] S^0_{298} = 188.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 110.88 + 34.73 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1163 K) [4]

Al_2Te_3 (s) Aluminium(III) Telluride **Al_2Te_3 (s)**

ΔH^0_{1163} = – 201.0 kJ·mol^{-1} [4] S^0_{1163} = 369.2 J·mol^{-1}·K^{-1} [4]

Al_2Te_3 (l) Aluminium(III) Telluride **Al_2Te_3 (l)**

ΔH^0_{1163} = – 151.0 kJ·mol^{-1} [4] S^0_{1163} = 412.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 176.57 J·mol^{-1}·K^{-1} (1163 K) [4]

Al_2U (s) Aluminium Uranium **Al_2U (s)**

mp = 1893 K (1620 °C)
ΔH^0_{298} = – 92 kJ·mol^{-1} [2] S^0_{298} = 106.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 78.4 J·mol^{-1}·K^{-1} (298 K) [2]

$Al_3Br_{12}Y$ (g) Yttrium Aluminium Bromide **$Al_3Br_{12}Y$ (g)**
YAl_3Br_{12} (g) YAl_3Br_{12} (g)

ΔH^0_{298} = – 2027.5 ± 25.1 kJ·mol^{-1} [24] S^0_{298} = 1213.4 ± 31.4 J·mol^{-1}·K^{-1} [25]

Al_3CeCl_{12} (g) Cerium Aluminium Chloride **Al_3CeCl_{12} (g)**
$CeAl_3Cl_{12}$ (g) $CeAl_3Cl_{12}$ (g)

ΔH^0_{298} = – 2953.5 kJ·mol^{-1} [135] S^0_{298} = 867.1 J·mol^{-1}·K^{-1} [135]

$Al_3Cl_{11}Mn$ (g) Manganese Aluminium Chloride **$Al_3Cl_{11}Mn$ (g)**
$MnAl_3Cl_{11}$ (g) $MnAl_3Cl_{11}$ (g)

ΔH^0_{298} = – 2391.5 kJ·mol^{-1} [283] S^0_{298} = 857.9 J·mol^{-1}·K^{-1} [283]

$Al_3Cl_{11}Ni$ (g) Nickel Aluminium Chloride **$Al_3Cl_{11}Ni$ (g)**
$NiAl_3Cl_{11}$ (g) $NiAl_3Cl_{11}$ (g)

$\Delta H^0_{298} = -2226.3$ kJ·mol^{-1} [170, 8] $S^0_{298} = 785.8$ J·mol^{-1}·K^{-1} [170, 8]

$Al_3Cl_{12}Dy$ (g) Dysprosium Aluminium Chloride **$Al_3Cl_{12}Dy$ (g)**
$DyAl_3Cl_{12}$ (g) $DyAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2925.3$ kJ·mol^{-1} [135] $S^0_{298} = 852.8$ J·mol^{-1}·K^{-1} [135]

$Al_3Cl_{12}Er$ (g) Erbium Aluminium Chloride **$Al_3Cl_{12}Er$ (g)**
$ErAl_3Cl_{12}$ (g) $ErAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2923.3$ kJ·mol^{-1} [135] $S^0_{298} = 849.1$ J·mol^{-1}·K^{-1} [135]

$Al_3Cl_{12}Eu$ (g) Europium Aluminium Chloride **$Al_3Cl_{12}Eu$ (g)**
$EuAl_3Cl_{12}$ (g) $EuAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2856.1$ kJ·mol^{-1} [135] $S^0_{298} = 850.3$ J·mol^{-1}·K^{-1} [135]

$Al_3Cl_{12}Gd$ (g) Gadolinium Aluminium Chloride **$Al_3Cl_{12}Gd$ (g)**
$GdAl_3Cl_{12}$ (g) $GdAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2922.9$ kJ·mol^{-1} [135] $S^0_{298} = 866.9$ J·mol^{-1}·K^{-1} [135]

$Al_3Cl_{12}Ho$ (g) Holmium Aluminium Chloride **$Al_3Cl_{12}Ho$ (g)**
$HoAl_3Cl_{12}$ (g) $HoAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2932.9$ kJ·mol^{-1} [135] $S^0_{298} = 851.6$ J·mol^{-1}·K^{-1} [135]

$Al_3Cl_{12}La$ (g) Lanthanum Aluminium Chloride **$Al_3Cl_{12}La$ (g)**
$LaAl_3Cl_{12}$ (g) $LaAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2979 \pm 29.3$ kJ·mol^{-1} [26] $S^0_{298} = 857.7 \pm 12.6$ J·mol^{-1}·K^{-1} [26]

$Al_3Cl_{12}Lu$ (g) Lutetium Aluminium Chloride **$Al_3Cl_{12}Lu$ (g)**

$LuAl_3Cl_{12}$ (g) $LuAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2904$ kJ·mol^{-1} [135] S^0_{298} = [853.6] J·mol^{-1}·K^{-1} [135, 267]

$Al_3Cl_{12}Nd$ (s) Neodymium Aluminium Chloride **$Al_3Cl_{12}Nd$ (s)**

$NdAl_3Cl_{12}$ (s) $NdAl_3Cl_{12}$ (s)

$\Delta H^0_{298} = -3136.3 \pm 10.5$ kJ·mol^{-1} [27] $S^0_{298} = 494.5 \pm 12.6$ J·mol^{-1}·K^{-1} [27]

$C_p{}^0$= [372.47] J·mol^{-1}·K^{-1} (298 K) [271]

$Al_3Cl_{12}Nd$ (g) Neodymium Aluminium Chloride **$Al_3Cl_{12}Nd$ (g)**

$NdAl_3Cl_{12}$ (g) $NdAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2935.1 \pm 12.6$ kJ·mol^{-1} [27] $S^0_{298} = 899.6 \pm 16.7$ J·mol^{-1}·K^{-1} [27]

$Al_3Cl_{12}Pr$ (g) Praseodymium Aluminium Chloride **$Al_3Cl_{12}Pr$ (g)**

$PrAl_3Cl_{12}$ (g) $PrAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2962.3$ kJ·mol^{-1} [135] $S^0_{298} = 867$ J·mol^{-1}·K^{-1} [135]

$Al_3Cl_{12}Sm$ (g) Samarium Aluminium Chloride **$Al_3Cl_{12}Sm$ (g)**

$SmAl_3Cl_{12}$ (g) $SmAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2942.2$ kJ·mol^{-1} [135] $S^0_{298} = 855.6$ J·mol^{-1}·K^{-1} [135]

$Al_3Cl_{12}Tb$ (g) Terbium Aluminium Chloride **$Al_3Cl_{12}Tb$ (g)**

$TbAl_3Cl_{12}$ (g) $TbAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2919.5$ kJ·mol^{-1} [135] $S^0_{298} = 862.1$ J·mol^{-1}·K^{-1} [135]

$Al_3Cl_{12}Tm$ (g) Thulium Aluminium Chloride **$Al_3Cl_{12}Tm$ (g)**

$TmAl_3Cl_{12}$ (g) $TmAl_3Cl_{12}$ (g)

$\Delta H^0_{298} = -2913.7$ kJ·mol^{-1} [135] $S^0_{298} = 854.8$ J·mol^{-1}·K^{-1} [135]

$Al_3Cl_{12}Y$ (s) Yttrium Aluminium Chloride **$Al_3Cl_{12}Y$ (s)**

YAl_3Cl_{12} (s) YAl_3Cl_{12} (s)

ΔH^0_{298} = – 3095.7 ± 12.6 kJ·mol^{-1} [23] S^0_{298} = 569.4 ± 16.7 J·mol^{-1}·K^{-1} [23]

$C_p{}^0$= [365.40] J·mol^{-1}·K^{-1} (298 K) [271]

$Al_3Cl_{12}Yb$ (g) Ytterbium Aluminium Chloride **$Al_3Cl_{12}Yb$ (g)**

$YbAl_3Cl_{12}$ (g) $YbAl_3Cl_{12}$ (g)

ΔH^0_{298} = – 2882 kJ·mol^{-1} [135] S^0_{298} = 836.5 J·mol^{-1}·K^{-1} [135]

$Al_3F_{14}Na_5$ (s) Chiolite **$Al_3F_{14}Na_5$ (s)**

5NaF · 3AlF_3 (s) 5NaF · 3AlF_3 (s)

mp = 1007 K (734 °C)

ΔH^0_{298} = – 7581.4 ± 16 kJ·mol^{-1} [1] S^0_{298} = 483.5 ± 0.8 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 377 + 285 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1007 K) [4]

$Al_3F_{14}Na_5$ (l) Chiolite **$Al_3F_{14}Na_5$ (l)**

5NaF · 3AlF_3 (l) 5NaF · 3AlF_3 (l)

ΔH^0_{298} = – 7497.4 kJ·mol^{-1} [1] S^0_{298} = 532.1 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 454.01 J·mol^{-1}·K^{-1} (298 K) [1]

$Al_3H_2KO_{12}Si_3$ (s) Muscovite **$Al_3H_2KO_{12}Si_3$ (s)**

$KAl_3Si_3O_{10}(OH)_2$ (s) $KAl_3Si_3O_{10}(OH)_2$ (s)

ΔH^0_{298} = – 5984.4 kJ·mol^{-1} [2] S^0_{298} = 306.3 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 318.3 J·mol^{-1}·K^{-1} (298 K) [2]

Al_3Ni (s) Aluminium Nickel **Al_3Ni (s)**

ΔH^0_{298} = – 150.6 kJ·mol^{-1} [2] S^0_{298} = 110.7 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 94.6 J·mol^{-1}·K^{-1} (298 K) [2]

Al_3Ni_2 (s) Aluminium Nickel **Al_3Ni_2 (s)**

$\Delta H^0_{298} = -282.4$ kJ·mol^{-1} [2] $S^0_{298} = 136.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 116.3$ J·mol^{-1}·K^{-1} (298 K) [2]

Al_3Th (s) Aluminium Thorium **Al_3Th (s)**

$\Delta H^0_{298} = -111.7$ kJ·mol^{-1} [2] $S^0_{298} = 97.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 104.4$ J·mol^{-1}·K^{-1} (298 K) [2]

Al_3Ti (s) Aluminium Titanium **Al_3Ti (s)**

$\Delta H^0_{298} = -146.4$ kJ·mol^{-1} [2] $S^0_{298} = 92.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 98.9$ J·mol^{-1}·K^{-1} (298 K) [2]

Al_3U (s) Aluminium Uranium **Al_3U (s)**

$\Delta H^0_{298} = -104.6$ kJ·mol^{-1} [2] $S^0_{298} = 136$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 104.4$ J·mol^{-1}·K^{-1} (298 K) [2]

$Al_4B_2O_9$ (s) Aluminium Borate **$Al_4B_2O_9$ (s)**
$2Al_2O_3 \cdot B_2O_3$ (s) $2Al_2O_3 \cdot B_2O_3$ (s)

$\Delta H^0_{298} = -4691.1$ kJ·mol^{-1} [4] $S^0_{298} = 155.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 270.29 + 108.58 \cdot 10^{-3} \cdot T - 7.11 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1308 K) [4]

Al_4C_3 (s) Aluminium Carbide **Al_4C_3 (s)**

$\Delta H^0_{298} = -215.7 \pm 6.7$ kJ·mol^{-1} [1] $S^0_{298} = 89 \pm 1.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 154.68 + 28.74 \cdot 10^{-3} \cdot T - 4.18 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1800 K) [4]

Al_4Ca (s) Calcium Aluminium **Al_4Ca (s)**
$CaAl_4$ (s) $CaAl_4$ (s)

mp = 973 K (700 °C)
$\Delta H^0_{298} = -215.5$ kJ·mol^{-1} [2] $S^0_{298} = 138.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 124.27 + 32.64 \cdot 10^{-3} \cdot T - 1.13 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 973 K) [4]

Al_4CaO_7 (s) Calcium Aluminate **Al_4CaO_7 (s)**

$CaO \cdot 2Al_2O_3$ (s) $CaO \cdot 2Al_2O_3$ (s)

mp = 2038 K (1765 °C)

$\Delta H^0_{298} = -3999$ kJ·mol^{-1} [4] $S^0_{298} = 177.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 276.52 + 22.93 \cdot 10^{-3} \cdot T - 7.45 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2038 K) [4]

Al_4Ce (s) Aluminium Cerium **Al_4Ce (s)**

$\Delta H^0_{298} = -163$ kJ·mol^{-1} [2] $S^0_{298} = 161.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 123.1$ J·mol^{-1}·K^{-1} (298 K) [2]

$Al_4Cl_{15}Y$ (g) Yttrium Aluminium Chloride **$Al_4Cl_{15}Y$ (g)**

YAl_4Cl_{15} (g) YAl_4Cl_{15} (g)

$\Delta H^0_{298} = -3564.8 \pm 25.1$ kJ·mol^{-1} [24] $S^0_{298} = 1071.1 \pm 20.9$ J·mol^{-1}·K^{-1} [24]

$Al_4Mg_2O_{18}Si_5$ (s) Cordierite **$Al_4Mg_2O_{18}Si_5$ (s)**

$2MgO \cdot 2Al_2O_3 \cdot 5SiO_2$ (s) $2MgO \cdot 2Al_2O_3 \cdot 5SiO_2$ (s)

$\Delta H^0_{298} = -9161.7$ kJ·mol^{-1} [2] $S^0_{298} = 407.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 452.3$ J·mol^{-1}·K^{-1} (298 K) [2]

Al_4U (s) Aluminium Uranium **Al_4U (s)**

$\Delta H^0_{298} = -130$ kJ·mol^{-1} [2] $S^0_{298} = 163.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 129.2$ J·mol^{-1}·K^{-1} (298 K) [2]

Al_5Co_2 (s) Aluminium Cobalt **Al_5Co_2 (s)**

$\Delta H^0_{298} = -292.9$ kJ·mol^{-1} [2] $S^0_{298} = 193.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 164.7$ J·mol^{-1}·K^{-1} (298 K) [2]

Al_6BeO_{10} (s) Beryllium Aluminate **Al_6BeO_{10} (s)**

$BeO \cdot 3Al_2O_3$ (s) $BeO \cdot 3Al_2O_3$ (s)

mp = 2186 K (1913 °C)

$\Delta H^0_{298} = -5624.1 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 175.6 \pm 0.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 385.86 + 49.64 \cdot 10^{-3} \cdot T - 12.33 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Al_6BeO_{10} (l) Beryllium Aluminate **Al_6BeO_{10} (l)**

$BeO \cdot 3Al_2O_3$ (l) $BeO \cdot 3Al_2O_3$ (l)

$\Delta H^0_{298} = -5299.3$ kJ·mol^{-1} [1] $S^0_{298} = 314.9$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 265.19$ J·mol^{-1}·K^{-1} (298 K) [1]

$Al_6O_{13}Si_2$ (s) Mullite **$Al_6O_{13}Si_2$ (s)**

$3Al_2O_3 \cdot 2SiO_2$ (s) $3Al_2O_3 \cdot 2SiO_2$ (s)

mp = 2123 K (1850 °C)

$\Delta H^0_{298} = -6819.2 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 274.9 \pm 12$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 480.57 + 43.43 \cdot 10^{-3} \cdot T - 15.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2123 K) [4]

$Al_{14}Ca_{12}O_{33}$ (s) Calcium Aluminium Oxide **$Al_{14}Ca_{12}O_{33}$ (s)**

$12CaO \cdot 7Al_2O_3$ (s) $12CaO \cdot 7Al_2O_3$ (s)

$\Delta H^0_{298} = -19430$ kJ·mol^{-1} [2] $S^0_{298} = 1046.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 1084.83$ J·mol^{-1}·K^{-1} (298 K) [2]

$Al_{18}B_4O_{33}$ (s) Aluminium Borate **$Al_{18}B_4O_{33}$ (s)**

$9Al_2O_3 \cdot 2B_2O_3$ (s) $9Al_2O_3 \cdot 2B_2O_3$ (s)

$\Delta H^0_{298} = -17749.7$ kJ·mol^{-1} [4] $S^0_{298} = 654$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 980.31 + 613.37 \cdot 10^{-3} \cdot T - 28.83 \cdot 10^6 \cdot T^{-2} - 176.57 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1600 K) [4]

Am (s) Americium **Am (s)**

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 54.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 25.85$ J·mol^{-1}·K^{-1} (298 K) [2]

Am (g) Americium **Am** (g)

ΔH^0_{298} = 284.1 kJ·mol^{-1} [2] S^0_{298} = 194.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 20.79 J·mol^{-1}·K^{-1} (298 K) [2]

Ar (g) Argon **Ar** (g)

mp = 109 K (-164 °C) bp = 112 K (-161 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 154.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 20.79 J·mol^{-1}·K^{-1} (298 K) [2]

As (s) Arsenic alpha **As** (s)

mp = 1090 K (817 °C) bp = 875 K (602 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 35.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 23.03 + 5.75 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 875 K) [4]
lg(p,K) = – 8.52 ·10^3·T^{-1} – 3.19 · lg(T) + 19.13 (500 ... 875 K) [4]
{Reaction: evaporation as As_4(g)}

As (g) Arsenic **As** (g)

ΔH^0_{298} = 301.8 kJ·mol^{-1} [2] S^0_{298} = 174.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 20.58 + 0.25 ·10^{-3}·T + 0.01 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2400 K) [6]

$AsAu_3O_4$ (s) Gold Arsenate **$AsAu_3O_4$** (s)
Au_3AsO_4 (s) Au_3AsO_4 (s)

ΔH^0_{298} = – 384.2 kJ·mol^{-1} [2] S^0_{298} = 298.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 177.6 J·mol^{-1}·K^{-1} (298 K) [2]

$AsBiO_4$ (s) Bismuth Arsenate **$AsBiO_4$** (s)
$BiAsO_4$ (s) $BiAsO_4$ (s)

ΔH^0_{298} = – 795.2 kJ·mol^{-1} [2] S^0_{298} = 168.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 121.12 J·mol^{-1}·K^{-1} (298 K) [2]

$AsBr_3$ (l) Arsenic(III) Bromide **$AsBr_3$ (l)**

mp = 304 K (31 °C) bp = 494 K (221 °C)

$\Delta H^0_{298} = -190.5$ kJ·mol^{-1} [4] $S^0_{298} = 239.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 135.98$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -3.91 \cdot 10^3 \cdot T^{-1} - 6.64 \cdot \lg(T) + 25.8$ (298 ... 494 K) [4]

{Reaction: evaporation}

$AsBr_3$ (l) Arsenic(III) Bromide **$AsBr_3$ (l)**

$\Delta H^0_{494} = -163.8$ kJ·mol^{-1} [4] $S^0_{494} = 308.3$ J·mol^{-1}·K^{-1} [4]

$AsBr_3$ (g) Arsenic(III) Bromide **$AsBr_3$ (g)**

$\Delta H^0_{494} = -116.3$ kJ·mol^{-1} [4] $S^0_{494} = 404.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 82.89 + 0.23 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (494 ... 2000 K) [4]

$AsBr_3$ (g) Arsenic(III) Bromide **$AsBr_3$ (g)**

$\Delta H^0_{298} = -132.1$ kJ·mol^{-1} [4] $S^0_{298} = 363.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 82.89 + 0.23 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [4]

$AsCl_3$ (l) Arsenic(III) Chloride **$AsCl_3$ (l)**

mp = 263 K (-10 °C) bp = 403 K (130 °C)

$\Delta H^0_{298} = -305.9$ kJ·mol^{-1} [4] $S^0_{298} = 212.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 133.9$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -3.25 \cdot 10^3 \cdot T^{-1} - 6.85 \cdot \lg(T) + 25.91$ (298 ... 403 K) [4]

{Reaction: evaporation}

$AsCl_3$ (g) Arsenic(III) Chloride **$AsCl_3$ (g)**

$\Delta H^0_{298} = -261.5$ kJ·mol^{-1} [2] $S^0_{298} = 327.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 82.1 + 0.95 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$AsCrO_4$ (s) Chromium Arsenate **$AsCrO_4$ (s)**

$CrAsO_4$ (s) $CrAsO_4$ (s)

$\Delta H^0_{298} = -1062.1$ kJ·mol^{-1} [2] $S^0_{298} = 155.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 119.1$ J·mol^{-1}·K^{-1} (298 K) [2]

$AsCs_3O_4$ (s) Cesium Arsenate **$AsCs_3O_4$ (s)**

Cs_3AsO_4 (s) Cs_3AsO_4 (s)

$\Delta H^0_{298} = -1668.5$ kJ·mol^{-1} [2] $S^0_{298} = 283.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 176.2$ J·mol^{-1}·K^{-1} (298 K) [2]

$AsCu_3$ (s) Copper Arsenide **$AsCu_3$ (s)**

Cu_3As (s) Cu_3As (s)

mp = 1100 K (827 °C)

$\Delta H^0_{298} = -11.7$ kJ·mol^{-1} [2] $S^0_{298} = 137.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 93.1$ J·mol^{-1}·K^{-1} (298 K) [1]

$AsCu_3O_4$ (s) Copper Arsenate **$AsCu_3O_4$ (s)**

Cu_3AsO_4 (s) Cu_3AsO_4 (s)

$\Delta H^0_{298} = -710.4$ kJ·mol^{-1} [2] $S^0_{298} = 256$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 176.4$ J·mol^{-1}·K^{-1} (298 K) [2]

AsF_3 (l) Arsenic(III) Fluoride **AsF_3 (l)**

mp = 265 K (-8 °C) bp = 336 K (63 °C)

$\Delta H^0_{298} = -821.3$ kJ·mol^{-1} [2] $S^0_{298} = 181.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 126.78$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -2.81 \cdot 10^3 \cdot T^{-1} - 7.31 \cdot \lg(T) + 26.9$ (298 ... 331 K) [4]

{Reaction: evaporation}

AsF_3 (g) Arsenic(III) Fluoride **AsF_3 (g)**

$\Delta H^0_{298} = -785.8$ kJ·mol^{-1} [2] $S^0_{298} = 289.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 75.46 + 7.1 \cdot 10^{-3} \cdot T - 1.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AsF_5 (g) Arsenic(V) Fluoride **AsF_5 (g)**

$\Delta H^0_{298} = -1236.8$ kJ·mol^{-1} [2] $S^0_{298} = 317.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 130.96 - 2.97 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [3]

$AsFeO_4$ (s) Iron(III) Arsenate **$AsFeO_4$ (s)**

$FeAsO_4$ (s) $FeAsO_4$ (s)

$\Delta H^0_{298} = -865.3$ kJ·mol^{-1} [2] $S^0_{298} = 161.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 117.05$ J·mol^{-1}·K^{-1} (298 K) [2]

AsGa (s) Gallium Arsenide **AsGa (s)**

GaAs (s) GaAs (s)

mp = 1151 K (878 °C)

$\Delta H^0_{298} = -74.1$ kJ·mol^{-1} [2] $S^0_{298} = 64.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 45.19 + 6.07 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1511 K) [4]

AsGa (s) Gallium Arsenide **AsGa (s)**

GaAs (s) GaAs (s)

$\Delta H^0_{1511} = -12.6$ kJ·mol^{-1} [4] $S^0_{1511} = 144.9$ J·mol^{-1}·K^{-1} [4]

AsGa (l) Gallium Arsenide **AsGa (l)**

GaAs (l) GaAs (l)

$\Delta H^0_{1511} = 75.3$ kJ·mol^{-1} [4] $S^0_{1511} = 203$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 58.99$ J·mol^{-1}·K^{-1} (1511 K) [4]

$AsGaO_4$ (s) Gallium Arsenate **$AsGaO_4$ (s)**

$GaAsO_4$ (s) $GaAsO_4$ (s)

$\Delta H^0_{298} = -1002.2$ kJ·mol^{-1} [2] $S^0_{298} = 150.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 118.3$ J·mol^{-1}·K^{-1} (298 K) [2]

AsH_3 (g) Arsenic(III) Hydride **AsH_3 (g)**

mp = 159 K (-114 °C) bp = 218 K (-55 °C)
ΔH^0_{298} = 66.4 kJ·mol^{-1} [2] S^0_{298} = 222.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 42.01 + 22.8 \cdot 10^{-3} \cdot T - 0.91 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AsI_3 (s) Arsenic(III) Iodide **AsI_3 (s)**

mp = 414 K (141 °C) bp = 644 K (371 °C)
ΔH^0_{298} = – 58.2 kJ·mol^{-1} [2] S^0_{298} = 213 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 86.79 + 63.67 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 414 K) [4]
$\lg(p,K) = -5.35 \cdot 10^{3} \cdot T^{-1} - 3.37 \cdot \lg(T) + 18.9$ (298 ... 414 K) [4]
{Reaction: evaporation}

AsI_3 (s) Arsenic(III) Iodide **AsI_3 (s)**

ΔH^0_{414} = – 45.5 kJ·mol^{-1} [4] S^0_{414} = 248.9 J·mol^{-1}·K^{-1} [4]

AsI_3 (l) Arsenic(III) Iodide **AsI_3 (l)**

ΔH^0_{414} = – 23.2 kJ·mol^{-1} [4] S^0_{414} = 302.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$ = 137.65 J·mol^{-1}·K^{-1} (414 K) [4]
$\lg(p,K) = -4.78 \cdot 10^{3} \cdot T^{-1} - 6.66 \cdot \lg(T) + 26.12$ (414 ... 644 K) [4]
{Reaction: evaporation}

AsI_3 (l) Arsenic(III) Iodide **AsI_3 (l)**

ΔH^0_{644} = 8.4 kJ·mol^{-1} [4] S^0_{644} = 363.5 J·mol^{-1}·K^{-1} [4]

AsI_3 (g) Arsenic(III) Iodide **AsI_3 (g)**

ΔH^0_{644} = 64.2 kJ·mol^{-1} [4] S^0_{644} = 450.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 83 + 0.17 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (644 ... 2000 K) [4]

AsI_3 (g) Arsenic(III) Iodide **AsI_3 (g)**

ΔH^0_{298} = 38.9 kJ·mol^{-1} [2] S^0_{298} = 391.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$ = 81 J·mol^{-1}·K^{-1} (298 K) [2]

AsIn (s) Indium Arsenide **AsIn** (s)
InAs (s) InAs (s)

mp = 1216 K (943 °C)
$\Delta H^0_{298} = -58.6$ kJ·mol^{-1} [2] $S^0_{298} = 75.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 47.07 + 7.53 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1216 K) [4]

AsIn (s) Indium Arsenide **AsIn** (s)
InAs (s) InAs (s)

$\Delta H^0_{1216} = -10.1$ kJ·mol^{-1} [4] $S^0_{1216} = 148.8$ J·mol^{-1}·K^{-1} [4]

AsIn (l) Indium Arsenide **AsIn** (l)
InAs (l) InAs (l)

$\Delta H^0_{1216} = 66.9$ kJ·mol^{-1} [4] $S^0_{1216} = 212.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 59.83$ J·mol^{-1}·K^{-1} (1216 K) [4]

$AsInO_4$ (s) Indium Arsenate **$AsInO_4$** (s)
$InAsO_4$ (s) $InAsO_4$ (s)

$\Delta H^0_{298} = -978.3$ kJ·mol^{-1} [2] $S^0_{298} = 154.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 119.3$ J·mol^{-1}·K^{-1} (298 K) [2]

AsK_3O_4 (s) Potassium Arsenate **AsK_3O_4** (s)
K_3AsO_4 (s) K_3AsO_4 (s)

$\Delta H^0_{298} = -1668.7$ kJ·mol^{-1} [2] $S^0_{298} = 237.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 172.29$ J·mol^{-1}·K^{-1} (298 K) [2]

AsLa (s) Lanthanum Arsenide **AsLa** (s)
LaAs (s) LaAs (s)

$\Delta H^0_{298} = -305.4$ kJ·mol^{-1} [96] $S^0_{298} = 77.4$ J·mol^{-1}·K^{-1} [96]

$AsLaO_4$ (s) Lanthanum Arsenate **$AsLaO_4$ (s)**

$LaAsO_4$ (s) $LaAsO_4$ (s)

$\Delta H^0_{298} = -1556.9$ kJ·mol^{-1} [2] $S^0_{298} = 163.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 117.89$ J·mol^{-1}·K^{-1} (298 K) [2]

$AsLi_3O_4$ (s) Lithium Arsenate **$AsLi_3O_4$ (s)**

Li_3AsO_4 (s) Li_3AsO_4 (s)

$\Delta H^0_{298} = -1702.4$ kJ·mol^{-1} [2] $S^0_{298} = 173.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 161.8$ J·mol^{-1}·K^{-1} (298 K) [2]

AsMn (s) Manganese Arsenide **AsMn (s)**

MnAs (s) MnAs (s)

mp = 1208 K (935 °C)

$\Delta H^0_{298} = -56.9$ kJ·mol^{-1} [2] $S^0_{298} = 77.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 70.29$ J·mol^{-1}·K^{-1} (298 K) [4]

$AsMoO_4$ (s) Molybdenum Arsenate **$AsMoO_4$ (s)**

$MoAsO_4$ (s) $MoAsO_4$ (s)

$\Delta H^0_{298} = -910.7$ kJ·mol^{-1} [2] $S^0_{298} = 163$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 120.1$ J·mol^{-1}·K^{-1} (298 K) [2]

$AsNa_3$ (s) Sodium Arsenide **$AsNa_3$ (s)**

Na_3As (s) Na_3As (s)

$\Delta H^0_{298} = -205$ kJ·mol^{-1} [2] $S^0_{298} = 130$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 97.8$ J·mol^{-1}·K^{-1} (298 K) [2]

$AsNa_3O_4$ (s) Sodium Arsenate **$AsNa_3O_4$ (s)**

Na_3AsO_4 (s) Na_3AsO_4 (s)

$\Delta H^0_{298} = -1540$ kJ·mol^{-1} [2] $S^0_{298} = 217.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 170.1$ J·mol^{-1}·K^{-1} (298 K) [2]

AsNi (s) Nickel Arsenide **AsNi (s)**
NiAs (s) NiAs (s)

mp = 1237 K (964 °C)
ΔH^0_{298} = – 72 kJ·mol^{-1} [4] S^0_{298} = 51.9 J·mol^{-1}·K^{-1} [4]
C_p^0= 43.72 + 12.97 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1237 K) [4]

AsO (g) Arsenic Oxide **AsO (g)**

ΔH^0_{298} = – 57.3 kJ·mol^{-1} [2] S^0_{298} = 230.3 J·mol^{-1}·K^{-1} [2]
C_p^0= 32.3 J·mol^{-1}·K^{-1} (298 K) [2]

AsO_4Re (s) Rhenium Arsenate **AsO_4Re (s)**
$ReAsO_4$ (s) $ReAsO_4$ (s)

ΔH^0_{298} = – 771.6 kJ·mol^{-1} [2] S^0_{298} = 170 J·mol^{-1}·K^{-1} [2]
C_p^0= 121.4 J·mol^{-1}·K^{-1} (298 K) [2]

AsO_4Sc (s) Scandium Arsenate **AsO_4Sc (s)**
$ScAsO_4$ (s) $ScAsO_4$ (s)

ΔH^0_{298} = – 1433 kJ·mol^{-1} [2] S^0_{298} = 155.9 J·mol^{-1}·K^{-1} [2]
C_p^0= 119.9 J·mol^{-1}·K^{-1} (298 K) [2]

AsO_4Tl (s) Thallium Arsenate **AsO_4Tl (s)**
$TlAsO_4$ (s) $TlAsO_4$ (s)

ΔH^0_{298} = – 948.6 kJ·mol^{-1} [2] S^0_{298} = 299.7 J·mol^{-1}·K^{-1} [2]
C_p^0= 145.7 J·mol^{-1}·K^{-1} (298 K) [2]

AsO_4Y (s) Yttrium Arsenate **AsO_4Y (s)**
$YAsO_4$ (s) $YAsO_4$ (s)

ΔH^0_{298} = – 1515.1 kJ·mol^{-1} [2] S^0_{298} = 160.5 J·mol^{-1}·K^{-1} [2]
C_p^0= 120.8 J·mol^{-1}·K^{-1} (298 K) [2]

AsO_5U (s) Uranium(V) Arsenate **AsO_5U (s)**

$UAsO_5$ (s) $UAsO_5$ (s)

$\Delta H^0_{298} = -1678.6 \pm 2.7$ kJ·mol^{-1} [255] $S^0_{298} = 136.4 \pm 6.5$ J·mol^{-1}·K^{-1} [255]

$C_p^{\,0} = 138$ J·mol^{-1}·K^{-1} (298 K) [255]

AsS (g) Arsenic Sulfide **AsS (g)**

$\Delta H^0_{298} = 202.9$ kJ·mol^{-1} [4] $S^0_{298} = 232.3$ J·mol^{-1}·K^{-1} [4]

$C_p^{\,0} = 34.95 + 1.64 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

AsSe (s) Arsenic Selenide **AsSe (s)**

mp = 570 K (297 °C)

$\Delta H^0_{298} = [-38.5]$ kJ·mol^{-1} [5] $S^0_{298} = [76.1]$ J·mol^{-1}·K^{-1} [5]

$C_p^{\,0} = [51.9]$ J·mol^{-1}·K^{-1} (298 K) [15]

AsSe (g) Arsenic Selenide **AsSe (g)**

$\Delta H^0_{298} = 207.1$ kJ·mol^{-1} [2] $S^0_{298} = 247.8$ J·mol^{-1}·K^{-1} [2]

$C_p^{\,0} = 35.7$ J·mol^{-1}·K^{-1} (298 K) [2]

AsTe (g) Arsenic Telluride **AsTe (g)**

$\Delta H^0_{298} = 228.9$ kJ·mol^{-1} [2] $S^0_{298} = 255.7$ J·mol^{-1}·K^{-1} [2]

$C_p^{\,0} = 36.6$ J·mol^{-1}·K^{-1} (298 K) [2]

As_2 (g) Arsenic **As_2 (g)**

$\Delta H^0_{298} = 190.8$ kJ·mol^{-1} [4] $S^0_{298} = 240.9$ J·mol^{-1}·K^{-1} [4]

$C_p^{\,0} = 37.2 + 0.15 \cdot 10^{-3} \cdot T - 0.2 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2100 K) [4]

$\lg(p,K) = -10.31 \cdot 10^{3} \cdot T^{-1} - 2.18 \cdot \lg(T) + 15.32$ (600 ... 875 K) [4]

{Reaction: evaporation of As(s)}

$As_2Ba_3O_8$ (s) Barium Arsenate **$As_2Ba_3O_8$ (s)**
$3BaO \cdot As_2O_5$ (s) $3BaO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -3421.7$ kJ·mol^{-1} [2] $S^0_{298} = 309.6$ J·mol^{-1}·K^{-1} [2]
$C_p^{\,0} = 257.2$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2Be_3O_8$ (s) Beryllium Arsenate **$As_2Be_3O_8$ (s)**
$3BeO \cdot As_2O_5$ (s) $3BeO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -2738.1$ kJ·mol^{-1} [2] $S^0_{298} = 207.3$ J·mol^{-1}·K^{-1} [2]
$C_p^{\,0} = 232.52$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2Ca_3O_8$ (s) Calcium Arsenate **$As_2Ca_3O_8$ (s)**
$3CaO \cdot As_2O_5$ (s) $3CaO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -3298.7$ kJ·mol^{-1} [2] $S^0_{298} = 226$ J·mol^{-1}·K^{-1} [2]
$C_p^{\,0} = 249.79$ J·mol^{-1}·K^{-1} (298 K) [2]

As_2Cd_3 (s) Cadmium Arsenide **As_2Cd_3 (s)**
Cd_3As_2 (s) Cd_3As_2 (s)

mp = 994 K (721 °C)
$\Delta H^0_{298} = -38.1$ kJ·mol^{-1} [4] $S^0_{298} = 207.1$ J·mol^{-1}·K^{-1} [4]
$C_p^{\,0} = 136.19 + 11.92 \cdot 10^{-3} \cdot T - 1.28 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 994 K) [4]

As_2Cd_3 (s) Cadmium Arsenide **As_2Cd_3 (s)**
Cd_3As_2 (s) Cd_3As_2 (s)

$\Delta H^0_{994} = 59$ kJ·mol^{-1} [4] $S^0_{994} = 372.8$ J·mol^{-1}·K^{-1} [4]

As_2Cd_3 (l) Cadmium Arsenide **As_2Cd_3 (l)**
Cd_3As_2 (l) Cd_3As_2 (l)

$\Delta H^0_{994} = 181.6$ kJ·mol^{-1} [4] $S^0_{994} = 496.2$ J·mol^{-1}·K^{-1} [4]
$C_p^{\,0} = 158.99$ J·mol^{-1}·K^{-1} (994 K) [4]

$As_2Cd_3O_8$ (s) Cadmium Arsenate **$As_2Cd_3O_8$ (s)**

$3CdO \cdot As_2O_5$ (s) $3CdO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -1934.3$ kJ·mol^{-1} [2] $S^0_{298} = 301.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 258.82$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2Co_3O_8$ (s) Cobalt Arsenate **$As_2Co_3O_8$ (s)**

$3CoO \cdot As_2O_5$ (s) $3CoO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -1864.3$ kJ·mol^{-1} [2] $S^0_{298} = 337$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 264.3$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2Cr_3O_8$ (s) Chromium Arsenate **$As_2Cr_3O_8$ (s)**

$3CrO \cdot As_2O_5$ (s) $3CrO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -2218.2$ kJ·mol^{-1} [2] $S^0_{298} = 321.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 261.83$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2Cu_3O_8$ (s) Copper Arsenate **$As_2Cu_3O_8$ (s)**

$3CuO \cdot As_2O_5$ (s) $3CuO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -1522.6$ kJ·mol^{-1} [2] $S^0_{298} = 298.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 258.2$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2Fe_3O_8$ (s) Iron Arsenate **$As_2Fe_3O_8$ (s)**

$3FeO \cdot As_2O_5$ (s) $3FeO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -1955$ kJ·mol^{-1} [2] $S^0_{298} = 339.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 264.64$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2Hg_3O_8$ (s) Mercury Arsenate **$As_2Hg_3O_8$ (s)**

$3HgO \cdot As_2O_5$ (s) $3HgO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -1271$ kJ·mol^{-1} [2] $S^0_{298} = 323.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 261.7$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2Mg_3O_8$ (s) Magnesium Arsenate **$As_2Mg_3O_8$ (s)**
$3MgO \cdot As_2O_5$ (s) $3MgO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -3059.8$ kJ·mol^{-1} [2] $S^0_{298} = 225.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 236.3$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2Mn_3O_8$ (s) Manganese Arsenate **$As_2Mn_3O_8$ (s)**
$3MnO \cdot As_2O_5$ (s) $3MnO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -2366.3$ kJ·mol^{-1} [2] $S^0_{298} = 319.6$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 261.8$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2Na_6O_8$ (s) Sodium Arsenate **$As_2Na_6O_8$ (s)**
$3Na_2O \cdot As_2O_5$ (s) alpha $3Na_2O \cdot As_2O_5$ (s)

mp = 1498 K (1225 °C)
$\Delta H^0_{298} = -3080.3$ kJ·mol^{-1} [4] $S^0_{298} = 372.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 271.12 + 234.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 663 K) [4]

$As_2Na_6O_8$ (s) Sodium Arsenate **$As_2Na_6O_8$ (s)**
$3Na_2O \cdot As_2O_5$ (s) alpha $3Na_2O \cdot As_2O_5$ (s)

$\Delta H^0_{663} = -2940.3$ kJ·mol^{-1} [4] $S^0_{663} = 674.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 426.47$ J·mol^{-1}·K^{-1} (663 K) [4]

$As_2Na_6O_8$ (s) Sodium Arsenate **$As_2Na_6O_8$ (s)**
$3Na_2O \cdot As_2O_5$ (s) beta $3Na_2O \cdot As_2O_5$ (s)

$\Delta H^0_{663} = -2936.7$ kJ·mol^{-1} [4] $S^0_{663} = 679.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 271.12 + 234.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (663 ... 733 K) [4]

$As_2Na_6O_8$ (s) Sodium Arsenate **$As_2Na_6O_8$ (s)**
$3Na_2O \cdot As_2O_5$ (s) beta $3Na_2O \cdot As_2O_5$ (s)

$\Delta H^0_{733} = -2906.3$ kJ·mol^{-1} [4] $S^0_{733} = 723.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 442.87$ J·mol^{-1}·K^{-1} (733 K) [4]

$As_2Na_6O_8$ (s) Sodium Arsenate **$As_2Na_6O_8$ (s)**
$3Na_2O \cdot As_2O_5$ (s) gamma $3Na_2O \cdot As_2O_5$ (s)

$\Delta H^0_{733} = -2886.3$ kJ·mol^{-1} [4] $S^0_{733} = 750.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 271.12 + 234.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (733 ... 1000 K) [4]

$As_2Ni_3O_8$ (s) Nickel Arsenate **$As_2Ni_3O_8$ (s)**
$3NiO \cdot As_2O_5$ (s) $3NiO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -1849.2$ kJ·mol^{-1} [2] $S^0_{298} = 344.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 265.4$ J·mol^{-1}·K^{-1} (298 K) [2]

As_2Ni_5 (s) Nickel Arsenide **As_2Ni_5 (s)**
Ni_5As_2 (s) Ni_5As_2 (s)

$\Delta H^0_{298} = -251.1$ kJ·mol^{-1} [2] $S^0_{298} = 190.6$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 216$ J·mol^{-1}·K^{-1} (298 K) [2]

As_2O_3 (s) Arsenic(III) Oxide **As_2O_3 (s)**

mp = 588 K (315 °C)
$\Delta H^0_{298} = -655$ kJ·mol^{-1} [4] $S^0_{298} = 113.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 93.71 + 58.48 \cdot 10^{-3} \cdot T - 1.26 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 607 K) [4]
$\lg(p,K) = -6.49 \cdot 10^{3} \cdot T^{-1} - 3.69 \cdot \lg(T) + 20.46$ (400 ... 607 K) [4]
{Reaction: evaporation as As_4O_6(g)}

As_2O_5 (s) Arsenic(V) Oxide **As_2O_5 (s)**

$\Delta H^0_{298} = -924.9$ kJ·mol^{-1} [2] $S^0_{298} = 105.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 112.21 + 82.94 \cdot 10^{-3} \cdot T - 1.81 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1084 K) [4]

$As_2O_8Pb_3$ (s) Lead Arsenate **$As_2O_8Pb_3$ (s)**
$3PbO \cdot As_2O_5$ (s) $3PbO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -1780.2$ kJ·mol^{-1} [2] $S^0_{298} = 324.6$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 258$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2O_8Sn_3$ (s) Tin Arsenate **$As_2O_8Sn_3$ (s)**
$3SnO \cdot As_2O_5$ (s) $3SnO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -1785.8$ kJ·mol^{-1} [2] $S^0_{298} = 303.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 259.1$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2O_8Sr_3$ (s) Strontium Arsenate **$As_2O_8Sr_3$ (s)**
$3SrO \cdot As_2O_5$ (s) $3SrO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -3317.1$ kJ·mol^{-1} [2] $S^0_{298} = 255.2$ J·mol^{-1}·K^{-1} [257]
$C_p{}^0 = 257.6$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2O_8Ti_3$ (s) Titanium Arsenate **$As_2O_8Ti_3$ (s)**
$3TiO \cdot As_2O_5$ (s) $3TiO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -2617.3$ kJ·mol^{-1} [2] $S^0_{298} = 339.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 264.5$ J·mol^{-1}·K^{-1} (298 K) [2]

As_2O_8U (s) Uranyl Arsenate **As_2O_8U (s)**
$UO_2(AsO_3)_2$ (s) $UO_2(AsO_3)_2$ (s)

$\Delta H^0_{298} = -2177.3$ kJ·mol^{-1} [256] $S^0_{298} = 211.3 \pm 1.7$ J·mol^{-1}·K^{-1} [256]
$C_p{}^0 = 200.83$ J·mol^{-1}·K^{-1} (298 K) [256]

$As_2O_8Zn_3$ (s) Zinc Arsenate **$As_2O_8Zn_3$ (s)**
$3ZnO \cdot As_2O_5$ (s) $3ZnO \cdot As_2O_5$ (s)

$\Delta H^0_{298} = -2134.7$ kJ·mol^{-1} [2] $S^0_{298} = 281.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 255.3$ J·mol^{-1}·K^{-1} (298 K) [2]

$As_2O_{11}U_2$ (s) Uranyl Arsenate **$As_2O_{11}U_2$ (s)**
$(UO_2)_2As_2O_7$ (s) $(UO_2)_2As_2O_7$ (s)

$\Delta H^0_{298} = -3446.7$ kJ·mol^{-1} [256] $S^0_{298} = 286.5 \pm 1.7$ J·mol^{-1}·K^{-1} [256]
$C_p{}^0 = 273.14$ J·mol^{-1}·K^{-1} (298 K) [256]

$As_2O_{14}U_3$ (s) Uranyl Arsenate **$As_2O_{14}U_3$ (s)**
$(UO_2)_3(AsO_4)_2$ (s) $(UO_2)_3(AsO_4)_2$ (s)

$\Delta H^0_{298} = -4710.1$ kJ·mol^{-1} [256] $S^0_{298} = 366.6 \pm 3$ J·mol^{-1}·K^{-1} [256]
$C_p^0 = 364$ J·mol^{-1}·K^{-1} (298 K) [256]

As_2S_3 (s) Arsenic(III) Sulfide Auripigment **As_2S_3 (s)**

mp = 585 K (312 °C)
$\Delta H^0_{298} = -167.4$ kJ·mol^{-1} [4] $S^0_{298} = 163.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 105.65 + 36.44 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 585 K) [4]

As_2S_3 (s) Arsenic(III) Sulfide Auripigment **As_2S_3 (s)**

$\Delta H^0_{585} = -132.4$ kJ·mol^{-1} [4] $S^0_{585} = 245.3$ J·mol^{-1}·K^{-1} [4]

As_2S_3 (l) Arsenic(III) Sulfide Auripigment **As_2S_3 (l)**

$\Delta H^0_{585} = -103.8$ kJ·mol^{-1} [4] $S^0_{585} = 294.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 177.86 + 16.86 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (585 ... 1001 K) [4]

As_2Se_3 (s) Arsenic(III) Selenide **As_2Se_3 (s)**

mp = 650 K (377 °C)
$\Delta H^0_{298} = -102.5$ kJ·mol^{-1} [4] $S^0_{298} = 194.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 95.81 + 85.77 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 650 K) [4]

As_2Se_3 (s) Arsenic(III) Selenide **As_2Se_3 (s)**

$\Delta H^0_{650} = -54.5$ kJ·mol^{-1} [4] $S^0_{650} = 299.4$ J·mol^{-1}·K^{-1} [4]

As_2Se_3 (l) Arsenic(III) Selenide **As_2Se_3 (l)**

$\Delta H^0_{650} = -13.7$ kJ·mol^{-1} [4] $S^0_{650} = 362.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 195.39$ J·mol^{-1}·K^{-1} (650 K) [4]

As_2Te_3 (s) Arsenic(III) Telluride **As_2Te_3 (s)**

mp = 648 K (375 °C)
ΔH^0_{298} = – 37.7 kJ·mol^{-1} [4] S^0_{298} = 226.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 135.19 + 44.35 ·10^{-3}·T – 1.86 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 648 K) [4]

As_2Te_3 (s) Arsenic(III) Telluride **As_2Te_3 (s)**

ΔH^0_{648} = 14.8 kJ·mol^{-1} [4] S^0_{648} = 342.5 J·mol^{-1}·K^{-1} [4]

As_2Te_3 (l) Arsenic(III) Telluride **As_2Te_3 (l)**

ΔH^0_{648} = 61.6 kJ·mol^{-1} [4] S^0_{648} = 414.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 167.36 J·mol^{-1}·K^{-1} (648 K) [4]

As_2Zn_3 (s) Zinc Arsenide **As_2Zn_3 (s)**
Zn_3As_2 (s) Zn_3As_2 (s)

mp = 1288 K (1015 °C)
ΔH^0_{298} = – 143.4 kJ·mol^{-1} [4] S^0_{298} = 178.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 112.76 + 41.84 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1288 K) [4]

As_3 (g) Arsenic **As_3 (g)**

ΔH^0_{298} = 261.4 kJ·mol^{-1} [2] S^0_{298} = 310.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 62.1 + 0.2 ·10^{-3}·T – 2.77 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

As_4 (g) Arsenic **As_4 (g)**

ΔH^0_{298} = 153.3 kJ·mol^{-1} [2] S^0_{298} = 327.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 82.94 + 0.13 ·10^{-3}·T – 0.52 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

As_4O_6 (s) Arsenic(III) Oxide Arsenolithe **As_4O_6 (s)**

mp = 582 K (309 °C) bp = 670 K (397 °C)

$\Delta H^0_{298} = -1313.9$ kJ·mol^{-1} [4] $S^0_{298} = 214.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 70.04 + 406.69 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 582 K) [4]

$\lg(p,K) = -7.16 \cdot 10^3 \cdot T^{-1} - 6.78 \cdot \lg(T) + 30.3$ (400 ... 582 K) [4]

{Reaction: evaporation as As_4O_6(g)}

As_4O_6 (s) Arsenic(III) Oxide **As_4O_6 (s)**

$\Delta H^0_{582} = -1243.2$ kJ·mol^{-1} [4] $S^0_{582} = 377.1$ J·mol^{-1}·K^{-1} [4]

As_4O_6 (l) Arsenic(III) Oxide **As_4O_6 (l)**

$\Delta H^0_{582} = -1206.4$ kJ·mol^{-1} [4] $S^0_{582} = 440.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 305.43$ J·mol^{-1}·K^{-1} (582 K) [4]

$\lg(p,K) = -6.28 \cdot 10^3 \cdot T^{-1} - 10.98 \cdot \lg(T) + 40.36$ (582 ... 670 K) [4]

{Reaction: evaporation as As_4O_6(g)}

As_4O_6 (l) Arsenic(III) Oxide **As_4O_6 (l)**

$\Delta H^0_{670} = -1179.6$ kJ·mol^{-1} [4] $S^0_{670} = 483.4$ J·mol^{-1}·K^{-1} [4]

As_4O_6 (g) Arsenic(III) Oxide **As_4O_6 (g)**

$\Delta H^0_{670} = -1121.1$ kJ·mol^{-1} [4] $S^0_{670} = 570.6$ J·mol^{-1}·K^{-1} [4]

As_4O_6 (g) Arsenic(III) Oxide **As_4O_6 (g)**

$\Delta H^0_{298} = -1196.1$ kJ·mol^{-1} [4] $S^0_{298} = 409.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 212.81 + 18.57 \cdot 10^{-3} \cdot T - 3.98 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

As_4S_4 (s) Arsenic Sulfide Realgar **As_4S_4 (s)**

mp = 580 K (307 °C)

$\Delta H^0_{298} = -284.6$ kJ·mol^{-1} [4] $S^0_{298} = 253.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 165.86 + 74.72 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 580 K) [4]

As_4S_4 (s) Arsenic Sulfide Realgar **As_4S_4 (s)**

$\Delta H^0_{580} = -228.6$ kJ·mol^{-1} [4] $S^0_{580} = 385$ J·mol^{-1}·K^{-1} [4]

As_4S_4 (l) Arsenic Sulfide Realgar **As_4S_4 (l)**

$\Delta H^0_{580} = -204.2$ kJ·mol^{-1} [4] $S^0_{580} = 426.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 292.88$ J·mol^{-1}·K^{-1} (580 K) [4]

As_4S_4 (g) Arsenic Sulfide **As_4S_4 (g)**

$\Delta H^0_{298} = -2.1$ kJ·mol^{-1} [2] $S^0_{298} = 446.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 164.2$ J·mol^{-1}·K^{-1} (298 K) [2]

As_4U_3 (s) Uranium Arsenide **As_4U_3 (s)**

U_3As_4 (s) U_3As_4 (s)

$\Delta H^0_{298} = -720$ kJ·mol^{-1} [4] $S^0_{298} = 309.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 167.61 + 66.82 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

As_7Re_3 (s) Rhenium Arsenide **As_7Re_3 (s)**

Re_3As_7 (s) Re_3As_7 (s)

$\Delta H^0_{298} = -95.4$ kJ·mol^{-1} [2] $S^0_{298} = 336.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 248.6$ J·mol^{-1}·K^{-1} (298 K) [2]

As_8Ni_{11} (s) Nickel Arsenide **As_8Ni_{11} (s)**

$Ni_{11}As_8$ (s) $Ni_{11}As_8$ (s)

$\Delta H^0_{298} = -774$ kJ·mol^{-1} [2] $S^0_{298} = 468.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 552$ J·mol^{-1}·K^{-1} (298 K) [2]

Au (s) Gold **Au (s)**

mp = 1338 K (1065 °C) bp = 3127 K (2854 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 47.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 31.5 - 13.51 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^{6} \cdot T^{-2} + 10.98 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 1338 K) [4]

$\lg(p,K) = -19.62 \cdot 10^{3} \cdot T^{-1} - 1.32 \cdot \lg(T) + 11.13$ (1300 ... 1338 K) [4]

{Reaction: evaporation (total pressure)}

Au (s) Gold **Au (s)**

$\Delta H^0_{1338} = 29.2$ kJ·mol^{-1} [4] $S^0_{1338} = 88.5$ J·mol^{-1}·K^{-1} [4]

Au (l) Gold **Au (l)**

$\Delta H^0_{1338} = 41.7$ kJ·mol^{-1} [4] $S^0_{1338} = 97.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 30.37$ J·mol^{-1}·K^{-1} (1338 ... 3127 K) [4]

$\lg(p,K) = -18.57 \cdot 10^{3} \cdot T^{-1} - 0.76 \cdot \lg(T) + 8.6$ (1338 ... 3127 K) [4]

{Reaction: evaporation (total pressure)}

Au (g) Gold **Au (g)**

$\Delta H^0_{298} = 368.4$ kJ·mol^{-1} [4] $S^0_{298} = 180.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 21.64 - 2.12 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^{6} \cdot T^{-2} + 1.23 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 3127 K) [4]

AuBr (s) Gold(I) Bromide **AuBr (s)**

$\Delta H^0_{298} = -14.2$ kJ·mol^{-1} [2] $S^0_{298} = 98.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 49.37 + 5.55 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 415 K) [4]

AuCd (s) Gold Cadmium **AuCd (s)**

mp = 902 K (629 °C)
$\Delta H^0_{298} = -38.8$ kJ·mol^{-1} [2] $S^0_{298} = 100$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 55.4$ J·mol^{-1}·K^{-1} (298 K) [2]

AuCl (s) Gold(I) Chloride **AuCl (s)**

mp = 561 K (288 °C)
$\Delta H^0_{298} = -37.5$ kJ·mol^{-1} [4] $S^0_{298} = 89.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 48.53 + 5.44 \cdot 10^{-3} \cdot T - 0.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 550 K) [4]

$AuCl_3$ (s) Gold(III) Chloride **$AuCl_3$ (s)**

$\Delta H^0_{298} = -117.1$ kJ·mol^{-1} [4] $S^0_{298} = 161.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 97.91 + 5.44 \cdot 10^{-3} \cdot T - 4.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 523 K) [4]

AuCu (s) Gold Copper **AuCu (s)**

$\Delta H^0_{298} = -17.5$ kJ·mol^{-1} [2] $S^0_{298} = 100.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 48.7$ J·mol^{-1}·K^{-1} (298 K) [2]

$AuCu_3$ (s) Gold Copper **$AuCu_3$ (s)**

$\Delta H^0_{298} = -28.6$ kJ·mol^{-1} [2] $S^0_{298} = 149.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 96.8$ J·mol^{-1}·K^{-1} (298 K) [2]

AuF_3 (s) Gold(III) Fluoride **AuF_3 (s)**

$\Delta H^0_{298} = -363.6$ kJ·mol^{-1} [2] $S^0_{298} = 114.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 91.3$ J·mol^{-1}·K^{-1} (298 K) [2]

AuH (g) Gold Hydride **AuH (g)**

$\Delta H^0_{298} = 273.4$ kJ·mol^{-1} [4] $S^0_{298} = 211.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 33.87 + 2 \cdot 10^{-3} \cdot T - 0.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

AuH_3O_3 (s) Gold(III) Hydroxide **AuH_3O_3 (s)**
$Au(OH)_3$ (s) $Au(OH)_3$ (s)

ΔH^0_{298} = – 424.7 kJ·mol^{-1} [2] S^0_{298} = 189.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 94 J·mol^{-1}·K^{-1} (298 K) [2]

AuI (s) Gold(I) Iodide **AuI (s)**

ΔH^0_{298} = 1.3 kJ·mol^{-1} [4] S^0_{298} = 111.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 50.2 + 5.44 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 650 K) [4]

AuLa (g) Lanthanum Gold **AuLa (g)**
LaAu (g) LaAu (g)

ΔH^0_{298} = 463.6 kJ·mol^{-1} [96] S^0_{298} = 280.3 J·mol^{-1}·K^{-1} [96]

AuS (g) Gold Sulfide **AuS (g)**

ΔH^0_{298} = 230.5 kJ·mol^{-1} [2] S^0_{298} = 267.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 37.3 + 0.05 ·10^{-3}·T – 0.16 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$AuSb_2$ (s) Gold Antimonide **$AuSb_2$ (s)**

mp = 733 K (460 °C)
ΔH^0_{298} = – 19.5 kJ·mol^{-1} [4] S^0_{298} = 119.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 71.63 + 19.41 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 733 K) [4]

AuSe (s) Gold Selenide alpha **AuSe (s)**

ΔH^0_{298} = – 13.8 kJ·mol^{-1} [2] S^0_{298} = 75.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 50.2 J·mol^{-1}·K^{-1} (298 K) [2]

AuSe (s) Gold Selenide beta **AuSe (s)**

ΔH^0_{298} = – 10.9 kJ·mol^{-1} [2] S^0_{298} = 84.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 50.2 J·mol^{-1}·K^{-1} (298 K) [2]

AuSn (s) Gold Tin **AuSn (s)**

mp = 692 K (419 °C)

$\Delta H^0_{298} = -30.5$ kJ·mol^{-1} [2] $S^0_{298} = 98.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 46.57 + 15.9 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 692 K) [3]

$AuSn_2$ (s) Gold Tin **$AuSn_2$ (s)**

$\Delta H^0_{298} = -42.4$ kJ·mol^{-1} [2] $S^0_{298} = 135.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 84$ J·mol^{-1}·K^{-1} (298 K) [2]

$AuSn_4$ (s) Gold Tin **$AuSn_4$ (s)**

$\Delta H^0_{298} = -38.7$ kJ·mol^{-1} [2] $S^0_{298} = 250.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 137.9$ J·mol^{-1}·K^{-1} (298 K) [2]

$AuTe_2$ (s) Gold Telluride **$AuTe_2$ (s)**

mp = 737 K (464 °C)

$\Delta H^0_{298} = -19$ kJ·mol^{-1} [4] $S^0_{298} = 141.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 63.6 + 37.41 \cdot 10^{-3} \cdot T + 0.17 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 737 K) [4]

Au_2O_3 (s) Gold(III) Oxide **Au_2O_3 (s)**

$\Delta H^0_{298} = -3.4$ kJ·mol^{-1} [4] $S^0_{298} = 130.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 107.53 + 21.76 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 500 K) [4]

Au_2P_3 (s) Gold Phosphide **Au_2P_3 (s)**

$\Delta H^0_{298} = -99.5$ kJ·mol^{-1} [4] $S^0_{298} = 149.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 108.37 + 37.66 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 978 K) [4]

Thermochemical Data of Elements and Compounds
M. Binnewies, E. Mike

B (s) — Boron beta — **B** (s)

mp = 2350 K (2077 °C) — bp = 4139 K (3866 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] — $S^0_{298} = 5.8 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 18.87 + 8.17 \cdot 10^{-3} \cdot T - 0.93 \cdot 10^{6} \cdot T^{-2} - 1.36 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2350 K) [4]

$\lg(p,K) = -29.84 \cdot 10^3 \cdot T^{-1} - 1.07 \cdot \lg(T) + 11.58$ (1800 ... 2350 K) [4]

{Reaction: evaporation}

B (s) — Boron beta — **B** (s)

$\Delta H^0_{2350} = 52.3$ kJ·mol^{-1} [4] — $S^0_{2350} = 52.7$ J·mol^{-1}·K^{-1} [4]

B (l) — Boron — **B** (l)

$\Delta H^0_{2350} = 102.5$ kJ·mol^{-1} [4] — $S^0_{2350} = 74.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 31.75$ J·mol^{-1}·K^{-1} (2350 K) [4]

$\lg(p,K) = -27.47 \cdot 10^3 \cdot T^{-1} - 1.32 \cdot \lg(T) + 11.41$ (2350 ... 4139 K) [4]

{Reaction: evaporation}

B (g) — Boron — **B** (g)

$\Delta H^0_{298} = 560 \pm 12$ kJ·mol^{-1} [1] — $S^0_{298} = 153.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 20.8$ J·mol^{-1}·K^{-1} (298 K) [1]

$BBeO_2$ (g) — Beryllium Borate — **$BBeO_2$** (g)

$BeBO_2$ (g) — $BeBO_2$ (g)

$\Delta H^0_{298} = -482$ kJ·mol^{-1} [1] — $S^0_{298} = 265.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 50.17$ J·mol^{-1}·K^{-1} (298 K) [1]

BBr (g) — Boron(I) Bromide — **BBr** (g)

$\Delta H^0_{298} = 234 \pm 42$ kJ·mol^{-1} [1] — $S^0_{298} = 225$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 36.21 + 1.15 \cdot 10^{-3} \cdot T - 0.34 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$BBrCl$ (g) Bromochloroborane **$BBrCl$ (g)**

$\Delta H^0_{298} = -10.5$ kJ·mol^{-1} [1] $S^0_{298} = 289$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 46.85$ J·mol^{-1}·K^{-1} (298 K) [1]

$BBrCl_2$ (g) Bromodichloroborane **$BBrCl_2$ (g)**

$\Delta H^0_{298} = -336.8 \pm 10$ kJ·mol^{-1} [1] $S^0_{298} = 310.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 64.4$ J·mol^{-1}·K^{-1} (298 K) [1]

$BBrF$ (g) Bromofluoroborane **$BBrF$ (g)**

$\Delta H^0_{298} = -240.6 \pm 10$ kJ·mol^{-1} [1] $S^0_{298} = 275.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 43.55$ J·mol^{-1}·K^{-1} (298 K) [1]

$BBrF_2$ (g) Bromodifluoroborane **$BBrF_2$ (g)**

$\Delta H^0_{298} = -820 \pm 10$ kJ·mol^{-1} [1] $S^0_{298} = 286.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 56.45$ J·mol^{-1}·K^{-1} (298 K) [1]

$BBrO$ (g) Boron Bromide Oxide **$BBrO$ (g)**
OBBr (g) OBBr (g)

$\Delta H^0_{298} = -251 \pm 7$ kJ·mol^{-1} [1] $S^0_{298} = 248.9$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 46.81$ J·mol^{-1}·K^{-1} (298 K) [1]

BBr_2 (g) Boron(II) Bromide **BBr_2 (g)**

$\Delta H^0_{298} = 62.8 \pm 15$ kJ·mol^{-1} [1] $S^0_{298} = 294.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 55.35 + 1.76 \cdot 10^{-3} \cdot T - 0.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BBr_2Cl (g) Dibromochloroborane **BBr_2Cl (g)**

$\Delta H^0_{298} = -272 \pm 10$ kJ·mol^{-1} [1] $S^0_{298} = 321.9$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 66.03$ J·mol^{-1}·K^{-1} (298 K) [1]

BBr_2F (g) Dibromofluoroborane **BBr_2F (g)**

$\Delta H^0_{298} = -515 \pm 10$ kJ·mol^{-1} [1] $S^0_{298} = 310$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 62.32$ J·mol^{-1}·K^{-1} (298 K) [1]

BBr_2H (g) Dibromoborane **BBr_2H (g)**
$BHBr_2$ (g) $BHBr_2$ (g)

$\Delta H^0_{298} = -105 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 292.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 53.25$ J·mol^{-1}·K^{-1} (298 K) [1]

BBr_3 (l) Boron(III) Bromide **BBr_3 (l)**

mp = 229 K (-44 °C) bp = 365 K (92 °C)
$\Delta H^0_{298} = -238.5 \pm 0.2$ kJ·mol^{-1} [1] $S^0_{298} = 228.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 128.03$ J·mol^{-1}·K^{-1} (298 K) [4]
$\lg(p,K) = -2.7 \cdot 10^3 \cdot T^{-1} - 7.03 \cdot \lg(T) + 25.43$ (298 ... 363 K) [4]
{Reaction: evaporation}

BBr_3 (g) Boron(III) Bromide **BBr_3 (g)**

$\Delta H^0_{298} = -204.2 \pm 0.2$ kJ·mol^{-1} [1] $S^0_{298} = 324.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 80.38 + 1.44 \cdot 10^{-3} \cdot T - 1.19 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BC (g) Boron Carbide **BC (g)**

$\Delta H^0_{298} = 828.4 \pm 41$ kJ·mol^{-1} [1] $S^0_{298} = 208.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 29.7$ J·mol^{-1}·K^{-1} (298 K) [1]

BCl (g) Boron(I) Chloride **BCl (g)**

$\Delta H^0_{298} = 149.5$ kJ·mol^{-1} [4] $S^0_{298} = 213.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 35.28 + 1.7 \cdot 10^{-3} \cdot T - 0.37 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BClF (g) Boron(II) Chloride Fluoride **BClF (g)**

$\Delta H^0_{298} = -313.8 \pm 29$ kJ·mol^{-1} [1] $S^0_{298} = 264.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 42.55$ J·mol^{-1}·K^{-1} (298 K) [1]

$BClF_2$ (g) Boron(III) Chloride Difluoride **$BClF_2$ (g)**

$\Delta H^0_{298} = -885.3 \pm 20$ kJ·mol^{-1} [1] $S^0_{298} = 274.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 54.47$ J·mol^{-1}·K^{-1} (298 K) [1]

BClO (g) Boron Chloride Oxide **BClO (g)**
BOCl (g) BOCl (g)

$\Delta H^0_{298} = -316.3 \pm 29$ kJ·mol^{-1} [1] $S^0_{298} = 237.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 54.23 + 3.91 \cdot 10^{-3} \cdot T - 1.03 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BCl_2 (g) Boron(II) Chloride **BCl_2 (g)**

$\Delta H^0_{298} = -79.5 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 272.7 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 55.49 + 1.69 \cdot 10^{-3} \cdot T - 0.77 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BCl_2F (g) Boron(III) Dichloride Fluoride **BCl_2F (g)**

$\Delta H^0_{298} = -644.3 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 287.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 59.06$ J·mol^{-1}·K^{-1} (298 K) [1]

BCl_2H (g) Dichloroborane **BCl_2H (g)**
$BHCl_2$ (g) $BHCl_2$ (g)

$\Delta H^0_{298} = -248.1 \pm 4$ kJ·mol^{-1} [1] $S^0_{298} = 268.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 49.64$ J·mol^{-1}·K^{-1} (298 K) [1]

BCl_3 (g) Boron(III) Chloride **BCl_3 (g)**

mp = 166 K (-107 °C) bp = 286 K (13 °C)
$\Delta H^0_{298} = -403 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 290.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 78.41 + 2.41 \cdot 10^{-3} \cdot T - 1.55 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BCo (s) Cobalt Boride **BCo (s)**
CoB (s) CoB (s)

$\Delta H^0_{298} = -94.1$ kJ·mol^{-1} [2] $S^0_{298} = 30.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 34.6$ J·mol^{-1}·K^{-1} (298 K) [2]

BCo_2 (s) Cobalt Boride **BCo_2 (s)**
Co_2B (s) Co_2B (s)

$\Delta H^0_{298} = -\ 125.5$ kJ·mol^{-1} [2] $S^0_{298} = 59.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 60$ J·mol^{-1}·K^{-1} (298 K) [2]

BCr (s) Chromium Boride **BCr (s)**
CrB (s) CrB (s)

mp = 2373 K (2100 °C)
$\Delta H^0_{298} = -\ 78.9$ kJ·mol^{-1} [4] $S^0_{298} = 29$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 42.34 + 16.03 \cdot 10^{-3} \cdot T - 1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$BCsO_2$ (s) Cesium Borate **$BCsO_2$ (s)**
$CsBO_2$ (s) $CsBO_2$ (s)

$\Delta H^0_{298} = -\ 976.8 \pm 0.9$ kJ·mol^{-1} [142] $S^0_{298} = [100.5]$ J·mol^{-1}·K^{-1} [143]
$C_p{}^0 = [69.41]$ J·mol^{-1}·K^{-1} (298 K) [271]

$BCsO_2$ (g) Cesium Borate **$BCsO_2$ (g)**
$CsBO_2$ (g) $CsBO_2$ (g)

$\Delta H^0_{298} = -\ 708.7$ kJ·mol^{-1} [4] $S^0_{298} = 314.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 74.2 + 5.41 \cdot 10^{-3} \cdot T - 1.46 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BF (g) Boron(I) Fluoride **BF (g)**

$\Delta H^0_{298} = -\ 122.2$ kJ·mol^{-1} [4] $S^0_{298} = 200.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 30.98 + 4.05 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BFO (g) Boron Oxide Fluoride **BFO (g)**
BOF (g) BOF (g)

$\Delta H^0_{298} = -\ 602.5 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 224.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 51.98 + 5.04 \cdot 10^{-3} \cdot T - 1.26 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BF_2 (g) Boron(II) Fluoride **BF_2 (g)**

$\Delta H^0_{298} = -589.9 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 247.2 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 48.86 + 5.59 \cdot 10^{-3} \cdot T - 0.89 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BF_2H (g) Difluoroborane **BF_2H (g)**
BHF_2 (g) BHF_2 (g)

$\Delta H^0_{298} = -733.9 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 244$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 42.36$ J·mol^{-1}·K^{-1} (298 K) [1]

BF_2HO (g) Difluorohydroxyborane **BF_2HO (g)**
BF_2OH (g) BF_2OH (g)

$\Delta H^0_{298} = -1084 \pm 20$ kJ·mol^{-1} [1] $S^0_{298} = 269.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 52$ J·mol^{-1}·K^{-1} (298 K) [1]

BF_2O (g) Boron Oxide Fluoride **BF_2O (g)**
OBF_2 (g) OBF_2 (g)

$\Delta H^0_{298} = -836.8 \pm 15$ kJ·mol^{-1} [1] $S^0_{298} = 267.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 50.2$ J·mol^{-1}·K^{-1} (298 K) [1]

BF_3 (g) Boron(III) Fluoride **BF_3 (g)**

mp = 147 K (-126 °C) bp = 173 K (-100 °C)
$\Delta H^0_{298} = -1135.6 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 254.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 56.82 + 27.49 \cdot 10^{-3} \cdot T - 1.28 \cdot 10^6 \cdot T^{-2} - 7.74 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BF_4K (s) Potassium Tetrafluoroborate **BF_4K (s)**
KBF_4 (s) alpha KBF_4 (s)

mp = 843 K (570 °C)
$\Delta H^0_{298} = -1887 \pm 4$ kJ·mol^{-1} [1] $S^0_{298} = 133.9 \pm 4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 65.35 + 162.59 \cdot 10^{-3} \cdot T + 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 556 K) [4]

BF_4K (s) Potassium Tetrafluoroborate **BF_4K (s)**
KBF_4 (s) alpha KBF_4 (s)

ΔH^0_{556} = – 1852.1 kJ·mol^{-1} [4] S^0_{556} = 216.8 J·mol^{-1}·K^{-1} [4]

BF_4K (s) Potassium Tetrafluoroborate **BF_4K (s)**
KBF_4 (s) beta KBF_4 (s)

ΔH^0_{556} = – 1838.1 kJ·mol^{-1} [4] S^0_{556} = 242.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 146.23 J·mol^{-1}·K^{-1} (556 K) [4]

BF_4K (s) Potassium Tetrafluoroborate **BF_4K (s)**
KBF_4 (s) beta KBF_4 (s)

ΔH^0_{843} = – 1796.1 kJ·mol^{-1} [4] S^0_{843} = 303 J·mol^{-1}·K^{-1} [4]

BF_4K (l) Potassium Tetrafluoroborate **BF_4K (l)**
KBF_4 (l) KBF_4 (l)

ΔH^0_{843} = – 1778.4 kJ·mol^{-1} [4] S^0_{843} = 323.9 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 167.15 J·mol^{-1}·K^{-1} (843 K) [4]

BF_4K (l) Potassium Tetrafluoroborate **BF_4K (l)**
KBF_4 (l) KBF_4 (l)

ΔH^0_{298} = – 1869.4 kJ·mol^{-1} [1] S^0_{298} = 150.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 167.1 J·mol^{-1}·K^{-1} (298 K) [1]

BF_4K (g) Potassium Tetrafluoroborate **BF_4K (g)**
KBF_4 (g) KBF_4 (g)

ΔH^0_{298} = – 1552.3 ± 5 kJ·mol^{-1} [1] S^0_{298} = 315.4 ± 3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 115.6 + 9.08 ·10^{-3}·T – 2.42 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BF_4Li (s) Lithium Tetrafluoroborate **BF_4Li (s)**
$LiBF_4$ (s) $LiBF_4$ (s)

$\Delta H^0_{298} = -1876$ kJ·mol^{-1} [72] $S^0_{298} = 106$ J·mol^{-1}·K^{-1} [72]

BF_4Na (s) Sodium Tetrafluoroborate **BF_4Na (s)**
$NaBF_4$ (s) alpha $NaBF_4$ (s)

mp = 681 K (408 °C)
$\Delta H^0_{298} = -1844.7$ kJ·mol^{-1} [4] $S^0_{298} = 145.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 50.96 + 217.57 \cdot 10^{-3} \cdot T + 0.37 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 516 K) [4]

BF_4Na (s) Sodium Tetrafluoroborate **BF_4Na (s)**
$NaBF_4$ (s) alpha $NaBF_4$ (s)

$\Delta H^0_{516} = -1813.8$ kJ·mol^{-1} [4] $S^0_{516} = 222$ J·mol^{-1}·K^{-1} [4]

BF_4Na (s) Sodium Tetrafluoroborate **BF_4Na (s)**
$NaBF_4$ (s) beta $NaBF_4$ (s)

$\Delta H^0_{516} = -1807.1$ kJ·mol^{-1} [4] $S^0_{516} = 235$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 152.63$ J·mol^{-1}·K^{-1} (516 K) [4]

BF_4Na (s) Sodium Tetrafluoroborate **BF_4Na (s)**
$NaBF_4$ (s) beta $NaBF_4$ (s)

$\Delta H^0_{681} = -1781.9$ kJ·mol^{-1} [4] $S^0_{681} = 277.4$ J·mol^{-1}·K^{-1} [4]

BF_4Na (l) Sodium Tetrafluoroborate **BF_4Na (l)**
$NaBF_4$ (l) $NaBF_4$ (l)

$\Delta H^0_{681} = -1768.3$ kJ·mol^{-1} [4] $S^0_{681} = 297.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 165.35$ J·mol^{-1}·K^{-1} (681 K) [4]

BFe (s) Iron Boride **BFe (s)**
FeB (s) FeB (s)

mp = 1863 K (1590 °C)
$\Delta H^0_{298} = -72.8$ kJ·mol^{-1} [4] $S^0_{298} = 31$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 49.96 + 10 \cdot 10^{-3} \cdot T - 1.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1863 K) [4]

BFe (s) Iron Boride **BFe (s)**
FeB (s) FeB (s)

$\Delta H^0_{1863} = 19.3$ kJ·mol^{-1} [4] $S^0_{1863} = 132.4$ J·mol^{-1}·K^{-1} [4]

BFe (l) Iron Boride **BFe (l)**
FeB (l) FeB (l)

$\Delta H^0_{1863} = 81.9$ kJ·mol^{-1} [4] $S^0_{1863} = 166$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 89.96$ J·mol^{-1}·K^{-1} (1863 K) [4]

BFe_2 (s) Iron Boride **BFe_2 (s)**
Fe_2B (s) Fe_2B (s)

mp = 1662 K (1389 °C)
$\Delta H^0_{298} = -102.5$ kJ·mol^{-1} [4] $S^0_{298} = 51.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 78.87 + 14.14 \cdot 10^{-3} \cdot T - 1.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1662 K) [4]

BH (g) Borane **BH (g)**

$\Delta H^0_{298} = 442.7 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 171.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 27.7 + 4.94 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [6]

BHO (g) Boron Hydride Oxide **BHO (g)**
HBO (g) HBO (g)

$\Delta H^0_{298} = -198.3 \pm 3$ kJ·mol^{-1} [1] $S^0_{298} = 202.6 \pm 0.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 35.26$ J·mol^{-1}·K^{-1} (298 K) [1]

BHO_2 (s) | Metaboric Acid | **BHO_2 (s)**

HBO_2 (s) | cubic | HBO_2 (s)

mp = 509 K (236 °C)

$\Delta H^0_{298} = -792$ kJ·mol^{-1} [4] $\quad S^0_{298} = 49$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 52.09 + 34.48 \cdot 10^{-3} \cdot T - 0.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 509 K) [4]

BHO_2 (g) | Metaboric Acid | **BHO_2 (g)**

HBO_2 (g) | HBO_2 (g)

$\Delta H^0_{298} = -560.7 \pm 4.2$ kJ·mol^{-1} [1] $\quad S^0_{298} = 240.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 51.76 + 12.01 \cdot 10^{-3} \cdot T - 1.17 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BHS (g) | Boron Hydride Sulfide | **BHS (g)**

HBS (g) | HBS (g)

$\Delta H^0_{298} = 50.2 \pm 10$ kJ·mol^{-1} [1] $\quad S^0_{298} = 215 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 36.8$ J·mol^{-1}·K^{-1} (298 K) [1]

BH_3 (g) | Borane | **BH_3 (g)**

$\Delta H^0_{298} = 106.7 \pm 10$ kJ·mol^{-1} [1] $\quad S^0_{298} = 187.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 36.2$ J·mol^{-1}·K^{-1} (298 K) [1]

BH_3O_3 (s) | Boric Acid | **BH_3O_3 (s)**

H_3BO_3 (s) | H_3BO_3 (s)

mp = 444 K (171 °C)

$\Delta H^0_{298} = -1094 \pm 0.8$ kJ·mol^{-1} [1] $\quad S^0_{298} = 88.7 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 65.94 + 109.75 \cdot 10^{-3} \cdot T - 1.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 330 K) [4]

BH_3O_3 (g) | Boric Acid | **BH_3O_3 (g)**

H_3BO_3 (g) | H_3BO_3 (g)

$\Delta H^0_{298} = -992.3 \pm 2.5$ kJ·mol^{-1} [1] $\quad S^0_{298} = 295.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 83.89 + 30.6 \cdot 10^{-3} \cdot T - 2.54 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BH_4K (s) Potassium Tetrahydroborate **BH_4K (s)**

KBH_4 (s) KBH_4 (s)

$\Delta H^0_{298} = -226.9 \pm 2.3$ kJ·mol⁻¹ [1] $S^0_{298} = 106.6$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 96.6$ J·mol⁻¹·K⁻¹ (298 K) [1]

BH_4Li (s) Lithium Tetrahydroborate **BH_4Li (s)**

$LiBH_4$ (s) $LiBH_4$ (s)

$\Delta H^0_{298} = -190.5 \pm 0.2$ kJ·mol⁻¹ [1] $S^0_{298} = 75.8$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 82.5$ J·mol⁻¹·K⁻¹ (298 K) [1]

BH_4Na (s) Sodium Tetrahydroborate **BH_4Na (s)**

$NaBH_4$ (s) $NaBH_4$ (s)

$\Delta H^0_{298} = -191.8 \pm 0.4$ kJ·mol⁻¹ [1] $S^0_{298} = 101.4$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 86.48$ J·mol⁻¹·K⁻¹ (298 K) [1]

BI (g) Boron(I) Iodide **BI (g)**

$\Delta H^0_{298} = 305.4 \pm 42$ kJ·mol⁻¹ [1] $S^0_{298} = 232.8$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 36.65 + 0.9 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

BI_2 (g) Boron(II) Iodide **BI_2 (g)**

$\Delta H^0_{298} = 242.7$ kJ·mol⁻¹ [4] $S^0_{298} = 309.6$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 55.95 + 1.39 \cdot 10^{-3} \cdot T - 0.65 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

BI_3 (s) Boron(III) Iodide **BI_3 (s)**

mp = 323 K (50 °C) bp = 482 K (209 °C)

$\Delta H^0_{298} = 16.3$ kJ·mol⁻¹ [4] $S^0_{298} = 227.1$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 92.47$ J·mol⁻¹·K⁻¹ (298 K) [4]

$\lg(p,K) = -3.19 \cdot 10^{3} \cdot T^{-1} - 2.55 \cdot \lg(T) + 13.77$ (298 ... 323 K) [4]

{Reaction: evaporation}

BI_3 (s) Boron(III) Iodide **BI_3 (s)**

ΔH^0_{323} = 18.6 kJ·mol^{-1} [4] S^0_{323} = 234.5 J·mol^{-1}·K^{-1} [4]

BI_3 (l) Boron(III) Iodide **BI_3 (l)**

ΔH^0_{323} = 22.8 kJ·mol^{-1} [4] S^0_{323} = 247.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 117.15 J·mol^{-1}·K^{-1} (323 K) [4]
$\lg(p,K) = -3.33 \cdot 10^3 \cdot T^{-1} - 5.08 \cdot \lg(T) + 20.54$ (323 ... 482 K) [4]
{Reaction: evaporation}

BI_3 (l) Boron(III) Iodide **BI_3 (l)**

ΔH^0_{482} = 41.5 kJ·mol^{-1} [4] S^0_{482} = 294.4 J·mol^{-1}·K^{-1} [4]

BI_3 (g) Boron(III) Iodide **BI_3 (g)**

ΔH^0_{482} = 84.9 kJ·mol^{-1} [4] S^0_{482} = 384.6 J·mol^{-1}·K^{-1} [4]

BI_3 (g) Boron(III) Iodide **BI_3 (g)**

ΔH^0_{298} = 71.1 kJ·mol^{-1} [4] S^0_{298} = 348.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 82 + 0.44 \cdot 10^{-3} \cdot T - 1.04 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BKO_2 (s) Potassium Borate **BKO_2 (s)**
KBO_2 (s) KBO_2 (s)

mp = 1223 K (950 °C)
ΔH^0_{298} = – 995 ± 8 kJ·mol^{-1} [1] S^0_{298} = 80 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 67 J·mol^{-1}·K^{-1} (298 K) [1]

BKO_2 (l) Potassium Borate **BKO_2 (l)**
KBO_2 (l) KBO_2 (l)

ΔH^0_{298} = – 980.7 kJ·mol^{-1} [1] S^0_{298} = 88.5 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 67 J·mol^{-1}·K^{-1} (298 K) [1]

BKO_2 (g) Potassium Borate **BKO_2 (g)**
KBO_2 (g) KBO_2 (g)

$\Delta H^0_{298} = -674 \pm 25$ kJ·mol^{-1} [1] $S^0_{298} = 297.4 \pm 4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 71.98 + 5.41 \cdot 10^{-3} \cdot T - 1.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$BLiO_2$ (s) Lithium Borate **$BLiO_2$ (s)**
$LiBO_2$ (s) $LiBO_2$ (s)

mp = 1118 K (845 °C)
$\Delta H^0_{298} = -1019.2 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 51.7 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 60.4$ J·mol^{-1}·K^{-1} (298 K) [1]

$BLiO_2$ (l) Lithium Borate **$BLiO_2$ (l)**
$LiBO_2$ (l) $LiBO_2$ (l)

$\Delta H^0_{298} = -1000.3$ kJ·mol^{-1} [1] $S^0_{298} = 65.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 60.4$ J·mol^{-1}·K^{-1} (298 K) [1]

$BLiO_2$ (g) Lithium Borate **$BLiO_2$ (g)**
$LiBO_2$ (g) $LiBO_2$ (g)

$\Delta H^0_{298} = -646.8 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 274.7 \pm 42$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 71.64 + 5.57 \cdot 10^{-3} \cdot T - 1.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2130 K) [4]

BMn (s) Manganese Boride **BMn (s)**
MnB (s) MnB (s)

mp = 2125 K (1852 °C)
$\Delta H^0_{298} = -70.7$ kJ·mol^{-1} [4] $S^0_{298} = 36$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 42.47 + 15.9 \cdot 10^{-3} \cdot T - 1.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BMn_2 (s) Manganese Boride **BMn_2 (s)**
Mn_2B (s) Mn_2B (s)

mp = 1853 K (1580 °C)
$\Delta H^0_{298} = -91.6$ kJ·mol^{-1} [4] $S^0_{298} = 66.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 69.04 + 22.8 \cdot 10^{-3} \cdot T - 1.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1853 K) [4]

BMo (s) Molybdenum Boride **BMo (s)**
MoB (s) MoB (s)

mp = 2873 K (2600 °C)
ΔH^0_{298} = – 123.9 kJ·mol^{-1} [4] S^0_{298} = 25.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 45.46 + 5.87 ·10^{-3}·T – 1.3 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2073 K) [4]

BN (s) Boron Nitride **BN (s)**

mp = 3243 K (2970 °C)
ΔH^0_{298} = – 250.9 ± 1.6 kJ·mol^{-1} [1] S^0_{298} = 14.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 41.21 + 9.41 ·10^{-3}·T – 2.18 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BN (g) Boron Nitride **BN (g)**

ΔH^0_{298} = 477 ± 125 kJ·mol^{-1} [1] S^0_{298} = 212.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 30.12 + 4.44 ·10^{-3}·T – 0.18 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2500 K) [6]

$BNaO_2$ (s) Sodium Borate **$BNaO_2$ (s)**
$NaBO_2$ (s) $NaBO_2$ (s)

mp = 1239 K (966 °C)
ΔH^0_{298} = – 975.7 ± 2.1 kJ·mol^{-1} [1] S^0_{298} = 73.5 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 50.63 + 53.68 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1239 K) [3]

$BNaO_2$ (l) Sodium Borate **$BNaO_2$ (l)**
$NaBO_2$ (l) $NaBO_2$ (l)

ΔH^0_{298} = – 960 kJ·mol^{-1} [1] S^0_{298} = 83 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 146.44 J·mol^{-1}·K^{-1} (1239 ... 2000 K) [3]

$BNaO_2$ (g) Sodium Borate **$BNaO_2$ (g)**
$NaBO_2$ (g) $NaBO_2$ (g)

ΔH^0_{298} = – 648.5 ± 12.6 kJ·mol^{-1} [1] S^0_{298} = 287.2 ± 4.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 71.89 + 5.45 ·10^{-3}·T – 1.52 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BNi (s) Nickel Boride **BNi (s)**
NiB (s) NiB (s)

mp = 1308 K (1035 °C)
$\Delta H^0_{298} = -46.4$ kJ·mol^{-1} [4] $S^0_{298} = 28.45$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 42.97 + 14.64 \cdot 10^{-3} \cdot T - 1.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1308 K) [4]

BNi_2 (s) Nickel Boride **BNi_2 (s)**
Ni_2B (s) Ni_2B (s)

mp = 1398 K (1125 °C)
$\Delta H^0_{298} = -63.8$ kJ·mol^{-1} [4] $S^0_{298} = 66.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 66.94 + 22.18 \cdot 10^{-3} \cdot T - 1.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1398 K) [4]

BNi_3 (s) Nickel Boride **BNi_3 (s)**
Ni_3B (s) Ni_3B (s)

mp = 1429 K (1156 °C)
$\Delta H^0_{298} = -88.9$ kJ·mol^{-1} [4] $S^0_{298} = 87.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 95.4 + 26.36 \cdot 10^{-3} \cdot T - 1.56 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1429 K) [4]

BO (g) Boron(II) Oxide **BO (g)**

$\Delta H^0_{298} = 0 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 203.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 30.1 + 3.64 \cdot 10^{-3} \cdot T - 0.25 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2329 K) [4]

BO_2 (g) Boron Oxide **BO_2 (g)**

$\Delta H^0_{298} = -284.5 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 229.8 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 55.35 + 3.57 \cdot 10^{-3} \cdot T - 1.32 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2329 K) [4]

BO_2Rb (g) Rubidium Borate **BO_2Rb (g)**
$RbBO_2$ (g) $RbBO_2$ (g)

$\Delta H^0_{298} = -672.4$ kJ·mol^{-1} [4] $S^0_{298} = 308.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 73.95 + 5.41 \cdot 10^{-3} \cdot T - 1.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BP (s) | Boron Phosphide | **BP** (s)

$\Delta H^0_{298} = -115.5$ kJ·mol^{-1} [4] | $S^0_{298} = 26.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 21.97 + 28.03 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1100 K) [4]

BS (g) | Boron Sulfide | **BS** (g)

$\Delta H^0_{298} = 334.7$ kJ·mol^{-1} [4] | $S^0_{298} = 216.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 30.43 + 7.72 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^{6} \cdot T^{-2} - 2.15 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BS_2 (s) | Boron Sulfide | **BS_2** (s)

mp = 690 K (417 °C)

$\Delta H^0_{298} = -104.6$ kJ·mol^{-1} [5] | $S^0_{298} = [52.3]$ J·mol^{-1}·K^{-1} [5]

BS_2 (g) | Boron Sulfide | **BS_2** (g)

$\Delta H^0_{298} = 12.6$ kJ·mol^{-1} [5] | $S^0_{298} = [256.1]$ J·mol^{-1}·K^{-1} [5]

BSe (g) | Boron Selenide | **BSe** (g)

$\Delta H^0_{298} = 329.7$ kJ·mol^{-1} [5] | $S^0_{298} = [228.4]$ J·mol^{-1}·K^{-1} [5]

$C_p{}^0 = [35.97] + [0.75] \cdot 10^{-3} \cdot T + [-0.42] \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

BTe (g) | Boron Telluride | **BTe** (g)

TeB (g) | | TeB (g)

$\Delta H^0_{298} = [413.8]$ kJ·mol^{-1} [5] | $S^0_{298} = [236.7]$ J·mol^{-1}·K^{-1} [5]

$C_p{}^0 = [36.64] + [0.41] \cdot 10^{-3} \cdot T + [-0.36] \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

BTi (s) | Titanium Boride | **BTi** (s)

TiB (s) | | TiB (s)

$\Delta H^0_{298} = -160.2 \pm 38$ kJ·mol^{-1} [1] | $S^0_{298} = 34.7 \pm 6.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 54.06 - 0.04 \cdot 10^{-3} \cdot T - 2.16 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BV (s) Vanadium Boride **BV (s)**
VB (s) VB (s)

mp = 2824 K (2551 °C)
$\Delta H^0_{298} = -138.5$ kJ·mol^{-1} [2] $S^0_{298} = 29.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 45.68 + 8.04 \cdot 10^{-3} \cdot T - 1.12 \cdot 10^6 \cdot T^{-2} + 2.28 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BW (s) Tungsten Boride **BW (s)**
WB (s) WB (s)

mp = 2938 K (2665 °C)
$\Delta H^0_{298} = -66.1$ kJ·mol^{-1} [4] $S^0_{298} = 33.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 50.42 + 3.1 \cdot 10^{-3} \cdot T - 1.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

BW_2 (s) Tungsten Boride **BW_2 (s)**
W_2B (s) W_2B (s)

mp = 2940 K (2667 °C)
$\Delta H^0_{298} = -66.9$ kJ·mol^{-1} [4] $S^0_{298} = 66.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 77.11 + 6.15 \cdot 10^{-3} \cdot T - 1.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

B_2 (g) Boron **B_2 (g)**

$\Delta H^0_{298} = 829.7 \pm 33.5$ kJ·mol^{-1} [1] $S^0_{298} = 202 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 31.6$ J·mol^{-1}·K^{-1} (298 K) [1]

$B_2Ba_3O_6$ (s) Barium Borate **$B_2Ba_3O_6$ (s)**
$3BaO \cdot B_2O_3$ (s) $3BaO \cdot B_2O_3$ (s)

$\Delta H^0_{298} = -2344.2 \pm 5.8$ kJ·mol^{-1} [94] $S^0_{298} = [270.3]$ J·mol^{-1}·K^{-1} [95]
$C_p{}^0 = [203.28]$ J·mol^{-1}·K^{-1} (298 K) [271]

B_2BeO_4 (g) Beryllium Borate **B_2BeO_4 (g)**
$BeO \cdot B_2O_3$ (g) $BeO \cdot B_2O_3$ (g)

$\Delta H^0_{298} = -1351 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 326.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 91.76$ J·mol^{-1}·K^{-1} (298 K) [1]

$B_2Be_3O_6$ (s) Beryllium Borate **$B_2Be_3O_6$ (s)**
$3BeO \cdot B_2O_3$ (s) $3BeO \cdot B_2O_3$ (s)

mp = 1768 K (1495 °C)
$\Delta H^0_{298} = -3134$ kJ·mol⁻¹ [4] $S^0_{298} = 92.5$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 112.55 + 263.26 \cdot 10^{-3} \cdot T - 3.98 \cdot 10^6 \cdot T^{-2} - 88.2 \cdot 10^{-6} \cdot T^2$ J·mol⁻¹·K⁻¹ (298 ... 1768 K) [4]

B_2CaO_4 (s) Calcium Borate **B_2CaO_4 (s)**
$CaO \cdot B_2O_3$ (s) $CaO \cdot B_2O_3$ (s)

mp = 1433 K (1160 °C)
$\Delta H^0_{298} = -2030$ kJ·mol⁻¹ [4] $S^0_{298} = 104.9$ J·mol⁻¹·K⁻¹ [2]
$C_p{}^0 = 129.79 + 40.84 \cdot 10^{-3} \cdot T - 3.38 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1433 K) [4]

B_2CaO_4 (s) Calcium Borate **B_2CaO_4 (s)**
$CaO \cdot B_2O_3$ (s) $CaO \cdot B_2O_3$ (s)

$\Delta H^0_{1433} = -1851.6$ kJ·mol⁻¹ [4] $S^0_{1433} = 336.8$ J·mol⁻¹·K⁻¹ [4]

B_2CaO_4 (l) Calcium Borate **B_2CaO_4 (l)**
$CaO \cdot B_2O_3$ (l) $CaO \cdot B_2O_3$ (l)

$\Delta H^0_{1433} = -1777.5$ kJ·mol⁻¹ [4] $S^0_{1433} = 388.5$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 258.15$ J·mol⁻¹·K⁻¹ (1433 K) [4]

$B_2Ca_2O_5$ (s) Calcium Borate **$B_2Ca_2O_5$ (s)**
$2CaO \cdot B_2O_3$ (s) alpha $2CaO \cdot B_2O_3$ (s)

mp = 1583 K (1310 °C)
$\Delta H^0_{298} = -2733.7$ kJ·mol⁻¹ [4] $S^0_{298} = 144.8$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 183.05 + 48.12 \cdot 10^{-3} \cdot T - 4.47 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 804 K) [4]

$B_2Ca_2O_5$ (s) Calcium Borate **$B_2Ca_2O_5$ (s)**
$2CaO \cdot B_2O_3$ (s) alpha $2CaO \cdot B_2O_3$ (s)

$\Delta H^0_{804} = -2637.1$ kJ·mol⁻¹ [4] $S^0_{804} = 329$ J·mol⁻¹·K⁻¹ [4]

$B_2Ca_2O_5$ (s) Calcium Borate **$B_2Ca_2O_5$ (s)**
$2CaO \cdot B_2O_3$ (s) beta $2CaO \cdot B_2O_3$ (s)

$\Delta H^0_{804} = -2632.5$ kJ·mol^{-1} [4] $S^0_{804} = 334.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 218.78 + 10.04 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (804 ... 1583 K) [4]

$B_2Ca_2O_5$ (s) Calcium Borate **$B_2Ca_2O_5$ (s)**
$2CaO \cdot B_2O_3$ (s) beta $2CaO \cdot B_2O_3$ (s)

$\Delta H^0_{1583} = -2452.8$ kJ·mol^{-1} [4] $S^0_{1583} = 490.8$ J·mol^{-1}·K^{-1} [4]

$B_2Ca_2O_5$ (l) Calcium Borate **$B_2Ca_2O_5$ (l)**
$2CaO \cdot B_2O_3$ (l) $2CaO \cdot B_2O_3$ (l)

$\Delta H^0_{1583} = -2352$ kJ·mol^{-1} [4] $S^0_{1583} = 554.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 285.35$ J·mol^{-1}·K^{-1} (1583 K) [4]

$B_2Ca_3O_6$ (s) Calcium Borate **$B_2Ca_3O_6$ (s)**
$3CaO \cdot B_2O_3$ (s) $3CaO \cdot B_2O_3$ (s)

mp = 1763 K (1490 °C)
$\Delta H^0_{298} = -3429.1$ kJ·mol^{-1} [2] $S^0_{298} = 183.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 236.15 + 43.6 \cdot 10^{-3} \cdot T - 5.45 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1763 K) [4]

$B_2Ca_3O_6$ (s) Calcium Borate **$B_2Ca_3O_6$ (s)**
$3CaO \cdot B_2O_3$ (s) $3CaO \cdot B_2O_3$ (s)

$\Delta H^0_{1763} = -3031.7$ kJ·mol^{-1} [4] $S^0_{1763} = 637.5$ J·mol^{-1}·K^{-1} [4]

$B_2Ca_3O_6$ (l) Calcium Borate **$B_2Ca_3O_6$ (l)**
$3CaO \cdot B_2O_3$ (l) $3CaO \cdot B_2O_3$ (l)

$\Delta H^0_{1763} = -2883.1$ kJ·mol^{-1} [4] $S^0_{1763} = 721.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 393.3$ J·mol^{-1}·K^{-1} (1763 K) [4]

B_2Cl_4 (g) Boron(II) Chloride **B_2Cl_4 (g)**

$\Delta H^0_{298} = -489.1 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 359$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 117.29 + 6.99 \cdot 10^{-3} \cdot T - 2.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

B_2Cr (s) Chromium Boride **B_2Cr (s)**
CrB_2 (s) CrB_2 (s)

mp = 2473 K (2200 °C)
$\Delta H^0_{298} = -125.5$ kJ·mol^{-1} [4] $S^0_{298} = 32.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 60.04 + 21.88 \cdot 10^{-3} \cdot T - 1.86 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$B_2Cs_2O_4$ (s) Cesium Borate **$B_2Cs_2O_4$ (s)**
$Cs_2O \cdot B_2O_3$ (s) $Cs_2O \cdot B_2O_3$ (s)

mp = 1005 K (732 °C)
$\Delta H^0_{298} = -1944.8$ kJ·mol^{-1} [4] $S^0_{298} = 208.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 104.68 + 132.63 \cdot 10^{-3} \cdot T - 0.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1005 K) [4]

$B_2Cs_2O_4$ (s) Cesium Borate **$B_2Cs_2O_4$ (s)**
$Cs_2O \cdot B_2O_3$ (s) $Cs_2O \cdot B_2O_3$ (s)

$\Delta H^0_{1005} = -1810.8$ kJ·mol^{-1} [4] $S^0_{1005} = 427.3$ J·mol^{-1}·K^{-1} [4]

$B_2Cs_2O_4$ (l) Cesium Borate **$B_2Cs_2O_4$ (l)**
$Cs_2O \cdot B_2O_3$ (l) $Cs_2O \cdot B_2O_3$ (l)

$\Delta H^0_{1005} = -1758.3$ kJ·mol^{-1} [4] $S^0_{1005} = 479.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 292.88$ J·mol^{-1}·K^{-1} (1005 K) [4]

B_2F_4 (g) Boron(II) Fluoride **B_2F_4 (g)**

$\Delta H^0_{298} = -1440.1$ kJ·mol^{-1} [4] $S^0_{298} = 318.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 101.74 + 16.03 \cdot 10^{-3} \cdot T - 2.64 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

B_2F_4O (g) Boron Oxide Fluoride **B_2F_4O (g)**

$O(BF_2)_2$ (g) $O(BF_2)_2$ (g)

$\Delta H^0_{298} = -\ 1898.1 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 337.5 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 81.85$ J·mol^{-1}·K^{-1} (298 K) [1]

$B_2H_4O_4$ (s) Boron Hydroxide **$B_2H_4O_4$ (s)**

$(B(OH)_2)_2$ (s) $(B(OH)_2)_2$ (s)

$\Delta H^0_{298} = -\ 1410.4 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 125.5 \pm 4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 116.19$ J·mol^{-1}·K^{-1} (298 K) [1]

$B_2H_4O_4$ (g) Boron Hydroxide **$B_2H_4O_4$ (g)**

$(B(OH)_2)_2$ (g) $(B(OH)_2)_2$ (g)

$\Delta H^0_{298} = -\ 1284.5 \pm 20$ kJ·mol^{-1} [1] $S^0_{298} = 348.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 103.43$ J·mol^{-1}·K^{-1} (298 K) [1]

B_2H_6 (g) Diborane **B_2H_6 (g)**

mp = 108 K (-165 °C) bp = 181 K (-92 °C)

$\Delta H^0_{298} = 41 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 233.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 11.3 + 180.08 \cdot 10^{-3} \cdot T - 0.34 \cdot 10^{6} \cdot T^{-2} - 55.31 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

B_2Hf (s) Hafnium Boride **B_2Hf (s)**

HfB_2 (s) HfB_2 (s)

mp = 3643 K (3370 °C)

$\Delta H^0_{298} = -\ 328.9$ kJ·mol^{-1} [4] $S^0_{298} = 42.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 73.35 + 7.82 \cdot 10^{-3} \cdot T - 2.3 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$B_2K_2O_4$ (s) Potassium Borate **$B_2K_2O_4$ (s)**

$K_2O \cdot B_2O_3$ (s) $K_2O \cdot B_2O_3$ (s)

mp = 1220 K (947 °C) bp = 1673 K (1400 °C)

$\Delta H^0_{298} = -\ 1989.9$ kJ·mol^{-1} [4] $S^0_{298} = 160$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 161.92 + 46.86 \cdot 10^{-3} \cdot T - 3.73 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1220 K) [4]

$B_2K_2O_4$ (s) Potassium Borate **$B_2K_2O_4$ (s)**

$K_2O \cdot B_2O_3$ (s)

$\Delta H^0_{1220} = -1817.3$ kJ·mol^{-1} [4] $S^0_{1220} = 411.6$ J·mol^{-1}·K^{-1} [4]

$B_2K_2O_4$ (l) Potassium Borate **$B_2K_2O_4$ (l)**

$K_2O \cdot B_2O_3$ (l)

$\Delta H^0_{1220} = -1754.6$ kJ·mol^{-1} [4] $S^0_{1220} = 463$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 292.88$ J·mol^{-1}·K^{-1} (1220 K) [4]

$B_2Li_2O_4$ (s) Lithium Borate **$B_2Li_2O_4$ (s)**

$Li_2O \cdot B_2O_3$ (s)

mp = 1117 K (844 °C) bp = 2130 K (1857 °C)

$\Delta H^0_{298} = -2038.4$ kJ·mol^{-1} [4] $S^0_{298} = 103.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 118.83 + 100 \cdot 10^{-3} \cdot T - 2.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1117 K) [4]

$B_2Li_2O_4$ (s) Lithium Borate **$B_2Li_2O_4$ (s)**

$Li_2O \cdot B_2O_3$ (s)

$\Delta H^0_{1117} = -1889.2$ kJ·mol^{-1} [4] $S^0_{1117} = 329.4$ J·mol^{-1}·K^{-1} [4]

$B_2Li_2O_4$ (l) Lithium Borate **$B_2Li_2O_4$ (l)**

$Li_2O \cdot B_2O_3$ (l)

$\Delta H^0_{1117} = -1805.1$ kJ·mol^{-1} [4] $S^0_{1117} = 404.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 288.7$ J·mol^{-1}·K^{-1} (1117 K) [4]

B_2Mg (s) Magnesium Boride **B_2Mg (s)**

MgB_2 (s)

$\Delta H^0_{298} = -60.7$ kJ·mol^{-1} [4] $S^0_{298} = 36 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 49.79 + 22.72 \cdot 10^{-3} \cdot T - 0.76 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1320 K) [4]

B_2Mn (s) Manganese Boride **B_2Mn (s)**

MnB_2 (s) MnB_2 (s)

mp = 2100 K (1827 °C)

$\Delta H^0_{298} = -94.1$ kJ·mol^{-1} [2] $S^0_{298} = 44.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 64.43 + 16.99 \cdot 10^{-3} \cdot T - 2.5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2100 K) [4]

$B_2Na_2O_4$ (s) Sodium Borate **$B_2Na_2O_4$ (s)**

$Na_2O \cdot B_2O_3$ (s) $Na_2O \cdot B_2O_3$ (s)

mp = 1240 K (967 °C) bp = 1748 K (1475 °C)

$\Delta H^0_{298} = -1951.4$ kJ·mol^{-1} [4] $S^0_{298} = 147$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 159.08 + 47.11 \cdot 10^{-3} \cdot T - 3.68 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1240 K) [4]

$B_2Na_2O_4$ (s) Sodium Borate **$B_2Na_2O_4$ (s)**

$Na_2O \cdot B_2O_3$ (s) $Na_2O \cdot B_2O_3$ (s)

$\Delta H^0_{1240} = -1776.8$ kJ·mol^{-1} [4] $S^0_{1240} = 398.6$ J·mol^{-1}·K^{-1} [4]

$B_2Na_2O_4$ (l) Sodium Borate **$B_2Na_2O_4$ (l)**

$Na_2O \cdot B_2O_3$ (l) $Na_2O \cdot B_2O_3$ (l)

$\Delta H^0_{1240} = -1705.7$ kJ·mol^{-1} [4] $S^0_{1240} = 456$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 292.88$ J·mol^{-1}·K^{-1} (1240 K) [4]

B_2Nb (s) Niobium Boride **B_2Nb (s)**

NbB_2 (s) NbB_2 (s)

mp = 3250 K (2977 °C)

$\Delta H^0_{298} = -175.3$ kJ·mol^{-1} [4] $S^0_{298} = 37.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 46.07 + 39.25 \cdot 10^{-3} \cdot T - 0.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1400 K) [4]

B_2O (g) Boron(I) Oxide **B_2O (g)**

$\Delta H^0_{298} = 96 \pm 105$ kJ·mol^{-1} [1] $S^0_{298} = 227.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 43.32 + 8.48 \cdot 10^{-3} \cdot T - 0.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2329 K) [4]

B_2O_2 (g) Boron(II) Oxide **B_2O_2 (g)**
$(BO)_2$ (g) $(BO)_2$ (g)

$\Delta H^0_{298} = -456.1 \pm 8.4$ kJ·mol⁻¹ [1] $S^0_{298} = 242.6$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 70.54 + 7.9 \cdot 10^{-3} \cdot T - 1.56 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2329 K) [4]

B_2O_3 (s) Boron(III) Oxide **B_2O_3 (s)**

mp = 733 K (460 °C) bp = 2329 K (2056 °C)
$\Delta H^0_{298} = -1271.9 \pm 2.1$ kJ·mol⁻¹ [1] $S^0_{298} = 54 \pm 0.4$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 57.03 + 73.01 \cdot 10^{-3} \cdot T - 1.41 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 723 K) [4]

B_2O_3 (l) Boron(III) Oxide **B_2O_3 (l)**

$\Delta H^0_{298} = -1253.4 \pm 2.5$ kJ·mol⁻¹ [1] $S^0_{298} = 78.4 \pm 0.4$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 62.8$ J·mol⁻¹·K⁻¹ (298 K) [1]

B_2O_3 (g) Boron(III) Oxide **B_2O_3 (g)**

$\Delta H^0_{298} = -836 \pm 4.2$ kJ·mol⁻¹ [1] $S^0_{298} = 283.8 \pm 4.2$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 88.01 + 8.93 \cdot 10^{-3} \cdot T - 2.41 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2329 K) [4]

B_2O_3 (s) Boron(III) Oxide amorphous **B_2O_3 (s)**

mp = 723 K (450 °C)
$\Delta H^0_{298} = -1253.9$ kJ·mol⁻¹ [4] $S^0_{298} = 77.3$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = -18.97 + 225.37 \cdot 10^{-3} \cdot T + 1.28 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 723 K) [4]

B_2O_4Pb (s) Lead Borate **B_2O_4Pb (s)**
$PbO \cdot B_2O_3$ (s) $PbO \cdot B_2O_3$ (s)

$\Delta H^0_{298} = -1556 \pm 6$ kJ·mol⁻¹ [1] $S^0_{298} = 130.5 \pm 12$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 107.11$ J·mol⁻¹·K⁻¹ (298 K) [1]

$B_2O_4Rb_2$ (s) Rubidium Borate **$B_2O_4Rb_2$ (s)**

$Rb_2O \cdot B_2O_3$ (s) $Rb_2O \cdot B_2O_3$ (s)

mp = 1133 K (860 °C) bp = 1604 K (1331 °C)

$\Delta H^0_{298} = -1949.7$ kJ·mol^{-1} [4] $S^0_{298} = 189.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 116.73 + 101.25 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1133 K) [4]

$B_2O_4Rb_2$ (s) Rubidium Borate **$B_2O_4Rb_2$ (s)**

$Rb_2O \cdot B_2O_3$ (s) $Rb_2O \cdot B_2O_3$ (s)

$\Delta H^0_{1133} = -1791.8$ kJ·mol^{-1} [4] $S^0_{1133} = 429.5$ J·mol^{-1}·K^{-1} [4]

$B_2O_4Rb_2$ (l) Rubidium Borate **$B_2O_4Rb_2$ (l)**

$Rb_2O \cdot B_2O_3$ (l) $Rb_2O \cdot B_2O_3$ (l)

$\Delta H^0_{1133} = -1730.3$ kJ·mol^{-1} [4] $S^0_{1133} = 483.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 292.88$ J·mol^{-1}·K^{-1} (1133 K) [4]

B_2S_2 (g) Boron Sulfide **B_2S_2 (g)**

$\Delta H^0_{298} = 75.3$ kJ·mol^{-1} [5] $S^0_{298} = [267.8]$ J·mol^{-1}·K^{-1} [5]

B_2S_3 (s) Boron(III) Sulfide **B_2S_3 (s)**

mp = 836 K (563 °C) bp = 1419 K (1146 °C)

$\Delta H^0_{298} = -252.3$ kJ·mol^{-1} [4] $S^0_{298} = 92$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 98.03 + 64.02 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 836 K) [4]

$\lg(p,K) = -14.1 \cdot 10^3 \cdot T^{-1} - 5.84 \cdot \lg(T) + 29.59$ (700 ... 836 K) [4]

{Reaction: evaporation as B_2S_3(g)}

B_2S_3 (s) Boron(III) Sulfide **B_2S_3 (s)**

$\Delta H^0_{836} = -180$ kJ·mol^{-1} [4] $S^0_{836} = 227.6$ J·mol^{-1}·K^{-1} [4]

B_2S_3 (l) Boron(III) Sulfide **B_2S_3 (l)**

$\Delta H^0_{836} = -131.9$ kJ·mol^{-1} [4] $S^0_{836} = 285.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 151.67$ J·mol^{-1}·K^{-1} (836 K) [4]
$\lg(p,K) = -11.61 \cdot 10^3 \cdot T^{-1} - 5.95 \cdot \lg(T) + 26.94$ (836 ... 1419 K) [4]
{Reaction: evaporation as B_2S_3(g)}

B_2S_3 (g) Boron(III) Sulfide **B_2S_3 (g)**

$\Delta H^0_{298} = -1.2$ kJ·mol^{-1} [4] $S^0_{298} = 323.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 96.65 + 6.4 \cdot 10^{-3} \cdot T - 1.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

B_2S_4 (g) Boron Sulfide **B_2S_4 (g)**

$\Delta H^0_{298} = -112.9$ kJ·mol^{-1} [5] $S^0_{298} = 234.3$ J·mol^{-1}·K^{-1} [5]

B_2Ta (s) Tantalum Boride **B_2Ta (s)**
TaB_2 (s) TaB_2 (s)

$\Delta H^0_{298} = -209.2$ kJ·mol^{-1} [2] $S^0_{298} = 44.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 59.45 + 18.79 \cdot 10^{-3} \cdot T - 1.51 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 3370 K) [3]

B_2Ti (s) Titanium Boride **B_2Ti (s)**
TiB_2 (s) TiB_2 (s)

mp = 3498 K (3225 °C)
$\Delta H^0_{298} = -315.9$ kJ·mol^{-1} [4] $S^0_{298} = 28.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 56.38 + 25.86 \cdot 10^{-3} \cdot T - 1.75 \cdot 10^6 \cdot T^{-2} - 3.35 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

B_2Ti (l) Titanium Boride **B_2Ti (l)**
TiB_2 (l) TiB_2 (l)

$\Delta H^0_{298} = -188$ kJ·mol^{-1} [1] $S^0_{298} = 56.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 44.28$ J·mol^{-1}·K^{-1} (298 K) [1]

B_2U (s) Uranium Boride **B_2U (s)**

UB_2 (s) UB_2 (s)

mp = 2658 K (2385 °C)

$\Delta H^0_{298} = -161.5$ kJ·mol^{-1} [2] $S^0_{298} = 55.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 107.03 - 40.25 \cdot 10^{-3} \cdot T - 3.55 \cdot 10^6 \cdot T^{-2} + 24.52 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

B_2V (s) Vanadium Boride **B_2V (s)**

VB_2 (s) VB_2 (s)

mp = 3023 K (2750 °C)

$\Delta H^0_{298} = -203.6$ kJ·mol^{-1} [4] $S^0_{298} = 30.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 64.56 + 16.2 \cdot 10^{-3} \cdot T - 2.05 \cdot 10^6 \cdot T^{-2} + 0.93 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

B_2V_3 (s) Vanadium Boride **B_2V_3 (s)**

V_3B_2 (s) V_3B_2 (s)

mp = 2198 K (1925 °C)

$\Delta H^0_{298} = -331$ kJ·mol^{-1} [4] $S^0_{298} = 86.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 137.04 + 15.93 \cdot 10^{-3} \cdot T - 2.62 \cdot 10^6 \cdot T^{-2} + 8.21 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

B_2Zr (s) Zirconium Boride **B_2Zr (s)**

ZrB_2 (s) ZrB_2 (s)

mp = 3273 K (3000 °C)

$\Delta H^0_{298} = -322.6 \pm 6.7$ kJ·mol^{-1} [1] $S^0_{298} = 35.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 62.81 + 14.31 \cdot 10^{-3} \cdot T - 1.69 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

B_2Zr (l) Zirconium Boride **B_2Zr (l)**

ZrB_2 (l) ZrB_2 (l)

$\Delta H^0_{298} = -224.8$ kJ·mol^{-1} [1] $S^0_{298} = 64.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 48.2$ J·mol^{-1}·K^{-1} (298 K) [1]

$B_3Cl_3O_3$ (g) Boron Chloride Oxide **$B_3Cl_3O_3$ (g)**
$(BOCl)_3$ (g) $(BOCl)_3$ (g)

$\Delta H^0_{298} = -1631.8 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 382.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 186.61 + 10.94 \cdot 10^{-3} \cdot T - 5.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

B_3Cr_5 (s) Chromium Boride **B_3Cr_5 (s)**
Cr_5B_3 (s) Cr_5B_3 (s)

mp = 2173 K (1900 °C)
$\Delta H^0_{298} = -248.9$ kJ·mol^{-1} [4] $S^0_{298} = 137.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 153.13 + 79.08 \cdot 10^{-3} \cdot T - 3.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$B_3FH_2O_3$ (g) Fluoroboroxin **$B_3FH_2O_3$ (g)**
$B_3H_2O_3F$ (g) $B_3H_2O_3F$ (g)

$\Delta H^0_{298} = -1598.3 \pm 25$ kJ·mol^{-1} [1] $S^0_{298} = 314.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 95.24$ J·mol^{-1}·K^{-1} (298 K) [1]

$B_3F_2HO_3$ (g) Difluoroboroxin **$B_3F_2HO_3$ (g)**
$B_3HO_3F_2$ (g) $B_3HO_3F_2$ (g)

$\Delta H^0_{298} = -1987.4 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 329$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 103.53$ J·mol^{-1}·K^{-1} (298 K) [1]

$B_3F_3O_3$ (s) Boron Oxide Fluoride **$B_3F_3O_3$ (s)**
$(BOF)_3$ (s) $(BOF)_3$ (s)

$\Delta H^0_{298} = -2453.9 \pm 12$ kJ·mol^{-1} [1] $S^0_{298} = 217.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 125.52$ J·mol^{-1}·K^{-1} (298 K) [1]

$B_3F_3O_3$ (g) Boron Oxide Fluoride **$B_3F_3O_3$ (g)**
$(BOF)_3$ (g) $(BOF)_3$ (g)

$\Delta H^0_{298} = -2365.2 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 342.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 173.68 + 17.3 \cdot 10^{-3} \cdot T - 6.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$B_3H_3O_3$ (s) Boroxin **$B_3H_3O_3$ (s)**

$(BOH)_3$ (s) $(BOH)_3$ (s)

bp = 356 K (83 °C)

$\Delta H^0_{298} = -1262.3 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 167.4 \pm 42$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 30.61 + 221.17 \cdot 10^{-3} \cdot T + 0.16 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 356 K) [4]

$B_3H_3O_3$ (g) Boroxin **$B_3H_3O_3$ (g)**

$(BOH)_3$ (g) $(BOH)_3$ (g)

$\Delta H^0_{298} = -1217.5 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 291.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 140.79 + 31.62 \cdot 10^{-3} \cdot T - 6.4 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$B_3H_3O_6$ (g) Boric Acid **$B_3H_3O_6$ (g)**

$(HBO_2)_3$ (g) $(HBO_2)_3$ (g)

$\Delta H^0_{298} = -2271.9 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 347.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 137.26$ J·mol^{-1}·K^{-1} (298 K) [1]

$B_3H_6N_3$ (g) Borazine **$B_3H_6N_3$ (g)**

$\Delta H^0_{298} = -510 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 288.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 128.49 + 89.62 \cdot 10^{-3} \cdot T - 5.18 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [6]

B_3NaO_5 (s) Sodium Borate **B_3NaO_5 (s)**

NaB_3O_5 (s) NaB_3O_5 (s)

$\Delta H^0_{298} = -2290.2$ kJ·mol^{-1} [2] $S^0_{298} = 116.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 121.8$ J·mol^{-1}·K^{-1} (298 K) [2]

B_3Ni_4 (s) Niobium Boride **B_3Ni_4 (s)**

Ni_4B_3 (s) Ni_4B_3 (s)

mp = 1304 K (1031 °C)

$\Delta H^0_{298} = -179.1$ kJ·mol^{-1} [4] $S^0_{298} = 110.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 156.06 + 49.16 \cdot 10^{-3} \cdot T - 3.78 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1304 K) [4]

B_3V_2 (s) Vanadium Boride **B_3V_2 (s)**
V_2B_3 (s) V_2B_3 (s)

mp = 2926 K (2653 °C)
ΔH^0_{298} = – 345.2 kJ·mol^{-1} [4] S^0_{298} = 59.4 J·mol^{-1}·K^{-1} [4]
$C_p^0 = 110.24 + 24.23 \cdot 10^{-3} \cdot T - 2.4 \cdot 10^6 \cdot T^{-2} + 3.21 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

B_4C (s) Boron Carbide **B_4C (s)**

mp = 2743 K (2470 °C)
ΔH^0_{298} = – 62.7 ± 6.3 kJ·mol^{-1} [1] S^0_{298} = 27.2 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p^0 = 96.52 + 21.92 \cdot 10^{-3} \cdot T - 4.5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

B_4C (l) Boron Carbide **B_4C (l)**

ΔH^0_{298} = 51.9 kJ·mol^{-1} [1] S^0_{298} = 69.4 J·mol^{-1}·K^{-1} [1]
C_p^0 = 53.76 J·mol^{-1}·K^{-1} (298 K) [1]

B_4CaO_7 (s) Calcium Borate **B_4CaO_7 (s)**
$CaO \cdot 2B_2O_3$ (s) $CaO \cdot 2B_2O_3$ (s)

mp = 1263 K (990 °C)
ΔH^0_{298} = – 3358.4 kJ·mol^{-1} [4] S^0_{298} = 134.7 J·mol^{-1}·K^{-1} [2]
$C_p^0 = 214.81 + 80.17 \cdot 10^{-3} \cdot T - 7.19 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1263 K) [4]

B_4CaO_7 (s) Calcium Borate **B_4CaO_7 (s)**
$CaO \cdot 2B_2O_3$ (s) $CaO \cdot 2B_2O_3$ (s)

ΔH^0_{1263} = – 3109.2 kJ·mol^{-1} [4] S^0_{1263} = 484 J·mol^{-1}·K^{-1} [4]

B_4CaO_7 (l) Calcium Borate **B_4CaO_7 (l)**
$CaO \cdot 2B_2O_3$ (l) $CaO \cdot 2B_2O_3$ (l)

ΔH^0_{1263} = – 2995.8 kJ·mol^{-1} [4] S^0_{1263} = 573.7 J·mol^{-1}·K^{-1} [4]
C_p^0 = 444.76 J·mol^{-1}·K^{-1} (1263 K) [4]

B_4Cr_3 (s) Chromium Boride **B_4Cr_3 (s)**

Cr_3B_4 (s) Cr_3B_4 (s)

mp = 2343 K (2070 °C)

$\Delta H^0_{298} = -281.2$ kJ·mol^{-1} [4] $S^0_{298} = 91.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 134.31 + 57.74 \cdot 10^{-3} \cdot T - 3.91 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$B_4K_2O_7$ (s) Potassium Borate **$B_4K_2O_7$ (s)**

$K_2O \cdot 2B_2O_3$ (s) $K_2O \cdot 2B_2O_3$ (s)

mp = 1089 K (816 °C)

$\Delta H^0_{298} = -3326.3$ kJ·mol^{-1} [4] $S^0_{298} = 208.4 \pm 6.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 138.57 + 279.58 \cdot 10^{-3} \cdot T - 3.55 \cdot 10^6 \cdot T^{-2} - 131.75 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1089 K) [4]

$B_4K_2O_7$ (s) Potassium Borate **$B_4K_2O_7$ (s)**

$K_2O \cdot 2B_2O_3$ (s) $K_2O \cdot 2B_2O_3$ (s)

$\Delta H^0_{1089} = -3127.5$ kJ·mol^{-1} [4] $S^0_{1089} = 518.2$ J·mol^{-1}·K^{-1} [4]

$B_4K_2O_7$ (l) Potassium Borate **$B_4K_2O_7$ (l)**

$K_2O \cdot 2B_2O_3$ (l) $K_2O \cdot 2B_2O_3$ (l)

$\Delta H^0_{1089} = -3023.3$ kJ·mol^{-1} [4] $S^0_{1089} = 613.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 380.54 + 77.2 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1089 ... 2000 K) [4]

$B_4Li_2O_7$ (s) Lithium Borate **$B_4Li_2O_7$ (s)**

$Li_2O \cdot 2B_2O_3$ (s) $Li_2O \cdot 2B_2O_3$ (s)

mp = 1190 K (917 °C)

$\Delta H^0_{298} = -3362.3 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 155.6 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 158.81 + 144.11 \cdot 10^{-3} \cdot T - 2 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1190 K) [4]

$B_4Li_2O_7$ (s) Lithium Borate **$B_4Li_2O_7$ (s)**

$Li_2O \cdot 2B_2O_3$ (s) $Li_2O \cdot 2B_2O_3$ (s)

$\Delta H^0_{1190} = -3130.1$ kJ·mol^{-1} [4] $S^0_{1190} = 493.4$ J·mol^{-1}·K^{-1} [4]

$B_4Li_2O_7$ (l) Lithium Borate **$B_4Li_2O_7$ (l)**

$Li_2O \cdot 2B_2O_3$ (l) $Li_2O \cdot 2B_2O_3$ (l)

$\Delta H^0_{1190} = -3009.6$ kJ·mol^{-1} [4] $S^0_{1190} = 594.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 438.11 + 25.36 \cdot 10^{-3} \cdot T - 0.72 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1190 ... 2000 K) [4]

B_4Mg (s) Magnesium Boride **B_4Mg (s)**

MgB_4 (s) MgB_4 (s)

$\Delta H^0_{298} = -105 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 51.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 68.52 + 47.77 \cdot 10^{-3} \cdot T - 1.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1300 K) [4]

B_4Mn_3 (s) Manganese Boride **B_4Mn_3 (s)**

Mn_3B_4 (s) Mn_3B_4 (s)

mp = 2100 K (1827 °C)

$\Delta H^0_{298} = -236.4$ kJ·mol^{-1} [4] $S^0_{298} = 118$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 122.59 + 44.77 \cdot 10^{-3} \cdot T - 5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2100 K) [4]

$B_4Na_2O_7$ (s) Sodium Borate **$B_4Na_2O_7$ (s)**

$Na_2O \cdot 2B_2O_3$ (s) $Na_2O \cdot 2B_2O_3$ (s)

mp = 1016 K (743 °C)

$\Delta H^0_{298} = -3284.9$ kJ·mol^{-1} [4] $S^0_{298} = 189.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 206.1 + 77.11 \cdot 10^{-3} \cdot T - 3.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1016 K) [4]

$B_4Na_2O_7$ (s) Sodium Borate **$B_4Na_2O_7$ (s)**

$Na_2O \cdot 2B_2O_3$ (s) $Na_2O \cdot 2B_2O_3$ (s)

$\Delta H^0_{1016} = -3109.4$ kJ·mol^{-1} [4] $S^0_{1016} = 478.3$ J·mol^{-1}·K^{-1} [4]

$B_4Na_2O_7$ (l) Sodium Borate **$B_4Na_2O_7$ (l)**

$Na_2O \cdot 2B_2O_3$ (l) $Na_2O \cdot 2B_2O_3$ (l)

$\Delta H^0_{1016} = -3028.2$ kJ·mol^{-1} [4] $S^0_{1016} = 558.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 444.89$ J·mol^{-1}·K^{-1} (1016 K) [4]

B_4O_7Pb (s) Lead Borate **B_4O_7Pb (s)**

$PbO \cdot 2B_2O_3$ (s) $PbO \cdot 2B_2O_3$ (s)

mp = 1041 K (768 °C)

$\Delta H^0_{298} = -2857.7 \pm 6$ kJ·mol^{-1} [1] $S^0_{298} = 166.9 \pm 13$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 281.7 + 52.58 \cdot 10^{-3} \cdot T - 12.94 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1041 K) [4]

B_4S_6 (g) Boron Sulfide **B_4S_6 (g)**

$\Delta H^0_{298} = -197.9$ kJ·mol^{-1} [5] $S^0_{298} = 458.1$ J·mol^{-1}·K^{-1} [5]

B_4S_8 (g) Boron Sulfide **B_4S_8 (g)**

$\Delta H^0_{298} = -96.2$ kJ·mol^{-1} [5] $S^0_{298} = 585.8$ J·mol^{-1}·K^{-1} [5]

B_4U (s) Uranium Boride **B_4U (s)**

UB_4 (s) UB_4 (s)

mp = 2768 K (2495 °C)

$\Delta H^0_{298} = -243$ kJ·mol^{-1} [4] $S^0_{298} = 71.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 112.13 + 29.08 \cdot 10^{-3} \cdot T - 3.72 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

B_4V_3 (s) Vanadium Boride **B_4V_3 (s)**

V_3B_4 (s) V_3B_4 (s)

mp = 2913 K (2640 °C)

$\Delta H^0_{298} = -486.6$ kJ·mol^{-1} [2] $S^0_{298} = 88.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 155.92 + 32.27 \cdot 10^{-3} \cdot T - 4.29 \cdot 10^6 \cdot T^{-2} + 5.5 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

B_5H_9 (l) Pentaborane **B_5H_9 (l)**

mp = 226 K (-47 °C)

$\Delta H^0_{298} = 42.8 \pm 6.7$ kJ·mol^{-1} [1] $S^0_{298} = 184.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 328.99 - 191.34 \cdot 10^{-3} \cdot T - 10.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 335 K) [4]

$\lg(p,K) = -2.68 \cdot 10^3 \cdot T^{-1} - 8.48 \cdot \lg(T) + 29.42$ (298 ... 335 K) [4]

{Reaction: evaporation}

B_5H_9 (g) Pentaborane **B_5H_9 (g)**

$\Delta H^0_{298} = 73.2 \pm 6.7$ kJ·mol^{-1} [1] $S^0_{298} = 275.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 190.06 + 67.24 \cdot 10^{-3} \cdot T - 12.07 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

B_6Ce (s) Cerium Boride **B_6Ce (s)**
CeB_6 (s) CeB_6 (s)

$\Delta H^0_{298} = -338.9$ kJ·mol^{-1} [2] $S^0_{298} = 74.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 103.31$ J·mol^{-1}·K^{-1} (298 K) [2]

$B_6K_2O_{10}$ (s) Potassium Borate **$B_6K_2O_{10}$ (s)**
$K_2O \cdot 3B_2O_3$ (s) $K_2O \cdot 3B_2O_3$ (s)

mp = 1098 K (825 °C)
$\Delta H^0_{298} = -4633.5 \pm 10.4$ kJ·mol^{-1} [1] $S^0_{298} = 251 \pm 13$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 204.11 + 205.35 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1098 K) [4]

$B_6Li_2O_{10}$ (s) Lithium Borate **$B_6Li_2O_{10}$ (s)**
$Li_2O \cdot 3B_2O_3$ (s) $Li_2O \cdot 3B_2O_3$ (s)

mp = 1107 K (834 °C)
$\Delta H^0_{298} = -4650.2$ kJ·mol^{-1} [4] $S^0_{298} = 188.3 \pm 4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 311.81 + 89.64 \cdot 10^{-3} \cdot T - 4.22 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1107 K) [4]

$B_6Na_2O_{10}$ (s) Sodium Borate **$B_6Na_2O_{10}$ (s)**
$Na_2O \cdot 3B_2O_3$ (s) $Na_2O \cdot 3B_2O_3$ (s)

mp = 1039 K (766 °C)
$\Delta H^0_{298} = -4598.2$ kJ·mol^{-1} [4] $S^0_{298} = 232.2 \pm 6.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 81.8 + 564.61 \cdot 10^{-3} \cdot T + 0.94 \cdot 10^6 \cdot T^{-2} - 191.68 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1039 K) [4]

$B_6O_{10}Pb$ (s) Lead Borate **$B_6O_{10}Pb$ (s)**
$PbO \cdot 3B_2O_3$ (s) $PbO \cdot 3B_2O_3$ (s)

$\Delta H^0_{298} = -4196.6 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 203.3 \pm 13$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 230.96$ J·mol^{-1}·K^{-1} (298 K) [1]

B_6V_5 (s) Vanadium Boride **B_6V_5 (s)**
V_5B_6 (s) V_5B_6 (s)

ΔH^0_{298} = – 763.8 kJ·mol^{-1} [4] S^0_{298} = 147.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 247.28 + 48.33 ·10^{-3}·T – 6.54 ·10^6·T^{-2} + 10.07 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$B_8K_2O_{13}$ (s) Potassium Borate **$B_8K_2O_{13}$ (s)**
$K_2O \cdot 4B_2O_3$ (s) $K_2O \cdot 4B_2O_3$ (s)

mp = 1130 K (857 °C)
ΔH^0_{298} = – 5945.1 ± 5.9 kJ·mol^{-1} [1] S^0_{298} = 293.7 ± 16.7 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 308.36 + 239.53 ·10^{-3}·T – 5.4 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1130 K) [4]

$B_8K_2O_{13}$ (s) Potassium Borate **$B_8K_2O_{13}$ (s)**
$K_2O \cdot 4B_2O_3$ (s) $K_2O \cdot 4B_2O_3$ (s)

ΔH^0_{1130} = – 5559.7 kJ·mol^{-1} [4] S^0_{1130} = 875.6 J·mol^{-1}·K^{-1} [4]

$B_8K_2O_{13}$ (l) Potassium Borate **$B_8K_2O_{13}$ (l)**
$K_2O \cdot 4B_2O_3$ (l) $K_2O \cdot 4B_2O_3$ (l)

ΔH^0_{1130} = – 5409.9 kJ·mol^{-1} [4] S^0_{1130} = 1008.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 661.49 J·mol^{-1}·K^{-1} (1130 K) [4]

$B_8Li_2O_{13}$ (s) Lithium Borate **$B_8Li_2O_{13}$ (s)**
$Li_2O \cdot 4B_2O_3$ (s) $Li_2O \cdot 4B_2O_3$ (s)

mp = 908 K (635 °C)
ΔH^0_{298} = – 5914.4 ± 6.8 kJ·mol^{-1} [1] S^0_{298} = 265.3 ± 4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 425.53 + 98.5 ·10^{-3}·T – 11.62 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 908 K) [4]

$B_8Na_2O_{13}$ (s) Sodium Borate **$B_8Na_2O_{13}$ (s)**
$Na_2O \cdot 4B_2O_3$ (s) $Na_2O \cdot 4B_2O_3$ (s)

mp = 1089 K (816 °C)
ΔH^0_{298} = – 5902.8 kJ·mol^{-1} [4] S^0_{298} = 276.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 345.18 + 226.35 ·10^{-3}·T – 9.58 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1089 K) [4]

$B_{10}H_{14}$ (s) Decaborane **$B_{10}H_{14}$ (s)**

mp = 372 K (99 °C)
$\Delta H^0_{298} = -28.9 \pm 19$ kJ·mol^{-1} [1] $S^0_{298} = 176.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 782.3 - 694.837 \cdot 10^{-3} \cdot T - 31.87 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 372 K) [4]
$\lg(p,K) = -4.88 \cdot 10^3 \cdot T^{-1} - 7.06 \cdot \lg(T) + 29.68$ (298 ... 372 K) [4]
{Reaction: evaporation}

$B_{10}H_{14}$ (l) Decaborane **$B_{10}H_{14}$ (l)**

$\Delta H^0_{298} = -7.1$ kJ·mol^{-1} [1] $S^0_{298} = 234.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 221.2$ J·mol^{-1}·K^{-1} (298 K) [1]

$B_{10}H_{14}$ (g) Decaborane **$B_{10}H_{14}$ (g)**

$\Delta H^0_{298} = 47.3 \pm 18.8$ kJ·mol^{-1} [1] $S^0_{298} = 352.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 365.28 + 102.59 \cdot 10^{-3} \cdot T - 22.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

$B_{10}O_{17}Pb_2$ (s) Lead Borate **$B_{10}O_{17}Pb_2$ (s)**
$2PbO \cdot 5B_2O_3$ (s) $2PbO \cdot 5B_2O_3$ (s)

$\Delta H^0_{298} = -7087.7 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 352.7 \pm 13$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 406.68$ J·mol^{-1}·K^{-1} (298 K) [1]

$B_{12}U$ (s) Uranium Boride **$B_{12}U$ (s)**
UB_{12} (s) UB_{12} (s)

mp = 2508 K (2235 °C)
$\Delta H^0_{298} = -397$ kJ·mol^{-1} [2] $S^0_{298} = 139.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 308.57 + 15.31 \cdot 10^{-3} \cdot T - 12.76 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Ba (s) Barium **Ba (s)**

mp = 1002 K (729 °C) bp = 2167 K (1894 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 62.5 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 13.26 + 52.32 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 648 K) [4]
$\lg(p,K) = -9.87 \cdot 10^3 \cdot T^{-1} - 2.44 \cdot \lg(T) + 12.9$ (700 ... 1002 K) [4]
{Reaction: evaporation}

Ba (s) Barium **Ba (s)**

$\Delta H^0_{1002} = 27.8$ kJ·mol^{-1} [4] $S^0_{1002} = 108.9$ J·mol^{-1}·K^{-1} [4]

Ba (l) Barium **Ba (l)**

$\Delta H^0_{1002} = 35.6$ kJ·mol^{-1} [4] $S^0_{1002} = 116.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 43.1 - 1.43 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1002 ... 2167 K) [4]

$\lg(p,K) = -9.11 \cdot 10^3 \cdot T^{-1} - 1.84 \cdot \lg(T) + 10.34$ (1002 ... 2167 K) [4]

{Reaction: evaporation}

Ba (l) Barium **Ba (l)**

$\Delta H^0_{298} = 5$ kJ·mol^{-1} [1] $S^0_{298} = 66.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 43.1 - 1.43 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1002 ... 2167 K) [4]

Ba (g) Barium **Ba (g)**

$\Delta H^0_{298} = 179.1 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 170.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 20.8$ J·mol^{-1}·K^{-1} (298 K) [1]

BaBr (g) Barium(I) Bromide **BaBr (g)**

$\Delta H^0_{298} = -110.6 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 270.4 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 37.38 + 0.57 \cdot 10^{-3} \cdot T - 0.5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$BaBr_2$ (s) Barium(II) Bromide **$BaBr_2$ (s)**

mp = 1130 K (857 °C) bp = 2108 K (1835 °C)

$\Delta H^0_{298} = -757.3 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 146.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 75.02 + 16.18 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1130 K) [4]

$\lg(p,K) = -17.4 \cdot 10^3 \cdot T^{-1} - 4.08 \cdot \lg(T) + 22.62$ (900 ... 1130 K) [4]

{Reaction: evaporation (total pressure)}

$BaBr_2$ (s) Barium(II) Bromide **$BaBr_2$ (s)**

$\Delta H^0_{1130} = -685.9$ kJ·mol^{-1} [4] $S^0_{1130} = 258.5$ J·mol^{-1}·K^{-1} [4]

$BaBr_2$ (l) Barium(II) Bromide **$BaBr_2$ (l)**

$\Delta H^0_{1130} = -653.5$ kJ·mol^{-1} [4] $S^0_{1130} = 287.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 79.86 + 17.4 \cdot 10^{-3} \cdot T - 0.09 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1130 ... 2108 K) [4]
$\lg(p,K) = -16.71 \cdot 10^3 \cdot T^{-1} - 5.99 \cdot \lg(T) + 27.84$ (1130 ... 2108 K) [4]
{Reaction: evaporation (total pressure)}

$BaBr_2$ (l) Barium(II) Bromide **$BaBr_2$ (l)**

$\Delta H^0_{298} = -730.2$ kJ·mol^{-1} [1] $S^0_{298} = 172.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 77.02$ J·mol^{-1}·K^{-1} (298 K) [1]

$BaBr_2$ (g) Barium(II) Bromide **$BaBr_2$ (g)**

$\Delta H^0_{298} = -439.3$ kJ·mol^{-1} [4] $S^0_{298} = 342.1 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 58.19 + 0.01 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2108 K) [4]

$BaCO_3$ (s) Barium Carbonate alpha **$BaCO_3$ (s)**

$\Delta H^0_{298} = -1197.9$ kJ·mol^{-1} [4] $S^0_{298} = 112.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 86.9 + 48.95 \cdot 10^{-3} \cdot T - 1.2 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1079 K) [4]
$\lg(p,K) = -14.06 \cdot 10^3 \cdot T^{-1} - 2.58 \cdot \lg(T) + 17.28$ (800 ... 1079 K) [4]
{Reaction: decomposition $BaCO_3(s) = BaO(s) + CO_2(g)$}

$BaCO_3$ (s) Barium Carbonate alpha **$BaCO_3$ (s)**

$\Delta H^0_{1079} = -1106.6$ kJ·mol^{-1} [4] $S^0_{1079} = 255.9$ J·mol^{-1}·K^{-1} [4]

$BaCO_3$ (s) Barium Carbonate beta **$BaCO_3$ (s)**

$\Delta H^0_{1079} = -1087.8$ kJ·mol^{-1} [4] $S^0_{1079} = 273.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 154.81$ J·mol^{-1}·K^{-1} (1079 K) [4]
$\lg(p,K) = -14.18 \cdot 10^3 \cdot T^{-1} - 4.98 \cdot \lg(T) + 24.68$ (1079 ... 1241 K) [4]
{Reaction: decomposition $BaCO_3(s) = BaO(s) + CO_2(g)$}

$BaCO_3$ (s) Barium Carbonate beta **$BaCO_3$ (s)**

$\Delta H^0_{1241} = -1062.7$ kJ·mol^{-1} [4] $S^0_{1241} = 295$ J·mol^{-1}·K^{-1} [4]

$BaCO_3$ (s) Barium Carbonate gamma **$BaCO_3$ (s)**

$\Delta H^0_{1241} = -1059.8$ kJ·mol^{-1} [4] $S^0_{1241} = 297.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 163.18$ J·mol^{-1}·K^{-1} (1241 K) [4]
$\lg(p,K) = -14.33 \cdot 10^3 \cdot T^{-1} - 5.54 \cdot \lg(T) + 26.52$ (1241 ... 1646 K) [4]
{Reaction: decomposition $BaCO_3(s) = BaO(s) + CO_2(g)$}

BaC_2 (s) Barium Carbide **BaC_2 (s)**

$\Delta H^0_{298} = -74.1$ kJ·mol^{-1} [4] $S^0_{298} = 88.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 73.64 + 3.77 \cdot 10^{-3} \cdot T - 0.97 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

$BaCeO_3$ (s) Barium Cerium Oxide **$BaCeO_3$ (s)**
$BaO \cdot CeO_2$ (s) $BaO \cdot CeO_2$ (s)

$\Delta H^0_{298} = -1690 \pm 2.5$ kJ·mol^{-1} [109] $S^0_{298} = [134.4]$ J·mol^{-1}·K^{-1} [110]
$C_p^0 = [108.31]$ J·mol^{-1}·K^{-1} (298 K) [271]

BaCl (g) Barium(I) Chloride **BaCl (g)**

$\Delta H^0_{298} = -142.3 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 258.6 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 37.27 + 0.7 \cdot 10^{-3} \cdot T - 0.09 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$BaCl_2$ (s) Barium(II) Chloride alpha **$BaCl_2$ (s)**

mp = 1235 K (962 °C) bp = 2300 K (2027 °C)
$\Delta H^0_{298} = -858.6 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 123.7 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 66.37 + 23.47 \cdot 10^{-3} \cdot T + 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1198 K) [4]
$\lg(p,K) = -19.69 \cdot 10^3 \cdot T^{-1} - 4.12 \cdot \lg(T) + 23.24$ (1000 ... 1198 K) [4]
{Reaction: evaporation (total pressure)}

$BaCl_2$ (s) Barium(II) Chloride alpha **$BaCl_2$ (s)**

$\Delta H^0_{1198} = -782.6$ kJ·mol^{-1} [4] $S^0_{1198} = 237.9$ J·mol^{-1}·K^{-1} [4]

$BaCl_2$ (s) Barium(II) Chloride beta **$BaCl_2$ (s)**

$\Delta H^0_{1198} = -765.7$ kJ·mol^{-1} [4] $S^0_{1198} = 252.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 123.85$ J·mol^{-1}·K^{-1} (1198 K) [4]
$\lg(p,K) = -20.77 \cdot 10^3 \cdot T^{-1} - 7.91 \cdot \lg(T) + 35.81$ (1198 ... 1235 K) [4]
{Reaction: evaporation (total pressure)}

$BaCl_2$ (s) Barium(II) Chloride beta **$BaCl_2$ (s)**

$\Delta H^0_{1235} = -761.1$ kJ·mol^{-1} [4] $S^0_{1235} = 255.8$ J·mol^{-1}·K^{-1} [4]

$BaCl_2$ (l) Barium(II) Chloride **$BaCl_2$ (l)**

$\Delta H^0_{1235} = -745.1$ kJ·mol^{-1} [4] $S^0_{1235} = 268.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 108.7$ J·mol^{-1}·K^{-1} (1235 K) [4]
$\lg(p,K) = -18.96 \cdot 10^3 \cdot T^{-1} - 6.08 \cdot \lg(T) + 28.68$ (1235 ... 2000 K) [4]
{Reaction: evaporation (total pressure)}

$BaCl_2$ (l) Barium(II) Chloride **$BaCl_2$ (l)**

$\Delta H^0_{298} = -832.5$ kJ·mol^{-1} [1] $S^0_{298} = 143.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 75.14$ J·mol^{-1}·K^{-1} (298 K) [1]

$BaCl_2$ (g) Barium(II) Chloride **$BaCl_2$ (g)**

$\Delta H^0_{298} = -498.7 \pm 17$ kJ·mol^{-1} [1] $S^0_{298} = 325.7 \pm 5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 58.13 + 0.04 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$BaCrO_4$ (s) Barium Chromate **$BaCrO_4$ (s)**

$\Delta H^0_{298} = -1446$ kJ·mol^{-1} [2] $S^0_{298} = 158.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 120.2$ J·mol^{-1}·K^{-1} (298 K) [2]

$BaCuO_2$ (s) Barium Copper Oxide **$BaCuO_2$ (s)**

$\Delta H^0_{298} = -772.7 \pm 2.1$ kJ·mol^{-1} [87] $S^0_{298} = [115]$ J·mol^{-1}·K^{-1} [88]
$C_p{}^0 = [89.04]$ J·mol^{-1}·K^{-1} (298 K) [271]

BaF (g) Barium(I) Fluoride **BaF (g)**

$\Delta H^0_{298} = -322.2 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 246.2 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.05 + 0.66 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BaF_2 (s) Barium(II) Fluoride **BaF_2 (s)**

mp = 1553 K (1280 °C) bp = 2410 K (2137 °C)
$\Delta H^0_{298} = -1215.5$ kJ·mol^{-1} [4] $S^0_{298} = 96.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 29.03 + 76.95 \cdot 10^{-3} \cdot T + 1.81 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1310 K) [4]
$\lg(p,K) = -23.74 \cdot 10^{3} \cdot T^{-1} - 8.28 \cdot \lg(T) + 37.68$ (1200 ... 1310 K) [4]
{Reaction: evaporation (total pressure)}

BaF_2 (l) Barium(II) Fluoride **BaF_2 (l)**

$\Delta H^0_{298} = -1171.3$ kJ·mol^{-1} [1] $S^0_{298} = 121.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 72.2$ J·mol^{-1}·K^{-1} (298 K) [1]

BaF_2 (g) Barium(II) Fluoride **BaF_2 (g)**

$\Delta H^0_{298} = -812.3$ kJ·mol^{-1} [4] $S^0_{298} = 301.3 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 57.8 + 0.25 \cdot 10^{-3} \cdot T - 0.36 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BaHO (g) Barium Hydroxide **BaHO (g)**
BaOH (g) BaOH (g)

$\Delta H^0_{298} = -226.4 \pm 29.3$ kJ·mol^{-1} [1] $S^0_{298} = 252.9 \pm 8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 46.36$ J·mol^{-1}·K^{-1} (298 K) [1]

BaH_2 (s) Barium Hydride **BaH_2 (s)**

$\Delta H^0_{298} = -178.7$ kJ·mol^{-1} [4] $S^0_{298} = 64.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.24 + 17.15 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1002 K) [4]
$\lg(p,K) = -9.08 \cdot 10^3 \cdot T^{-1} + 2.36 \cdot \lg(T) - 0.08$ (600 ... 1002 K) [4]
{Reaction: decomposition BaH_2(s) = Ba(s) + H_2(g)}

BaH_2O_2 (s) Barium Hydroxide **BaH_2O_2 (s)**
$Ba(OH)_2$ (s) $Ba(OH)_2$ (s)

mp = 681 K (408 °C)
$\Delta H^0_{298} = -946.3$ kJ·mol^{-1} [1] $S^0_{298} = 107.1 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 114.58 + 22.07 \cdot 10^{-3} \cdot T - 1.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 681 K) [4]
$\lg(p,K) = -8.69 \cdot 10^3 \cdot T^{-1} - 3.72 \cdot \lg(T) + 18.97$ (500 ... 681 K) [4]
{Reaction: decomposition $Ba(OH)_2$(s) = BaO(s) + H_2O(g)}

BaH_2O_2 (s) Barium Hydroxide **BaH_2O_2 (s)**
$Ba(OH)_2$ (s) $Ba(OH)_2$ (s)

$\Delta H^0_{681} = -901.6$ kJ·mol^{-1} [4] $S^0_{681} = 202.3$ J·mol^{-1}·K^{-1} [4]

BaH_2O_2 (l) Barium Hydroxide **BaH_2O_2 (l)**
$Ba(OH)_2$ (l) $Ba(OH)_2$ (l)

$\Delta H^0_{681} = -884.8$ kJ·mol^{-1} [4] $S^0_{681} = 226.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 138.07$ J·mol^{-1}·K^{-1} (681 K) [4]
$\lg(p,K) = -8.09 \cdot 10^3 \cdot T^{-1} - 4.77 \cdot \lg(T) + 21.06$ (681 ... 1305 K) [4]
{Reaction: decomposition $Ba(OH)_2$(s) = BaO(s) + H_2O(g)}

BaH_2O_2 (l) Barium Hydroxide **BaH_2O_2 (l)**
$Ba(OH)_2$ (l) $Ba(OH)_2$ (l)

$\Delta H^0_{298} = -934.1$ kJ·mol^{-1} [1] $S^0_{298} = 123.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 101.63$ J·mol^{-1}·K^{-1} (298 K) [1]

BaH_2O_2 (g) Barium Hydroxide **BaH_2O_2 (g)**
$Ba(OH)_2$ (g) $Ba(OH)_2$ (g)

$\Delta H^0_{298} = -626.6 \pm 37.7$ kJ·mol^{-1} [1] $S^0_{298} = 315 \pm 12.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 85.5 + 7.96 \cdot 10^{-3} \cdot T - 0.94 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -16.7 \cdot 10^3 \cdot T^{-1} - 5.31 \cdot \lg(T) + 25.54$ (900 ... 1305 K) [4]
{Reaction: decomposition $Ba(OH)_2(s) = BaO(s) + H_2O(g)$}

$BaHfO_3$ (s) Barium Hafnate **$BaHfO_3$ (s)**
$BaO \cdot HfO_2$ (s) $BaO \cdot HfO_2$ (s)

$\Delta H^0_{298} = -1789.9$ kJ·mol^{-1} [4] $S^0_{298} = 121.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 123.85 + 13.39 \cdot 10^{-3} \cdot T - 1.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

BaI (g) Barium(I) Iodide **BaI (g)**

$\Delta H^0_{298} = -42.4 \pm 84$ kJ·mol^{-1} [1] $S^0_{298} = 278.7 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.4 + 0.59 \cdot 10^{-3} \cdot T - 0.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BaI_2 (s) Barium(II) Iodide **BaI_2 (s)**

mp = 984 K (711 °C) bp = 2118 K (1845 °C)
$\Delta H^0_{298} = -602.1$ kJ·mol^{-1} [4] $S^0_{298} = 165.1 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 73.76 + 18 \cdot 10^{-3} \cdot T - 0.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 984 K) [4]
$\lg(p,K) = -15.54 \cdot 10^3 \cdot T^{-1} - 3.9 \cdot \lg(T) + 21.33$ (900 ... 984 K) [4]
{Reaction: evaporation (total pressure)}

BaI_2 (s) Barium(II) Iodide **BaI_2 (s)**

$\Delta H^0_{984} = -543.9$ kJ·mol^{-1} [4] $S^0_{984} = 264.8$ J·mol^{-1}·K^{-1} [4]

BaI_2 (l) Barium(II) Iodide **BaI_2 (l)**

$\Delta H^0_{984} = -517.4$ kJ·mol^{-1} [4] $S^0_{984} = 291.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 112.97$ J·mol^{-1}·K^{-1} (984 K) [4]
$\lg(p,K) = -15.31 \cdot 10^3 \cdot T^{-1} - 6.59 \cdot \lg(T) + 29.14$ (984 ... 2118 K) [4]
{Reaction: evaporation (total pressure)}

BaI_2 (l) Barium(II) Iodide **BaI_2 (l)**

$\Delta H^0_{298} = -585.9$ kJ·mol^{-1} [1] $S^0_{298} = 183.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 77.49$ J·mol^{-1}·K^{-1} (298 K) [1]

BaI_2 (g) Barium(II) Iodide **BaI_2 (g)**

$\Delta H^0_{298} = -318.1$ kJ·mol^{-1} [4] $S^0_{298} = 348.1 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 58.19 + 0.01 \cdot 10^{-3} \cdot T - 0.6 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 -2122 K) [4]

$BaMoO_3$ (s) Barium Molybdenum Oxide **$BaMoO_3$ (s)**
$BaO \cdot MoO_2$ (s) $BaO \cdot MoO_2$ (s)

$\Delta H^0_{298} = -1235$ kJ·mol^{-1} [179] $S^0_{298} = [118.6]$ J·mol^{-1}·K^{-1} [180]
$C_p{}^0 = [102.68]$ J·mol^{-1}·K^{-1} (298 K) [271]

$BaMoO_4$ (s) Barium Molybdate **$BaMoO_4$ (s)**

mp = 1723 K (1450 °C)
$\Delta H^0_{298} = -1501.6$ kJ·mol^{-1} [4] $S^0_{298} = 146.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 135.27 + 28.45 \cdot 10^{-3} \cdot T - 2.51 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1700 K) [4]

BaN_2O_6 (s) Barium Nitrate **BaN_2O_6 (s)**
$Ba(NO_3)_2$ (s) $Ba(NO_3)_2$ (s)

mp = 865 K (592 °C)
$\Delta H^0_{298} = -992.1$ kJ·mol^{-1} [2] $S^0_{298} = 213.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 125.73 + 149.37 \cdot 10^{-3} \cdot T - 1.68 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 865 K) [4]

BaO (s) Barium Oxide **BaO (s)**

mp = 2286 K (2013 °C) bp = 3365 K (3092 °C)
$\Delta H^0_{298} = -548.1 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 72.1 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 50.56 + 7.02 \cdot 10^{-3} \cdot T - 0.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2286 K) [4]

BaO (s) Barium Oxide **BaO (s)**

$\Delta H^0_{2286} = -431.1$ kJ·mol^{-1} [4] $S^0_{2286} = 186.1$ J·mol^{-1}·K^{-1} [4]

BaO (l) Barium Oxide **BaO (l)**

$\Delta H^0_{2286} = -372.5$ kJ·mol^{-1} [4] $S^0_{2286} = 211.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 66.94$ J·mol^{-1}·K^{-1} (2286 K) [4]

BaO (l) Barium Oxide **BaO (l)**

$\Delta H^0_{298} = -491.6$ kJ·mol^{-1} [1] $S^0_{298} = 96.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 47.28$ J·mol^{-1}·K^{-1} (298 K) [1]

BaO (g) Barium Oxide **BaO (g)**

$\Delta H^0_{298} = -123.8 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 235.5 \pm 0.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36.32 + 0.93 \cdot 10^{-3} \cdot T - 0.33 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

BaO_2 (s) Barium Peroxide **BaO_2 (s)**

$\Delta H^0_{298} = -642.4$ kJ·mol^{-1} [4] $S^0_{298} = 81.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 62.34 + 28.03 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 -1069 K) [4]
$\lg(p,K) = -10.46 \cdot 10^{3} \cdot T^{-1} - 3.26 \cdot \lg(T) + 19.66$ (600 ... 1069 K) [4]
{Reaction: decomposition $2BaO_2(s) = 2BaO(s) + O_2(g)$}

BaO_3Pr (s) Barium Praseodymium Oxide **BaO_3Pr (s)**
$BaO \cdot PrO_2$ (s) $BaO \cdot PrO_2$ (s)

$\Delta H^0_{298} = -1669.5$ kJ·mol^{-1} [179] $S^0_{298} = [152]$ J·mol^{-1}·K^{-1} [183]
$C_p{}^0 = [119.65]$ J·mol^{-1}·K^{-1} (298 K) [271]

BaO_3Pu (s) Barium Plutonium Oxide **BaO_3Pu (s)**
$BaO \cdot PuO_2$ (s) $BaO \cdot PuO_2$ (s)

$\Delta H^0_{298} = -1655.9$ kJ·mol^{-1} [179] $S^0_{298} = [138.2]$ J·mol^{-1}·K^{-1} [185]
$C_p{}^0 = [113.04]$ J·mol^{-1}·K^{-1} (298 K) [271]

BaO_3Si (s) Barium Silicate **BaO_3Si (s)**

$BaO \cdot SiO_2$ (s) $BaO \cdot SiO_2$ (s)

mp = 1878 K (1605 °C)

$\Delta H^0_{298} = -1618$ kJ·mol^{-1} [4] $S^0_{298} = 104.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 122.01 + 7.11 \cdot 10^{-3} \cdot T + 3.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1300 K) [4]

BaO_3Tb (s) Barium Terbium Oxide **BaO_3Tb (s)**

$BaO \cdot TbO_2$ (s) $BaO \cdot TbO_2$ (s)

$\Delta H^0_{298} = -1609 \pm 2.7$ kJ·mol^{-1} [179] $S^0_{298} = [154.9]$ J·mol^{-1}·K^{-1} [184]

$C_p{}^0 = [108.31]$ J·mol^{-1}·K^{-1} (298 K) [271]

BaO_3Ti (s) Barium Titanate **BaO_3Ti (s)**

$BaO \cdot TiO_2$ (s) $BaO \cdot TiO_2$ (s)

mp = 1988 K (1715 °C)

$\Delta H^0_{298} = -1647.7$ kJ·mol^{-1} [4] $S^0_{298} = 110.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 121.46 + 8.54 \cdot 10^{-3} \cdot T - 1.92 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1988 K) [4]

BaO_3U (s) Barium Uranium Oxide **BaO_3U (s)**

$BaO \cdot UO_2$ (s) $BaO \cdot UO_2$ (s)

$\Delta H^0_{298} = -1690.1$ kJ·mol^{-1} [179] $S^0_{298} = [149.1]$ J·mol^{-1}·K^{-1} [187]

$C_p{}^0 = [110.36]$ J·mol^{-1}·K^{-1} (298 K) [271]

BaO_3Zr (s) Barium Zirconate **BaO_3Zr (s)**

$BaO \cdot ZrO_2$ (s) $BaO \cdot ZrO_2$ (s)

$\Delta H^0_{298} = -1779.5$ kJ·mol^{-1} [2] $S^0_{298} = 124.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 127.49 + 5.94 \cdot 10^{-3} \cdot T - 2.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BaO_4S (s) Barium Sulfate **BaO_4S (s)**

$BaSO_4$ (s) $BaSO_4$ (s)

mp = 1623 K (1350 °C)

$\Delta H^0_{298} = -1473.2$ kJ·mol^{-1} [2] $S^0_{298} = 132.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 141.42 - 3.53 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1623 K) [4]

BaO_4U (s) Barium Uranate(VI) **BaO_4U (s)**

$BaO \cdot UO_3$ (s) $BaO \cdot UO_3$ (s)

$\Delta H^0_{298} = -1982.3$ kJ·mol^{-1} [4] $S^0_{298} = 178.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 140.58 + 20.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 900 K) [4]

BaO_4W (s) Barium Tungstate(VI) **BaO_4W (s)**

$BaO \cdot WO_3$ (s) $BaO \cdot WO_3$ (s)

$\Delta H^0_{298} = -1703$ kJ·mol^{-1} [2] $S^0_{298} = 154.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 133.82$ J·mol^{-1}·K^{-1} (298 K) [2]

BaO_4Y_2 (s) Barium Yttrium Oxide **BaO_4Y_2 (s)**

Y_2BaO_4 (s) Y_2BaO_4 (s)

$\Delta H^0_{298} = -2487.5 \pm 2.8$ kJ·mol^{-1} [87] $S^0_{298} = [171]$ J·mol^{-1}·K^{-1} [89]

$C_p^0 = [149.25]$ J·mol^{-1}·K^{-1} (298 K) [271]

BaO_5Si_2 (s) Barium Silicate **BaO_5Si_2 (s)**

$BaO \cdot 2SiO_2$ (s) $BaO \cdot 2SiO_2$ (s)

$\Delta H^0_{298} = -2548.1$ kJ·mol^{-1} [2] $S^0_{298} = 153.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 134.2$ J·mol^{-1}·K^{-1} (298 K) [2]

BaO_6V_2 (s) Barium Vanadate(V) **BaO_6V_2 (s)**

$BaO \cdot V_2O_5$ (s) $BaO \cdot V_2O_5$ (s)

mp = 980 K (707 °C)

$\Delta H^0_{298} = -2282$ kJ·mol^{-1} [4] $S^0_{298} = 193.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 181.59 + 81.17 \cdot 10^{-3} \cdot T - 2.93 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 980 K) [4]

BaO_7U_2 (s) Barium Uranium Oxide **BaO_7U_2 (s)**

$BaO \cdot 2UO_3$ (s) $BaO \cdot 2UO_3$ (s)

$\Delta H^0_{298} = -3234.8 \pm 3.4$ kJ·mol^{-1} [222] $S^0_{298} = [269.7]$ J·mol^{-1}·K^{-1} [223]

$C_p^0 = [209.11]$ J·mol^{-1}·K^{-1} (298 K) [271]

$BaPdS_2$ (s) Barium Palladium Sulfide **$BaPdS_2$ (s)**

$\Delta H^0_{298} = -515.4$ kJ·mol^{-1} [275] $S^0_{298} = [134.9]$ J·mol^{-1}·K^{-1} [276]
$C_p^0 = [92.72]$ J·mol^{-1}·K^{-1} (298 K) [271]

BaS (s) Barium Sulfide **BaS (s)**

mp = 2500 K (2227 °C)
$\Delta H^0_{298} = -463.6 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 78.4 \pm 1.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 49.37$ J·mol^{-1}·K^{-1} (298 K) [1]

BaS (g) Barium Sulfide **BaS (g)**

$\Delta H^0_{298} = 37.8 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 248.9 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 35.53$ J·mol^{-1}·K^{-1} (298 K) [1]

BaSe (s) Barium Selenide **BaSe (s)**

$\Delta H^0_{298} = 393.3$ kJ·mol^{-1} [5] $S^0_{298} = [90.8]$ J·mol^{-1}·K^{-1} [5]
$C_p^0 = [53.1]$ J·mol^{-1}·K^{-1} (298 K) [15]

$BaSn_3$ (s) Barium Tin **$BaSn_3$ (s)**

$\Delta H^0_{298} = -194.6$ kJ·mol^{-1} [4] $S^0_{298} = 188.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 84.73 + 52.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 953 K) [4]

BaTe (s) Barium Telluride **BaTe (s)**

$\Delta H^0_{298} = -313.8$ kJ·mol^{-1} [2] $S^0_{298} = 97.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 45.2$ J·mol^{-1}·K^{-1} (298 K) [2]

Ba_2CaNpO_6 (s) Barium Calcium Neptunium Oxide **Ba_2CaNpO_6 (s)**
$2BaO \cdot CaO \cdot NpO_3$ (s) $2BaO \cdot CaO \cdot NpO_3$ (s)

$\Delta H^0_{298} = -3159.2 \pm 6.7$ kJ·mol^{-1} [171] $S^0_{298} = [281.2]$ J·mol^{-1}·K^{-1} [174]

Ba_2CaO_6Pu (s) Barium Calcium Plutonium Oxide **Ba_2CaO_6Pu (s)**
$2BaO \cdot CaO \cdot PuO_3$ (s) $2BaO \cdot CaO \cdot PuO_3$ (s)

$\Delta H^0_{298} = -3067.7 \pm 8$ kJ·mol^{-1} [171] S^0_{298} = [281.2] J·mol^{-1}·K^{-1} [175]

Ba_2CaO_6U (s) Barium Calcium Uranium Oxide **Ba_2CaO_6U (s)**
$2BaO \cdot CaO \cdot UO_3$ (s) $2BaO \cdot CaO \cdot UO_3$ (s)

$\Delta H^0_{298} = -3295.6 \pm 4.8$ kJ·mol^{-1} [171] S^0_{298} = [281.2] J·mol^{-1}·K^{-1} [172]
C_p^0= [216.84] J·mol^{-1}·K^{-1} (298 K) [271]

Ba_2MgO_6Pu (s) Barium Magnesium Plutonium Oxide **Ba_2MgO_6Pu (s)**
$2BaO \cdot MgO \cdot PuO_3$ (s) $2BaO \cdot MgO \cdot PuO_3$ (s)

$\Delta H^0_{298} = -2994.5 \pm 7.9$ kJ·mol^{-1} [171] S^0_{298} = [269.9] J·mol^{-1}·K^{-1} [176]

Ba_2NpO_6Sr (s) Barium Strontium Neptunium Oxide **Ba_2NpO_6Sr (s)**
$2BaO \cdot SrO \cdot NpO_3$ (s) $2BaO \cdot SrO \cdot NpO_3$ (s)

$\Delta H^0_{298} = -3122.6 \pm 6.7$ kJ·mol^{-1} [171] S^0_{298} = [298.5] J·mol^{-1}·K^{-1} [174]

Ba_2O_4Si (s) Barium Silicate **Ba_2O_4Si (s)**
$2BaO \cdot SiO_2$ (s) $2BaO \cdot SiO_2$ (s)

mp = 2033 K (1760 °C)
$\Delta H^0_{298} = -2277$ kJ·mol^{-1} [4] S^0_{298} = 177.8 J·mol^{-1}·K^{-1} [4]
$C_p^0 = 175.35 + 11.46 \cdot 10^{-3} \cdot T - 3.97 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1300 K) [4]

Ba_2O_4Ti (s) Barium Titanate **Ba_2O_4Ti (s)**
$2BaO \cdot TiO_2$ (s) $2BaO \cdot TiO_2$ (s)

mp = 2133 K (1860 °C)
$\Delta H^0_{298} = -2233.4$ kJ·mol^{-1} [4] S^0_{298} = 196.7 J·mol^{-1}·K^{-1} [4]
$C_p^0 = 179.91 + 6.69 \cdot 10^{-3} \cdot T - 2.91 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1800 K) [4]

Ba_2O_6PuSr (s) Barium Strontium Plutonium Oxide **Ba_2O_6PuSr (s)**

$2BaO \cdot SrO \cdot PuO_3$ (s) $2BaO \cdot SrO \cdot PuO_3$ (s)

$\Delta H^0_{298} = -3023.7 \pm 8.2$ kJ·mol^{-1} [171] S^0_{298} = [298.5] J·mol^{-1}·K^{-1} [174]

Ba_2O_6SrU (s) Barium Strontium Uranium Oxide **Ba_2O_6SrU (s)**

$2BaO \cdot SrO \cdot UO_3$ (s) $2BaO \cdot SrO \cdot UO_3$ (s)

$\Delta H^0_{298} = -3257.3 \pm 4.4$ kJ·mol^{-1} [171] S^0_{298} = [298.5] J·mol^{-1}·K^{-1} [173]

$C_p{}^0$= [220.21] J·mol^{-1}·K^{-1} (298 K) [271]

$Ba_2O_7U_2$ (s) Barium Uranium Oxide **$Ba_2O_7U_2$ (s)**

$2BaO \cdot UO_2 \cdot UO_3$ (s) $2BaO \cdot UO_2 \cdot UO_3$ (s)

$\Delta H^0_{298} = -3739.8 \pm 4.1$ kJ·mol^{-1} [222] S^0_{298} = [320] J·mol^{-1}·K^{-1} [224]

$C_p{}^0$= [238.31] J·mol^{-1}·K^{-1} (298 K) [271]

$Ba_2O_8Si_3$ (s) Barium Silicate **$Ba_2O_8Si_3$ (s)**

$2BaO \cdot 3SiO_2$ (s) $2BaO \cdot 3SiO_2$ (s)

$\Delta H^0_{298} = -4184.8$ kJ·mol^{-1} [2] $S^0_{298} = 258.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 224.6$ J·mol^{-1}·K^{-1} (298 K) [2]

Ba_2S_2 (g) Barium Sulfide **Ba_2S_2 (g)**

$\Delta H^0_{298} = 351.5$ kJ·mol^{-1} [5] S^0_{298} = [362.9] J·mol^{-1}·K^{-1} [15]

Ba_2Sn (s) Barium Tin **Ba_2Sn (s)**

$\Delta H^0_{298} = -376.6$ kJ·mol^{-1} [2] $S^0_{298} = 126.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 60.67 + 41.84 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

Ba_3N_2 (s) Barium Nitride **Ba_3N_2 (s)**

$\Delta H^0_{298} = -341$ kJ·mol⁻¹ [4] $S^0_{298} = 152.3$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 87.86 + 98.32 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 1000 K) [4]

$\lg(p,K) = -18.85 \cdot 10^3 \cdot T^{-1} - 2.51 \cdot \lg(T) + 20.54$ (900 ... 1000 K) [4]

{Reaction: decomposition $Ba_3N_2(s) = 3Ba(s) + N_2(g)$}

Ba_3O_6Pu (s) Barium Plutonium Oxide **Ba_3O_6Pu (s)**

$3BaO \cdot PuO_3$ (s) $3BaO \cdot PuO_3$ (s)

$\Delta H^0_{298} = -2997.7 \pm 8.7$ kJ·mol⁻¹ [171] $S^0_{298} = [315.1]$ J·mol⁻¹·K⁻¹ [178]

Be (s) Beryllium alpha **Be (s)**

mp = 1560 K (1287 °C) bp = 2742 K (2469 °C)

$\Delta H^0_{298} = 0$ kJ·mol⁻¹ [1] $S^0_{298} = 9.5 \pm 0.2$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 21.21 + 5.69 \cdot 10^{-3} \cdot T - 0.59 \cdot 10^6 \cdot T^{-2} + 0.96 \cdot 10^{-6} \cdot T^2$ J·mol⁻¹·K⁻¹ (298 ... 1527 K) [4]

$\lg(p,K) = -17.33 \cdot 10^3 \cdot T^{-1} - 1.11 \cdot \lg(T) + 10.35$ (298 ... 1527 K) [4]

{Reaction: evaporation (total pressure)}

Be (s) Beryllium alpha **Be (s)**

$\Delta H^0_{1547} = 32$ kJ·mol⁻¹ [4] $S^0_{1547} = 49.1$ J·mol⁻¹·K⁻¹ [4]

Be (s) Beryllium beta **Be (s)**

$\Delta H^0_{1547} = 34.6$ kJ·mol⁻¹ [4] $S^0_{1547} = 50.7$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 32.22$ J·mol⁻¹·K⁻¹ (1547 K) [4]

$\lg(p,K) = -17.36 \cdot 10^3 \cdot T^{-1} - 1.37 \cdot \lg(T) + 11.2$ (1527 ... 1560 K) [4]

{Reaction: evaporation (total pressure)}

Be (s) Beryllium beta **Be (s)**

$\Delta H^0_{1560} = 35.6$ kJ·mol⁻¹ [4] $S^0_{1560} = 51.4$ J·mol⁻¹·K⁻¹ [4]

Be (l) Beryllium **Be (l)**

$\Delta H^0_{1560} = 47.8$ kJ·mol^{-1} [4] $S^0_{1560} = 59.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 29.46$ J·mol^{-1}·K^{-1} (1560 K) [4]
$\lg(p,K) = -16.5 \cdot 10^3 \cdot T^{-1} - 1.04 \cdot \lg(T) + 9.6$ (1560 ... 2742 K) [4]
{Reaction: evaporation (total pressure)}

Be (l) Beryllium **Be (l)**

$\Delta H^0_{298} = 15.5$ kJ·mol^{-1} [1] $S^0_{298} = 19.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 16.38$ J·mol^{-1}·K^{-1} (298 K) [1]

Be (g) Beryllium **Be (g)**

$\Delta H^0_{298} = 324 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 136.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 20.79$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

BeBr (g) Beryllium(I) Bromide **BeBr (g)**

$\Delta H^0_{298} = 120.1 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 228.6 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 36.09 + 1.26 \cdot 10^{-3} \cdot T - 0.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$BeBr_2$ (s) Beryllium(II) Bromide **$BeBr_2$ (s)**

bp = 752 K (479 °C)
$\Delta H^0_{298} = -355.6 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 100.4 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 63.73 + 21.43 \cdot 10^{-3} \cdot T - 0.45 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 752 K) [4]
$\lg(p,K) = -6.93 \cdot 10^3 \cdot T^{-1} - 1.97 \cdot \lg(T) + 14.88$ (400 ... 752 K) [4]
{Reaction: evaporation (total pressure)}

$BeBr_2$ (g) Beryllium(II) Bromide **$BeBr_2$ (g)**

$\Delta H^0_{298} = -229.3 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 273.9 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 58.92 + 2.08 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BeC_2 (g) Beryllium Carbide **BeC_2 (g)**

ΔH^0_{298} = 564.8 kJ·mol^{-1} [1] S^0_{298} = 218.6 J·mol^{-1}·K^{-1} [1]
C_p^0= 41.28 J·mol^{-1}·K^{-1} (298 K) [1]

BeCl (g) Beryllium(I) Chloride **BeCl (g)**

ΔH^0_{298} = 60.7 ± 12.6 kJ·mol^{-1} [1] S^0_{298} = 217.5 J·mol^{-1}·K^{-1} [4]
C_p^0= 35.28 + 1.68 ·10^{-3}·T – 0.37 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BeClF (g) Beryllium Chloride Fluoride **BeClF (g)**

ΔH^0_{298} = – 573 ± 42 kJ·mol^{-1} [1] S^0_{298} = 246.5 J·mol^{-1}·K^{-1} [1]
C_p^0= 49.41 J·mol^{-1}·K^{-1} (298 K) [1]

$BeCl_2$ (s) Beryllium(II) Chloride beta **$BeCl_2$ (s)**

mp = 688 K (415 °C) bp = 760 K (487 °C)
ΔH^0_{298} = – 496.2 kJ·mol^{-1} [4] S^0_{298} = 75.8 J·mol^{-1}·K^{-1} [4]
C_p^0= 68.45 + 16.08 ·10^{-3}·T – 0.96 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 676 K) [4]

$BeCl_2$ (s) Beryllium(II) Chloride beta **$BeCl_2$ (s)**

ΔH^0_{676} = – 469.2 kJ·mol^{-1} [4] S^0_{676} = 133.6 J·mol^{-1}·K^{-1} [4]

$BeCl_2$ (s) Beryllium(II) Chloride alpha **$BeCl_2$ (s)**

ΔH^0_{676} = – 462.9 kJ·mol^{-1} [4] S^0_{676} = 142.8 J·mol^{-1}·K^{-1} [4]
C_p^0= 69.42 + 18.36 ·10^{-3}·T J·mol^{-1}·K^{-1} (676 ... 688 K) [4]

$BeCl_2$ (s) Beryllium(II) Chloride alpha **$BeCl_2$ (s)**

ΔH^0_{688} = – 462 kJ·mol^{-1} [4] S^0_{688} = 144.3 J·mol^{-1}·K^{-1} [4]

$BeCl_2$ (l) Beryllium(II) Chloride **$BeCl_2$ (l)**

$\Delta H^0_{688} = -453.4$ kJ·mol^{-1} [4] $S^0_{688} = 156.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 121.8$ J·mol^{-1}·K^{-1} (688 K) [4]

$BeCl_2$ (g) Beryllium(II) Chloride **$BeCl_2$ (g)**

$\Delta H^0_{298} = -360.2 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 252.2 \pm 4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 58.07 + 2.51 \cdot 10^{-3} \cdot T - 0.64 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BeF (g) Beryllium(I) Fluoride **BeF (g)**

$\Delta H^0_{298} = -169.9 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 205.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 32.5 + 3.09 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BeF_2 (s) Beryllium(II) Fluoride **BeF_2 (s)**
alpha

mp = 825 K (552 °C) bp = 1440 K (1167 °C)
$\Delta H^0_{298} = -1026.8 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 53.4 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 16.37 + 113.33 \cdot 10^{-3} \cdot T + 0.15 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 500 K) [4]

BeF_2 (s) Beryllium(II) Fluoride **BeF_2 (s)**
alpha

$\Delta H^0_{500} = -1014.2$ kJ·mol^{-1} [4] $S^0_{500} = 85.2$ J·mol^{-1}·K^{-1} [4]

BeF_2 (s) Beryllium(II) Fluoride **BeF_2 (s)**
beta

$\Delta H^0_{500} = -1013.8$ kJ·mol^{-1} [4] $S^0_{500} = 85.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 31.23 + 50 \cdot 10^{-3} \cdot T + 1.97 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (500 ... 825 K) [4]
$\lg(p,K) = -12.39 \cdot 10^{3} \cdot T^{-1} - 1.99 \cdot \lg(T) + 15.08$ (700 ... 825 K) [4]
{Reaction: evaporation (total pressure)}

BeF_2 (s) Beryllium(II) Fluoride **BeF_2 (s)**

beta

$\Delta H^0_{825} = -991.4$ kJ·mol^{-1} [4] $S^0_{825} = 120.3$ J·mol^{-1}·K^{-1} [4]

BeF_2 (l) Beryllium(II) Fluoride **BeF_2 (l)**

$\Delta H^0_{825} = -986.7$ kJ·mol^{-1} [4] $S^0_{825} = 125.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 84.94$ J·mol^{-1}·K^{-1} (825 K) [4]

$\lg(p,K) = -12.56 \cdot 10^3 \cdot T^{-1} - 3.17 \cdot \lg(T) + 18.72$ (825 ... 1443 K) [4]

{Reaction: evaporation (total pressure)}

BeF_2 (l) Beryllium(II) Fluoride **BeF_2 (l)**

$\Delta H^0_{298} = -1022$ kJ·mol^{-1} [1] $S^0_{298} = 59.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 49.9$ J·mol^{-1}·K^{-1} (298 K) [1]

BeF_2 (g) Beryllium(II) Fluoride **BeF_2 (g)**

$\Delta H^0_{298} = -796 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 227.6 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 54.39 + 4.39 \cdot 10^{-3} \cdot T - 0.83 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BeF_3Li (s) Lithium Trifluoroberyllate **BeF_3Li (s)**

$LiBeF_3$ (s) $LiBeF_3$ (s)

mp = 650 K (377 °C)

$\Delta H^0_{298} = -1651.8 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 89.2 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 77.11 + 84.89 \cdot 10^{-3} \cdot T - 0.87 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 650 K) [4]

BeF_3Li (s) Lithium Trifluoroberyllate **BeF_3Li (s)**

$LiBeF_3$ (s) $LiBeF_3$ (s)

$\Delta H^0_{650} = -1612.1$ kJ·mol^{-1} [4] $S^0_{650} = 175.3$ J·mol^{-1}·K^{-1} [4]

BeF_3Li (l) Lithium Trifluoroberyllate **BeF_3Li (l)**

$LiBeF_3$ (l) $LiBeF_3$ (l)

$\Delta H^0_{650} = -1584.9$ kJ·mol^{-1} [4] $S^0_{650} = 217.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 158.99$ J·mol^{-1}·K^{-1} (650 K) [4]

BeF_3Li (l) Lithium Trifluoroberyllate **BeF_3Li (l)**

$LiBeF_3$ (l) $LiBeF_3$ (l)

$\Delta H^0_{298} = -1634.3$ kJ·mol^{-1} [1] $S^0_{298} = 111.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 91.82$ J·mol^{-1}·K^{-1} (298 K) [1]

BeF_3Li (g) Lithium Trifluoroberyllate **BeF_3Li (g)**

$LiBeF_3$ (g) $LiBeF_3$ (g)

$\Delta H^0_{298} = -887$ kJ·mol^{-1} [1] $S^0_{298} = 267.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 61.09$ J·mol^{-1}·K^{-1} (298 K) [1]

BeF_4Li_2 (s) Lithium Tetrafluoroberyllate **BeF_4Li_2 (s)**

Li_2BeF_4 (s) Li_2BeF_4 (s)

mp = 732 K (459 °C)

$\Delta H^0_{298} = -2273.6 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 130.6 \pm 2.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 92 + 147.94 \cdot 10^{-3} \cdot T - 0.1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 732 K) [4]

BeF_4Li_2 (s) Lithium Tetrafluoroberyllate **BeF_4Li_2 (s)**

Li_2BeF_4 (s) Li_2BeF_4 (s)

$\Delta H^0_{732} = -2200.8$ kJ·mol^{-1} [4] $S^0_{732} = 276.9$ J·mol^{-1}·K^{-1} [4]

BeF_4Li_2 (l) Lithium Tetrafluoroberyllate **BeF_4Li_2 (l)**

Li_2BeF_4 (l) Li_2BeF_4 (l)

$\Delta H^0_{732} = -2156.6$ kJ·mol^{-1} [4] $S^0_{732} = 337.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 232.21$ J·mol^{-1}·K^{-1} (732 K) [4]

BeF_4Li_2 (l) Lithium Tetrafluoroberyllate **BeF_4Li_2 (l)**

Li_2BeF_4 (l) Li_2BeF_4 (l)

$\Delta H^0_{298} = -2241.1$ kJ·mol^{-1} [1] $S^0_{298} = 171.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 232.21$ J·mol^{-1}·K^{-1} (732 K) [4]

BeH (g) Beryllium Hydride **BeH (g)**

$\Delta H^0_{298} = 321 \pm 29$ kJ·mol^{-1} [1] $S^0_{298} = 176.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 29.22$ J·mol^{-1}·K^{-1} (298 K) [1]

BeH_2 (s) Beryllium(II) Hydride **BeH_2 (s)**

$\Delta H^0_{298} = -19$ kJ·mol^{-1} [4] $S^0_{298} = 17.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 20.5 + 29.29 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 500 K) [4]

BeH_2 (g) Beryllium(II) Hydride **BeH_2 (g)**

$\Delta H^0_{298} = 125.5$ kJ·mol^{-1} [1] $S^0_{298} = 173.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 30.37$ J·mol^{-1}·K^{-1} (298 K) [3]

BeH_2O_2 (s) Beryllium(II) Hydroxide **BeH_2O_2 (s)**

$Be(OH)_2$ (s) alpha $Be(OH)_2$ (s)

$\Delta H^0_{298} = -902.9 \pm 2$ kJ·mol^{-1} [1] $S^0_{298} = 53.6 \pm 8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 65.7$ J·mol^{-1}·K^{-1} (298 K) [1]

BeH_2O_2 (s) Beryllium(II) Hydroxide **BeH_2O_2 (s)**

$Be(OH)_2$ (s) beta $Be(OH)_2$ (s)

$\Delta H^0_{298} = -905.8 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 50.2 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 82 + 42.69 \cdot 10^{-3} \cdot T - 2.59 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 496 K) [4]

$\lg(p,K) = -3.11 \cdot 10^{3} \cdot T^{-1} - 1.54 \cdot \lg(T) + 12.46$ (298 ... 496 K) [4]

{Reaction: decomposition $Be(OH)_2(s) = BeO(s) + H_2O(g)$}

BeH_2O_2 (g) Beryllium(II) Hydroxide **BeH_2O_2 (g)**
$Be(OH)_2$ (g) $Be(OH)_2$ (g)

$\Delta H^0_{298} = -676.6 \pm 38$ kJ·mol^{-1} [1] $S^0_{298} = 234 \pm 12.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 82.27 + 11.68 \cdot 10^{-3} \cdot T - 2.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BeH_4O_6S (s) Beryllium Sulfate Dihydrate **BeH_4O_6S (s)**
$BeSO_4 \cdot 2H_2O$ (s) $BeSO_4 \cdot 2H_2O$ (s)

$\Delta H^0_{298} = -1823$ kJ·mol^{-1} [2] $S^0_{298} = 163.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 152.84$ J·mol^{-1}·K^{-1} (298 K) [2]

BeH_8O_8S (s) Beryllium Sulfate Tetrahydrate **BeH_8O_8S (s)**
$BeSO_4 \cdot 4H_2O$ (s) $BeSO_4 \cdot 4H_2O$ (s)

$\Delta H^0_{298} = -2423.8$ kJ·mol^{-1} [2] $S^0_{298} = 233$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 216.4$ J·mol^{-1}·K^{-1} (298 K) [2]

BeI (g) Beryllium(I) Iodide **BeI (g)**

$\Delta H^0_{298} = 170 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 237.3 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36.52 + 1.05 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BeI_2 (s) Beryllium(II) Iodide **BeI_2 (s)**

mp = 753 K (480 °C) bp = 759 K (486 °C)
$\Delta H^0_{298} = -188.7 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 120.5 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 81.12 + 10.9 \cdot 10^{-3} \cdot T - 1.37 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 753 K) [4]
$\lg(p,K) = -6.92 \cdot 10^3 \cdot T^{-1} - 2.83 \cdot \lg(T) + 17.28$ (400 ... 753 K) [4]
{Reaction: evaporation (total pressure)}

BeI_2 (s) Beryllium(II) Iodide **BeI_2 (s)**

$\Delta H^0_{753} = -152$ kJ·mol^{-1} [4] $S^0_{753} = 194.1$ J·mol^{-1}·K^{-1} [4]

BeI_2 (l) Beryllium(II) Iodide **BeI_2 (l)**

$\Delta H^0_{753} = -131$ kJ·mol^{-1} [4] $S^0_{753} = 221.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 113$ J·mol^{-1}·K^{-1} (753 K) [4]
$\lg(p,K) = -6.98 \cdot 10^3 \cdot T^{-1} - 6.42 \cdot \lg(T) + 27.69$ (753 ... 759 K) [4]
{Reaction: evaporation (total pressure)}

BeI_2 (l) Beryllium(II) Iodide **BeI_2 (l)**

$\Delta H^0_{298} = -178.4$ kJ·mol^{-1} [1] $S^0_{298} = 129$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 68.96$ J·mol^{-1}·K^{-1} (298 K) [1]

BeI_2 (g) Beryllium(II) Iodide **BeI_2 (g)**

$\Delta H^0_{298} = -64 \pm 33.5$ kJ·mol^{-1} [1] $S^0_{298} = 291.5 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 59.78 + 0.81 \cdot 10^{-3} \cdot T - 0.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BeN (g) Beryllium Nitride **BeN (g)**

$\Delta H^0_{298} = 426.7$ kJ·mol^{-1} [1] $S^0_{298} = 208.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 30.09$ J·mol^{-1}·K^{-1} (298 K) [1]

BeO (s) Beryllium Oxide alpha **BeO (s)**

mp = 2780 K (2507 °C)
$\Delta H^0_{298} = -608.4 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 13.8 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 41.59 + 10.21 \cdot 10^{-3} \cdot T - 1.74 \cdot 10^6 \cdot T^{-2} - 1.34 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2370 K) [4]

BeO (s) Beryllium Oxide beta **BeO (s)**

$\Delta H^0_{298} = -601.7$ kJ·mol^{-1} [1] $S^0_{298} = 16.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 25.56$ J·mol^{-1}·K^{-1} (298 K) [1]

BeO (l) Beryllium Oxide **BeO** (l)

$\Delta H^0_{298} = -542.7$ kJ·mol^{-1} [1] $S^0_{298} = 35.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 25.56$ J·mol^{-1}·K^{-1} (298 K) [1]

BeO (g) Beryllium Oxide **BeO** (g)

$\Delta H^0_{298} = 136.4 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 197.6 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 29.48$ J·mol^{-1}·K^{-1} (298 K) [1]

BeO_4S (s) Beryllium Sulfate **BeO_4S** (s)
$BeSO_4$ (s) alpha $BeSO_4$ (s)

$\Delta H^0_{298} = -1200.8 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 78$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 112.8 - 9.25 \cdot 10^{-3} \cdot T - 2.77 \cdot 10^6 \cdot T^{-2} + 76.02 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 863 K) [4]

BeO_4S (s) Beryllium Sulfate **BeO_4S** (s)
$BeSO_4$ (s) beta $BeSO_4$ (s)

$\Delta H^0_{298} = -1199.7$ kJ·mol^{-1} [1] $S^0_{298} = 79.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 162.05$ J·mol^{-1}·K^{-1} (863 ... 908 K) [4]

BeO_4S (s) Beryllium Sulfate **BeO_4S** (s)
$BeSO_4$ (s) gamma $BeSO_4$ (s)

$\Delta H^0_{298} = -1180.1$ kJ·mol^{-1} [1] $S^0_{298} = 100.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 254.89 - 19.39 \cdot 10^{-3} \cdot T - 61.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (908 ... 1016 K) [4]

BeO_4W (s) Beryllium Tungstate **BeO_4W** (s)
$BeWO_4$ (s) $BeWO_4$ (s)

$\Delta H^0_{298} = -1513.4 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 88.4 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 97.28$ J·mol^{-1}·K^{-1} (298 K) [1]

BeS (s) Beryllium Sulfide **BeS (s)**

$\Delta H^0_{298} = -234.3 \pm 8.8$ kJ·mol^{-1} [1] $S^0_{298} = 37 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 53.43 + 6.02 \cdot 10^{-3} \cdot T - 1.96 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -26.15 \cdot 10^3 \cdot T^{-1} - 1.89 \cdot \lg(T) + 14.5$ (1500 ... 2000 K) [4]
{Reaction: evaporation as BeS(g)}

BeS (g) Beryllium Sulfide **BeS (g)**

$\Delta H^0_{298} = 264 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 210.3 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 23.82 + 13.51 \cdot 10^{-3} \cdot T + 0.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BeSe (s) Beryllium Selenide **BeSe (s)**

$\Delta H^0_{298} = [-167.4]$ kJ·mol^{-1} [5] $S^0_{298} = [46]$ J·mol^{-1}·K^{-1} [5]

BeTe (s) Beryllium Telluride **BeTe (s)**

$\Delta H^0_{298} = [-125.5]$ kJ·mol^{-1} [5] $S^0_{298} = [52.3]$ J·mol^{-1}·K^{-1} [5]

Be_2 (g) Beryllium **Be_2 (g)**

$\Delta H^0_{298} = 637.2 \pm 7$ kJ·mol^{-1} [1] $S^0_{298} = 206.4 \pm 4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 27.49$ J·mol^{-1}·K^{-1} (298 K) [1]

Be_2C (s) Beryllium Carbide **Be_2C (s)**

mp = 2400 K (2127 °C)
$\Delta H^0_{298} = -90.8 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 16.3 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 38.37 + 45.02 \cdot 10^{-3} \cdot T - 0.84 \cdot 10^6 \cdot T^{-2} - 9.58 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Be_2C (l) Beryllium Carbide **Be_2C (l)**

$\Delta H^0_{298} = -15.9$ kJ·mol^{-1} [1] $S^0_{298} = 47.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 43.25$ J·mol^{-1}·K^{-1} (298 K) [1]

Be_2Cl_4 (g) Beryllium(II) Chloride **Be_2Cl_4 (g)**

$(BeCl_2)_2$ (g) $(BeCl_2)_2$ (g)

$\Delta H^0_{298} = -823.2$ kJ·mol^{-1} [4] $S^0_{298} = 381.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 129.48 + 2.18 \cdot 10^{-3} \cdot T - 1.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -9.33 \cdot 10^3 \cdot T^{-1} - 3.1 \cdot \lg(T) + 21.28$ (500 ... 688 K) [4]

{Reaction: evaporation of $BeCl_2$(s)}

Be_2F_2O (g) Beryllium Oxide Fluoride **Be_2F_2O (g)**

Be_2OF_2 (g) Be_2OF_2 (g)

$\Delta H^0_{298} = -1204.6 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 298.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 76.15$ J·mol^{-1}·K^{-1} (298 K) [1]

Be_2O (g) Beryllium Oxide **Be_2O (g)**

$\Delta H^0_{298} = -62.8 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 220.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 40.95$ J·mol^{-1}·K^{-1} (298 K) [1]

Be_2O_2 (g) Beryllium Oxide **Be_2O_2 (g)**

$(BeO)_2$ (g) $(BeO)_2$ (g)

$\Delta H^0_{298} = -410 \pm 50$ kJ·mol^{-1} [1] $S^0_{298} = 247.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 49.34$ J·mol^{-1}·K^{-1} (298 K) [1]

Be_2O_4Si (s) Beryllium Silicate **Be_2O_4Si (s)**

$2BeO \cdot SiO_2$ (s) $2BeO \cdot SiO_2$ (s)

$\Delta H^0_{298} = -2142.6$ kJ·mol^{-1} [4] $S^0_{298} = 64.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 124.06 + 78.53 \cdot 10^{-3} \cdot T - 4.54 \cdot 10^6 \cdot T^{-2} - 33.47 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1806 K) [4]

Be_3N_2 (s) Beryllium Nitride **Be_3N_2 (s)**

alpha

mp = 2473 K (2200 °C)

$\Delta H^0_{298} = -589.5$ kJ·mol^{-1} [4] $S^0_{298} = 34.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 53.93 + 103.55 \cdot 10^{-3} \cdot T - 1.77 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 430 K) [4]

Be_3N_2 (s) Beryllium Nitride alpha **Be_3N_2 (s)**

$\Delta H^0_{430} = -579.3$ kJ·mol^{-1} [4] $S^0_{430} = 62.6$ J·mol^{-1}·K^{-1} [4]

Be_3N_2 (s) Beryllium Nitride beta **Be_3N_2 (s)**

$\Delta H^0_{430} = -561.5$ kJ·mol^{-1} [4] $S^0_{430} = 103.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 114.52 + 15.06 \cdot 10^{-3} \cdot T - 5.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (430 ... 2000 K) [4]

Be_3N_2 (l) Beryllium Nitride **Be_3N_2 (l)**

$\Delta H^0_{298} = -487$ kJ·mol^{-1} [1] $S^0_{298} = 39.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 133.89$ J·mol^{-1}·K^{-1} (298 K) [1]

Be_3O_3 (g) Beryllium Oxide **Be_3O_3 (g)**

$(BeO)_3$ (g) $(BeO)_3$ (g)

$\Delta H^0_{298} = -1054.4 \pm 38$ kJ·mol^{-1} [1] $S^0_{298} = 273.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 63.46$ J·mol^{-1}·K^{-1} (298 K) [1]

Be_4O_4 (g) Beryllium Oxide **Be_4O_4 (g)**

$(BeO)_4$ (g) $(BeO)_4$ (g)

$\Delta H^0_{298} = -1589.9 \pm 50$ kJ·mol^{-1} [1] $S^0_{298} = 302.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 89.39$ J·mol^{-1}·K^{-1} (298 K) [1]

Be_5O_5 (g) Beryllium Oxide **Be_5O_5 (g)**

$(BeO)_5$ (g) $(BeO)_5$ (g)

$\Delta H^0_{298} = -2112.9 \pm 75$ kJ·mol^{-1} [1] $S^0_{298} = 323.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 112.02$ J·mol^{-1}·K^{-1} (298 K) [1]

Be_6O_6 (g) Beryllium Oxide **Be_6O_6 (g)**
$(BeO)_6$ (g) $(BeO)_6$ (g)

$\Delta H^0_{298} = -2661 \pm 92$ kJ·mol^{-1} [1] $S^0_{298} = 343.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 131.62$ J·mol^{-1}·K^{-1} (298 K) [1]

Bi (s) Bismuth **Bi (s)**

mp = 545 K (272 °C) bp = 1835 K (1562 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 56.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 28.03 - 24.27 \cdot 10^{-3} \cdot T + 50.21 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 -545 K) [4]

Bi (s) Bismuth **Bi (s)**

$\Delta H^0_{545} = 6.7$ kJ·mol^{-1} [4] $S^0_{545} = 73$ J·mol^{-1}·K^{-1} [4]

Bi (l) Bismuth **Bi (l)**

$\Delta H^0_{545} = 18$ kJ·mol^{-1} [4] $S^0_{545} = 93.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 23.36 + 3.14 \cdot 10^{-3} \cdot T + 1.66 \cdot 10^{6} \cdot T^{-2} - 0.72 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (545 ... 1835 K) [4]
$\lg(p,K) = -10.74 \cdot 10^{3} \cdot T^{-1} - 2.1 \cdot \lg(T) + 12.67$ (700 ... 1835 K) [4]
{Reaction: evaporation (total pressure)}

Bi (g) Bismuth **Bi (g)**

$\Delta H^0_{298} = 209.6$ kJ·mol^{-1} [2] $S^0_{298} = 187$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 20.64 + 0.13 \cdot 10^{-3} \cdot T + 0.17 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BiBr (g) Bismuth(I) Bromide **BiBr (g)**

$\Delta H^0_{298} = 53.4$ kJ·mol^{-1} [2] $S^0_{298} = 267.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 36.8$ J·mol^{-1}·K^{-1} (298 K) [2]

$BiBrH_2O_2$ (g) Bismuth(III) Hydroxide Bromide **$BiBrH_2O_2$ (g)**
$Bi(OH)_2Br$ (g) $Bi(OH)_2Br$ (g)

$\Delta H^0_{298} = -495.8 \pm 31.4$ kJ·mol^{-1} [16] $S^0_{298} = 359.8 \pm 20.9$ J·mol^{-1}·K^{-1} [16]

BiBrO (s) Bismuth Bromide Oxide **BiBrO (s)**

BiOBr (s) BiOBr (s)

mp = 1236 K (963 °C)

$\Delta H^0_{298} = -334.3 \pm 6.3$ kJ·mol^{-1} [17] $S^0_{298} = 108.5 \pm 0.2$ J·mol^{-1}·K^{-1} [16]

$C_p^0 = 67.45 + 18.81 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^{6} \cdot T^{-2} - 0.32 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (323 ... 623 K) [16]

BiBrTe (s) Bismuth Tellurium Bromide **BiBrTe (s)**

BiTeBr (s) BiTeBr (s)

mp = 799 K (526 °C)

$\Delta H^0_{298} = -127.2 \pm 5.9$ kJ·mol^{-1} [38] $S^0_{298} = 151.5 \pm 12.1$ J·mol^{-1}·K^{-1} [38]

$BiBr_3$ (s) Bismuth(III) Bromide alpha **$BiBr_3$ (s)**

mp = 492 K (219 °C)

$\Delta H^0_{298} = -276.1$ kJ·mol^{-1} [2] $S^0_{298} = 195.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 84.05 + 56.26 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 431 K) [4]

$\lg(p,K) = -6.06 \cdot 10^3 \cdot T^{-1} - 0.66 \cdot \lg(T) + 11.06$ (400 ... 431 K) [4]

{Reaction: evaporation}

$BiBr_3$ (s) Bismuth(III) Bromide alpha **$BiBr_3$ (s)**

$\Delta H^0_{431} = -262.3$ kJ·mol^{-1} [2] $S^0_{431} = 233.8$ J·mol^{-1}·K^{-1} [2]

$BiBr_3$ (s) Bismuth(III) Bromide beta **$BiBr_3$ (s)**

$\Delta H^0_{431} = -258.9$ kJ·mol^{-1} [2] $S^0_{431} = 241.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 87.86$ J·mol^{-1}·K^{-1} (431 K) [2]

$\lg(p,K) = -6.06 \cdot 10^3 \cdot T^{-1} - 0.66 \cdot \lg(T) + 11.06$ (431 ... 492 K) [4]

{Reaction: evaporation}

$BiBr_3$ (s) Bismuth(III) Bromide beta **$BiBr_3$ (s)**

$\Delta H^0_{492} = -253.6$ kJ·mol^{-1} [4] $S^0_{492} = 253.2$ J·mol^{-1}·K^{-1} [4]

$BiBr_3$ (l) Bismuth(III) Bromide **$BiBr_3$ (l)**

$\Delta H^0_{492} = -233$ kJ·mol^{-1} [4] $S^0_{492} = 295.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 166.26 - 44.03 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (492 ... 734 K) [4]
$\lg(p,K) = -6.29 \cdot 10^3 \cdot T^{-1} - 6.81 \cdot \lg(T) + 28.08$ (492 ... 734 K) [4]
{Reaction: evaporation}

$BiBr_3$ (g) Bismuth(III) Bromide **$BiBr_3$ (g)**

$\Delta H^0_{298} = -156.9$ kJ·mol^{-1} [2] $S^0_{298} = 384.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 83.31 - 0.15 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BiCl (g) Bismuth(I) Chloride **BiCl (g)**

$\Delta H^0_{298} = 25.1$ kJ·mol^{-1} [2] $S^0_{298} = 255.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 37.32 + 0.84 \cdot 10^{-3} \cdot T - 0.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$BiClH_2O_2$ (g) Bismuth(III) Hydroxide Chloride **$BiClH_2O_2$ (g)**
$Bi(OH)_2Cl$ (g) $Bi(OH)_2Cl$ (g)

$\Delta H^0_{298} = -537.6 \pm 29.3$ kJ·mol^{-1} [16] $S^0_{298} = 347.7 \pm 20.9$ J·mol^{-1}·K^{-1} [16]

BiClO (s) Bismuth Chloride Oxide **BiClO (s)**
BiOCl (s) BiOCl (s)

mp = 1308 K (1035 °C)
$\Delta H^0_{298} = -383.7 \pm 12.6$ kJ·mol^{-1} [39] $S^0_{298} = 101.7 \pm 0.2$ J·mol^{-1}·K^{-1} [39]
$C_p^0 = 69.35 + 22 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^6 \cdot T^{-2} - 0.59 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (110 ... 623 K) [39]

BiClSe (s) Bismuth Selenium Chloride **BiClSe (s)**
BiSeCl (s) BiSeCl (s)

$\Delta H^0_{298} = -181.6 \pm 6.3$ kJ·mol^{-1} [46] $S^0_{298} = 145.2 \pm 9.2$ J·mol^{-1}·K^{-1} [46]

BiClTe (s) Bismuth Tellurium Chloride **BiClTe (s)**
BiTeCl (s) BiTeCl (s)

$\Delta H^0_{298} = -165.3 \pm 6.7$ kJ·mol^{-1} [43] $S^0_{298} = 143.9 \pm 11.3$ J·mol^{-1}·K^{-1} [43]

$BiCl_3$ (s) Bismuth(III) Chloride **$BiCl_3$ (s)**

mp = 507 K (234 °C) bp = 712 K (439 °C)
$\Delta H^0_{298} = -379.1$ kJ·mol^{-1} [2] $S^0_{298} = 177$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 82.98 + 58.53 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 507 K) [4]
$\lg(p,K) = -6.34 \cdot 10^3 \cdot T^{-1} - 3.37 \cdot \lg(T) + 19.31$ (400 ... 507 K) [4]
{Reaction: evaporation}

$BiCl_3$ (s) Bismuth(III) Chloride **$BiCl_3$ (s)**

$\Delta H^0_{507} = -356.9$ kJ·mol^{-1} [4] $S^0_{507} = 233.3$ J·mol^{-1}·K^{-1} [4]

$BiCl_3$ (l) Bismuth(III) Chloride **$BiCl_3$ (l)**

$\Delta H^0_{507} = -333.2$ kJ·mol^{-1} [4] $S^0_{507} = 280$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 143.51$ J·mol^{-1}·K^{-1} (507 K) [4]
$\lg(p,K) = -5.98 \cdot 10^3 \cdot T^{-1} - 7.36 \cdot \lg(T) + 29.39$ (507 ... 712 K) [4]
{Reaction: evaporation as $BiCl_3$(g)}

$BiCl_3$ (g) Bismuth(III) Chloride **$BiCl_3$ (g)**

$\Delta H^0_{298} = -265.3$ kJ·mol^{-1} [2] $S^0_{298} = 357.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 83.05 - 0.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BiF (g) Bismuth(I) Fluoride **BiF (g)**

$\Delta H^0_{298} = -29.3$ kJ·mol^{-1} [4] $S^0_{298} = 244.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 37.03 + 0.84 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BiF_3 (s) Bismuth(III) Fluoride **BiF_3 (s)**

mp = 922 K (649 °C) bp = 1177 K (904 °C)
$\Delta H^0_{298} = -909.2$ kJ·mol^{-1} [2] $S^0_{298} = 122.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 38.97 + 123.17 \cdot 10^{-3} \cdot T + 0.9 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 922 K) [4]
$\lg(p,K) = -12.4 \cdot 10^3 \cdot T^{-1} - 7.77 \cdot \lg(T) + 34.71$ (600 ... 922 K) [4]
{Reaction: evaporation}

BiF_3 (s) Bismuth(III) Fluoride **BiF_3 (s)**

$\Delta H^0_{922} = -836$ kJ·mol^{-1} [4] $S^0_{922} = 247.9$ J·mol^{-1}·K^{-1} [4]

BiF_3 (l) Bismuth(III) Fluoride **BiF_3 (l)**

$\Delta H^0_{922} = -814.5$ kJ·mol^{-1} [4] $S^0_{922} = 271.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 184.51$ J·mol^{-1}·K^{-1} (922 K) [4]
$\lg(p,K) = -13.08 \cdot 10^3 \cdot T^{-1} - 12.3 \cdot \lg(T) + 48.89$ (922 ... 1177 K) [4]
{Reaction: evaporation}

BiF_3 (g) Bismuth(III) Fluoride **BiF_3 (g)**

$\Delta H^0_{298} = -707.9$ kJ·mol^{-1} [2] $S^0_{298} = 317.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 82.51 + 0.46 \cdot 10^{-3} \cdot T - 0.89 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BiH_2IO_2 (g) Bismuth(III) Hydroxide Iodide **BiH_2IO_2 (g)**
$Bi(OH)_2I$ (g) $Bi(OH)_2I$ (g)

$\Delta H^0_{298} = -428.9 \pm 33.5$ kJ·mol^{-1} [16] $S^0_{298} = 366.5 \pm 20.9$ J·mol^{-1}·K^{-1} [16]

BiH_3 (g) Bismuth Hydride **BiH_3 (g)**

$\Delta H^0_{298} = 179.9$ kJ·mol^{-1} [4] $S^0_{298} = 214.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.78 - 0.94 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

BiI (s) Bismuth(I) Iodide alpha **BiI (s)**

$\Delta H^0_{298} = -54.6$ kJ·mol^{-1} [2] $S^0_{298} = 125.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 42$ J·mol^{-1}·K^{-1} (298 K) [2]

BiI (s) Bismuth(I) Iodide alpha **BiI (s)**

$\Delta H^0_{564} = -41.6$ kJ·mol^{-1} [2] $S^0_{564} = 156.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 55.7$ J·mol^{-1}·K^{-1} (564 K) [2]

BiI (s) Bismuth(I) Iodide beta **BiI (s)**

$\Delta H^0_{564} = -40.3$ kJ·mol^{-1} [2]
$S^0_{564} = 158.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 54.8$ J·mol^{-1}·K^{-1} (564 K) [2]

BiI (g) Bismuth(I) Iodide **BiI (g)**

$\Delta H^0_{298} = 84.1 \pm 16.7$ kJ·mol^{-1} [56]
$S^0_{298} = 275.3 \pm 0.8$ J·mol^{-1}·K^{-1} [56]
$C_p{}^0 = 37.1$ J·mol^{-1}·K^{-1} (298 K) [2]

BiIO (s) Bismuth(III) Iodide Oxide **BiIO (s)**
BiOI (s) BiOI (s)

$\Delta H^0_{298} = -268.1 \pm 6.3$ kJ·mol^{-1} [18]
$S^0_{298} = 119.5$ J·mol^{-1}·K^{-1} [16]
$C_p{}^0 = 65.3 + 20.1 \cdot 10^{-3} \cdot T + 0.04 \cdot 10^{6} \cdot T^{-2} - 3.47 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (323 ... 523 K) [16]

BiISe (s) Bismuth(III) Selenide Iodide **BiISe (s)**
BiSeI (s) BiSeI (s)

$\Delta H^0_{298} = -97.9 \pm 7.9$ kJ·mol^{-1} [48]
$S^0_{298} = 161.9 \pm 14.6$ J·mol^{-1}·K^{-1} [48]

BiI_3 (s) Bismuth(III) Iodide **BiI_3 (s)**

mp = 682 K (409 °C)
bp = 812 K (539 °C)
$\Delta H^0_{298} = -150.6$ kJ·mol^{-1} [2]
$S^0_{298} = 224.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 40.96 + 108.63 \cdot 10^{-3} \cdot T + 2.89 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 682 K) [4]
$\lg(p,K) = -7.62 \cdot 10^{3} \cdot T^{-1} - 3.75 \cdot \lg(T) + 20.8$ (298 ... 682 K) [4]
{Reaction: evaporation}

BiI_3 (s) Bismuth(III) Iodide **BiI_3 (s)**

$\Delta H^0_{682} = -109$ kJ·mol^{-1} [4]
$S^0_{682} = 313.4$ J·mol^{-1}·K^{-1} [4]

BiI_3 (l) Bismuth(III) Iodide **BiI_3 (l)**

$\Delta H^0_{682} = -69.9$ kJ·mol^{-1} [4] $S^0_{682} = 370.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 150.62$ J·mol^{-1}·K^{-1} (682 K) [4]
$\lg(p,K) = -6.87 \cdot 10^3 \cdot T^{-1} - 8.14 \cdot \lg(T) + 32.14$ (682 ... 812 K) [4]
{Reaction: evaporation as BiI_3(g)}

BiI_3 (g) Bismuth(III) Iodide **BiI_3 (g)**

$\Delta H^0_{298} = -16.3$ kJ·mol^{-1} [2] $S^0_{298} = 408.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 83.16 - 0.03 \cdot 10^{-3} \cdot T - 0.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BiK_3 (s) Potassium Bismuth **BiK_3 (s)**
K_3Bi (s) K_3Bi (s)

$\Delta H^0_{298} = -173.2$ kJ·mol^{-1} [2] $S^0_{298} = 193.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 92$ J·mol^{-1}·K^{-1} (298 K) [2]

BiLa (s) Lanthanum Bismuth **BiLa (s)**
LaBi (s) LaBi (s)

$\Delta H^0_{298} = -221.8$ kJ·mol^{-1} [96] $S^0_{298} = 100.8$ J·mol^{-1}·K^{-1} [96]

BiMn (s) Manganese Bismuth **BiMn (s)**
MnBi (s) MnBi (s)

$\Delta H^0_{298} = -21$ kJ·mol^{-1} [2] $S^0_{298} = 94.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 47.7$ J·mol^{-1}·K^{-1} (298 K) [2]

BiNi (s) Nickel Bismuth **BiNi (s)**
NiBi (s) NiBi (s)

$\Delta H^0_{298} = -7.8$ kJ·mol^{-1} [2] $S^0_{298} = 88.3$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 46.02 + 19.25 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 927 K) [4]

BiS (g) Bismuth Sulfide **BiS (g)**

ΔH^0_{298} = 173.6 kJ·mol^{-1} [4] S^0_{298} = 257.8 J·mol^{-1}·K^{-1} [4]

C_p^0= 35.95 + 1.91 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BiSe (s) Bismuth Selenide **BiSe (s)**

mp = 880 K (607 °C)

ΔH^0_{298} = – 52.3 kJ·mol^{-1} [5] S^0_{298} = [102.5] J·mol^{-1}·K^{-1} [5]

C_p^0= [53.6] J·mol^{-1}·K^{-1} (298 K) [15]

BiSe (g) Bismuth Selenide **BiSe (g)**

ΔH^0_{298} = 166.5 kJ·mol^{-1} [4] S^0_{298} = 269.6 J·mol^{-1}·K^{-1} [4]

C_p^0= 36.7 + 0.8 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BiTe (s) Bismuth Telluride **BiTe (s)**

ΔH^0_{298} = – 27.2 kJ·mol^{-1} [5] S^0_{298} = 97.9 J·mol^{-1}·K^{-1} [5]

C_p^0= [53.97] J·mol^{-1}·K^{-1} (298 K) [15]

BiTe (g) Bismuth Telluride **BiTe (g)**

ΔH^0_{298} = 190.4 kJ·mol^{-1} [4] S^0_{298} = 273 J·mol^{-1}·K^{-1} [4]

C_p^0= 36.88 + 0.91 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$BiTe_{1.22}$ (s) Bismuth Telluride **$BiTe_{1.22}$ (s)**

ΔH^0_{298} = – 33.9 kJ·mol^{-1} [5] S^0_{298} = 107.5 J·mol^{-1}·K^{-1} [5]

BiU (s) Bismuth Uranium **BiU (s)**

ΔH^0_{298} = – 117 kJ·mol^{-1} [2] S^0_{298} = 97.1 J·mol^{-1}·K^{-1} [2]

C_p^0= 52.48 J·mol^{-1}·K^{-1} (298 K) [2]

Bi_2 (g) Bismuth **Bi_2 (g)**

$\Delta H^0_{298} = 220.1$ kJ·mol^{-1} [2] $S^0_{298} = 273.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 37.4 + 0.01 \cdot 10^{-3} \cdot T - 0.04 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -10.52 \cdot 10^3 \cdot T^{-1} - 2.04 \cdot \lg(T) + 12.04$ (700 ... 1835 K) [4]
{Reaction: evaporation $2Bi(l) = Bi_2(g)$}

Bi_2BrDyO_4 (s) Bismuth Dysprosium Bromide Oxide **Bi_2BrDyO_4 (s)**
Bi_2DyO_4Br (s) Bi_2DyO_4Br (s)

$\Delta H^0_{298} = -1648.1 \pm 10$ kJ·mol^{-1} [119] $S^0_{298} = 248.1 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2BrErO_4 (s) Bismuth Erbium Bromide Oxide **Bi_2BrErO_4 (s)**
Bi_2ErO_4Br (s) Bi_2ErO_4Br (s)

$\Delta H^0_{298} = -1665.7 \pm 9.2$ kJ·mol^{-1} [119] $S^0_{298} = 250.6 \pm 1.3$ J·mol^{-1}·K^{-1} [119]
$C_p^0 = 176.07 + 43.01 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^6 \cdot T^{-2} - 12.9 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (323 ... 1013 K) [119]

Bi_2BrEuO_4 (s) Bismuth Europium Bromide Oxide **Bi_2BrEuO_4 (s)**
Bi_2EuO_4Br (s) Bi_2EuO_4Br (s)

$\Delta H^0_{298} = -1516.3 \pm 10$ kJ·mol^{-1} [119] $S^0_{298} = 246.4 \pm 8.4$ J·mol^{-1}·K^{-1} [119]

Bi_2BrGdO_4 (s) Bismuth Gadolinium Bromide Oxide **Bi_2BrGdO_4 (s)**
Bi_2GdO_4Br (s) Bi_2GdO_4Br (s)

$\Delta H^0_{298} = -1626.7 \pm 10$ kJ·mol^{-1} [119] $S^0_{298} = 248.5 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2BrHoO_4 (s) Bismuth Holmium Bromide Oxide **Bi_2BrHoO_4 (s)**
Bi_2HoO_4Br (s) Bi_2HoO_4Br (s)

$\Delta H^0_{298} = -1657.3 \pm 10.9$ kJ·mol^{-1} [119] $S^0_{298} = 252.3 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2BrLuO_4 (s) Bismuth Lutetium Bromide Oxide **Bi_2BrLuO_4 (s)**
Bi_2LuO_4Br (s) Bi_2LuO_4Br (s)

$\Delta H^0_{298} = -1656 \pm 12.1$ kJ·mol^{-1} [119] $S^0_{298} = 228.4 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2BrNdO_4 (s) Bismuth Neodymium Bromide Oxide **Bi_2BrNdO_4 (s)**
Bi_2NdO_4Br (s) Bi_2NdO_4Br (s)

$\Delta H^0_{298} = -1618.4 \pm 6.7$ kJ·mol^{-1} [119] $S^0_{298} = 252.7 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2BrO_4Pr (s) Bismuth Praseodymium Bromide Oxide **Bi_2BrO_4Pr (s)**
Bi_2PrO_4Br (s) Bi_2PrO_4Br (s)

$\Delta H^0_{298} = -1621.7 \pm 10.5$ kJ·mol^{-1} [119] $S^0_{298} = 251 \pm 8.4$ J·mol^{-1}·K^{-1} [119]

Bi_2BrO_4Sm (s) Bismuth Samarium Bromide Oxide **Bi_2BrO_4Sm (s)**
Bi_2SmO_4Br (s) Bi_2SmO_4Br (s)

$\Delta H^0_{298} = -1630.1 \pm 7.9$ kJ·mol^{-1} [119] $S^0_{298} = 248.9 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2BrO_4Tb (s) Bismuth Terbium Bromide Oxide **Bi_2BrO_4Tb (s)**
Bi_2TbO_4Br (s) Bi_2TbO_4Br (s)

$\Delta H^0_{298} = -1649.3 \pm 12.1$ kJ·mol^{-1} [119] $S^0_{298} = 251.9 \pm 8.4$ J·mol^{-1}·K^{-1} [119]

Bi_2BrO_4Tm (s) Bismuth Thulium Bromide Oxide **Bi_2BrO_4Tm (s)**
Bi_2TmO_4Br (s) Bi_2TmO_4Br (s)

$\Delta H^0_{298} = -1661 \pm 11.3$ kJ·mol^{-1} [119] $S^0_{298} = 243.1 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2BrO_4Y (s) Bismuth Yttrium Bromide Oxide **Bi_2BrO_4Y (s)**
Bi_2YO_4Br (s) Bi_2YO_4Br (s)

$\Delta H^0_{298} = -1669 \pm 10.5$ kJ·mol^{-1} [119] $S^0_{298} = 223.8 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2BrO_4Yb (s) Bismuth Ytterbium Bromide Oxide **Bi_2BrO_4Yb (s)**
Bi_2YbO_4Br (s) Bi_2YbO_4Br (s)

$\Delta H^0_{298} = -1624.2 \pm 9.6$ kJ·mol^{-1} [119] $S^0_{298} = 239.7 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2Ca_3 (s) Calcium Bismuth **Bi_2Ca_3 (s)**

Ca_3Bi_2 (s) Ca_3Bi_2 (s)

mp = 1470 K (1197 °C)

ΔH^0_{298} = – 527.2 kJ·mol^{-1} [4] S^0_{298} = 177.8 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 124.27 + 25.1 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1470 K) [4]

Bi_2ClDyO_4 (s) Bismuth Dysprosium Chloride Oxide **Bi_2ClDyO_4 (s)**

Bi_2DyO_4Cl (s) Bi_2DyO_4Cl (s)

ΔH^0_{298} = – 1687.4 ± 10 kJ·mol^{-1} [119] S^0_{298} = 231 ± 4.2 J·mol^{-1}·K^{-1} [119]

Bi_2ClErO_4 (s) Bismuth Erbium Chloride Oxide **Bi_2ClErO_4 (s)**

Bi_2ErO_4Cl (s) Bi_2ErO_4Cl (s)

ΔH^0_{298} = – 1702.5 ± 13.4 kJ·mol^{-1} [119] S^0_{298} = 233.1 ± 1.3 J·mol^{-1}·K^{-1} [119]

$C_p{}^0$= 190.31 + 30 ·10^{-3}·T – 1.58 ·10^{6}·T^{-2} – 8.43 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (323 ... 1023 K) [119]

Bi_2ClEuO_4 (s) Bismuth Europium Chloride Oxide **Bi_2ClEuO_4 (s)**

Bi_2EuO_4Cl (s) Bi_2EuO_4Cl (s)

ΔH^0_{298} = – 1555.6 ± 9.2 kJ·mol^{-1} [119] S^0_{298} = 229.3 ± 8.4 J·mol^{-1}·K^{-1} [119]

Bi_2ClGdO_4 (s) Bismuth Gadolinium Chloride Oxide **Bi_2ClGdO_4 (s)**

Bi_2GdO_4Cl (s) Bi_2GdO_4Cl (s)

ΔH^0_{298} = – 1666.5 ± 10 kJ·mol^{-1} [119] S^0_{298} = 231.4 ± 4.2 J·mol^{-1}·K^{-1} [119]

Bi_2ClHoO_4 (s) Bismuth Holmium Chloride Oxide **Bi_2ClHoO_4 (s)**

Bi_2HoO_4Cl (s) Bi_2HoO_4Cl (s)

ΔH^0_{298} = – 1696.6 ± 10.9 kJ·mol^{-1} [119] S^0_{298} = 235.1 ± 4.2 J·mol^{-1}·K^{-1} [119]

Bi_2ClLuO_4 (s) Bismuth Lutetium Chloride Oxide **Bi_2ClLuO_4 (s)**

Bi_2LuO_4Cl (s) Bi_2LuO_4Cl (s)

ΔH^0_{298} = – 1695.4 ± 12.1 kJ·mol^{-1} [119] S^0_{298} = 210.9 ± 4.2 J·mol^{-1}·K^{-1} [119]

Bi_2ClNdO_4 (s) Bismuth Neodymium Chloride Oxide **Bi_2ClNdO_4 (s)**
Bi_2NdO_4Cl (s) Bi_2NdO_4Cl (s)

$\Delta H^0_{298} = -1659 \pm 9.2$ kJ·mol^{-1} [119] $S^0_{298} = 235.1 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2ClO_4Pr (s) Bismuth Praseodymium Chloride Oxide **Bi_2ClO_4Pr (s)**
Bi_2PrO_4Cl (s) Bi_2PrO_4Cl (s)

$\Delta H^0_{298} = -1661 \pm 10.5$ kJ·mol^{-1} [119] $S^0_{298} = 233.9 \pm 8.4$ J·mol^{-1}·K^{-1} [119]

Bi_2ClO_4Sm (s) Bismuth Samarium Chloride Oxide **Bi_2ClO_4Sm (s)**
Bi_2SmO_4Cl (s) Bi_2SmO_4Cl (s)

$\Delta H^0_{298} = -1668.6 \pm 8.8$ kJ·mol^{-1} [119] $S^0_{298} = 231.4 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2ClO_4Tb (s) Bismuth Terbium Chloride Oxide **Bi_2ClO_4Tb (s)**
Bi_2TbO_4Cl (s) Bi_2TbO_4Cl (s)

$\Delta H^0_{298} = -1688.7 \pm 12.1$ kJ·mol^{-1} [119] $S^0_{298} = 234.3 \pm 8.4$ J·mol^{-1}·K^{-1} [119]

Bi_2ClO_4Tm (s) Bismuth Thulium Chloride Oxide **Bi_2ClO_4Tm (s)**
Bi_2TmO_4Cl (s) Bi_2TmO_4Cl (s)

$\Delta H^0_{298} = -1700.4 \pm 11.3$ kJ·mol^{-1} [119] $S^0_{298} = 225.9 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2ClO_4Y (s) Bismuth Yttrium Chloride Oxide **Bi_2ClO_4Y (s)**
Bi_2YO_4Cl (s) Bi_2YO_4Cl (s)

$\Delta H^0_{298} = -1708.7 \pm 10.5$ kJ·mol^{-1} [119] $S^0_{298} = 205.4 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2ClO_4Yb (s) Bismuth Ytterbium Chloride Oxide **Bi_2ClO_4Yb (s)**
Bi_2YbO_4Cl (s) Bi_2YbO_4Cl (s)

$\Delta H^0_{298} = -1663.6 \pm 9.6$ kJ·mol^{-1} [119] $S^0_{298} = 222.6 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2DyIO_4 (s) Bismuth Dysprosium Iodide Oxide **Bi_2DyIO_4 (s)**
Bi_2DyO_4I (s) Bi_2DyO_4I (s)

$\Delta H^0_{298} = -1583.6 \pm 12.6$ kJ·mol⁻¹ [119] $S^0_{298} = 253.6 \pm 4.2$ J·mol⁻¹·K⁻¹ [119]

Bi_2ErIO_4 (s) Bismuth Erbium Iodide Oxide **Bi_2ErIO_4 (s)**
Bi_2ErO_4I (s) Bi_2ErO_4I (s)

$\Delta H^0_{298} = -1601.2 \pm 11.7$ kJ·mol⁻¹ [119] $S^0_{298} = 256.1 \pm 1.3$ J·mol⁻¹·K⁻¹ [119]
$C_p{}^0 = 193.66 + 20.59 \cdot 10^{-3} \cdot T - 1.52 \cdot 10^6 \cdot T^{-2} - 3.8 \cdot 10^{-6} \cdot T^2$ J·mol⁻¹·K⁻¹ (323 ... 913 K) [119]

Bi_2EuIO_4 (s) Bismuth Europium Iodide Oxide **Bi_2EuIO_4 (s)**
Bi_2EuO_4I (s) Bi_2EuO_4I (s)

$\Delta H^0_{298} = -1453.1 \pm 12.6$ kJ·mol⁻¹ [119] $S^0_{298} = 251.9 \pm 8.4$ J·mol⁻¹·K⁻¹ [119]

Bi_2GdIO_4 (s) Bismuth Gadolinium Iodide Oxide **Bi_2GdIO_4 (s)**
Bi_2GdO_4I (s) Bi_2GdO_4I (s)

$\Delta H^0_{298} = -1562.7 \pm 12.6$ kJ·mol⁻¹ [119] $S^0_{298} = 254.4 \pm 4.2$ J·mol⁻¹·K⁻¹ [119]

Bi_2HoIO_4 (s) Bismuth Holmium Iodide Oxide **Bi_2HoIO_4 (s)**
Bi_2HoO_4I (s) Bi_2HoO_4I (s)

$\Delta H^0_{298} = -1592.9 \pm 13.4$ kJ·mol⁻¹ [119] $S^0_{298} = 257.7 \pm 4.2$ J·mol⁻¹·K⁻¹ [119]

Bi_2ILaO_4 (s) Bismuth Lanthanum Iodide Oxide **Bi_2ILaO_4 (s)**
Bi_2LaO_4I (s) Bi_2LaO_4I (s)

$\Delta H^0_{298} = -1546.4 \pm 12.6$ kJ·mol⁻¹ [119] $S^0_{298} = 242.7 \pm 4.2$ J·mol⁻¹·K⁻¹ [119]

Bi_2ILuO_4 (s) Bismuth Lutetium Iodide Oxide **Bi_2ILuO_4 (s)**
Bi_2LuO_4I (s) Bi_2LuO_4I (s)

$\Delta H^0_{298} = -1591.6 \pm 14.6$ kJ·mol⁻¹ [119] $S^0_{298} = 233.9 \pm 4.2$ J·mol⁻¹·K⁻¹ [119]

Bi_2INdO_4 (s) Bismuth Neodymium Iodide Oxide **Bi_2INdO_4 (s)**

Bi_2NdO_4I (s) Bi_2NdO_4I (s)

$\Delta H^0_{298} = -1558.1 \pm 10.5$ kJ·mol^{-1} [119] $S^0_{298} = 258.2 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2IO_4Pr (s) Bismuth Praseodymium Iodide Oxide **Bi_2IO_4Pr (s)**

Bi_2PrO_4I (s) Bi_2PrO_4I (s)

$\Delta H^0_{298} = -1557.3 \pm 13$ kJ·mol^{-1} [119] $S^0_{298} = 256.9 \pm 8.4$ J·mol^{-1}·K^{-1} [119]

Bi_2IO_4Sm (s) Bismuth Samarium Iodide Oxide **Bi_2IO_4Sm (s)**

Bi_2SmO_4I (s) Bi_2SmO_4I (s)

$\Delta H^0_{298} = -1564.4 \pm 9.6$ kJ·mol^{-1} [119] $S^0_{298} = 254.4 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2IO_4Tb (s) Bismuth Terbium Iodide Oxide **Bi_2IO_4Tb (s)**

Bi_2TbO_4I (s) Bi_2TbO_4I (s)

$\Delta H^0_{298} = -1584.9 \pm 14.6$ kJ·mol^{-1} [119] $S^0_{298} = 257.3 \pm 8.4$ J·mol^{-1}·K^{-1} [119]

Bi_2IO_4Tm (s) Bismuth Thulium Iodide Oxide **Bi_2IO_4Tm (s)**

Bi_2TmO_4I (s) Bi_2TmO_4I (s)

$\Delta H^0_{298} = -1596.6 \pm 13.9$ kJ·mol^{-1} [119] $S^0_{298} = 248.5 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2IO_4Y (s) Bismuth Yttrium Iodide Oxide **Bi_2IO_4Y (s)**

Bi_2YO_4I (s) Bi_2YO_4I (s)

$\Delta H^0_{298} = -1605 \pm 13$ kJ·mol^{-1} [119] $S^0_{298} = 228.5 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2IO_4Yb (s) Bismuth Ytterbium Iodide Oxide **Bi_2IO_4Yb (s)**

Bi_2YbO_4I (s) Bi_2YbO_4I (s)

$\Delta H^0_{298} = -1559.8 \pm 12.1$ kJ·mol^{-1} [119] $S^0_{298} = 245.2 \pm 4.2$ J·mol^{-1}·K^{-1} [119]

Bi_2O_2Se (s) Bismuth Selenide Oxide **Bi_2O_2Se (s)**

$\Delta H^0_{298} = -437.6 \pm 16.7$ kJ·mol^{-1} [35] $S^0_{298} = 179.9 \pm 12.6$ J·mol^{-1}·K^{-1} [35]
$C_p{}^0 = 118.83 + 16.74 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (773 ... 873 K) [36]

Bi_2O_2Te (s) Bismuth Telluride Oxide **Bi_2O_2Te (s)**

$\Delta H^0_{298} = -418.4 \pm 16.7$ kJ·mol^{-1} [37] $S^0_{298} = 187.9 \pm 4.2$ J·mol^{-1}·K^{-1} [37]
$C_p{}^0 = 115.65 + 28.58 \cdot 10^{-3} \cdot T - 0.63 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (673 ... 873 K) [37]

Bi_2O_3 (s) Bismuth Oxide alpha **Bi_2O_3 (s)**

mp = 1098 K (825 °C)
$\Delta H^0_{298} = -573.2$ kJ·mol^{-1} [4] $S^0_{298} = 151.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 119.6 + 15.28 \cdot 10^{-3} \cdot T - 0.95 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1003 K) [4]

Bi_2O_3 (s) Bismuth Oxide alpha **Bi_2O_3 (s)**

$\Delta H^0_{1003} = -484.1$ kJ·mol^{-1} [4] $S^0_{1003} = 302.5$ J·mol^{-1}·K^{-1} [4]

Bi_2O_3 (s) Bismuth Oxide beta **Bi_2O_3 (s)**

$\Delta H^0_{1003} = -452.6$ kJ·mol^{-1} [4] $S^0_{1003} = 334$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 138.49$ J·mol^{-1}·K^{-1} (1003 K) [4]

Bi_2O_3 (s) Bismuth Oxide beta **Bi_2O_3 (s)**

$\Delta H^0_{1098} = -439.4$ kJ·mol^{-1} [4] $S^0_{1098} = 346.5$ J·mol^{-1}·K^{-1} [4]

Bi_2O_3 (l) Bismuth Oxide **Bi_2O_3 (l)**

$\Delta H^0_{1098} = -385$ kJ·mol^{-1} [4] $S^0_{1098} = 396$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 179.91$ J·mol^{-1}·K^{-1} (1098 K) [4]

Bi_2O_5Se (s) Bismuth Selenium Oxide **Bi_2O_5Se (s)**

$Bi_2O_3 \cdot SeO_2$ (s) $Bi_2O_3 \cdot SeO_2$ (s)

$\Delta H^0_{298} = -884.5 \pm 12.6$ kJ·mol^{-1} [34] $S^0_{298} = 239.7 \pm 12.6$ J·mol^{-1}·K^{-1} [34]

$C_p{}^0 = 212.55 - 10.71 \cdot 10^{-3} \cdot T - 4.98 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (300 ... 1000 K) [34]

Bi_2O_5Te (s) Bismuth Tellurium Oxide **Bi_2O_5Te (s)**

$Bi_2O_3 \cdot TeO_2$ (s) $Bi_2O_3 \cdot TeO_2$ (s)

$\Delta H^0_{298} = -932.2 \pm 11.3$ kJ·mol^{-1} [37] $S^0_{298} = 225.9 \pm 8.4$ J·mol^{-1}·K^{-1} [37]

$C_p{}^0 = 184.68 + 29.82 \cdot 10^{-3} \cdot T - 1.45 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (673 ... 873 K) [37]

$Bi_2O_7Te_2$ (s) Bismuth Tellurium Oxide **$Bi_2O_7Te_2$ (s)**

$Bi_2O_3 \cdot 2TeO_2$ (s) $Bi_2O_3 \cdot 2TeO_2$ (s)

$\Delta H^0_{298} = -1252.7 \pm 17.2$ kJ·mol^{-1} [37] $S^0_{298} = 300 \pm 12.6$ J·mol^{-1}·K^{-1} [37]

$C_p{}^0 = 249.84 + 44.38 \cdot 10^{-3} \cdot T - 1.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (673 ... 873 K) [37]

$Bi_2O_9Se_3$ (s) Bismuth Selenium Oxide **$Bi_2O_9Se_3$ (s)**

$Bi_2O_3 \cdot 3SeO_2$ (s) $Bi_2O_3 \cdot 3SeO_2$ (s)

$\Delta H^0_{298} = -1389.9 \pm 33.5$ kJ·mol^{-1} [34] $S^0_{298} = 392.5 \pm 37.6$ J·mol^{-1}·K^{-1} [34]

$C_p{}^0 = [288.17]$ J·mol^{-1}·K^{-1} (298 K) [271]

$Bi_2O_{11}Se_4$ (s) Bismuth Selenium Oxide **$Bi_2O_{11}Se_4$ (s)**

$Bi_2O_3 \cdot 4SeO_2$ (s) $Bi_2O_3 \cdot 4SeO_2$ (s)

$\Delta H^0_{298} = -1600.8 \pm 50.2$ kJ·mol^{-1} [34] $S^0_{298} = 489.5 \pm 54.5$ J·mol^{-1}·K^{-1} [34]

$C_p{}^0 = [346.41]$ J·mol^{-1}·K^{-1} (298 K) [271]

$Bi_2O_{11}Te_4$ (s) Bismuth Tellurium Oxide **$Bi_2O_{11}Te_4$ (s)**

$Bi_2O_3 \cdot 4TeO_2$ (s) $Bi_2O_3 \cdot 4TeO_2$ (s)

$\Delta H^0_{298} = -1875.3 \pm 28.9$ kJ·mol^{-1} [37] $S^0_{298} = 448.5 \pm 20.9$ J·mol^{-1}·K^{-1} [37]

$C_p{}^0 = 380.15 + 73.48 \cdot 10^{-3} \cdot T - 2.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (673 ... 873 K) [37]

$Bi_2O_{12}S_3$ (s) Bismuth Sulfate **$Bi_2O_{12}S_3$ (s)**
$Bi_2(SO_4)_3$ (s) $Bi_2(SO_4)_3$ (s)

$\Delta H^0_{298} = -2543.9$ kJ·mol^{-1} [4] $S^0_{298} = 300$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 228.45 + 169.03 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1148 K) [4]

Bi_2S_3 (s) Bismuth Sulfide **Bi_2S_3 (s)**

mp = 1048 K (775 °C)
$\Delta H^0_{298} = -201.7$ kJ·mol^{-1} [4] $S^0_{298} = 200.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 114.47 + 27.7 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1048 K) [4]

Bi_2S_3 (s) Bismuth Sulfide **Bi_2S_3 (s)**

$\Delta H^0_{1048} = -101.9$ kJ·mol^{-1} [4] $S^0_{1048} = 365.1$ J·mol^{-1}·K^{-1} [4]

Bi_2S_3 (l) Bismuth Sulfide **Bi_2S_3 (l)**

$\Delta H^0_{1048} = -22.5$ kJ·mol^{-1} [4] $S^0_{1048} = 440.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 188.28$ J·mol^{-1}·K^{-1} (1048 K) [4]

Bi_2Se (s) Bismuth Selenide **Bi_2Se (s)**

mp = 741 K (468 °C)
$\Delta H^0_{298} = -63.6$ kJ·mol^{-1} [5] $S^0_{298} = [169.5]$ J·mol^{-1}·K^{-1} [272]

Bi_2Se_3 (s) Bismuth Selenide **Bi_2Se_3 (s)**

mp = 995 K (722 °C)
$\Delta H^0_{298} = -140.2$ kJ·mol^{-1} [2] $S^0_{298} = 239.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 118.53 + 19.25 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 995 K) [4]

Bi_2Se_3 (s) Bismuth Selenide **Bi_2Se_3 (s)**

$\Delta H^0_{995} = -48.9$ kJ·mol^{-1} [4] $S^0_{995} = 396$ J·mol^{-1}·K^{-1} [4]

Bi_2Se_3 (l) Bismuth Selenide **Bi_2Se_3 (l)**

ΔH^0_{995} = 37.7 kJ·mol^{-1} [4] S^0_{995} = 483.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 188.28 J·mol^{-1}·K^{-1} (995 K) [4]

Bi_2Te (s) Bismuth Telluride **Bi_2Te (s)**

ΔH^0_{298} = – 27.6 kJ·mol^{-1} [5] S^0_{298} = [175.7] J·mol^{-1}·K^{-1} [5]

Bi_2Te_3 (s) Bismuth Telluride **Bi_2Te_3 (s)**

mp = 850 K (577 °C)
ΔH^0_{298} = – 78.7 kJ·mol^{-1} [4] S^0_{298} = 261.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 107.99 + 55.23 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 850 K) [4]

Bi_2Te_3 (s) Bismuth Telluride **Bi_2Te_3 (s)**

ΔH^0_{850} = – 1.6 kJ·mol^{-1} [4] S^0_{850} = 404.7 J·mol^{-1}·K^{-1} [4]

Bi_2Te_3 (l) Bismuth Telluride **Bi_2Te_3 (l)**

ΔH^0_{850} = 118.1 kJ·mol^{-1} [4] S^0_{850} = 545.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 167.36 J·mol^{-1}·K^{-1} (850 K) [4]

Bi_2U (s) Bismuth Uranium **Bi_2U (s)**

ΔH^0_{298} = – 109 kJ·mol^{-1} [2] S^0_{298} = 151.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 79.44 J·mol^{-1}·K^{-1} (298 K) [2]

Bi_3BrO_4 (s) Bismuth Bromide Oxide **Bi_3BrO_4 (s)**
Bi_3O_4Br (s) Bi_3O_4Br (s)

ΔH^0_{298} = – 938.1 ± 8.8 kJ·mol^{-1} [17] S^0_{298} = 265.7 ± 8.4 J·mol^{-1}·K^{-1} [17]

Bi_3ClO_4 (s) Bismuth Chloride Oxide **Bi_3ClO_4 (s)**

Bi_3O_4Cl (s) Bi_3O_4Cl (s)

$\Delta H^0_{298} = -989.9 \pm 37.7$ kJ·mol^{-1} [39] $S^0_{298} = 279.5 \pm 16.7$ J·mol^{-1}·K^{-1} [39]

$C_p{}^0 = 146.97 + 129.88 \cdot 10^{-3} \cdot T - 0.69 \cdot 10^6 \cdot T^{-2} - 50 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (110 ... 723 K) [39]

$Bi_4Br_2O_5$ (s) Bismuth Bromide Oxide **$Bi_4Br_2O_5$ (s)**

$Bi_4O_5Br_2$ (s) $Bi_4O_5Br_2$ (s)

$\Delta H^0_{298} = -1274.4 \pm 16.7$ kJ·mol^{-1} [17] $S^0_{298} = 370.3 \pm 20.9$ J·mol^{-1}·K^{-1} [17]

$Bi_4Cl_2O_4Se$ (s) Bismuth Selenide Chloride Oxide **$Bi_4Cl_2O_4Se$ (s)**

$Bi_4O_4SeCl_2$ (s) $Bi_4O_4SeCl_2$ (s)

$\Delta H^0_{298} = -1247.3$ kJ·mol^{-1} [47] $S^0_{298} = 348.9$ J·mol^{-1}·K^{-1} [47]

$C_p{}^0 = 257.63 + 58.67 \cdot 10^{-3} \cdot T - 7.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [47]

$Bi_4Cl_2O_5$ (s) Bismuth Chloride Oxide **$Bi_4Cl_2O_5$ (s)**

$Bi_4O_5Cl_2$ (s) $Bi_4O_5Cl_2$ (s)

$\Delta H^0_{298} = -1386.6 \pm 50.2$ kJ·mol^{-1} [39] $S^0_{298} = 366.5 \pm 16.7$ J·mol^{-1}·K^{-1} [39]

$C_p{}^0 = 223.02 + 142.68 \cdot 10^{-3} \cdot T - 1.09 \cdot 10^6 \cdot T^{-2} - 50 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (110 ... 623 K) [39]

$Bi_4I_2O_5$ (s) Bismuth Iodide Oxide **$Bi_4I_2O_5$ (s)**

$Bi_4O_5I_2$ (s) $Bi_4O_5I_2$ (s)

mp = 1226 K (953 °C)

$\Delta H^0_{298} = -1148.8 \pm 20.9$ kJ·mol^{-1} [18] $S^0_{298} = 367.1 \pm 25.1$ J·mol^{-1}·K^{-1} [18]

$C_p{}^0 = 278.14 + 21.05 \cdot 10^{-3} \cdot T - 3.1 \cdot 10^6 \cdot T^{-2} - 5.94 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (323 ... 523 K) [18]

Bi_4U_3 (s) Bismuth Uranium **Bi_4U_3 (s)**

$\Delta H^0_{298} = -385$ kJ·mol^{-1} [2] $S^0_{298} = 342.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 183.95$ J·mol^{-1}·K^{-1} (298 K) [2]

Bi_5IO_7 (s) Bismuth Iodide Oxide **Bi_5IO_7 (s)**

Bi_5O_7I (s) Bi_5O_7I (s)

$\Delta H^0_{298} = -1471.2 \pm 20.1$ kJ·mol^{-1} [18] $S^0_{298} = 385.3 \pm 24.3$ J·mol^{-1}·K^{-1} [18]

$C_p{}^0 = 210.84 + 253.51 \cdot 10^{-3} \cdot T - 0.03 \cdot 10^6 \cdot T^{-2} - 103.64 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (323 ... 673 K) [18]

$Bi_7I_3O_9$ (s) Bismuth Iodide Oxide **$Bi_7I_3O_9$ (s)**

$Bi_7O_9I_3$ (s) $Bi_7O_9I_3$ (s)

mp = 1233 K (960 °C)

$\Delta H^0_{298} = -2022.5 \pm 34.3$ kJ·mol^{-1} [18] $S^0_{298} = 619.8 \pm 41$ J·mol^{-1}·K^{-1} [18]

$C_p{}^0 = 412.61 + 153.51 \cdot 10^{-3} \cdot T + 0.11 \cdot 10^6 \cdot T^{-2} - 64.69 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (323 ... 723 K) [18]

$Bi_8Cl_6Se_9$ (s) Bismuth Selenium Chloride **$Bi_8Cl_6Se_9$ (s)**

$Bi_8Se_9Cl_6$ (s) $Bi_8Se_9Cl_6$ (s)

$\Delta H^0_{298} = -1224.7 \pm 25.1$ kJ·mol^{-1} [46] $S^0_{298} = 1128.4 \pm 25.1$ J·mol^{-1}·K^{-1} [46]

$Bi_{10}Cl_4O_{12}Se$ (s) Bismuth Selenide Chloride Oxide **$Bi_{10}Cl_4O_{12}Se$ (s)**

$Bi_{10}O_{12}SeCl_4$ (s) $Bi_{10}O_{12}SeCl_4$ (s)

$\Delta H^0_{298} = -3260.6$ kJ·mol^{-1} [47] $S^0_{298} = 795$ J·mol^{-1}·K^{-1} [47]

$C_p{}^0 = 639.17 + 132.91 \cdot 10^{-3} \cdot T - 62.56 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [47]

$Bi_{10}O_{19}Se_2$ (s) Bismuth Selenium Oxide **$Bi_{10}O_{19}Se_2$ (s)**

$5Bi_2O_3 \cdot 2SeO_2$ (s) $5Bi_2O_3 \cdot 2SeO_2$ (s)

mp = 1168 K (895 °C)

$\Delta H^0_{298} = -3571.9 \pm 41.8$ kJ·mol^{-1} [34] $S^0_{298} = 876.1 \pm 50.2$ J·mol^{-1}·K^{-1} [34]

$C_p{}^0 = 886.3 - 95.81 \cdot 10^{-3} \cdot T - 21.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [34]

$Bi_{10}O_{19}Te_2$ (s) Bismuth Tellurium Oxide **$Bi_{10}O_{19}Te_2$ (s)**

$5Bi_2O_3 \cdot 2TeO_2$ (s) $5Bi_2O_3 \cdot 2TeO_2$ (s)

$\Delta H^0_{298} = -3581.9 \pm 36.4$ kJ·mol^{-1} [37] $S^0_{298} = 905.8 \pm 29.3$ J·mol^{-1}·K^{-1} [37]

$C_p{}^0 = 727.94 + 105.46 \cdot 10^{-3} \cdot T - 5.73 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (673 ... 873 K) [37]

$Bi_{12}Cl_2O_{17}$ (s) Bismuth Chloride Oxide **$Bi_{12}Cl_2O_{17}$ (s)**

$Bi_{12}O_{17}Cl_2$ (s) $Bi_{12}O_{17}Cl_2$ (s)

$\Delta H^0_{298} = -3718.7 \pm 30.1$ kJ·mol^{-1} [39] $S^0_{298} = 960.6 \pm 29.3$ J·mol^{-1}·K^{-1} [39]

$C_p^0 = 585.52 + 527.39 \cdot 10^{-3} \cdot T - 3.17 \cdot 10^6 \cdot T^{-2} - 230 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (110 ... 773 K) [39]

$Bi_{12}O_{20}Se$ (s) Bismuth Selenium Oxide **$Bi_{12}O_{20}Se$ (s)**

$6Bi_2O_3 \cdot SeO_2$ (s) $6Bi_2O_3 \cdot SeO_2$ (s)

$\Delta H^0_{298} = -3876.9 \pm 50.2$ kJ·mol^{-1} [34] $S^0_{298} = 911.3 \pm 50.2$ J·mol^{-1}·K^{-1} [34]

$C_p^0 = 1673.81 - 1853.93 \cdot 10^{-3} \cdot T - 54.6 \cdot 10^6 \cdot T^{-2} + 1171.52 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [34]

$Bi_{12}O_{20}Te$ (s) Bismuth Tellurium Oxide **$Bi_{12}O_{20}Te$ (s)**

$6Bi_2O_3 \cdot TeO_2$ (s) $6Bi_2O_3 \cdot TeO_2$ (s)

$\Delta H^0_{298} = -3772.3 \pm 34.3$ kJ·mol^{-1} [37] $S^0_{298} = 983.2 \pm 29.3$ J·mol^{-1}·K^{-1} [37]

$C_p^0 = 782.3 + 106.18 \cdot 10^{-3} \cdot T - 6.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (673 ... 873 K) [37]

$Bi_{16}O_{34}Se_5$ (s) Bismuth Selenium Oxide **$Bi_{16}O_{34}Se_5$ (s)**

$8Bi_2O_3 \cdot 5SeO_2$ (s) $8Bi_2O_3 \cdot 5SeO_2$ (s)

$\Delta H^0_{298} = -6251.7 \pm 75.3$ kJ·mol^{-1} [34] $S^0_{298} = 1566.9 \pm 83.7$ J·mol^{-1}·K^{-1} [34]

$Bi_{16}O_{34}Te_5$ (s) Bismuth Tellurium Oxide **$Bi_{16}O_{34}Te_5$ (s)**

$8Bi_2O_3 \cdot 5TeO_2$ (s) $8Bi_2O_3 \cdot 5TeO_2$ (s)

$\Delta H^0_{298} = -6357.6 \pm 69.5$ kJ·mol^{-1} [37] $S^0_{298} = 1583.2 \pm 54.4$ J·mol^{-1}·K^{-1} [37]

$C_p^0 = 1281.98 + 194.93 \cdot 10^{-3} \cdot T - 10.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (673 ... 873 K) [37]

$Bi_{22}Cl_8O_{28}Se$ (s) Bismuth Selenide Chloride Oxide **$Bi_{22}Cl_8O_{28}Se$ (s)**

$Bi_{22}O_{28}SeCl_8$ (s) $Bi_{22}O_{28}SeCl_8$ (s)

$\Delta H^0_{298} = -7253.4$ kJ·mol^{-1} [47] $S^0_{298} = 1702.5$ J·mol^{-1}·K^{-1} [47]

$C_p^0 = 1402.25 + 281.39 \cdot 10^{-3} \cdot T - 295.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [47]

$Bi_{24}Br_{10}O_{31}$ (s) Bismuth Bromide Oxide **$Bi_{24}Br_{10}O_{31}$ (s)**

$Bi_{24}O_{31}Br_{10}$ (s) $Bi_{24}O_{31}Br_{10}$ (s)

mp = 1239 K (966 °C)

$\Delta H^0_{298} = -7572.2 \pm 96.2$ kJ·mol^{-1} [17] $S^0_{298} = 2190.3 \pm 117.2$ J·mol^{-1}·K^{-1} [17]

$Bi_{24}Cl_{10}O_{31}$ (s) Bismuth Chloride Oxide **$Bi_{24}Cl_{10}O_{31}$ (s)**

$Bi_{24}O_{31}Cl_{10}$ (s) $Bi_{24}O_{31}Cl_{10}$ (s)

$\Delta H^0_{298} = -8156.3 \pm 297.1$ kJ·mol^{-1} [39] $S^0_{298} = 2165.2 \pm 121.3$ J·mol^{-1}·K^{-1} [39]

$C_p{}^0 = 1235.41 + 977.93 \cdot 10^{-3} \cdot T - 6.09 \cdot 10^6 \cdot T^{-2} - 340 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (110 ... 723 K) [39]

Br (g) Bromine **Br (g)**

$\Delta H^0_{298} = 111.9 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 175$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 19.87 + 1.49 \cdot 10^{-3} \cdot T + 0.04 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrC (g) Bromomethylidyne **BrC (g)**

CBr (g) CBr (g)

$\Delta H^0_{298} = 510.4 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 233.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 36.04$ J·mol^{-1}·K^{-1} (298 K) [1]

$BrCF_3$ (g) Bromotrifluoromethane **$BrCF_3$ (g)**

$CBrF_3$ (g) $CBrF_3$ (g)

$\Delta H^0_{298} = -648.9 \pm 2.9$ kJ·mol^{-1} [1] $S^0_{298} = 297.8 \pm 0.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 69.33$ J·mol^{-1}·K^{-1} (298 K) [1]

BrCN (g) Cyanogen Bromide **BrCN (g)**

$\Delta H^0_{298} = 186.2 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 248.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 51.04 + 5.94 \cdot 10^{-3} \cdot T - 0.56 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

BrCa (g) Calcium(I) Bromide **BrCa (g)**
CaBr (g) CaBr (g)

$\Delta H^0_{298} = -49.4 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 252.9 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.35 + 0.57 \cdot 10^{-3} \cdot T - 0.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrCl (g) Bromine Chloride **BrCl (g)**

$\Delta H^0_{298} = 14.6 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 240$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.15 + 0.59 \cdot 10^{-3} \cdot T - 0.2 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

BrCs (s) Cesium Bromide **BrCs (s)**
CsBr (s) CsBr (s)

mp = 911 K (638 °C) bp = 1573 K (1300 °C)
$\Delta H^0_{298} = -405.4$ kJ·mol^{-1} [2] $S^0_{298} = 113$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 50.38 + 8.54 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 911 K) [4]
$\lg(p,K) = -10.84 \cdot 10^3 \cdot T^{-1} - 2.32 \cdot \lg(T) + 14.97$ (700 ... 911 K) [4]
{Reaction: evaporation as CsBr(g)}

BrCs (s) Cesium Bromide **BrCs (s)**
CsBr (s) CsBr (s)

$\Delta H^0_{911} = -371.4$ kJ·mol^{-1} [4] $S^0_{911} = 174.5$ J·mol^{-1}·K^{-1} [4]

BrCs (l) Cesium Bromide **BrCs (l)**
CsBr (l) CsBr (l)

$\Delta H^0_{911} = -347.8$ kJ·mol^{-1} [4] $S^0_{911} = 200.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 77.4$ J·mol^{-1}·K^{-1} (911 K) [4]
$\lg(p,K) = -10.55 \cdot 10^3 \cdot T^{-1} - 4.69 \cdot \lg(T) + 21.66$ (911 ... 1586 K) [4]
{Reaction: evaporation as CsBr(g)}

BrCs (g) Cesium Bromide **BrCs (g)**
CsBr (g) CsBr (g)

$\Delta H^0_{298} = -204.5$ kJ·mol^{-1} [4] $S^0_{298} = 268.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.41 + 0.86 \cdot 10^{-3} \cdot T - 0.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrCu (s) Copper(I) Bromide **BrCu** (s)
CuBr (s) alpha CuBr (s)

mp = 759 K (486 °C) bp = 1677 K (1404 °C)
$\Delta H^0_{298} = -105.6$ kJ·mol^{-1} [2] $S^0_{298} = 96.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = -52 + 206.4 \cdot 10^{-3} \cdot T + 4.02 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 657 K) [4]

BrCu (s) Copper(I) Bromide **BrCu** (s)
CuBr (s) alpha CuBr (s)

$\Delta H^0_{657} = -81.5$ kJ·mol^{-1} [4] $S^0_{657} = 147$ J·mol^{-1}·K^{-1} [4]

BrCu (s) Copper(I) Bromide **BrCu** (s)
CuBr (s) beta CuBr (s)

$\Delta H^0_{657} = -76.9$ kJ·mol^{-1} [4] $S^0_{657} = 154$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 73.22$ J·mol^{-1}·K^{-1} (657 K) [4]

BrCu (s) Copper(I) Bromide **BrCu** (s)
CuBr (s) beta CuBr (s)

$\Delta H^0_{741} = -70.8$ kJ·mol^{-1} [4] $S^0_{741} = 162.9$ J·mol^{-1}·K^{-1} [4]

BrCu (s) Copper(I) Bromide **BrCu** (s)
CuBr (s) gamma CuBr (s)

$\Delta H^0_{741} = -68.6$ kJ·mol^{-1} [4] $S^0_{741} = 165.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 58.99$ J·mol^{-1}·K^{-1} (741 K) [4]

BrCu (s) Copper(I) Bromide **BrCu** (s)
CuBr (s) gamma CuBr (s)

$\Delta H^0_{759} = -67.6$ kJ·mol^{-1} [4] $S^0_{759} = 167.2$ J·mol^{-1}·K^{-1} [4]

BrCu (l) Copper(I) Bromide **BrCu** (l)
CuBr (l) CuBr (l)

$\Delta H^0_{759} = -62.5$ kJ·mol^{-1} [4] $S^0_{759} = 173.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 45.95 + 3.49 \cdot 10^{-3} \cdot T - 8.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (759 K) [4]

BrCu (g) Copper(I) Bromide **BrCu** (g)
CuBr (g) CuBr (g)

$\Delta H^0_{298} = 122.6$ kJ·mol^{-1} [2] $S^0_{298} = 248.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 37.31 + 0.59 \cdot 10^{-3} \cdot T - 0.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrF (g) Bromine(I) Fluoride **BrF** (g)

$\Delta H^0_{298} = -58.5 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 229$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36.32 + 1 \cdot 10^{-3} \cdot T - 0.33 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

BrF_3 (g) Bromine(III) Fluoride **BrF_3** (g)

$\Delta H^0_{298} = -255.6 \pm 2.9$ kJ·mol^{-1} [1] $S^0_{298} = 292.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 78.36 + 4.44 \cdot 10^{-3} \cdot T - 1.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [6]

BrF_5 (g) Bromine(V) Fluoride **BrF_5** (g)

$\Delta H^0_{298} = -428.7 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 323.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 125.65 + 5.69 \cdot 10^{-3} \cdot T - 2.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [6]

BrF_5S (g) Sulfur Bromide Fluoride **BrF_5S** (g)
$SBrF_5$ (g) $SBrF_5$ (g)

$\Delta H^0_{298} = -972.8 \pm 59$ kJ·mol^{-1} [1] $S^0_{298} = 333.6 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 107.07$ J·mol^{-1}·K^{-1} (298 K) [1]

BrGa (g) Gallium(I) Bromide **BrGa** (g)
GaBr (g) GaBr (g)

$\Delta H^0_{298} = -49.8$ kJ·mol^{-1} [4] $S^0_{298} = 252$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.41$ J·mol^{-1}·K^{-1} (298 K) [4]

BrH (g) Hydrogen Bromide **BrH (g)**
HBr (g) HBr (g)

mp = 186 K (-87 °C) bp = 206 K (-67 °C)
$\Delta H^0_{298} = -36.4 \pm 0.2$ kJ·mol^{-1} [1] $S^0_{298} = 198.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 27.53 + 4.59 \cdot 10^{-3} \cdot T - 0.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -2.74 \cdot 10^3 \cdot T^{-1} + 0.05 \cdot \lg(T) - 0.68$ (400 ... 2000 K) [4]
{Reaction: decomposition HBr(g) = 1/2H_2(g) + 1/2Br_2(g)}

BrH_3Si (g) Bromosilane **BrH_3Si (g)**
SiH_3Br (g) SiH_3Br (g)

$\Delta H^0_{298} = -78.2 \pm 17$ kJ·mol^{-1} [1] $S^0_{298} = 262.5 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 52.87$ J·mol^{-1}·K^{-1} (298 K) [1]

BrH_4N (s) Ammonium Bromide **BrH_4N (s)**
NH_4Br (s) alpha NH_4Br (s)

mp = 815 K (542 °C) bp = 664 K (391 °C)
$\Delta H^0_{298} = -270.6$ kJ·mol^{-1} [4] $S^0_{298} = 111.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 124.68 - 35.15 \cdot 10^{-3} \cdot T - 2.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 413 K) [4]

BrH_4N (s) Ammonium Bromide **BrH_4N (s)**
NH_4Br (s) alpha NH_4Br (s)

$\Delta H^0_{413} = -260$ kJ·mol^{-1} [4] $S^0_{413} = 141.5$ J·mol^{-1}·K^{-1} [4]

BrH_4N (s) Ammonium Bromide **BrH_4N (s)**
NH_4Br (s) beta NH_4Br (s)

$\Delta H^0_{413} = -256.4$ kJ·mol^{-1} [4] $S^0_{413} = 150.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 98.32 - 3.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (413 ... 664 K) [4]
$\lg(p,K) = -4.85 \cdot 10^3 \cdot T^{-1} - 0.59 \cdot \lg(T) + 8.67$ (413 ... 664 K) [4]
{Reaction: decomposition NH_4Br(s) = NH_3(g) + HBr(g)}

BrH_4P (s) Phosphonium Bromide **BrH_4P (s)**

PH_4Br (s) PH_4Br (s)

$\Delta H^0_{298} = -128$ kJ·mol^{-1} [7] $S^0_{298} = 110$ J·mol^{-1}·K^{-1} [7]

BrHg (g) Mercury(I) Bromide **BrHg (g)**

HgBr (g) HgBr (g)

$\Delta H^0_{298} = 104.2 \pm 38$ kJ·mol^{-1} [1] $S^0_{298} = 271.5$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 37.41 + 1.14 \cdot 10^{-3} \cdot T - 0.5 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrI (g) Iodine(I) Bromide **BrI (g)**

IBr (g) IBr (g)

$\Delta H^0_{298} = 40.9 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 259$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 36.53$ J·mol^{-1}·K^{-1} (298 K) [1]

BrISn (s) Tin Iodide Bromide **BrISn (s)**

SnBrI (s) SnBrI (s)

$\Delta H^0_{298} = -205 \pm 20.9$ kJ·mol^{-1} [279] $S^0_{298} = [160.6]$ J·mol^{-1}·K^{-1} [280]

$C_p^0 = [78.98]$ J·mol^{-1}·K^{-1} (298 K) [271]

BrISn (g) Tin Iodide Bromide **BrISn (g)**

SnBrI (g) SnBrI (g)

$\Delta H^0_{298} = -70.3 \pm 20.9$ kJ·mol^{-1} [279] $S^0_{298} = [339.5]$ J·mol^{-1}·K^{-1} [280]

BrIn (s) Indium(I) Bromide **BrIn (s)**

InBr (s) InBr (s)

mp = 558 K (285 °C)

$\Delta H^0_{298} = -175.3$ kJ·mol^{-1} [2] $S^0_{298} = 112.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 43.51 + 25.1 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 558 K) [4]

BrIn (s) Indium(I) Bromide **BrIn (s)**

InBr (s) InBr (s)

$\Delta H^0_{558} = -161.2$ kJ·mol^{-1} [4] $S^0_{558} = 145.9$ J·mol^{-1}·K^{-1} [4]

BrIn (l) Indium(I) Bromide **BrIn (l)**

InBr (l) InBr (l)

$\Delta H^0_{558} = -144.3$ kJ·mol^{-1} [4] $S^0_{558} = 176.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 60.67$ J·mol^{-1}·K^{-1} (558 K) [4]

BrIn (g) Indium(I) Bromide **BrIn (g)**

InBr (g) InBr (g)

$\Delta H^0_{298} = -56.9$ kJ·mol^{-1} [2] $S^0_{298} = 259.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 37.57 + 0.42 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrK (s) Potassium Bromide **BrK (s)**

KBr (s) KBr (s)

mp = 1007 K (734 °C) bp = 1669 K (1396 °C)

$\Delta H^0_{298} = -393.6$ kJ·mol^{-1} [4] $S^0_{298} = 95.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 69.16 - 45.56 \cdot 10^{-3} \cdot T - 0.65 \cdot 10^{6} \cdot T^{-2} + 45.02 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 1007 K) [4]

BrK (s) Potassium Bromide **BrK (s)**

KBr (s) KBr (s)

$\Delta H^0_{1007} = -352.2$ kJ·mol^{-1} [4] $S^0_{1007} = 165.3$ J·mol^{-1}·K^{-1} [4]

BrK (l) Potassium Bromide **BrK (l)**

KBr (l) KBr (l)

$\Delta H^0_{1007} = -326.7$ kJ·mol^{-1} [4] $S^0_{1007} = 190.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 69.87$ J·mol^{-1}·K^{-1} (1007 K) [4]

BrK (l) Potassium Bromide **BrK (l)**

KBr (l) KBr (l)

$\Delta H^0_{298} = -376.5$ kJ·mol^{-1} [1] $S^0_{298} = 105.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 69.87$ J·mol^{-1}·K^{-1} (298 K) [1]

BrK (g) Potassium Bromide **BrK (g)**
KBr (g) KBr (g)

$\Delta H^0_{298} = -180.1 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 250.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.41 + 0.86 \cdot 10^{-3} \cdot T - 0.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -11.73 \cdot 10^3 \cdot T^{-1} - 3.02 \cdot \lg(T) + 17.23$ (700 ... 1007 K) [4]
{Reaction: evaporation of KBr(s)}

BrKO$_3$ (s) Potassium Bromate **BrKO$_3$ (s)**
$KBrO_3$ (s) $KBrO_3$ (s)

$\Delta H^0_{298} = -360$ kJ·mol^{-1} [7] $S^0_{298} = 149$ J·mol^{-1}·K^{-1} [7]
$C_p{}^0 = 105$ J·mol^{-1}·K^{-1} (298 K) [7]

BrLi (s) Lithium Bromide **BrLi (s)**
LiBr (s) LiBr (s)

mp = 823 K (550 °C) bp = 1563 K (1290 °C)
$\Delta H^0_{298} = -351.2$ kJ·mol^{-1} [4] $S^0_{298} = 74$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 42.64 + 22.79 \cdot 10^{-3} \cdot T - 0.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 823 K) [4]

BrLi (s) Lithium Bromide **BrLi (s)**
LiBr (s) LiBr (s)

$\Delta H^0_{823} = -322.2$ kJ·mol^{-1} [4] $S^0_{823} = 129.1$ J·mol^{-1}·K^{-1} [4]

BrLi (l) Lithium Bromide **BrLi (l)**
LiBr (l) LiBr (l)

$\Delta H^0_{823} = -304.5$ kJ·mol^{-1} [4] $S^0_{823} = 150.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 65.27$ J·mol^{-1}·K^{-1} (823 K) [4]

BrLi (l) Lithium Bromide **BrLi (l)**
LiBr (l) LiBr (l)

$\Delta H^0_{298} = -338.2$ kJ·mol^{-1} [1] $S^0_{298} = 84.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 65.27$ J·mol^{-1}·K^{-1} (298 K) [1]

BrLi (g) | Lithium Bromide | **BrLi** (g)
LiBr (g) | | LiBr (g)

$\Delta H^0_{298} = -154 \pm 13$ kJ·mol^{-1} [1] | $S^0_{298} = 224.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 36.77 + 1.04 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -10.77 \cdot 10^3 \cdot T^{-1} - 2.75 \cdot \lg(T) + 16.1$ (700 ... 823 K) [4]

{Reaction: evaporation of LiBr(s)}

BrMg (g) | Magnesium(I) Bromide | **BrMg** (g)
MgBr (g) | | MgBr (g)

$\Delta H^0_{298} = -35.3 \pm 41.8$ kJ·mol^{-1} [1] | $S^0_{298} = 244.9 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 37.28 + 0.57 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrMo (g) | Molybdenum(I) Bromide | **BrMo** (g)
MoBr (g) | | MoBr (g)

$\Delta H^0_{298} = 457.3 \pm 42$ kJ·mol^{-1} [1] | $S^0_{298} = 269.5 \pm 8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 38.86 - 3.7 \cdot 10^{-3} \cdot T - 0.14 \cdot 10^6 \cdot T^{-2} + 1.7 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrN (g) | Nitrogen(I) Bromide | **BrN** (g)
NBr (g) | | NBr (g)

$\Delta H^0_{298} = 300.8 \pm 21$ kJ·mol^{-1} [1] | $S^0_{298} = 235.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 32.73$ J·mol^{-1}·K^{-1} (298 K) [1]

BrNO (g) | Nitrosyl Bromide | **BrNO** (g)
NOBr (g) | | NOBr (g)

mp = 218 K (-55 °C) | bp = 272 K (-1 °C)

$\Delta H^0_{298} = 82.1 \pm 0.8$ kJ·mol^{-1} [1] | $S^0_{298} = 273.5$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 51.02 + 3.39 \cdot 10^{-3} \cdot T - 0.63 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrNa (s) | Sodium Bromide | **BrNa** (s)
NaBr (s) | | NaBr (s)

mp = 1020 K (747 °C) | bp = 1659 K (1386 °C)

$\Delta H^0_{298} = -361.1$ kJ·mol^{-1} [4] | $S^0_{298} = 86.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 40.97 + 24.51 \cdot 10^{-3} \cdot T + 0.28 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1020 K) [4]

BrNa (s) Sodium Bromide **BrNa (s)**
NaBr (s) NaBr (s)

$\Delta H^0_{1020} = -319.2$ kJ·mol⁻¹ [4] $S^0_{1020} = 156.3$ J·mol⁻¹·K⁻¹ [4]

BrNa (l) Sodium Bromide **BrNa (l)**
NaBr (l) NaBr (l)

$\Delta H^0_{1020} = -292.9$ kJ·mol⁻¹ [4] $S^0_{1020} = 182.1$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 68.03$ J·mol⁻¹·K⁻¹ (1020 K) [4]

BrNa (l) Sodium Bromide **BrNa (l)**
NaBr (l) NaBr (l)

$\Delta H^0_{298} = -339.3$ kJ·mol⁻¹ [1] $S^0_{298} = 104.4$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 62.34$ J·mol⁻¹·K⁻¹ (298 K) [1]

BrNa (g) Sodium Bromide **BrNa (g)**
NaBr (g) NaBr (g)

$\Delta H^0_{298} = -143.9 \pm 2.1$ kJ·mol⁻¹ [1] $S^0_{298} = 241.2$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 37.37 + 0.8 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]
$\lg(p,K) = -11.9 \cdot 10^3 \cdot T^{-1} - 2.96 \cdot \lg(T) + 17.04$ (700 ... 1020 K) [4]
{Reaction: evaporation of NaBr(s)}

$BrNaO_3$ (s) Sodium Bromate **$BrNaO_3$ (s)**
$NaBrO_3$ (s) $NaBrO_3$ (s)

$\Delta H^0_{298} = -334$ kJ·mol⁻¹ [7] $S^0_{298} = 129$ J·mol⁻¹·K⁻¹ [7]

BrNi (g) Nickel(I) Bromide **BrNi (g)**
NiBr (g) NiBr (g)

$\Delta H^0_{298} = 184.1$ kJ·mol⁻¹ [4] $S^0_{298} = 262.5$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 39.49 + 0.85 \cdot 10^{-3} \cdot T - 0.32 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

BrO (g) | Bromine Oxide | **BrO** (g)

ΔH^0_{298} = 125.8 ± 2.4 kJ·mol^{-1} [1]
S^0_{298} = 233 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 34.18 J·mol^{-1}·K^{-1} (298 K) [1]

BrOPu (s) | Plutonium Bromide Oxide | **BrOPu** (s)
PuOBr (s)

ΔH^0_{298} = – 870.3 kJ·mol^{-1} [4]
S^0_{298} = 113 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 80.67 + 23.89 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

BrO_2 (g) | Bromine Oxide | **BrO_2** (g)
OBrO (g)

ΔH^0_{298} = 152 ± 25 kJ·mol^{-1} [1]
S^0_{298} = 271.1 ± 2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 45.36 J·mol^{-1}·K^{-1} (298 K) [1]

BrO_2 (g) | Bromine Oxide | **BrO_2** (g)
BrOO (g)

ΔH^0_{298} = 108 ± 40 kJ·mol^{-1} [1]
S^0_{298} = 288.8 ± 3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 48.88 J·mol^{-1}·K^{-1} (298 K) [1]

BrO_3 (g) | Bromine Oxide | **BrO_3** (g)

ΔH^0_{298} = 221 ± 50 kJ·mol^{-1} [1]
S^0_{298} = 284.5 ± 2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 60 J·mol^{-1}·K^{-1} (298 K) [1]

BrO_3Re (g) | Rhenium Bromide Oxide | **BrO_3Re** (g)
ReO_3Br (g)

ΔH^0_{298} = – 497.1 ± 23.4 kJ·mol^{-1} [50]
S^0_{298} = 327.6 ± 2.1 J·mol^{-1}·K^{-1} [50]
$C_p{}^0$= 92.05 J·mol^{-1}·K^{-1} (298 K) [50]

BrP (g) Phosphorus(I) Bromide **BrP** (g)
PBr (g) PBr (g)

ΔH^0_{298} = 162.6 kJ·mol^{-1} [1] S^0_{298} = 249.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 35.39 J·mol^{-1}·K^{-1} (298 K) [1]

BrPb (g) Lead(I) Bromide **BrPb** (g)
PbBr (g) PbBr (g)

ΔH^0_{298} = 70.9 ± 42 kJ·mol^{-1} [1] S^0_{298} = 272.5 ± 0.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 37.17 + 0.85 ·10^{-3}·T – 0.05 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrRb (s) Rubidium Bromide **BrRb** (s)
RbBr (s) RbBr (s)

mp = 965 K (692 °C) bp = 1620 K (1347 °C)
ΔH^0_{298} = – 394.6 kJ·mol^{-1} [2] S^0_{298} = 110 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 49.37 + 10.67 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 965 K) [4]
lg(p,K) = – 11.16 ·10^{3}·T^{-1} – 2.43 · lg(T) + 15.22 (700 ... 965 K) [4]
{Reaction: evaporation as RbBr(g)}

BrRb (s) Rubidium Bromide **BrRb** (s)
RbBr (s) RbBr (s)

ΔH^0_{965} = – 357.1 kJ·mol^{-1} [4] S^0_{965} = 175.1 J·mol^{-1}·K^{-1} [4]

BrRb (l) Rubidium Bromide **BrRb** (l)
RbBr (l) RbBr (l)

ΔH^0_{965} = – 333.8 kJ·mol^{-1} [4] S^0_{965} = 199.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 66.94 J·mol^{-1}·K^{-1} (965 K) [4]
lg(p,K) = – 10.36 ·10^{3}·T^{-1} – 3.42 · lg(T) + 17.33 (965 ... 1632 K) [4]
{Reaction: evaporation as RbBr(g)}

BrRb (g) Rubidium Bromide **BrRb** (g)
RbBr (g) RbBr (g)

ΔH^0_{298} = – 188.1 kJ·mol^{-1} [4] S^0_{298} = 263.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 37.41 + 0.86 ·10^{-3}·T – 0.06 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrSi (g) Silicon(I) Bromide **BrSi** (g)
SiBr (g) SiBr (g)

ΔH^0_{298} = 235.3 ± 46 kJ·mol^{-1} [1] S^0_{298} = 247.4 ± 0.2 J·mol^{-1}·K^{-1} [1]
C_p^0= 38.73 J·mol^{-1}·K^{-1} (298 K) [1]

BrSr (g) Strontium(I) Bromide **BrSr** (g)
SrBr (g) SrBr (g)

ΔH^0_{298} = – 89.1 ± 42 kJ·mol^{-1} [1] S^0_{298} = 263.8 ± 0.4 J·mol^{-1}·K^{-1} [1]
C_p^0= 37.38 + 0.56 ·10^{-3}·T – 0.63 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrTi (g) Titanium(I) Bromide **BrTi** (g)
TiBr (g) TiBr (g)

ΔH^0_{298} = 212.5 ± 42 kJ·mol^{-1} [1] S^0_{298} = 260.3 ± 8.4 J·mol^{-1}·K^{-1} [1]
C_p^0= 43.92 + 0.34 ·10^{-3}·T – 0.55 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1939 K) [4]

BrTl (s) Thallium(I) Bromide **BrTl** (s)
TlBr (s) TlBr (s)

mp = 733 K (460 °C) bp = 1115 K (842 °C)
ΔH^0_{298} = – 172.7 kJ·mol^{-1} [4] S^0_{298} = 122.6 J·mol^{-1}·K^{-1} [2]
C_p^0= 41.63 + 29.68 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 733 K) [4]
lg(p,K) = – 7.56 ·10^3·T^{-1} – 2.75 · lg(T) + 15.61 (500 ... 733 K) [4]
{Reaction: evaporation as TlBr(g)}

BrTl (s) Thallium(I) Bromide **BrTl** (s)
TlBr (s) TlBr (s)

ΔH^0_{733} = – 147.9 kJ·mol^{-1} [4] S^0_{733} = 172.9 J·mol^{-1}·K^{-1} [4]

BrTl (l) Thallium(I) Bromide **BrTl** (l)
TlBr (l) TlBr (l)

ΔH^0_{733} = – 131.5 kJ·mol^{-1} [4] S^0_{733} = 195.3 J·mol^{-1}·K^{-1} [4]
C_p^0= 105.65 – 37.82 ·10^{-3}·T J·mol^{-1}·K^{-1} (733 ... 1115 K) [4]
lg(p,K) = – 7.07 ·10^3·T^{-1} – 4.02 · lg(T) + 18.6 (733 ... 1115 K) [4]
{Reaction: evaporation as TlBr(g)}

BrTl (g) Thallium(I) Bromide **BrTl (g)**
TlBr (g) TlBr (g)

$\Delta H^0_{298} = -36.2$ kJ·mol^{-1} [4] $S^0_{298} = 264.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.4 - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

BrW (g) Tungsten(I) Bromide **BrW (g)**
WBr (g) WBr (g)

$\Delta H^0_{298} = 586.2 \pm 84$ kJ·mol^{-1} [1] $S^0_{298} = 272.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 36.66 + 1.31 \cdot 10^{-3} \cdot T - 0.09 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

BrZr (g) Zirconium(I) Bromide **BrZr (g)**
ZrBr (g) ZrBr (g)

$\Delta H^0_{298} = 301.2 \pm 2$ kJ·mol^{-1} [1] $S^0_{298} = 265.6 \pm 8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 34.65 + 4.95 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2 (l) Bromine **Br_2 (l)**

mp = 265 K (-8 °C) bp = 333 K (60 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 152.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 75.5$ J·mol^{-1}·K^{-1} (298 ... 333 K) [4]
$\lg(p,K) = -2.23 \cdot 10^3 \cdot T^{-1} - 4.72 \cdot \lg(T) + 18.6$ (298 ... 333 K) [4]
{Reaction: evaporation as Br_2(g)}

Br_2 (l) Bromine **Br_2 (l)**

$\Delta H^0_{333} = 2.6$ kJ·mol^{-1} [4] $S^0_{333} = 160.6$ J·mol^{-1}·K^{-1} [4]

Br_2 (g) Bromine **Br_2 (g)**

$\Delta H^0_{333} = 32.2$ kJ·mol^{-1} [4] $S^0_{333} = 249.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.03 + 0.88 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (333 ... 2000 K) [4]
$\lg(p,K) = -4.97 \cdot 10^3 \cdot T^{-1} + 0.35 \cdot \lg(T) + 1.68$ (500 ... 2000 K) [4]
{Reaction: Br_2(g) = 2Br(g)}

Br_2 (g) Bromine **Br_2 (g)**

$\Delta H^0_{298} = 30.9 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 245.4 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.36 + 0.46 \cdot 10^{-3} \cdot T - 1.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [3]

Br_2Ca (s) Calcium(II) Bromide **Br_2Ca (s)**
$CaBr_2$ (s) $CaBr_2$ (s)

mp = 1015 K (742 °C) bp = 2081 K (1808 °C)
$\Delta H^0_{298} = -683.2 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 129.7 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 77.23 + 9.58 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1015 K) [4]
$\lg(p,K) = -16.12 \cdot 10^3 \cdot T^{-1} - 2.85 \cdot \lg(T) + 18.26$ (298 ... 1015 K) [4]
{Reaction: evaporation as $CaBr_2$(g)}

Br_2Ca (s) Calcium(II) Bromide **Br_2Ca (s)**
$CaBr_2$ (s) $CaBr_2$ (s)

$\Delta H^0_{1015} = -624.3$ kJ·mol^{-1} [4] $S^0_{1015} = 228.4$ J·mol^{-1}·K^{-1} [4]

Br_2Ca (l) Calcium(II) Bromide **Br_2Ca (l)**
$CaBr_2$ (l) $CaBr_2$ (l)

$\Delta H^0_{1015} = -595.2$ kJ·mol^{-1} [4] $S^0_{1015} = 257$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 112.97$ J·mol^{-1}·K^{-1} (1015 K) [4]
$\lg(p,K) = -16.03 \cdot 10^3 \cdot T^{-1} - 6.1 \cdot \lg(T) + 27.95$ (1015 ... 2081 K) [4]
{Reaction: evaporation as $CaBr_2$(g)}

Br_2Ca (g) Calcium(II) Bromide **Br_2Ca (g)**
$CaBr_2$ (g) $CaBr_2$ (g)

$\Delta H^0_{298} = -384.9 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 314.8 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 62.26 + 0.06 \cdot 10^{-3} \cdot T - 0.17 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2081 K) [4]

Br_2Cd (s) Cadmium(II) Bromide **Br_2Cd (s)**

$CdBr_2$ (s) $CdBr_2$ (s)

mp = 841 K (568 °C) bp = 1137 K (864 °C)

$\Delta H^0_{298} = -316.2$ kJ·mol^{-1} [2] $S^0_{298} = 137.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 79.96 + 21.09 \cdot 10^{-3} \cdot T - 0.85 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 841 K) [4]

$\lg(p,K) = -9.49 \cdot 10^{3} \cdot T^{-1} - 3.41 \cdot \lg(T) + 19.49$ (500 ... 841 K) [4]

{Reaction: evaporation as $CdBr_2$(g)}

Br_2Cd (s) Cadmium(II) Bromide **Br_2Cd (s)**

$CdBr_2$ (s) $CdBr_2$ (s)

$\Delta H^0_{841} = -268.1$ kJ·mol^{-1} [4] $S^0_{841} = 227.4$ J·mol^{-1}·K^{-1} [4]

Br_2Cd (l) Cadmium(II) Bromide **Br_2Cd (l)**

$CdBr_2$ (l) $CdBr_2$ (l)

$\Delta H^0_{841} = -225.7$ kJ·mol^{-1} [4] $S^0_{841} = 277.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 101.67$ J·mol^{-1}·K^{-1} (841 ... 1137 K) [4]

$\lg(p,K) = -7.92 \cdot 10^{3} \cdot T^{-1} - 5.18 \cdot \lg(T) + 22.8$ (841 ... 1137 K) [4]

{Reaction: evaporation as $CdBr_2$(g)}

Br_2Cd (g) Cadmium(II) Bromide **Br_2Cd (g)**

$CdBr_2$ (g) $CdBr_2$ (g)

$\Delta H^0_{298} = -144.9$ kJ·mol^{-1} [4] $S^0_{298} = 315.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 65.4 - 0.46 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2Co (s) Cobalt(II) Bromide **Br_2Co (s)**

$CoBr_2$ (s) $CoBr_2$ (s)

mp = 951 K (678 °C) bp = 1200 K (927 °C)

$\Delta H^0_{298} = -215.7$ kJ·mol^{-1} [4] $S^0_{298} = 133.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 73.39 + 20.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 648 K) [4]

Br_2Cr (s) Chromium(II) Bromide **Br_2Cr (s)**

$CrBr_2$ (s) $CrBr_2$ (s)

mp = 1115 K (842 °C) bp = 1400 K (1127 °C)

$\Delta H^0_{298} = -302.1$ kJ·mol^{-1} [2] $S^0_{298} = 134.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 65.9 + 22.18 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1115 K) [4]

Br_2Cu (s) Copper(II) Bromide **Br_2Cu (s)**

$CuBr_2$ (s) $CuBr_2$ (s)

mp = 771 K (498 °C)

$\Delta H^0_{298} = -138.5$ kJ·mol^{-1} [2] $S^0_{298} = 128.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 76.36 + 5.19 \cdot 10^{-3} \cdot T - 0.19 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 540 K) [4]

Br_2Eu (s) Europium(II) Bromide **Br_2Eu (s)**

$EuBr_2$ (s) $EuBr_2$ (s)

mp = 956 K (683 °C) bp = 2322 K (2049 °C)

$\Delta H^0_{298} = -719.6$ kJ·mol^{-1} [2] $S^0_{298} = 136.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 77.4 + 16.74 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 956 K) [4]

Br_2Eu (s) Europium(II) Bromide **Br_2Eu (s)**

$EuBr_2$ (s) $EuBr_2$ (s)

$\Delta H^0_{956} = -661.8$ kJ·mol^{-1} [4] $S^0_{956} = 238$ J·mol^{-1}·K^{-1} [4]

Br_2Eu (l) Europium(II) Bromide **Br_2Eu (l)**

$EuBr_2$ (l) $EuBr_2$ (l)

$\Delta H^0_{956} = -636.7$ kJ·mol^{-1} [4] $S^0_{956} = 264.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 108.78$ J·mol^{-1}·K^{-1} (956 K) [4]

$\lg(p,K) = -18.16 \cdot 10^{3} \cdot T^{-1} - 5.39 \cdot \lg(T) + 25.97$ (1000 ... 2000 K) [4]

{Reaction: evaporation as $EuBr_2$(g)}

Br_2Eu (g) Europium(II) Bromide **Br_2Eu (g)**

$EuBr_2$ (g) $EuBr_2$ (g)

$\Delta H^0_{298} = -372.4$ kJ·mol^{-1} [2] $S^0_{298} = 337.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 60.88 + 2.12 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2Fe (s) Iron(II) Bromide **Br_2Fe (s)**

$FeBr_2$ (s) alpha $FeBr_2$ (s)

mp = 964 K (691 °C) bp = 1206 K (933 °C)

$\Delta H^0_{298} = -248.9 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 140.7 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 73.6 + 22.25 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 650 K) [4]

Br_2Fe (s) Iron(II) Bromide **Br_2Fe (s)**

$FeBr_2$ (s) alpha $FeBr_2$ (s)

$\Delta H^0_{650} = -219.3$ kJ·mol^{-1} [4] $S^0_{650} = 205.9$ J·mol^{-1}·K^{-1} [4]

Br_2Fe (s) Iron(II) Bromide **Br_2Fe (s)**

$FeBr_2$ (s) beta $FeBr_2$ (s)

$\Delta H^0_{650} = -218.9$ kJ·mol^{-1} [4] $S^0_{650} = 206.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 73.6 + 22.25 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (650 ... 964 K) [4]

Br_2Fe (s) Iron(II) Bromide **Br_2Fe (s)**

$FeBr_2$ (s) beta $FeBr_2$ (s)

$\Delta H^0_{964} = -190.2$ kJ·mol^{-1} [4] $S^0_{964} = 242.5$ J·mol^{-1}·K^{-1} [4]

Br_2Fe (l) Iron(II) Bromide **Br_2Fe (l)**

$FeBr_2$ (l) $FeBr_2$ (l)

$\Delta H^0_{964} = -140$ kJ·mol^{-1} [4] $S^0_{964} = 294.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 106.7$ J·mol^{-1}·K^{-1} (964 K) [4]

Br_2Fe (l) Iron(II) Bromide **Br_2Fe (l)**

$FeBr_2$ (l) $FeBr_2$ (l)

$\Delta H^0_{298} = -211$ kJ·mol^{-1} [1] $S^0_{298} = 169.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 106.7$ J·mol^{-1}·K^{-1} (298 K) [1]

Br_2Fe (g) Iron(II) Bromide **Br_2Fe (g)**

$FeBr_2$ (g) $FeBr_2$ (g)

$\Delta H^0_{298} = -41.4 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 337.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 60.4 + 2.71 \cdot 10^{-3} \cdot T - 0.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -11.27 \cdot 10^3 \cdot T^{-1} - 3.49 \cdot \lg(T) + 20.68$ (650 ... 964 K) [4]

{Reaction: evaporation of $FeBr_2$(s)}

Br_2Ge (g) Germanium(II) Bromide **Br_2Ge (g)**

$GeBr_2$ (g) $GeBr_2$ (g)

$\Delta H^0_{298} = -62.8$ kJ·mol^{-1} [4] $S^0_{298} = 331.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 57.85 + 0.22 \cdot 10^{-3} \cdot T - 0.37 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2H_2Si (g) Dibromosilane **Br_2H_2Si (g)**

SiH_2Br_2 (g) SiH_2Br_2 (g)

$\Delta H^0_{298} = -190.4 \pm 17$ kJ·mol^{-1} [1] $S^0_{298} = 310.1 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 65.55$ J·mol^{-1}·K^{-1} (298 K) [1]

Br_2Hg (s) Mercury(II) Bromide **Br_2Hg (s)**

$HgBr_2$ (s) $HgBr_2$ (s)

mp = 514 K (241 °C) bp = 591 K (318 °C)

$\Delta H^0_{298} = -170.7$ kJ·mol^{-1} [4] $S^0_{298} = 172$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 66.65 + 29.2 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 514 K) [4]

$\lg(p,K) = -4.61 \cdot 10^3 \cdot T^{-1} - 2.12 \cdot \lg(T) + 13.93$ (298 ... 514 K) [4]

{Reaction: evaporation as $HgBr_2$(g)}

Br_2Hg (s) Mercury(II) Bromide **Br_2Hg (s)**

$HgBr_2$ (s) $HgBr_2$ (s)

$\Delta H^0_{514} = -153.8$ kJ·mol^{-1} [4] $S^0_{514} = 214.6$ J·mol^{-1}·K^{-1} [4]

Br_2Hg (l) Mercury(II) Bromide **Br_2Hg (l)**

$HgBr_2$ (l) $HgBr_2$ (l)

$\Delta H^0_{514} = -135.8$ kJ·mol^{-1} [4] $S^0_{514} = 249.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 102.09$ J·mol^{-1}·K^{-1} (514 K) [4]

Br_2Hg (l) Mercury(II) Bromide **Br_2Hg (l)**

$HgBr_2$ (l) $HgBr_2$ (l)

$\Delta H^0_{298} = -156.6$ kJ·mol^{-1} [1] $S^0_{298} = 192.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 102.09$ J·mol^{-1}·K^{-1} (298 K) [1]

Br_2Hg (g) Mercury(II) Bromide **Br_2Hg (g)**

$HgBr_2$ (g) $HgBr_2$ (g)

$\Delta H^0_{298} = -87.8$ kJ·mol^{-1} [4] $S^0_{298} = 320.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 62.31 + 0.03 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2Hg_2 (s) Mercury(I) Bromide **Br_2Hg_2 (s)**

Hg_2Br_2 (s) Hg_2Br_2 (s)

$\Delta H^0_{298} = -210.4$ kJ·mol^{-1} [4] $S^0_{298} = 223.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 95.1 + 32.05 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 666 K) [4]

Br_2K_2 (g) Potassium Bromide **Br_2K_2 (g)**

$(KBr)_2$ (g) $(KBr)_2$ (g)

$\Delta H^0_{298} = -535.3$ kJ·mol^{-1} [4] $S^0_{298} = 376.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 83.14 + 5.41 \cdot 10^{-3} \cdot T - 0.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -14.19 \cdot 10^3 \cdot T^{-1} - 4.92 \cdot \lg(T) + 24.76$ (800 ... 1007 K) [4]

{Reaction: evaporation of KBr(s)}

Br_2Li_2 (g) Lithium Bromide **Br_2Li_2 (g)**
$(LiBr)_2$ (g) $(LiBr)_2$ (g)

$\Delta H^0_{298} = -500.8 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 314.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 82.61 + 0.34 \cdot 10^{-3} \cdot T - 0.68 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -11.36 \cdot 10^3 \cdot T^{-1} - 4.6 \cdot \lg(T) + 22.57$ (700 ... 823 K) [4]
{Reaction: evaporation of LiBr(s)}

Br_2Mg (s) Magnesium(II) Bromide **Br_2Mg (s)**
$MgBr_2$ (s) $MgBr_2$ (s)

mp = 984 K (711 °C) bp = 1413 K (1140 °C)
$\Delta H^0_{298} = -524.3 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 117.2 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 70.51 + 18.07 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 984 K) [4]

Br_2Mg (s) Magnesium(II) Bromide **Br_2Mg (s)**
$MgBr_2$ (s) $MgBr_2$ (s)

$\Delta H^0_{984} = -468.2$ kJ·mol^{-1} [4] $S^0_{984} = 213.2$ J·mol^{-1}·K^{-1} [4]

Br_2Mg (l) Magnesium(II) Bromide **Br_2Mg (l)**
$MgBr_2$ (l) $MgBr_2$ (l)

$\Delta H^0_{984} = -428.9$ kJ·mol^{-1} [4] $S^0_{984} = 253.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 104.6$ J·mol^{-1}·K^{-1} (984 K) [4]

Br_2Mg (l) Magnesium(II) Bromide **Br_2Mg (l)**
$MgBr_2$ (l) $MgBr_2$ (l)

$\Delta H^0_{298} = -490.4$ kJ·mol^{-1} [1] $S^0_{298} = 150.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 73.16$ J·mol^{-1}·K^{-1} (298 K) [1]

Br_2Mg (g) Magnesium(II) Bromide **Br_2Mg (g)**
$MgBr_2$ (g) $MgBr_2$ (g)

$\Delta H^0_{298} = -302.9 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 301 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 61.97 + 0.26 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -12.05 \cdot 10^3 \cdot T^{-1} - 2.86 \cdot \lg(T) + 18.19$ (700 ... 984 K) [4]
{Reaction: evaporation of $MgBr_2$(s)}

Br_2Mn (s) Manganese(II) Bromide **Br_2Mn (s)**
$MnBr_2$ (s) $MnBr_2$ (s)

mp = 971 K (698 °C) bp = 1300 K (1027 °C)
$\Delta H^0_{298} = -384.9$ kJ·mol^{-1} [4] $S^0_{298} = 138.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 67.91 + 24.81 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 971 K) [4]

Br_2Mn (s) Manganese(II) Bromide **Br_2Mn (s)**
$MnBr_2$ (s) $MnBr_2$ (s)

$\Delta H^0_{971} = -328.6$ kJ·mol^{-1} [4] $S^0_{971} = 234.9$ J·mol^{-1}·K^{-1} [4]

Br_2Mn (l) Manganese(II) Bromide **Br_2Mn (l)**
$MnBr_2$ (l) $MnBr_2$ (l)

$\Delta H^0_{971} = -295.1$ kJ·mol^{-1} [4] $S^0_{971} = 269.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 100.42$ J·mol^{-1}·K^{-1} (971 K) [4]

Br_2Mn (g) Manganese(II) Bromide **Br_2Mn (g)**
$MnBr_2$ (g) $MnBr_2$ (g)

$\Delta H^0_{298} = -175.3$ kJ·mol^{-1} [2] $S^0_{298} = 318.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 55.6$ J·mol^{-1}·K^{-1} (298 K) [2]

Br_2Mo (s) Molybdenum(II) Bromide **Br_2Mo (s)**
$MoBr_2$ (s) $MoBr_2$ (s)

$\Delta H^0_{298} = -202.9 \pm 25$ kJ·mol^{-1} [1] $S^0_{298} = 124.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 76.57 + 10.48 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1342 K) [4]

Br_2Mo (g) Molybdenum(II) Bromide **Br_2Mo (g)**
$MoBr_2$ (g) $MoBr_2$ (g)

$\Delta H^0_{298} = 166.3$ kJ·mol^{-1} [4] $S^0_{298} = 321 \pm 8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 77.12 - 11.75 \cdot 10^{-3} \cdot T - 0.39 \cdot 10^6 \cdot T^{-2} + 2.6 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2MoO_2 (g) Molybdenum Bromide Oxide **Br_2MoO_2 (g)**
MoO_2Br_2 (g) MoO_2Br_2 (g)

$\Delta H^0_{298} = -535.6$ kJ·mol^{-1} [66] $S^0_{298} = 366.1$ J·mol^{-1}·K^{-1} [66]
$C_p{}^0 = 103.05 + 3.45 \cdot 10^{-3} \cdot T - 1.32 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [66]

Br_2Na_2 (g) Sodium Bromide **Br_2Na_2 (g)**
$(NaBr)_2$ (g) $(NaBr)_2$ (g)

$\Delta H^0_{298} = -499$ kJ·mol^{-1} [4] $S^0_{298} = 349$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 83.1 + 0.03 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -12.65 \cdot 10^3 \cdot T^{-1} - 5.08 \cdot \lg(T) + 24.67$ (700 ... 1020 K) [4]
{Reaction: evaporation of NaBr(s)}

Br_2Ni (s) Nickel(II) Bromide **Br_2Ni (s)**
$NiBr_2$ (s) $NiBr_2$ (s)

mp = 1236 K (963 °C) bp = 1177 K (904 °C)
$\Delta H^0_{298} = -211.9$ kJ·mol^{-1} [4] $S^0_{298} = 122.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 72.32 + 14.63 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1177 K) [4]
$\lg(p,K) = -12.1 \cdot 10^3 \cdot T^{-1} - 2.27 \cdot \lg(T) + 17.26$ (700 ... 1177 K) [4]
{Reaction: evaporation as $NiBr_2$(g)}

Br_2Ni (g) Nickel(II) Bromide **Br_2Ni (g)**
$NiBr_2$ (g) $NiBr_2$ (g)

$\Delta H^0_{298} = 11.7$ kJ·mol^{-1} [2] $S^0_{298} = 321.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 67.57 - 0.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2O (g) Bromine Oxide **Br_2O (g)**
BrOBr (g) BrOBr (g)

$\Delta H^0_{298} = 107.6 \pm 3.5$ kJ·mol^{-1} [1] $S^0_{298} = 290.8 \pm 2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 50.17$ J·mol^{-1}·K^{-1} (298 K) [1]

Br_2O (g) Bromine Oxide **Br_2O (g)**
BrBrO (g) BrBrO (g)

$\Delta H^0_{298} = 168 \pm 20$ kJ·mol^{-1} [1] $S^0_{298} = 312.7 \pm 2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 51.39$ J·mol^{-1}·K^{-1} (298 K) [1]

Br_2OSe (s) Selenium Bromide Oxide **Br_2OSe (s)**
$SeOBr_2$ (s) $SeOBr_2$ (s)

$\Delta H^0_{298} = -156.1 \pm 16.7$ kJ·mol^{-1} [45] $S^0_{298} = 195 \pm 20.9$ J·mol^{-1}·K^{-1} [45]
$C_p{}^0 = 98.95$ J·mol^{-1}·K^{-1} (298 K) [45]

Br_2OSe (l) Selenium Bromide Oxide **Br_2OSe (l)**
$SeOBr_2$ (l) $SeOBr_2$ (l)

$\Delta H^0_{298} = -143.5 \pm 14.6$ kJ·mol^{-1} [45] $S^0_{298} = 237.7$ J·mol^{-1}·K^{-1} [45]

Br_2OSe (g) Selenium Bromide Oxide **Br_2OSe (g)**
$SeOBr_2$ (g) $SeOBr_2$ (g)

$\Delta H^0_{298} = -92.9 \pm 9.6$ kJ·mol^{-1} [45] $S^0_{298} = 344.3 \pm 12.6$ J·mol^{-1}·K^{-1} [45]

Br_2OTe (g) Tellurium Bromide Oxide **Br_2OTe (g)**
$TeOBr_2$ (g) $TeOBr_2$ (g)

$\Delta H^0_{298} = -117.2 \pm 16.7$ kJ·mol^{-1} [54] $S^0_{298} = 376.6 \pm 20.9$ J·mol^{-1}·K^{-1} [54]

Br_2OTh (s) Thorium Bromide Oxide **Br_2OTh (s)**
$ThOBr_2$ (s) $ThOBr_2$ (s)

$\Delta H^0_{298} = -1129.7$ kJ·mol^{-1} [4] $S^0_{298} = 131$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 98.45 + 12.2 \cdot 10^{-3} \cdot T - 0.77 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1262 K) [4]

Br_2OU (s) Uranium Bromide Oxide **Br_2OU (s)**

$UOBr_2$ (s) $UOBr_2$ (s)

$\Delta H^0_{298} = -973.6$ kJ·mol⁻¹ [2] $S^0_{298} = 157.6$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 110.58 + 13.68 \cdot 10^{-3} \cdot T - 1.49 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1000 K) [4]

Br_2O_2U (s) Uranyl Dibromide **Br_2O_2U (s)**

UO_2Br_2 (s) UO_2Br_2 (s)

$\Delta H^0_{298} = -1137.6$ kJ·mol⁻¹ [2] $S^0_{298} = 169.5$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 117.95 + 17.53 \cdot 10^{-3} \cdot T - 1.07 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1000 K) [4]

Br_2O_2W (s) Tungsten Bromide Oxide **Br_2O_2W (s)**

WO_2Br_2 (s) WO_2Br_2 (s)

$\Delta H^0_{298} = -715.9 \pm 8.4$ kJ·mol⁻¹ [281]

Br_2Pb (s) Lead(II) Bromide **Br_2Pb (s)**

$PbBr_2$ (s) $PbBr_2$ (s)

mp = 644 K (371 °C) bp = 1188 K (915 °C)

$\Delta H^0_{298} = -277.4 \pm 2.5$ kJ·mol⁻¹ [1] $S^0_{298} = 161.6$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 58.68 + 47.33 \cdot 10^{-3} \cdot T + 0.59 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 644 K) [4]

$\lg(p,K) = -9.56 \cdot 10^3 \cdot T^{-1} - 3.59 \cdot \lg(T) + 19.9$ (500 ... 644 K) [4]

{Reaction: evaporation as $PbBr_2$(g)}

Br_2Pb (s) Lead(II) Bromide **Br_2Pb (s)**

$PbBr_2$ (s) $PbBr_2$ (s)

$\Delta H^0_{644} = -248.3$ kJ·mol⁻¹ [4] $S^0_{644} = 225.8$ J·mol⁻¹·K⁻¹ [4]

Br_2Pb (l) Lead(II) Bromide **Br_2Pb (l)**

$PbBr_2$ (l) $PbBr_2$ (l)

$\Delta H^0_{644} = -231.9$ kJ·mol⁻¹ [4] $S^0_{644} = 251.3$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 112.13$ J·mol⁻¹·K⁻¹ (644 K) [4]

$\lg(p,K) = -9.52 \cdot 10^3 \cdot T^{-1} - 6.51 \cdot \lg(T) + 28.03$ (644 ... 1188 K) [4]

{Reaction: evaporation as $PbBr_2$(g)}

Br_2Pb (g) Lead(II) Bromide **Br_2Pb (g)**

$PbBr_2$ (g) $PbBr_2$ (g)

$\Delta H^0_{298} = -104.4 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 339.4 \pm 2.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 58.17 + 0.03 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2Pd (g) Palladium(II) Bromide **Br_2Pd (g)**

$PdBr_2$ (g) $PdBr_2$ (g)

$\Delta H^0_{298} = 156.9$ kJ·mol^{-1} [73] $S^0_{298} = 320.1$ J·mol^{-1}·K^{-1} [73]

Br_2Pt (s) Platinum(II) Bromide **Br_2Pt (s)**

$PtBr_2$ (s) $PtBr_2$ (s)

$\Delta H^0_{298} = -68.5$ kJ·mol^{-1} [4] $S^0_{298} = 137.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 69.04 + 23.01 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 683 K) [4]

$\lg(p,K) = -5.48 \cdot 10^3 \cdot T^{-1} - 2.07 \cdot \lg(T) + 13.89$ (400 ... 683 K) [4]

{Reaction: decomposition $PtBr_2(s) = Pt(s) + Br_2(g)$}

Br_2S (g) Sulfur(II) Bromide **Br_2S (g)**

SBr_2 (g) SBr_2 (g)

$\Delta H^0_{298} = -12.6$ kJ·mol^{-1} [2] $S^0_{298} = 301.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 57.88 + 0.17 \cdot 10^{-3} \cdot T - 0.45 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2S_2 (l) Disulfur Dibromide **Br_2S_2 (l)**

S_2Br_2 (l) S_2Br_2 (l)

mp = 227 K (-46 °C)

$\Delta H^0_{298} = -10.5$ kJ·mol^{-1} [4] $S^0_{298} = 234.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 125.5$ J·mol^{-1}·K^{-1} (298 K) [4]

Br_2S_2 (g) Disulfur Dibromide **Br_2S_2 (g)**

S_2Br_2 (g) S_2Br_2 (g)

$\Delta H^0_{298} = 31$ kJ·mol^{-1} [2] $S^0_{298} = 350.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 81.36 + 2.71 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2Se (g) Selenium(II) Bromide **Br_2Se (g)**
$SeBr_2$ (g) $SeBr_2$ (g)

$\Delta H^0_{298} = -20.9$ kJ·mol⁻¹ [4] $S^0_{298} = 317.1$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 58.12 + 0.05 \cdot 10^{-3} \cdot T - 0.24 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Br_2Se_2 (l) Diselenium Dibromide **Br_2Se_2 (l)**
Se_2Br_2 (l) Se_2Br_2 (l)

$\Delta H^0_{298} = -72.8$ kJ·mol⁻¹ [4] $S^0_{298} = 261.3$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 133.89$ J·mol⁻¹·K⁻¹ (298 K) [4]
$\lg(p,K) = -3.48 \cdot 10^3 \cdot T^{-1} - 5.99 \cdot \lg(T) + 22.53$ (298 ... 493 K) [4]
{Reaction: evaporation as Se_2Br_2(g)}

Br_2Se_2 (g) Diselenium Dibromide **Br_2Se_2 (g)**
Se_2Br_2 (g) Se_2Br_2 (g)

$\Delta H^0_{298} = 29.3$ kJ·mol⁻¹ [2] $S^0_{298} = 378.1$ J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 82.43 + 1.83 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Br_2Si (g) Silicon(II) Bromide **Br_2Si (g)**
$SiBr_2$ (g) $SiBr_2$ (g)

$\Delta H^0_{298} = -52.3 \pm 16.7$ kJ·mol⁻¹ [1] $S^0_{298} = 305.2 \pm 2.1$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 57.85 + 0.21 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Br_2Sn (s) Tin(II) Bromide **Br_2Sn (s)**
$SnBr_2$ (s) $SnBr_2$ (s)

mp = 504 K (231 °C) bp = 912 K (639 °C)
$\Delta H^0_{298} = -243.5$ kJ·mol⁻¹ [2] $S^0_{298} = 153$ J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 55.65 + 62.28 \cdot 10^{-3} \cdot T + 0.42 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 504 K) [4]
$\lg(p,K) = -7.8 \cdot 10^3 \cdot T^{-1} - 3.63 \cdot \lg(T) + 20.21$ (400 ... 504 K) [4]
{Reaction: evaporation as $SnBr_2$(g)}

Br_2Sn (s) Tin(II) Bromide **Br_2Sn (s)**
$SnBr_2$ (s) $SnBr_2$ (s)

$\Delta H^0_{504} = -226.3$ kJ·mol^{-1} [4] $S^0_{504} = 196.6$ J·mol^{-1}·K^{-1} [4]

Br_2Sn (l) Tin(II) Bromide **Br_2Sn (l)**
$SnBr_2$ (l) $SnBr_2$ (l)

$\Delta H^0_{504} = -209.2$ kJ·mol^{-1} [4] $S^0_{504} = 230.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 103.76$ J·mol^{-1}·K^{-1} (504 K) [4]
$\lg(p,K) = -7.3 \cdot 10^3 \cdot T^{-1} - 5.48 \cdot \lg(T) + 24.23$ (504 ... 912 K) [4]
{Reaction: evaporation as $SnBr_2$(g)}

Br_2Sn (g) Tin(II) Bromide **Br_2Sn (g)**
$SnBr_2$ (g) $SnBr_2$ (g)

$\Delta H^0_{298} = -103.9$ kJ·mol^{-1} [4] $S^0_{298} = 335.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 58.14 + 1.34 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2Sr (s) Strontium(II) Bromide **Br_2Sr (s)**
$SrBr_2$ (s) alpha $SrBr_2$ (s)

mp = 930 K (657 °C) bp = 2363 K (2090 °C)
$\Delta H^0_{298} = -718 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 143.4 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 69.13 + 22.94 \cdot 10^{-3} \cdot T + 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 918 K) [4]

Br_2Sr (s) Strontium(II) Bromide **Br_2Sr (s)**
$SrBr_2$ (s) alpha $SrBr_2$ (s)

$\Delta H^0_{918} = -666.3$ kJ·mol^{-1} [4] $S^0_{918} = 235.8$ J·mol^{-1}·K^{-1} [4]

Br_2Sr (s) Strontium(II) Bromide **Br_2Sr (s)**
$SrBr_2$ (s) beta $SrBr_2$ (s)

$\Delta H^0_{918} = -656.7$ kJ·mol^{-1} [4] $S^0_{918} = 246.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 115.06$ J·mol^{-1}·K^{-1} (918 K) [4]

Br_2Sr (s) Strontium(II) Bromide **Br_2Sr (s)**
$SrBr_2$ (s) beta $SrBr_2$ (s)

$\Delta H^0_{930} = -655.3$ kJ·mol^{-1} [4] $S^0_{930} = 247.7$ J·mol^{-1}·K^{-1} [4]

Br_2Sr (l) Strontium(II) Bromide **Br_2Sr (l)**
$SrBr_2$ (l) $SrBr_2$ (l)

$\Delta H^0_{930} = -645.2$ kJ·mol^{-1} [4] $S^0_{930} = 258.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 116.39$ J·mol^{-1}·K^{-1} (930 K) [4]
$\lg(p,K) = -17.11 \cdot 10^3 \cdot T^{-1} - 6.51 \cdot \lg(T) + 29.21$ (930 ... 2000 K) [4]
{Reaction: evaporation as $SrBr_2$(g)}

Br_2Sr (l) Strontium(II) Bromide **Br_2Sr (l)**
$SrBr_2$ (l) $SrBr_2$ (l)

$\Delta H^0_{298} = -705.1$ kJ·mol^{-1} [1] $S^0_{298} = 154.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 76.85$ J·mol^{-1}·K^{-1} (298 K) [1]

Br_2Sr (g) Strontium(II) Bromide **Br_2Sr (g)**
$SrBr_2$ (g) $SrBr_2$ (g)

$\Delta H^0_{298} = -407.1 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 323.4 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 62.32 + 0.03 \cdot 10^{-3} \cdot T - 0.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2Ti (s) Titanium(II) Bromide **Br_2Ti (s)**
$TiBr_2$ (s) $TiBr_2$ (s)

bp = 1208 K (935 °C)
$\Delta H^0_{298} = -405.4 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 108.4 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 76.09 + 10.75 \cdot 10^{-3} \cdot T - 0.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1208 K) [4]

Br_2Ti (g) Titanium(II) Bromide **Br_2Ti (g)**
$TiBr_2$ (g) $TiBr_2$ (g)

$\Delta H^0_{298} = -179.1 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 308.7 \pm 12.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 61.46 + 1.14 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_2Tl_2 (g) Thallium(I) Bromide **Br_2Tl_2 (g)**

Tl_2Br_2 (g) Tl_2Br_2 (g)

$\Delta H^0_{298} = -167.1$ kJ·mol^{-1} [254, 8] $S^0_{298} = 402$ J·mol^{-1}·K^{-1} [254, 8]

Br_2V (s) Vanadium(II) Bromide **Br_2V (s)**

VBr_2 (s) VBr_2 (s)

mp = 1100 K (827 °C) bp = 1500 K (1227 °C)

$\Delta H^0_{298} = -364.4$ kJ·mol^{-1} [2] $S^0_{298} = 125.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 73.64 + 12.55 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Br_2Zn (s) Zinc(II) Bromide **Br_2Zn (s)**

$ZnBr_2$ (s) $ZnBr_2$ (s)

mp = 675 K (402 °C) bp = 942 K (669 °C)

$\Delta H^0_{298} = -329.7$ kJ·mol^{-1} [2] $S^0_{298} = 136$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 52.72 + 43.51 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 675 K) [4]

$\lg(p,K) = -7.92 \cdot 10^3 \cdot T^{-1} - 2.42 \cdot \lg(T) + 16.05$ (500 ... 675 K) [4]

{Reaction: evaporation as $ZnBr_2$(g)}

Br_2Zn (s) Zinc(II) Bromide **Br_2Zn (s)**

$ZnBr_2$ (s) $ZnBr_2$ (s)

$\Delta H^0_{675} = -301.9$ kJ·mol^{-1} [4] $S^0_{675} = 195.5$ J·mol^{-1}·K^{-1} [4]

Br_2Zn (l) Zinc(II) Bromide **Br_2Zn (l)**

$ZnBr_2$ (l) $ZnBr_2$ (l)

$\Delta H^0_{675} = -286.2$ kJ·mol^{-1} [4] $S^0_{675} = 218.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 113.81$ J·mol^{-1}·K^{-1} (675 K) [4]

$\lg(p,K) = -8.35 \cdot 10^3 \cdot T^{-1} - 6.69 \cdot \lg(T) + 28.76$ (675 ... 942 K) [4]

{Reaction: evaporation as $ZnBr_2$(g)}

Br_2Zn (g) Zinc(II) Bromide **Br_2Zn (g)**

$ZnBr_2$ (g) $ZnBr_2$ (g)

$\Delta H^0_{298} = -185.8$ kJ·mol^{-1} [2] $S^0_{298} = 303.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 58.16$ J·mol^{-1}·K^{-1} (298 K) [4]

Br_2Zr (s) Zirconium(II) Bromide **Br_2Zr (s)**

$ZrBr_2$ (s) $ZrBr_2$ (s)

bp = 1553 K (1280 °C)

$\Delta H^0_{298} = -404.6 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 115.9 \pm 13$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 83.3 + 11.46 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 900 K) [4]

Br_2Zr (l) Zirconium(II) Bromide **Br_2Zr (l)**

$ZrBr_2$ (l) $ZrBr_2$ (l)

$\Delta H^0_{298} = -342.3$ kJ·mol^{-1} [1] $S^0_{298} = 184$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 91$ J·mol^{-1}·K^{-1} (298 K) [1]

Br_2Zr (g) Zirconium(II) Bromide **Br_2Zr (g)**

$ZrBr_2$ (g) $ZrBr_2$ (g)

$\Delta H^0_{298} = -163.5$ kJ·mol^{-1} [4] $S^0_{298} = 316.8 \pm 13$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 61.5 + 1.12 \cdot 10^{-3} \cdot T - 0.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3Ce (s) Cerium(III) Bromide **Br_3Ce (s)**

$CeBr_3$ (s) $CeBr_3$ (s)

mp = 1005 K (732 °C) bp = 1766 K (1493 °C)

$\Delta H^0_{298} = -855$ kJ·mol^{-1} [4] $S^0_{298} = 207.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 96.34 + 23 \cdot 10^{-3} \cdot T - 0.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1005 K) [4]

$\lg(p,K) = -14.14 \cdot 10^3 \cdot T^{-1} - 3.76 \cdot \lg(T) + 21.31$ (800 ... 1005 K) [4]

{Reaction: evaporation as $CeBr_3$(g)}

Br_3Ce (s) Cerium(III) Bromide **Br_3Ce (s)**

$CeBr_3$ (s) $CeBr_3$ (s)

$\Delta H^0_{1005} = -776.9$ kJ·mol^{-1} [4] $S^0_{1005} = 339.4$ J·mol^{-1}·K^{-1} [4]

Br_3Ce (l) Cerium(III) Bromide **Br_3Ce (l)**

$CeBr_3$ (l) $CeBr_3$ (l)

$\Delta H^0_{1005} = -741.3$ kJ·mol⁻¹ [4] $S^0_{1005} = 374.8$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 146.44$ J·mol⁻¹·K⁻¹ (1005 ... 1730 K) [4]

$\lg(p,K) = -13.74 \cdot 10^3 \cdot T^{-1} - 7.12 \cdot \lg(T) + 31$ (1005 ... 1730 K) [4]

{Reaction: evaporation as $CeBr_3$(g)}

Br_3Ce (g) Cerium(III) Bromide **Br_3Ce (g)**

$CeBr_3$ (g) $CeBr_3$ (g)

$\Delta H^0_{298} = -597.1$ kJ·mol⁻¹ [2] $S^0_{298} = 398.4$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 83.32 + 3.05 \cdot 10^{-3} \cdot T - 0.37 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Br_3Cr (s) Chromium(III) Bromide **Br_3Cr (s)**

$CrBr_3$ (s) $CrBr_3$ (s)

$\Delta H^0_{298} = -432.6$ kJ·mol⁻¹ [2] $S^0_{298} = 159.7$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 99.34 + 8.71 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1200 K) [4]

Br_3Cu_3 (g) Copper(I) Bromide **Br_3Cu_3 (g)**

$(CuBr)_3$ (g) $(CuBr)_3$ (g)

$\Delta H^0_{298} = -151.5$ kJ·mol⁻¹ [2] $S^0_{298} = 452$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 132.88 + 0.34 \cdot 10^{-3} \cdot T - 0.46 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

$\lg(p,K) = -11.09 \cdot 10^3 \cdot T^{-1} - 13.07 \cdot \lg(T) + 48.52$ (500 ... 657 K) [4]

{Reaction: evaporation of CuBr(s)}

Br_3Dy (s) Dysprosium(III) Bromide **Br_3Dy (s)**

$DyBr_3$ (s) $DyBr_3$ (s)

$\Delta H^0_{298} = -834.3 \pm 2.5$ kJ·mol⁻¹ [266] $S^0_{298} = [184.5]$ J·mol⁻¹·K⁻¹ [267]

Br_3Dy (g) Dysprosium(III) Bromide **Br_3Dy (g)**

$DyBr_3$ (g) $DyBr_3$ (g)

$\Delta H^0_{298} = -540.2$ kJ·mol⁻¹ [2] $S^0_{298} = 404.1$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 81.36 + 2.85 \cdot 10^{-3} \cdot T - 0.21 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Br_3Er (s) Erbium(III) Bromide **Br_3Er (s)**

$ErBr_3$ (s) $ErBr_3$ (s)

$\Delta H^0_{298} = -837.1 \pm 3$ kJ·mol^{-1} [266] $S^0_{298} = [184.9]$ J·mol^{-1}·K^{-1} [267]

Br_3Er (g) Erbium(III) Bromide **Br_3Er (g)**

$ErBr_3$ (g) $ErBr_3$ (g)

$\Delta H^0_{298} = -546$ kJ·mol^{-1} [2] $S^0_{298} = 403.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 83.02 + 0.08 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3Eu (s) Europium(III) Bromide **Br_3Eu (s)**

$EuBr_3$ (s) $EuBr_3$ (s)

$\Delta H^0_{298} = -753.1$ kJ·mol^{-1} [2] $S^0_{298} = 182.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 105.18 + 24.45 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 663 K) [4]

Br_3Fe (s) Iron(III) Bromide **Br_3Fe (s)**

$FeBr_3$ (s) $FeBr_3$ (s)

$\Delta H^0_{298} = -265.7 \pm 2.1$ kJ·mol^{-1} [51] $S^0_{298} = 185.8 \pm 4.2$ J·mol^{-1}·K^{-1} [51]

Br_3Ga (s) Gallium(III) Bromide **Br_3Ga (s)**

$GaBr_3$ (s) $GaBr_3$ (s)

mp = 396 K (123 °C) bp = 552 K (279 °C)

$\Delta H^0_{298} = -386.6$ kJ·mol^{-1} [2] $S^0_{298} = 180$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 78.58 + 77.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 396 K) [4]

Br_3Ga (s) Gallium(III) Bromide **Br_3Ga (s)**

$GaBr_3$ (s) $GaBr_3$ (s)

$\Delta H^0_{396} = -376.2$ kJ·mol^{-1} [4] $S^0_{396} = 209.9$ J·mol^{-1}·K^{-1} [4]

Br_3Ga (l) Gallium(III) Bromide **Br_3Ga (l)**

$GaBr_3$ (l) $GaBr_3$ (l)

$\Delta H^0_{396} = -364.5$ kJ·mol⁻¹ [4] $S^0_{396} = 239.5$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 125.52$ J·mol⁻¹·K⁻¹ (396 K) [4]

Br_3Ga (g) Gallium(III) Bromide **Br_3Ga (g)**

$GaBr_3$ (g) $GaBr_3$ (g)

$\Delta H^0_{298} = -307$ kJ·mol⁻¹ [4] $S^0_{298} = 330.9$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 81.17$ J·mol⁻¹·K⁻¹ (298 K) [4]

$\lg(p,K) = -4.54 \cdot 10^3 \cdot T^{-1} - 2.92 \cdot \lg(T) + 16.39$ (298 ... 396 K) [4]

{Reaction: evaporation of $GaBr_3$(s)}

Br_3Gd (s) Gadolinium(III) Bromide **Br_3Gd (s)**

$GdBr_3$ (s) $GdBr_3$ (s)

mp = 1058 K (785 °C) bp = 1791 K (1518 °C)

$\Delta H^0_{298} = -828.9$ kJ·mol⁻¹ [2] $S^0_{298} = 190$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 101.95 + 5.76 \cdot 10^{-3} \cdot T - 0.6 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1058 K) [4]

$\lg(p,K) = -16 \cdot 10^3 \cdot T^{-1} - 2.86 \cdot \lg(T) + 19.42$ (800 ... 1058 K) [4]

{Reaction: evaporation as $GdBr_3$(g)}

Br_3Gd (s) Gadolinium(III) Bromide **Br_3Gd (s)**

$GdBr_3$ (s) $GdBr_3$ (s)

$\Delta H^0_{1058} = -749.9$ kJ·mol⁻¹ [4] $S^0_{1058} = 320.4$ J·mol⁻¹·K⁻¹ [4]

Br_3Gd (l) Gadolinium(III) Bromide **Br_3Gd (l)**

$GdBr_3$ (l) $GdBr_3$ (l)

$\Delta H^0_{1058} = -701.2$ kJ·mol⁻¹ [4] $S^0_{1058} = 366.4$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 139.33$ J·mol⁻¹·K⁻¹ (1058 K) [4]

$\lg(p,K) = -15.25 \cdot 10^3 \cdot T^{-1} - 6.78 \cdot \lg(T) + 30.57$ (1058 ... 1791 K) [4]

{Reaction: evaporation as $GdBr_3$(g)}

Br_3Gd (g) Gadolinium(III) Bromide **Br_3Gd (g)**

$GdBr_3$ (g) $GdBr_3$ (g)

$\Delta H^0_{298} = -531.4$ kJ·mol^{-1} [4] $S^0_{298} = 398.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 83.04 + 0.07 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3HSi (g) Tribromosilane **Br_3HSi (g)**

$SiHBr_3$ (g) $SiHBr_3$ (g)

$\Delta H^0_{298} = -302.9 \pm 17$ kJ·mol^{-1} [1] $S^0_{298} = 348.1 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 80.41$ J·mol^{-1}·K^{-1} (298 K) [1]

Br_3Ho (s) Holmium(III) Bromide **Br_3Ho (s)**

$HoBr_3$ (s) $HoBr_3$ (s)

mp = 1192 K (919 °C) bp = 1668 K (1395 °C)

$\Delta H^0_{298} = -841$ kJ·mol^{-1} [2] $S^0_{298} = 194.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 101.08 + 10.06 \cdot 10^{-3} \cdot T - 0.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1192 K) [4]

$\lg(p,K) = -15.83 \cdot 10^3 \cdot T^{-1} - 3.29 \cdot \lg(T) + 20.81$ (800 ... 1192 K) [4]

{Reaction: evaporation as $HoBr_3$(g)}

Br_3Ho (s) Holmium(III) Bromide **Br_3Ho (s)**

$HoBr_3$ (s) $HoBr_3$ (s)

$\Delta H^0_{1192} = -745.1$ kJ·mol^{-1} [4] $S^0_{1192} = 340.7$ J·mol^{-1}·K^{-1} [4]

Br_3Ho (l) Holmium(III) Bromide **Br_3Ho (l)**

$HoBr_3$ (l) $HoBr_3$ (l)

$\Delta H^0_{1192} = -695$ kJ·mol^{-1} [4] $S^0_{1192} = 382.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 143.93$ J·mol^{-1}·K^{-1} (1192 K) [4]

$\lg(p,K) = -15.23 \cdot 10^3 \cdot T^{-1} - 7.2 \cdot \lg(T) + 32.33$ (1192 ... 1668 K) [4]

{Reaction: evaporation as $HoBr_3$(g)}

Br_3Ho (g) Holmium(III) Bromide **Br_3Ho (g)**

$HoBr_3$ (g) $HoBr_3$ (g)

$\Delta H^0_{298} = -548.5$ kJ·mol^{-1} [2] $S^0_{298} = 404.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 81.79 + 1.7 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3In (s) Indium(III) Bromide **Br_3In (s)**

$InBr_3$ (s) $InBr_3$ (s)

mp = 693 K (420 °C) bp = 682 K (409 °C)

$\Delta H^0_{298} = -410.9$ kJ·mol^{-1} [4] $S^0_{298} = 178.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 82.01 + 54.39 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 682 K) [4]

$\lg(p,K) = -7.11 \cdot 10^{3} \cdot T^{-1} - 3.72 \cdot \lg(T) + 20.96$ (400 ... 682 K) [4]

{Reaction: evaporation as $InBr_3$(g)}

Br_3In (g) Indium(III) Bromide **Br_3In (g)**

$InBr_3$ (g) $InBr_3$ (g)

$\Delta H^0_{298} = -285.2$ kJ·mol^{-1} [4] $S^0_{298} = 369.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 82.63 + 0.28 \cdot 10^{-3} \cdot T - 0.54 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3Ir (s) Iridium(III) Bromide **Br_3Ir (s)**

$IrBr_3$ (s) $IrBr_3$ (s)

$\Delta H^0_{298} = -177.8$ kJ·mol^{-1} [2] $S^0_{298} = 127.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 99.38 + 20.35 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 846 K) [4]

Br_3La (s) Lanthanum(III) Bromide **Br_3La (s)**

$LaBr_3$ (s) $LaBr_3$ (s)

mp = 1061 K (788 °C) bp = 1980 K (1707 °C)

$\Delta H^0_{298} = -907.1$ kJ·mol^{-1} [2] $S^0_{298} = 177.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 95.87 + 24.59 \cdot 10^{-3} \cdot T - 0.32 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1061 K) [4]

$\lg(p,K) = -16.85 \cdot 10^{3} \cdot T^{-1} - 4.28 \cdot \lg(T) + 23.76$ (900 ... 1061 K) [4]

{Reaction: evaporation as $LaBr_3$(g)}

Br_3La (s) Lanthanum(III) Bromide **Br_3La (s)**

$LaBr_3$ (s) $LaBr_3$ (s)

$\Delta H^0_{1061} = -822$ kJ·mol^{-1} [4] $S^0_{1061} = 316.6$ J·mol^{-1}·K^{-1} [4]

Br_3La (l) Lanthanum(III) Bromide **Br_3La (l)**

$LaBr_3$ (l) $LaBr_3$ (l)

$\Delta H^0_{1061} = -779.4$ kJ·mol^{-1} [4] $S^0_{1061} = 356.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 138.07$ J·mol^{-1}·K^{-1} (1061 K) [4]

$\lg(p,K) = -15.7 \cdot 10^3 \cdot T^{-1} - 6.63 \cdot \lg(T) + 29.78$ (1061 ... 1980 K) [4]

{Reaction: evaporation as $LaBr_3$(g)}

Br_3La (g) Lanthanum(III) Bromide **Br_3La (g)**

$LaBr_3$ (g) $LaBr_3$ (g)

$\Delta H^0_{298} = -600.2$ kJ·mol^{-1} [4] $S^0_{298} = 383.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 83.03 + 0.08 \cdot 10^{-3} \cdot T - 0.27 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3Lu (s) Lutetium(III) Bromide **Br_3Lu (s)**

$LuBr_3$ (s) $LuBr_3$ (s)

$\Delta H^0_{298} = -814 \pm 10$ kJ·mol^{-1} [266] $S^0_{298} = [186.2]$ J·mol^{-1}·K^{-1} [267]

Br_3Mo (s) Molybdenum(III) Bromide **Br_3Mo (s)**

$MoBr_3$ (s) $MoBr_3$ (s)

$\Delta H^0_{298} = -283.7 \pm 25$ kJ·mol^{-1} [1] $S^0_{298} = 174.5 \pm 17$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 101.01 + 14.63 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1082 K) [4]

Br_3Mo (g) Molybdenum(III) Bromide **Br_3Mo (g)**

$MoBr_3$ (g) $MoBr_3$ (g)

$\Delta H^0_{298} = -8.4 \pm 33$ kJ·mol^{-1} [1] $S^0_{298} = 375 \pm 8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 81.94 + 2.52 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^6 \cdot T^{-2} + 0.03 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3MoO (g) Molybdenum Bromide Oxide **Br_3MoO (g)**
$MoOBr_3$ (g) $MoOBr_3$ (g)

$\Delta H^0_{298} = -320.1$ kJ·mol^{-1} [66] $S^0_{298} = 389.1$ J·mol^{-1}·K^{-1} [66]
$C_p{}^0 = 106.69 - 0.84 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [66]

Br_3NaSn (g) Sodium Tin Bromide **Br_3NaSn (g)**
$NaSnBr_3$ (g) $NaSnBr_3$ (g)

$\Delta H^0_{298} = -437.8$ kJ·mol^{-1} [158, 8] $S^0_{298} = 417$ J·mol^{-1}·K^{-1} [158, 8]

Br_3Nd (s) Neodymium(III) Bromide **Br_3Nd (s)**
$NdBr_3$ (s) $NdBr_3$ (s)

mp = 955 K (682 °C) bp = 1859 K (1586 °C)
$\Delta H^0_{298} = -873.2$ kJ·mol^{-1} [2] $S^0_{298} = 194.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 94.48 + 27.93 \cdot 10^{-3} \cdot T - 0.33 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 955 K) [4]
$\lg(p,K) = -16.12 \cdot 10^3 \cdot T^{-1} - 3.87 \cdot \lg(T) + 22.55$ (800 ... 955 K) [4]
{Reaction: evaporation as $NdBr_3$(g)}

Br_3Nd (s) Neodymium(III) Bromide **Br_3Nd (s)**
$NdBr_3$ (s) $NdBr_3$ (s)

$\Delta H^0_{955} = -800.4$ kJ·mol^{-1} [4] $S^0_{955} = 320.9$ J·mol^{-1}·K^{-1} [4]

Br_3Nd (l) Neodymium(III) Bromide **Br_3Nd (l)**
$NdBr_3$ (l) $NdBr_3$ (l)

$\Delta H^0_{955} = -766.4$ kJ·mol^{-1} [4] $S^0_{955} = 356.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 154.81$ J·mol^{-1}·K^{-1} (955 K) [4]
$\lg(p,K) = -16.02 \cdot 10^3 \cdot T^{-1} - 7.95 \cdot \lg(T) + 34.61$ (955 ... 1859 K) [4]
{Reaction: evaporation as $NdBr_3$(g)}

Br_3Nd (g) Neodymium(III) Bromide **Br_3Nd (g)**
$NdBr_3$ (g) $NdBr_3$ (g)

$\Delta H^0_{298} = -578.2$ kJ·mol^{-1} [2] $S^0_{298} = 401.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 83.52 + 3.92 \cdot 10^{-3} \cdot T - 0.4 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3OP (l) Phosphorus Tribromide Oxide **Br_3OP (l)**

$POBr_3$ (l) $POBr_3$ (l)

mp = 328 K (55 °C) bp = 466 K (193 °C)

$\Delta H^0_{298} = -442.7$ kJ·mol^{-1} [4] $S^0_{298} = 250.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 143.09$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -3.39 \cdot 10^3 \cdot T^{-1} - 5.9 \cdot \lg(T) + 23.03$ (298 ... 466 K) [4]

{Reaction: evaporation}

Br_3OP (g) Phosphorus Tribromide Oxide **Br_3OP (g)**

$POBr_3$ (g) $POBr_3$ (g)

$\Delta H^0_{298} = -392.3$ kJ·mol^{-1} [4] $S^0_{298} = 363.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 103.55 + 2.33 \cdot 10^{-3} \cdot T - 1.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3OU (s) Uranium Bromide Oxide **Br_3OU (s)**

$UOBr_3$ (s) $UOBr_3$ (s)

$\Delta H^0_{298} = -954$ kJ·mol^{-1} [2] $S^0_{298} = 205$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 130.54 + 20.5 \cdot 10^{-3} \cdot T - 1.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1100 K) [4]

Br_3P (l) Phosphorus(III) Bromide **Br_3P (l)**

PBr_3 (l) PBr_3 (l)

mp = 232 K (-41 °C) bp = 449 K (176 °C)

$\Delta H^0_{298} = -184.5$ kJ·mol^{-1} [4] $S^0_{298} = 236$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 134.7$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -3.43 \cdot 10^3 \cdot T^{-1} - 6.83 \cdot \lg(T) + 25.74$ (298 ... 449 K) [4]

{Reaction: evaporation}

Br_3P (g) Phosphorus(III) Bromide **Br_3P (g)**

PBr_3 (g) PBr_3 (g)

$\Delta H^0_{298} = -135.8$ kJ·mol^{-1} [4] $S^0_{298} = 348.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 82.81 + 0.18 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3PS (g) Phosphorus Tribromide Sulfide **Br_3PS (g)**

$PSBr_3$ (g) $PSBr_3$ (g)

$\Delta H^0_{298} = -263.6$ kJ·mol^{-1} [1] $S^0_{298} = 372.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 94.93$ J·mol^{-1}·K^{-1} (298 K) [1]

Br_3Pm (s) Promethium(III) Bromide **Br_3Pm (s)**

$PmBr_3$ (s) $PmBr_3$ (s)

$\Delta H^0_{298} = -858 \pm 10$ kJ·mol^{-1} [266] $S^0_{298} = [182.8]$ J·mol^{-1}·K^{-1} [267]

Br_3Pr (s) Praseodymium(III) Bromide **Br_3Pr (s)**

$PrBr_3$ (s) $PrBr_3$ (s)

mp = 966 K (693 °C) bp = 1909 K (1636 °C)

$\Delta H^0_{298} = -891.2$ kJ·mol^{-1} [2] $S^0_{298} = 192.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 97.61 + 28.76 \cdot 10^{-3} \cdot T - 0.4 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 966 K) [4]

$\lg(p,K) = -16.28 \cdot 10^{3} \cdot T^{-1} - 4.36 \cdot \lg(T) + 24.06$ (800 ... 966 K) [4]

{Reaction: evaporation as $PrBr_3$(g)}

Br_3Pr (s) Praseodymium(III) Bromide **Br_3Pr (s)**

$PrBr_3$ (s) $PrBr_3$ (s)

$\Delta H^0_{966} = -814.8$ kJ·mol^{-1} [4] $S^0_{966} = 324.4$ J·mol^{-1}·K^{-1} [4]

Br_3Pr (l) Praseodymium(III) Bromide **Br_3Pr (l)**

$PrBr_3$ (l) $PrBr_3$ (l)

$\Delta H^0_{966} = -776.4$ kJ·mol^{-1} [4] $S^0_{966} = 364.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 146.44$ J·mol^{-1}·K^{-1} (966 K) [4]

$\lg(p,K) = -15.31 \cdot 10^{3} \cdot T^{-1} - 6.83 \cdot \lg(T) + 30.43$ (966 ... 1909 K) [4]

{Reaction: evaporation as $PrBr_3$(g)}

Br_3Pr (g) Praseodymium(III) Bromide **Br_3Pr (g)**

$PrBr_3$ (g) $PrBr_3$ (g)

$\Delta H^0_{298} = -594.5$ kJ·mol^{-1} [2] $S^0_{298} = 401.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 81.97 + 5.34 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3Pt (s) Platinum(III) Bromide **Br_3Pt (s)**

$PtBr_3$ (s) $PtBr_3$ (s)

$\Delta H^0_{298} = -116.9$ kJ·mol^{-1} [4] $S^0_{298} = 164.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 92.89 + 25.1 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 678 K) [4]

Br_3Pu (s) Plutonium(III) Bromide **Br_3Pu (s)**

$PuBr_3$ (s) $PuBr_3$ (s)

mp = 954 K (681 °C) bp = 1763 K (1490 °C)

$\Delta H^0_{298} = -793.3$ kJ·mol^{-1} [4] $S^0_{298} = 234.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 101.63 + 20.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 954 K) [4]

$\lg(p,K) = -17.46 \cdot 10^3 \cdot T^{-1} - 5.34 \cdot \lg(T) + 28.45$ (800 ... 954 K) [4]

{Reaction: evaporation as $PuBr_3$(g)}

Br_3Pu (s) Plutonium(III) Bromide **Br_3Pu (s)**

$PuBr_3$ (s) $PuBr_3$ (s)

$\Delta H^0_{954} = -718$ kJ·mol^{-1} [4] $S^0_{954} = 366.6$ J·mol^{-1}·K^{-1} [4]

Br_3Pu (l) Plutonium(III) Bromide **Br_3Pu (l)**

$PuBr_3$ (l) $PuBr_3$ (l)

$\Delta H^0_{954} = -662$ kJ·mol^{-1} [4] $S^0_{954} = 425.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 138.07$ J·mol^{-1}·K^{-1} (954 K) [4]

$\lg(p,K) = -15.03 \cdot 10^3 \cdot T^{-1} - 6.45 \cdot \lg(T) + 29.47$ (954 ... 1763 K) [4]

{Reaction: evaporation as $PuBr_3$(g)}

Br_3Re (s) Rhenium(III) Bromide **Br_3Re (s)**

$ReBr_3$ (s) $ReBr_3$ (s)

$\Delta H^0_{298} = -175.7$ kJ·mol^{-1} [2] $S^0_{298} = 200.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 80.33 + 68.2 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 600 K) [4]

Br_3Re (g) Rhenium(III) Bromide **Br_3Re (g)**

$ReBr_3$ (g) $ReBr_3$ (g)

$\Delta H^0_{298} = -106.7 \pm 9.2$ kJ·mol^{-1} [50] $S^0_{298} = 391.2 \pm 6.3$ J·mol^{-1}·K^{-1} [50]

$C_p^0 = 75.31$ J·mol^{-1}·K^{-1} (298 K) [50]

Br_3Rh (s) Rhodium(III) Bromide **Br_3Rh (s)**

$RhBr_3$ (s) $RhBr_3$ (s)

$\Delta H^0_{298} = -210.9$ kJ·mol^{-1} [4] $S^0_{298} = 188.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 113.81 + 27.61 \cdot 10^{-3} \cdot T - 1.91 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Br_3Sb (s) Antimony(III) Bromide **Br_3Sb (s)**

$SbBr_3$ (s) $SbBr_3$ (s)

mp = 370 K (97 °C) bp = 562 K (289 °C)

$\Delta H^0_{298} = -259.4$ kJ·mol^{-1} [4] $S^0_{298} = 210$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 112.97$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -4.7 \cdot 10^3 \cdot T^{-1} - 3.91 \cdot \lg(T) + 19.86$ (298 ... 370 K) [4]

{Reaction: evaporation as $SbBr_3$(g)}

Br_3Sb (s) Antimony(III) Bromide **Br_3Sb (s)**

$SbBr_3$ (s) $SbBr_3$ (s)

$\Delta H^0_{370} = -251.3$ kJ·mol^{-1} [4] $S^0_{370} = 234.4$ J·mol^{-1}·K^{-1} [4]

Br_3Sb (l) Antimony(III) Bromide **Br_3Sb (l)**

$SbBr_3$ (l) $SbBr_3$ (l)

$\Delta H^0_{370} = -236.6$ kJ·mol^{-1} [4] $S^0_{370} = 274$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 125.52$ J·mol^{-1}·K^{-1} (370 K) [4]

$\lg(p,K) = -4.15 \cdot 10^3 \cdot T^{-1} - 5.28 \cdot \lg(T) + 21.91$ (370 ... 562 K) [4]

{Reaction: evaporation as $SbBr_3$(g)}

Br_3Sb (g) Antimony(III) Bromide **Br_3Sb (g)**

$SbBr_3$ (g) $SbBr_3$ (g)

$\Delta H^0_{298} = -179.2$ kJ·mol^{-1} [4] $S^0_{298} = 372.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 82.96 + 0.18 \cdot 10^{-3} \cdot T - 0.27 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3Sc (s) Scandium(III) Bromide **Br_3Sc (s)**

$ScBr_3$ (s) $ScBr_3$ (s)

bp = 1202 K (929 °C)

$\Delta H^0_{298} = -711.3$ kJ·mol^{-1} [4] $S^0_{298} = 167.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 87.86 + 25.1 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1202 K) [4]

$\lg(p,K) = -15.94 \cdot 10^3 \cdot T^{-1} - 4.19 \cdot \lg(T) + 26.17$ (700 ... 1202 K) [4]

{Reaction: evaporation as $ScBr_3$(g)}

Br_3Sc (g) Scandium(III) Bromide **Br_3Sc (g)**

$ScBr_3$ (g) $ScBr_3$ (g)

$\Delta H^0_{298} = -425.1$ kJ·mol^{-1} [4] $S^0_{298} = 419.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 80.71 + 2.81 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3Si (g) Silicon(III) Bromide **Br_3Si (g)**

$SiBr_3$ (g) $SiBr_3$ (g)

$\Delta H^0_{298} = -201.7 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 351.8 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 82.35 + 0.46 \cdot 10^{-3} \cdot T - 0.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3Sm (s) Samarium(III) Bromide **Br_3Sm (s)**

$SmBr_3$ (s) $SmBr_3$ (s)

$\Delta H^0_{298} = -853.4 \pm 3$ kJ·mol^{-1} [266] $S^0_{298} = [183.3]$ J·mol^{-1}·K^{-1} [267]

$C_p{}^0 = [102.93]$ J·mol^{-1}·K^{-1} (298 K) [188]

Br_3Tb (s) Terbium(III) Bromide **Br_3Tb (s)**

$TbBr_3$ (s) $TbBr_3$ (s)

$\Delta H^0_{298} = -843.5 \pm 3$ kJ·mol^{-1} [266] $S^0_{298} = [184.1]$ J·mol^{-1}·K^{-1} [267]

Br_3Tb (g) Terbium(III) Bromide **Br_3Tb (g)**

$TbBr_3$ (g) $TbBr_3$ (g)

$\Delta H^0_{298} = -540.6$ kJ·mol^{-1} [2] $S^0_{298} = 402.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 82.01 + 4.69 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3Ti (s) Titanium(III) Bromide **Br_3Ti (s)**

$TiBr_3$ (s) $TiBr_3$ (s)

$\Delta H^0_{298} = -550.2 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 176.4 \pm 3.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 73.07 + 87.25 \cdot 10^{-3} \cdot T + 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1066 K) [4]

Br_3Ti (g) Titanium(III) Bromide **Br_3Ti (g)**

$TiBr_3$ (g) $TiBr_3$ (g)

$\Delta H^0_{298} = -374.9 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 359.1 \pm 5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 88.72 - 1.64 \cdot 10^{-3} \cdot T - 0.79 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3Tm (s) Thulium(III) Bromide **Br_3Tm (s)**

$TmBr_3$ (s) $TmBr_3$ (s)

$\Delta H^0_{298} = -832 \pm 10$ kJ·mol^{-1} [266] $S^0_{298} = [185.4]$ J·mol^{-1}·K^{-1} [267]

Br_3Tm (g) Thulium(III) Bromide **Br_3Tm (g)**

$TmBr_3$ (g) $TmBr_3$ (g)

mp = 1225 K (952 °C) bp = 1710 K (1437 °C)

$\Delta H^0_{298} = -545.6$ kJ·mol^{-1} [2] $S^0_{298} = 401.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 83.01 + 0.08 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3U (s) Uranium(III) Bromide **Br_3U (s)**

UBr_3 (s) UBr_3 (s)

mp = 1000 K (727 °C) bp = 1852 K (1579 °C)

$\Delta H^0_{298} = -699.1$ kJ·mol^{-1} [2] $S^0_{298} = 192.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 100 + 29.29 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$\lg(p,K) = -16.87 \cdot 10^3 \cdot T^{-1} - 5.26 \cdot \lg(T) + 27.24$ (900 ... 1000 K) [4]

{Reaction: evaporation as UBr_3(g)}

Br_3U (s) Uranium(III) Bromide **Br_3U (s)**
UBr_3 (s) UBr_3 (s)

$\Delta H^0_{1000} = -615.6$ kJ·mol^{-1} [4] $S^0_{1000} = 334.1$ J·mol^{-1}·K^{-1} [4]

Br_3U (l) Uranium(III) Bromide **Br_3U (l)**
UBr_3 (l) UBr_3 (l)

$\Delta H^0_{1000} = -577.6$ kJ·mol^{-1} [4] $S^0_{1000} = 372$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 132.63$ J·mol^{-1}·K^{-1} (1000 K) [4]
$\lg(p,K) = -15.07 \cdot 10^3 \cdot T^{-1} - 5.68 \cdot \lg(T) + 26.7$ (1000 ... 1852 K) [4]
{Reaction: evaporation as UBr_3(g)}

Br_3U (g) Uranium(III) Bromide **Br_3U (g)**
UBr_3 (g) UBr_3 (g)

$\Delta H^0_{298} = -394.4$ kJ·mol^{-1} [4] $S^0_{298} = 410$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 81.94 + 2.52 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^6 \cdot T^{-2} + 0.03 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_3V (s) Vanadium(III) Bromide **Br_3V (s)**
VBr_3 (s) VBr_3 (s)

$\Delta H^0_{298} = -446$ kJ·mol^{-1} [2] $S^0_{298} = 142.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 92.05 + 32.22 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 816 K) [4]

Br_3Yb (s) Ytterbium(III) Bromide **Br_3Yb (s)**
$YbBr_3$ (s) $YbBr_3$ (s)

$\Delta H^0_{298} = -791.9 \pm 2$ kJ·mol^{-1} [266] $S^0_{298} = [185.8]$ J·mol^{-1}·K^{-1} [267]

Br_3Zr (s) Zirconium(III) Bromide **Br_3Zr (s)**
$ZrBr_3$ (s) $ZrBr_3$ (s)

$\Delta H^0_{298} = -598.3$ kJ·mol^{-1} [4] $S^0_{298} = 172$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 106.41 - 0.22 \cdot 10^{-3} \cdot T - 0.61 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 810 K) [4]

Br_3Zr (g) Zirconium(III) Bromide **Br_3Zr (g)**

$ZrBr_3$ (g) $ZrBr_3$ (g)

$\Delta H^0_{298} = -393.3$ kJ·mol^{-1} [4] $S^0_{298} = 371.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 83.01 + 0.09 \cdot 10^{-3} \cdot T - 0.32 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_4C (s) Carbon(IV) Bromide **Br_4C (s)**

alpha

mp = 363 K (90 °C) bp = 462 K (189 °C)

$\Delta H^0_{298} = 18.6$ kJ·mol^{-1} [4] $S^0_{298} = 212.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 114.97 + 107.48 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 320 K) [4]

$\lg(p,K) = -4.06 \cdot 10^3 \cdot T^{-1} - 6.75 \cdot \lg(T) + 27.24$ (298 ... 320 K) [4]

{Reaction: evaporation}

Br_4C (s) Carbon(IV) Bromide **Br_4C (s)**

alpha

$\Delta H^0_{320} = 21.9$ kJ·mol^{-1} [4] $S^0_{320} = 223$ J·mol^{-1}·K^{-1} [4]

Br_4C (s) Carbon(IV) Bromide **Br_4C (s)**

beta

$\Delta H^0_{320} = 27.7$ kJ·mol^{-1} [4] $S^0_{320} = 241.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 236.62 - 165.65 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (320 ... 363 K) [4]

$\lg(p,K) = -4.24 \cdot 10^3 \cdot T^{-1} - 10.3 \cdot \lg(T) + 36.71$ (320 ... 363 K) [4]

{Reaction: evaporation}

Br_4C (s) Carbon(IV) Bromide **Br_4C (s)**

beta

$\Delta H^0_{363} = 35.5$ kJ·mol^{-1} [4] $S^0_{363} = 264.1$ J·mol^{-1}·K^{-1} [4]

Br_4C (l) Carbon(IV) Bromide **Br_4C (l)**

ΔH^0_{363} = 39.5 kJ·mol^{-1} [4] S^0_{363} = 275.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 153.13 J·mol^{-1}·K^{-1} (363 K) [4]
$\lg(p,K) = -3.46 \cdot 10^3 \cdot T^{-1} - 6.66 \cdot \lg(T) + 25.24$ (363 ... 462 K) [4]
{Reaction: evaporation}

Br_4C (l) Carbon(IV) Bromide **Br_4C (l)**

ΔH^0_{462} = 54.6 kJ·mol^{-1} [4] S^0_{462} = 312 J·mol^{-1}·K^{-1} [4]

Br_4C (g) Carbon(IV) Bromide **Br_4C (g)**

ΔH^0_{462} = 95.3 kJ·mol^{-1} [4] S^0_{462} = 400.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 104.36 + 2.54 \cdot 10^{-3} \cdot T - 1.24 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (462 ... 1500 K) [4]

Br_4C (g) Carbon(IV) Bromide **Br_4C (g)**

ΔH^0_{298} = 79.6 kJ·mol^{-1} [4] S^0_{298} = 358.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 104.36 + 2.54 \cdot 10^{-3} \cdot T - 1.24 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

Br_4Cr (g) Chromium(IV) Bromide **Br_4Cr (g)**
$CrBr_4$ (g) $CrBr_4$ (g)

ΔH^0_{298} = – 258.6 kJ·mol^{-1} [2] S^0_{298} = 417.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 107.64 + 0.34 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_4Fe_2 (g) Iron(II) Bromide **Br_4Fe_2 (g)**
$(FeBr_2)_2$ (g) $(FeBr_2)_2$ (g)

ΔH^0_{298} = – 253.1 ± 8 kJ·mol^{-1} [1] S^0_{298} = 516 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 130.92 + 2.95 \cdot 10^{-3} \cdot T - 0.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -13.79 \cdot 10^3 \cdot T^{-1} - 6.01 \cdot \lg(T) + 30.29$ (650 ... 964 K) [4]
{Reaction: evaporation of $FeBr_2$(s)}

Br_4Ge (l) Germanium(IV) Bromide **Br_4Ge (l)**

$GeBr_4$ (l) $GeBr_4$ (l)

mp = 299 K (26 °C) bp = 462 K (189 °C)

$\Delta H^0_{298} = -347.7$ kJ·mol^{-1} [4] $S^0_{298} = 280.7$ J·mol^{-1}·K^{-1} [4]

$C_p^{\,0} = 154.81$ J·mol^{-1}·K^{-1} (298 K) [4]

Br_4Ge (g) Germanium(IV) Bromide **Br_4Ge (g)**

$GeBr_4$ (g) $GeBr_4$ (g)

$\Delta H^0_{298} = -296.3$ kJ·mol^{-1} [4] $S^0_{298} = 396.2$ J·mol^{-1}·K^{-1} [2]

$C_p^{\,0} = 108.28 - 0.74 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_4Hf (s) Hafnium(IV) Bromide **Br_4Hf (s)**

$HfBr_4$ (s) $HfBr_4$ (s)

bp = 547 K (274 °C)

$\Delta H^0_{298} = -766.3$ kJ·mol^{-1} [4] $S^0_{298} = 238.5$ J·mol^{-1}·K^{-1} [2]

$C_p^{\,0} = 108.7 + 63.43 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 597 K) [4]

$\lg(p,K) = -6.24 \cdot 10^{3} \cdot T^{-1} - 3.79 \cdot \lg(T) + 20.97$ (400 ... 597 K) [4]

{Reaction: evaporation as $HfBr_4$(g)}

Br_4Hf (g) Hafnium(IV) Bromide **Br_4Hf (g)**

$HfBr_4$ (g) $HfBr_4$ (g)

$\Delta H^0_{298} = -656.7$ kJ·mol^{-1} [4] $S^0_{298} = 427.3$ J·mol^{-1}·K^{-1} [4]

$C_p^{\,0} = 108.99 + 0.13 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_4Mg_2 (g) Magnesium(II) Bromide **Br_4Mg_2 (g)**

$(MgBr_2)_2$ (g) $(MgBr_2)_2$ (g)

$\Delta H^0_{298} = -767.8 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 461.3 \pm 20.9$ J·mol^{-1}·K^{-1} [1]

$C_p^{\,0} = 132.97 + 0.03 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -15.53 \cdot 10^{3} \cdot T^{-1} - 4.65 \cdot \lg(T) + 25.98$ (800 ... 984 K) [4]

{Reaction: evaporation of $MgBr_2$(s)}

Br_4Mn_2 (g) Manganese(II) Bromide **Br_4Mn_2 (g)**

Mn_2Br_4 (g) Mn_2Br_4 (g)

ΔH^0_{298} = – 519 kJ·mol^{-1} [58] S^0_{298} = 506.5 J·mol^{-1}·K^{-1} [58]

Br_4Mo (s) Molybdenum(IV) Bromide **Br_4Mo (s)**

$MoBr_4$ (s) $MoBr_4$ (s)

ΔH^0_{298} = – 304.2 ± 8 kJ·mol^{-1} [1] S^0_{298} = 209.2 ± 17 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 133.05 J·mol^{-1}·K^{-1} (298 K) [4]

Br_4Mo (g) Molybdenum(IV) Bromide **Br_4Mo (g)**

$MoBr_4$ (g) $MoBr_4$ (g)

ΔH^0_{298} = – 171.1 ± 8 kJ·mol^{-1} [1] S^0_{298} = 418.9 ± 8 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 108 - 0.03 \cdot 10^{-3} \cdot T - 0.45 \cdot 10^{6} \cdot T^{-2} + 0.21 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_4MoO (g) Molybdenum Bromide Oxide **Br_4MoO (g)**

$MoOBr_4$ (g) $MoOBr_4$ (g)

ΔH^0_{298} = – 384.9 kJ·mol^{-1} [66] S^0_{298} = 431 J·mol^{-1}·K^{-1} [66]

$C_p{}^0 = 133.89 - 1.05 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [66]

Br_4Pb (g) Lead(IV) Bromide **Br_4Pb (g)**

$PbBr_4$ (g) $PbBr_4$ (g)

ΔH^0_{298} = – 456.4 ± 84 kJ·mol^{-1} [1] S^0_{298} = 426.2 ± 12.6 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 108 + 0.05 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_4Pt (s) Platinum(IV) Bromide **Br_4Pt (s)**

$PtBr_4$ (s) $PtBr_4$ (s)

ΔH^0_{298} = – 130 kJ·mol^{-1} [4] S^0_{298} = 233.5 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 150.62 J·mol^{-1}·K^{-1} (298 K) [4]

Br_4Se (s) Selenium(IV) Bromide **Br_4Se (s)**

$SeBr_4$ (s) $SeBr_4$ (s)

$\Delta H^0_{298} = -73.3$ kJ·mol^{-1} [45] $S^0_{298} = 265.9$ J·mol^{-1}·K^{-1} [45]

$C_p^0 = 134.93$ J·mol^{-1}·K^{-1} (298 K) [45]

Br_4Si (l) Silicon(IV) Bromide **Br_4Si (l)**

$SiBr_4$ (l) $SiBr_4$ (l)

mp = 278 K (5 °C) bp = 426 K (153 °C)

$\Delta H^0_{298} = -457.3 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 278.2 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 146.44$ J·mol^{-1}·K^{-1} (298 K) [4]

Br_4Si (g) Silicon(IV) Bromide **Br_4Si (g)**

$SiBr_4$ (g) $SiBr_4$ (g)

$\Delta H^0_{298} = -415.5 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 379.4 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 106.95 + 0.67 \cdot 10^{-3} \cdot T - 0.9 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_4Sn (s) Tin(IV) Bromide **Br_4Sn (s)**

$SnBr_4$ (s) $SnBr_4$ (s)

mp = 306 K (33 °C) bp = 480 K (207 °C)

$\Delta H^0_{298} = -405.8$ kJ·mol^{-1} [2] $S^0_{298} = 264.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 136.5$ J·mol^{-1}·K^{-1} (298 K) [2]

Br_4Sn (l) Tin(IV) Bromide **Br_4Sn (l)**

$SnBr_4$ (l) $SnBr_4$ (l)

$\Delta H^0_{298} = -401.3$ kJ·mol^{-1} [4] $S^0_{298} = 295.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 158.99$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -3.74 \cdot 10^{3} \cdot T^{-1} - 6.52 \cdot \lg(T) + 25.27$ (298 ... 480 K) [4]

{Reaction: evaporation as $SnBr_4$(g)}

Br_4Sn (g) Tin(IV) Bromide **Br_4Sn (g)**
$SnBr_4$ (g) $SnBr_4$ (g)

$\Delta H^0_{298} = -347.6$ kJ·mol^{-1} [4] $S^0_{298} = 412.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 107.52 + 0.64 \cdot 10^{-3} \cdot T - 0.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_4Te (s) Tellurium(IV) Bromide **Br_4Te (s)**
$TeBr_4$ (s) $TeBr_4$ (s)

mp = 388 K (115 °C)
$\Delta H^0_{298} = -190.4$ kJ·mol^{-1} [2] $S^0_{298} = 243.5$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 129.6$ J·mol^{-1}·K^{-1} (298 K) [2]

Br_4Th (s) Thorium(IV) Bromide **Br_4Th (s)**
$ThBr_4$ (s) alpha $ThBr_4$ (s)

mp = 970 K (697 °C) bp = 1126 K (853 °C)
$\Delta H^0_{298} = -965.6$ kJ·mol^{-1} [2] $S^0_{298} = 221$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 126.94 + 16.06 \cdot 10^{-3} \cdot T - 0.58 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 693 K) [4]

Br_4Th (s) Thorium(IV) Bromide **Br_4Th (s)**
$ThBr_4$ (s) alpha $ThBr_4$ (s)

$\Delta H^0_{693} = -913.4$ kJ·mol^{-1} [2] $S^0_{693} = 331.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 136.86$ J·mol^{-1}·K^{-1} (693 K) [4]

Br_4Th (s) Thorium(IV) Bromide **Br_4Th (s)**
$ThBr_4$ (s) beta $ThBr_4$ (s)

$\Delta H^0_{693} = -909.3$ kJ·mol^{-1} [2] $S^0_{693} = 337.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 127.63 + 15.1 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (693 ... 970 K) [4]
$\lg(p,K) = -11.12 \cdot 10^3 \cdot T^{-1} - 3.8 \cdot \lg(T) + 21.96$ (693 ... 970 K) [4]
{Reaction: evaporation as $ThBr_4$(g)}

Br_4Th (s) Thorium(IV) Bromide **Br_4Th (s)**
$ThBr_4$ (s) beta $ThBr_4$ (s)

$\Delta H^0_{970} = -870.7$ kJ·mol^{-1} [4] $S^0_{970} = 384.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 141.62$ J·mol^{-1}·K^{-1} (970 K) [4]

Br_4Th (l) Thorium(IV) Bromide **Br_4Th (l)**
$ThBr_4$ (l) $ThBr_4$ (l)

$\Delta H^0_{970} = -807.9$ kJ·mol^{-1} [4] $S^0_{970} = 449.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 171.49$ J·mol^{-1}·K^{-1} (970 K) [4]

Br_4Th (g) Thorium(IV) Bromide **Br_4Th (g)**
$ThBr_4$ (g) $ThBr_4$ (g)

$\Delta H^0_{298} = -760.6$ kJ·mol^{-1} [2] $S^0_{298} = 429.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 108 + 0.06 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [2]

Br_4Ti (s) Titanium(IV) Bromide **Br_4Ti (s)**
$TiBr_4$ (s) $TiBr_4$ (s)

mp = 311 K (38 °C) bp = 503 K (230 °C)
$\Delta H^0_{298} = -619.7$ kJ·mol^{-1} [4] $S^0_{298} = 243.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 80.93 + 169.62 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 311 K) [4]

Br_4Ti (s) Titanium(IV) Bromide **Br_4Ti (s)**
$TiBr_4$ (s) $TiBr_4$ (s)

$\Delta H^0_{311} = -617.9$ kJ·mol^{-1} [4] $S^0_{311} = 249.1$ J·mol^{-1}·K^{-1} [4]

Br_4Ti (l) Titanium(IV) Bromide **Br_4Ti (l)**
$TiBr_4$ (l) $TiBr_4$ (l)

$\Delta H^0_{311} = -605.1$ kJ·mol^{-1} [4] $S^0_{311} = 290.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 151.88$ J·mol^{-1}·K^{-1} (311 K) [4]
$\lg(p,K) = -3.61 \cdot 10^{3} \cdot T^{-1} - 5.84 \cdot \lg(T) + 22.96$ (311 ... 503 K) [4]
{Reaction: evaporation as $TiBr_4$(g)}

Br_4Ti (g) Titanium(IV) Bromide **Br_4Ti (g)**

$TiBr_4$ (g) $TiBr_4$ (g)

$\Delta H^0_{298} = -550.2 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 398.6 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 107.76 + 0.17 \cdot 10^{-3} \cdot T - 0.64 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_4U (s) Uranium(IV) Bromide **Br_4U (s)**

UBr_4 (s) UBr_4 (s)

mp = 792 K (519 °C) bp = 1070 K (797 °C)

$\Delta H^0_{298} = -802.5$ kJ·mol^{-1} [2] $S^0_{298} = 238.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 134.73 + 20.5 \cdot 10^{-3} \cdot T - 1.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 792 K) [4]

$\lg(p,K) = -11.09 \cdot 10^3 \cdot T^{-1} - 4.74 \cdot \lg(T) + 25.66$ (600 ... 792 K) [4]

{Reaction: evaporation as UBr_4(g)}

Br_4U (s) Uranium(IV) Bromide **Br_4U (s)**

UBr_4 (s) UBr_4 (s)

$\Delta H^0_{792} = -732.8$ kJ·mol^{-1} [4] $S^0_{792} = 374.8$ J·mol^{-1}·K^{-1} [4]

Br_4U (l) Uranium(IV) Bromide **Br_4U (l)**

UBr_4 (l) UBr_4 (l)

$\Delta H^0_{792} = -680.2$ kJ·mol^{-1} [4] $S^0_{792} = 441.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 163.18$ J·mol^{-1}·K^{-1} (792 K) [4]

$\lg(p,K) = -9 \cdot 10^3 \cdot T^{-1} - 6.68 \cdot \lg(T) + 28.65$ (792 ... 1070 K) [4]

{Reaction: evaporation as UBr_4(g)}

Br_4U (g) Uranium(IV) Bromide **Br_4U (g)**

UBr_4 (g) UBr_4 (g)

$\Delta H^0_{298} = -604.3$ kJ·mol^{-1} [4] $S^0_{298} = 460$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 107.99 - 0.03 \cdot 10^{-3} \cdot T - 0.45 \cdot 10^6 \cdot T^{-2} + 0.21 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_4V (g) Vanadium(IV) Bromide **Br_4V (g)**

VBr_4 (g) VBr_4 (g)

mp = 300 K (27 °C) bp = 520 K (247 °C)

$\Delta H^0_{298} = -393.3$ kJ·mol^{-1} [4] $S^0_{298} = 334.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 107.74 + 0.84 \cdot 10^{-3} \cdot T - 0.73 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_4Zr (s) Zirconium (IV) Bromide **Br_4Zr (s)**

$ZrBr_4$ (s) $ZrBr_4$ (s)

bp = 628 K (355 °C)

$\Delta H^0_{298} = -760.7 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 224.7 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 129.63 + 9.39 \cdot 10^{-3} \cdot T - 0.68 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 628 K) [4]

$\lg(p,K) = -6.46 \cdot 10^3 \cdot T^{-1} - 3.03 \cdot \lg(T) + 18.76$ (400 ... 628 K) [4]

{Reaction: evaporation as $ZrBr_4$(g)}

Br_4Zr (g) Zirconium(IV) Bromide **Br_4Zr (g)**

$ZrBr_4$ (g) $ZrBr_4$ (g)

$\Delta H^0_{298} = -644.8 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 414.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 107.83 + 0.16 \cdot 10^{-3} \cdot T - 0.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Br_5H_8LaN_2$ (s) Ammonium Lanthanum Bromide **$Br_5H_8LaN_2$ (s)**

$(NH_4)_2LaBr_5$ (s) $(NH_4)_2LaBr_5$ (s)

$\Delta H^0_{298} = -1471.1 \pm 15.9$ kJ·mol^{-1} [19] $S^0_{298} = 423 \pm 7.5$ J·mol^{-1}·K^{-1} [19]

$Br_5H_8N_2Nd$ (s) Ammonium Neodymium Bromide **$Br_5H_8N_2Nd$ (s)**

$(NH_4)_2NdBr_5$ (s) $(NH_4)_2NdBr_5$ (s)

$\Delta H^0_{298} = -1435.1 \pm 18.4$ kJ·mol^{-1} [30] $S^0_{298} = 459.8 \pm 28.5$ J·mol^{-1}·K^{-1} [30]

Br_5Nb (s) Niobium(V) Bromide **Br_5Nb (s)**

$NbBr_5$ (s) $NbBr_5$ (s)

mp = 527 K (254 °C) bp = 634 K (361 °C)

$\Delta H^0_{298} = -556.1 \pm 12.6$ kJ·mol⁻¹ [1] $S^0_{298} = 258.8 \pm 6.3$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 147.91$ J·mol⁻¹·K⁻¹ (298 K) [4]

$\lg(p,K) = -6.18 \cdot 10^3 \cdot T^{-1} - 2.37 \cdot \lg(T) + 16.84$ (400 ... 527 K) [4]

{Reaction: evaporation as $NbBr_5$(g)}

Br_5Nb (s) Niobium(V) Bromide **Br_5Nb (s)**

$NbBr_5$ (s) $NbBr_5$ (s)

$\Delta H^0_{527} = -522.2$ kJ·mol⁻¹ [4] $S^0_{527} = 343$ J·mol⁻¹·K⁻¹ [4]

Br_5Nb (l) Niobium(V) Bromide **Br_5Nb (l)**

$NbBr_5$ (l) $NbBr_5$ (l)

$\Delta H^0_{527} = -498.2$ kJ·mol⁻¹ [4] $S^0_{527} = 388.6$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 273.01 - 111.21 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (527 ... 634 K) [4]

Br_5Nb (l) Niobium(V) Bromide **Br_5Nb (l)**

$NbBr_5$ (l) $NbBr_5$ (l)

$\Delta H^0_{298} = -545.1$ kJ·mol⁻¹ [1] $S^0_{298} = 274$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 147.9$ J·mol⁻¹·K⁻¹ (298 K) [1]

Br_5Nb (g) Niobium(V) Bromide **Br_5Nb (g)**

$NbBr_5$ (g) $NbBr_5$ (g)

$\Delta H^0_{298} = -443.6 \pm 12.6$ kJ·mol⁻¹ [1] $S^0_{298} = 449.3 \pm 3.1$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 132.67 + 0.23 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Br_5Re (g) Rhenium(V) Bromide **Br_5Re (g)**

$ReBr_5$ (g) $ReBr_5$ (g)

$\Delta H^0_{298} = -259.4 \pm 23.4$ kJ·mol⁻¹ [50] $S^0_{298} = 464.2 \pm 4.2$ J·mol⁻¹·K⁻¹ [50]

$C_p^0 = 108.78$ J·mol⁻¹·K⁻¹ (298 K) [50]

Br_5Ta (s) Tantalum(V) Bromide **Br_5Ta (s)**

$TaBr_5$ (s) $TaBr_5$ (s)

mp = 538 K (265 °C) bp = 617 K (344 °C)

$\Delta H^0_{298} = -605.6$ kJ·mol^{-1} [4] $S^0_{298} = 239.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 119.16 + 122.59 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 538 K) [4]

$\lg(p,K) = -7.05 \cdot 10^3 \cdot T^{-1} - 5 \cdot \lg(T) + 25.95$ (400 ... 538 K) [4]

{Reaction: evaporation as $TaBr_5$(g)}

Br_5Ta (s) Tantalum(V) Bromide **Br_5Ta (s)**

$TaBr_5$ (s) $TaBr_5$ (s)

$\Delta H^0_{538} = -564.7$ kJ·mol^{-1} [4] $S^0_{538} = 339.5$ J·mol^{-1}·K^{-1} [4]

Br_5Ta (l) Tantalum(V) Bromide **Br_5Ta (l)**

$TaBr_5$ (l) $TaBr_5$ (l)

$\Delta H^0_{538} = -519.1$ kJ·mol^{-1} [4] $S^0_{538} = 424.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 184.1$ J·mol^{-1}·K^{-1} (538 K) [4]

Br_5Ta (g) Tantalum(V) Bromide **Br_5Ta (g)**

$TaBr_5$ (g) $TaBr_5$ (g)

$\Delta H^0_{298} = -483.7$ kJ·mol^{-1} [2] $S^0_{298} = 456.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 133.05 - 0.15 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_5U (s) Uranium(V) Bromide **Br_5U (s)**

UBr_5 (s) UBr_5 (s)

$\Delta H^0_{298} = -810.9$ kJ·mol^{-1} [2] $S^0_{298} = 292.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 160.7$ J·mol^{-1}·K^{-1} (298 K) [2]

Br_5W (s) Tungsten(V) Bromide **Br_5W (s)**
WBr_5 (s) WBr_5 (s)

mp = 559 K (286 °C) bp = 666 K (393 °C)
$\Delta H^0_{298} = -292$ kJ·mol^{-1} [4] $S^0_{298} = 307.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 125.49 + 100.46 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 559 K) [4]
$\lg(p,K) = -5.49 \cdot 10^3 \cdot T^{-1} - 4.75 \cdot \lg(T) + 21.93$ (298 ... 559 K) [4]
{Reaction: evaporation as WBr_5(g)}

Br_5W (s) Tungsten(V) Bromide **Br_5W (s)**
WBr_5 (s) WBr_5 (s)

$\Delta H^0_{559} = -248.1$ kJ·mol^{-1} [4] $S^0_{559} = 413$ J·mol^{-1}·K^{-1} [4]

Br_5W (l) Tungsten(V) Bromide **Br_5W (l)**
WBr_5 (l) WBr_5 (l)

$\Delta H^0_{559} = -230.9$ kJ·mol^{-1} [4] $S^0_{559} = 443.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 182$ J·mol^{-1}·K^{-1} (559 K) [4]

Br_5W (g) Tungsten(V) Bromide **Br_5W (g)**
WBr_5 (g) WBr_5 (g)

$\Delta H^0_{298} = -199.2 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 461.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 131.75 + 1.18 \cdot 10^{-3} \cdot T - 0.43 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Br_6Ga_2 (g) Gallium(III) Bromide **Br_6Ga_2 (g)**
$(GaBr_3)_2$ (g) $(GaBr_3)_2$ (g)

$\Delta H^0_{298} = -686.2$ kJ·mol^{-1} [4] $S^0_{298} = 535.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 182.84$ J·mol^{-1}·K^{-1} (298 K) [4]
$\lg(p,K) = -4.99 \cdot 10^3 \cdot T^{-1} - 3.39 \cdot \lg(T) + 19.05$ (298 ... 396 K) [4]
{Reaction: evaporation of $GaBr_3$(s)}

$Br_6H_{12}N_3Nd$ (s) Ammonium Neodymium Bromide **$Br_6H_{12}N_3Nd$ (s)**
$(NH_4)_3NdBr_6$ (s) $(NH_4)_3NdBr_6$ (s)

$\Delta H^0_{298} = -1669.8 \pm 20.5$ kJ·mol^{-1} [30] $S^0_{298} = 641.8 \pm 31$ J·mol^{-1}·K^{-1} [30]

$Br_6H_{12}N_3Y$ (s) Ammonium Yttrium Bromide **$Br_6H_{12}N_3Y$ (s)**
$(NH_4)_3YBr_6$ (s) $(NH_4)_3YBr_6$ (s)

$\Delta H^0_{298} = -1682 \pm 29.3$ kJ·mol^{-1} [21] $S^0_{298} = 560.7 \pm 37.7$ J·mol^{-1}·K^{-1} [21]

Br_6In_2 (g) Indium(III) Bromide **Br_6In_2 (g)**
In_2Br_6 (g) In_2Br_6 (g)

$\Delta H^0_{298} = -695.5$ kJ·mol^{-1} [282] $S^0_{298} = 581.7$ J·mol^{-1}·K^{-1} [282]

Br_6W (s) Tungsten(VI) Bromide **Br_6W (s)**
WBr_6 (s) WBr_6 (s)

mp = 582 K (309 °C)
$\Delta H^0_{298} = -344.8$ kJ·mol^{-1} [4] $S^0_{298} = 313.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 148.92 + 108.83 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 582 K) [4]
$\lg(p,K) = -5.93 \cdot 10^3 \cdot T^{-1} - 5.18 \cdot \lg(T) + 24.01$ (298 ... 582 K) [4]
{Reaction: evaporation as WBr_6(g)}

Br_6W (g) Tungsten(VI) Bromide **Br_6W (g)**
WBr_6 (g) WBr_6 (g)

$\Delta H^0_{298} = -244.8$ kJ·mol^{-1} [4] $S^0_{298} = 482.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 157.79 + 0.12 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Br_7H_4NNd_2$ (s) Ammonium Neodymium Bromide **$Br_7H_4NNd_2$ (s)**
$NH_4Nd_2Br_7$ (s) $NH_4Nd_2Br_7$ (s)

$\Delta H^0_{298} = -2025.1 \pm 21.3$ kJ·mol^{-1} [30] $S^0_{298} = 535.1 \pm 27.6$ J·mol^{-1}·K^{-1} [30]

$C_{0.88}V$ (s) Vanadium Carbide **$C_{0.88}V$ (s)**
$VC_{0.88}$ (s) $VC_{0.88}$ (s)

mp = 3000 K (2727 °C)
$\Delta H^0_{298} = -101.7$ kJ·mol^{-1} [2] $S^0_{298} = 25.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 36.36 + 13.31 \cdot 10^{-3} \cdot T - 0.71 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Br_6H_{12}N_3Y$ (s) Ammonium Yttrium Bromide **$Br_6H_{12}N_3Y$ (s)**
$(NH_4)_3YBr_6$ (s) $(NH_4)_3YBr_6$ (s)

$\Delta H^0_{298} = -1682 \pm 29.3$ kJ·mol^{-1} [21] $S^0_{298} = 560.7 \pm 37.7$ J·mol^{-1}·K^{-1} [21]

Br_6In_2 (g) Indium(III) Bromide **Br_6In_2 (g)**
In_2Br_6 (g) In_2Br_6 (g)

$\Delta H^0_{298} = -695.5$ kJ·mol^{-1} [282] $S^0_{298} = 581.7$ J·mol^{-1}·K^{-1} [282]

Br_6W (s) Tungsten(VI) Bromide **Br_6W (s)**
WBr_6 (s) WBr_6 (s)

mp = 582 K (309 °C)
$\Delta H^0_{298} = -344.8$ kJ·mol^{-1} [4] $S^0_{298} = 313.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 148.92 + 108.83 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 582 K) [4]
$\lg(p,K) = -5.93 \cdot 10^3 \cdot T^{-1} - 5.18 \cdot \lg(T) + 24.01$ (298 ... 582 K) [4]
{Reaction: evaporation as WBr_6(g)}

Br_6W (g) Tungsten(VI) Bromide **Br_6W (g)**
WBr_6 (g) WBr_6 (g)

$\Delta H^0_{298} = -244.8$ kJ·mol^{-1} [4] $S^0_{298} = 482.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 157.79 + 0.12 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Br_7H_4NNd_2$ (s) Ammonium Neodymium Bromide **$Br_7H_4NNd_2$ (s)**
$NH_4Nd_2Br_7$ (s) $NH_4Nd_2Br_7$ (s)

$\Delta H^0_{298} = -2025.1 \pm 21.3$ kJ·mol^{-1} [30] $S^0_{298} = 535.1 \pm 27.6$ J·mol^{-1}·K^{-1} [30]

$C_{0.88}V$ (s) Vanadium Carbide **$C_{0.88}V$ (s)**
$VC_{0.88}$ (s) $VC_{0.88}$ (s)

mp = 3000 K (2727 °C)
$\Delta H^0_{298} = -101.7$ kJ·mol^{-1} [2] $S^0_{298} = 25.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 36.36 + 13.31 \cdot 10^{-3} \cdot T - 0.71 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

C (s) | Carbon Graphite | **C** (s)

bp = 4055 K (3782 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 5.7 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 0.11 + 38.94 \cdot 10^{-3} \cdot T - 0.15 \cdot 10^{6} \cdot T^{-2} - 17.38 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 1100 K) [4]

C (s) | Carbon Diamond | **C** (s)

ΔH^0_{298} = 1.9 kJ·mol^{-1} [2] S^0_{298} = 2.4 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 9.12 + 13.22 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1400 K) [4]

C (g) | Carbon | **C** (g)

ΔH^0_{298} = 716.7 ± 0.5 kJ·mol^{-1} [1] S^0_{298} = 158.1 ± 0.9 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 20.08 + 0.54 \cdot 10^{-3} \cdot T + 0.08 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 4055 K) [4]

$\lg(p,K) = -37.84 \cdot 10^{3} \cdot T^{-1} - 0.45 \cdot \lg(T) + 9.88$ (2200 ... 4055 K) [4]

{Reaction: evaporation of C(s, Graphite)}

$CCaO_3$ (s) | Calcium Carbonate | **$CCaO_3$** (s)

$CaCO_3$ (s) | Calcite | $CaCO_3$ (s)

ΔH^0_{298} = – 1208.4 kJ·mol^{-1} [4] S^0_{298} = 93.1 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 104.52 + 21.92 \cdot 10^{-3} \cdot T - 2.59 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1170 K) [4]

$\lg(p,K) = -9.74 \cdot 10^{3} \cdot T^{-1} - 1.72 \cdot \lg(T) + 13.6$ (600 ... 1170 K) [4]

{Reaction: decomposition $CaCO_3$(s) = CaO(s) + CO_2(g)}

$CCaO_3$ (s) | Calcium Carbonate | **$CCaO_3$** (s)

$CaCO_3$ (s) | Aragonite | $CaCO_3$ (s)

ΔH^0_{298} = – 1207.1 kJ·mol^{-1} [2] S^0_{298} = 88.7 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 104.52 + 21.92 \cdot 10^{-3} \cdot T - 2.59 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1127 K) [4]

$\lg(p,K) = -9.67 \cdot 10^{3} \cdot T^{-1} - 1.69 \cdot \lg(T) + 13.73$ (600 ... 1127 K) [4]

{Reaction: decomposition $CaCO_3$(s) = CaO(s) + CO_2(g)}

$CCdO_3$ (s) Cadmium Carbonate **$CCdO_3$ (s)**
$CdCO_3$ (s) $CdCO_3$ (s)

$\Delta H^0_{298} = -751.9$ kJ·mol^{-1} [2] $S^0_{298} = 92.5$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 43.1 + 131.8 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 560 K) [4]
$\lg(p,K) = -5.41 \cdot 10^3 \cdot T^{-1} - 1.36 \cdot \lg(T) + 13.4$ (298 ... 560 K) [4]
{Reaction: decomposition $CdCO_3(s) = CdO(s) + CO_2(g)$}

CCl (g) Chloromethylidyne **CCl (g)**

$\Delta H^0_{298} = 502.1 \pm 20$ kJ·mol^{-1} [1] $S^0_{298} = 224.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 32.25$ J·mol^{-1}·K^{-1} (298 K) [1]

$CClFH_2$ (g) Chlorofluoromethane **$CClFH_2$ (g)**
CH_2ClF (g) CH_2ClF (g)

$\Delta H^0_{298} = -261.9$ kJ·mol^{-1} [1] $S^0_{298} = 264.4 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 47.04$ J·mol^{-1}·K^{-1} (298 K) [1]

CClFO (g) Carbonic Chloride Fluoride **CClFO (g)**
COClF (g) COClF (g)

$\Delta H^0_{298} = -426.8 \pm 33$ kJ·mol^{-1} [1] $S^0_{298} = 277$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 52.4$ J·mol^{-1}·K^{-1} (298 K) [1]

$CClF_2H$ (g) Chlorodifluoromethane **$CClF_2H$ (g)**
$CHClF_2$ (g) $CHClF_2$ (g)

$\Delta H^0_{298} = -481.6$ kJ·mol^{-1} [1] $S^0_{298} = 281$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 57.13$ J·mol^{-1}·K^{-1} (298 K) [1]

$CClF_3$ (g) Chlorotrifluoromethane **$CClF_3$ (g)**

mp = 92 K (-181 °C) bp = 192 K (-81 °C)
$\Delta H^0_{298} = -707.9 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 285.4 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 83.46 + 20.08 \cdot 10^{-3} \cdot T - 2.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CClH$ (g) Chloromethylene **$CClH$ (g)**
$CHCl$ (g) $CHCl$ (g)

$\Delta H^0_{298} = 334.7 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 234.9 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36.74$ J·mol^{-1}·K^{-1} (298 K) [1]

$CClH_3$ (g) Chloromethane **$CClH_3$ (g)**
CH_3Cl (g) CH_3Cl (g)

$\Delta H^0_{298} = -83.7 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 234.4 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 40.73$ J·mol^{-1}·K^{-1} (298 K) [2]

$CClN$ (g) Cyanogen Chloride **$CClN$ (g)**
$ClCN$ (g) $ClCN$ (g)

$\Delta H^0_{298} = 138$ kJ·mol^{-1} [1] $S^0_{298} = 236.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 49.71 + 6.86 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

$CClO$ (g) Carbonyl Chloride **$CClO$ (g)**
$COCl$ (g) $COCl$ (g)

$\Delta H^0_{298} = -62.8 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 266$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 45.07$ J·mol^{-1}·K^{-1} (298 K) [1]

CCl_2 (g) Dichloromethylene **CCl_2 (g)**

$\Delta H^0_{298} = 238.5 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 265.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 54.97 + 1.65 \cdot 10^{-3} \cdot T - 0.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CCl_2FH (g) Dichlorofluoromethane **CCl_2FH (g)**
$CHCl_2F$ (g) $CHCl_2F$ (g)

$\Delta H^0_{298} = -283.3 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 293.3 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 61$ J·mol^{-1}·K^{-1} (298 K) [1]

CCl_2F_2 (g) Dichlorodifluoromethane **CCl_2F_2 (g)**

mp = 115 K (-158 °C) bp = 243 K (-30 °C)

$\Delta H^0_{298} = -491.6 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 300.9 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 89.29 + 15.49 \cdot 10^{-3} \cdot T - 1.99 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CCl_2H_2 (g) Dichloromethane **CCl_2H_2 (g)**

CH_2Cl_2 (g) CH_2Cl_2 (g)

$\Delta H^0_{298} = -95.5 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 270.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 50.9$ J·mol^{-1}·K^{-1} (298 K) [1]

CCl_2O (g) Carbonic Dichloride **CCl_2O (g)**

$COCl_2$ (g) Phosgene $COCl_2$ (g)

mp = 155 K (-118 °C) bp = 281 K (8 °C)

$\Delta H^0_{298} = -220.1 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 283.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 65.02 + 18.16 \cdot 10^{-3} \cdot T - 1.11 \cdot 10^6 \cdot T^{-2} - 4.98 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CCl_3 (g) Carbon(III) Chloride **CCl_3 (g)**

$\Delta H^0_{298} = 79.5 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 296.8 \pm 6.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 80.2 + 1.52 \cdot 10^{-3} \cdot T - 1.51 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CCl_3F (g) Trichlorofluoromethane **CCl_3F (g)**

mp = 162 K (-111 °C) bp = 297 K (24 °C)

$\Delta H^0_{298} = -288.7 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 309.7 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 94.78 + 11.12 \cdot 10^{-3} \cdot T + 1.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (350 ... 2000 K) [4]

CCl_3H (g) Trichloromethane **CCl_3H (g)**

$CHCl_3$ (g) $CHCl_3$ (g)

$\Delta H^0_{298} = -103.2 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 295.6$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 65.38$ J·mol^{-1}·K^{-1} (298 K) [1]

CCl_3H_3Si (g) Trichloromethylsilane **CCl_3H_3Si (g)**

$SiCH_3Cl_3$ (g) $SiCH_3Cl_3$ (g)

$\Delta H^0_{298} = -528.9$ kJ·mol^{-1} [1] $S^0_{298} = 351.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 102.38$ J·mol^{-1}·K^{-1} (298 K) [1]

CCl_4 (l) Carbon(IV) Chloride **CCl_4 (l)**

mp = 250 K (-23 °C) bp = 349 K (76 °C)

$\Delta H^0_{298} = -135.4$ kJ·mol^{-1} [4] $S^0_{298} = 216.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 131.8$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -2.41 \cdot 10^3 \cdot T^{-1} - 5.56 \cdot \lg(T) + 21.05$ (298 ... 349 K) [4]

{Reaction: evaporation}

CCl_4 (l) Carbon(IV) Chloride **CCl_4 (l)**

$\Delta H^0_{349} = -128.7$ kJ·mol^{-1} [4] $S^0_{349} = 237.2$ J·mol^{-1}·K^{-1} [4]

CCl_4 (g) Carbon(IV) Chloride **CCl_4 (g)**

$\Delta H^0_{349} = -98.7$ kJ·mol^{-1} [4] $S^0_{349} = 323.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 104.18 + 2.01 \cdot 10^{-3} \cdot T - 1.98 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CCl_4 (g) Carbon(IV) Chloride **CCl_4 (g)**

$\Delta H^0_{298} = -103$ kJ·mol^{-1} [4] $S^0_{298} = 309.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 104.18 + 2.01 \cdot 10^{-3} \cdot T - 1.98 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CCoO_3$ (s) Cobalt Carbonate **$CCoO_3$ (s)**

$CoCO_3$ (s) $CoCO_3$ (s)

$\Delta H^0_{298} = -713$ kJ·mol^{-1} [2] $S^0_{298} = 87.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 88.28 + 38.91 \cdot 10^{-3} \cdot T - 1.8 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 455 K) [4]

$\lg(p,K) = -4.17 \cdot 10^3 \cdot T^{-1} + 0.79 \cdot \lg(T) + 7.06$ (298 ... 455 K) [4]

{Reaction: decomposition $CoCO_3(s) = CoO(s) + CO_2(g)$}

CCs_2O_3 (s) Cesium Carbonate **CCs_2O_3 (s)**

Cs_2CO_3 (s) Cs_2CO_3 (s)

mp = 1066 K (793 °C)

$\Delta H^0_{298} = -1136.4$ kJ·mol^{-1} [4] $S^0_{298} = 204$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 115.44 + 69.33 \cdot 10^{-3} \cdot T - 1.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1066 K) [4]

CCuN (s) Copper Cyanide **CCuN (s)**

CuCN (s) CuCN (s)

mp = 746 K (473 °C)

$\Delta H^0_{298} = 95 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 90 \pm 0.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 59.66 + 24.48 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 746 K) [4]

CF (g) Carbon(I) Fluoride **CF (g)**

$\Delta H^0_{298} = 255.2 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 213$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 30.66 + 6.53 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^6 \cdot T^{-2} - 1.49 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CFH (g) Fluoromethylene **CFH (g)**

CHF (g) CHF (g)

$\Delta H^0_{298} = 125.5 \pm 29$ kJ·mol^{-1} [1] $S^0_{298} = 223.4 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 34.6$ J·mol^{-1}·K^{-1} (298 K) [1]

CFHO (g) Formyl Fluoride **CFHO (g)**

HCOF (g) HCOF (g)

$\Delta H^0_{298} = -376.6$ kJ·mol^{-1} [1] $S^0_{298} = 246.5 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 40.41$ J·mol^{-1}·K^{-1} (298 K) [1]

CFH_3 (g) Fluoromethane **CFH_3 (g)**

CH_3F (g) CH_3F (g)

$\Delta H^0_{298} = -234.3 \pm 29$ kJ·mol^{-1} [1] $S^0_{298} = 222.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 37.5$ J·mol^{-1}·K^{-1} (298 K) [1]

CFN (g) Cyanogen Fluoride **CFN (g)**
FCN (g) FCN (g)

$\Delta H^0_{298} = 36 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 225.4 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 43.56 + 13.22 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [6]

CFO (g) Carbonyl Fluoride **CFO (g)**
COF (g) COF (g)

$\Delta H^0_{298} = -171.5 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 248.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 47.94 + 5.01 \cdot 10^{-3} \cdot T - 1.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CF_2 (g) Carbon(II) Fluoride **CF_2 (g)**

$\Delta H^0_{298} = -182 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 240.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 43.01 + 16.32 \cdot 10^{-3} \cdot T - 0.79 \cdot 10^6 \cdot T^{-2} - 4.67 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CF_2H_2 (g) Difluoromethane **CF_2H_2 (g)**
CH_2F_2 (g) CH_2F_2 (g)

$\Delta H^0_{298} = -450.7 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 246.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 42.86$ J·mol^{-1}·K^{-1} (298 K) [1]

CF_2O (g) Carbonyl Difluoride **CF_2O (g)**
COF_2 (g) COF_2 (g)

mp = 159 K (-114 °C) bp = 190 K (-83 °C)
$\Delta H^0_{298} = -623.8 \pm 4.2$ kJ·mol^{-1} [225] $S^0_{298} = 258.9 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 67.86 + 7.54 \cdot 10^{-3} \cdot T - 2.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CF_3 (g) Carbon(III) Fluoride **CF_3 (g)**

$\Delta H^0_{298} = -470.3 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 265.1 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 58.16 + 26.33 \cdot 10^{-3} \cdot T - 1.33 \cdot 10^6 \cdot T^{-2} - 7.45 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CF_3H (g) Trifluoromethane **CF_3H (g)**

CHF_3 (g) CHF_3 (g)

$\Delta H^0_{298} = -697.1 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 259.7 \pm 0.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 51.04$ J·mol^{-1}·K^{-1} (298 K) [1]

CF_3H_3Si (g) Trifluoromethylsilane **CF_3H_3Si (g)**

$SiCH_3F_3$ (g) $SiCH_3F_3$ (g)

$\Delta H^0_{298} = -1232.7$ kJ·mol^{-1} [1] $S^0_{298} = 314.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 90.88$ J·mol^{-1}·K^{-1} (298 K) [1]

CF_3I (g) Trifluoroiodomethane **CF_3I (g)**

CIF_3 (g) CIF_3 (g)

$\Delta H^0_{298} = -589.1 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 307.6 \pm 0.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 70.94$ J·mol^{-1}·K^{-1} (298 K) [1]

CF_4 (g) Tetrafluoromethane **CF_4 (g)**

mp = 90 K (-183 °C) bp = 145 K (-128 °C)

$\Delta H^0_{298} = -933.2 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 261.4 \pm 0.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 74.65 + 36.28 \cdot 10^{-3} \cdot T - 2.22 \cdot 10^{6} \cdot T^{-2} - 10.53 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CF_4O (g) Trifluoromethyl Hypofluorite **CF_4O (g)**

CF_3OF (g) CF_3OF (g)

$\Delta H^0_{298} = -764.8 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 322.5 \pm 2.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 79.35$ J·mol^{-1}·K^{-1} (298 K) [1]

CF_8S (g) Pentafluoro(Trifluoromethyl) Sulfur **CF_8S (g)**

CF_3SF_5 (g) CF_3SF_5 (g)

$\Delta H^0_{298} = -1717.1 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 380 \pm 2.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 139.22$ J·mol^{-1}·K^{-1} (298 K) [1]

$CFeO_3$ (s) Iron Carbonate **$CFeO_3$ (s)**

$FeCO_3$ (s) $FeCO_3$ (s)

$\Delta H^0_{298} = -740.5$ kJ·mol^{-1} [4] $S^0_{298} = 92.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 48.66 + 112.09 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 458 K) [4]

$\lg(p,K) = -4.33 \cdot 10^3 \cdot T^{-1} - 0.04 \cdot \lg(T) + 9.56$ (298 ... 458 K) [4]

{Reaction: decomposition $FeCO_3$(s) = FeO(s) + CO_2(g)}

CFe_3 (s) Iron Carbide **CFe_3 (s)**

Fe_3C (s) alpha Fe_3C (s)

$\Delta H^0_{298} = 25.1$ kJ·mol^{-1} [2] $S^0_{298} = 104.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 84.84 + 79.56 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 500 K) [4]

CFe_3 (s) Iron Carbide **CFe_3 (s)**

Fe_3C (s) alpha Fe_3C (s)

$\Delta H^0_{485} = 46.3$ kJ·mol^{-1} [2] $S^0_{485} = 159.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 121.5$ J·mol^{-1}·K^{-1} (485 K) [2]

CFe_3 (s) Iron Carbide **CFe_3 (s)**

Fe_3C (s) beta Fe_3C (s)

$\Delta H^0_{485} = 53.4$ kJ·mol^{-1} [2] $S^0_{485} = 174.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 113.3$ J·mol^{-1}·K^{-1} (485 K) [2]

CH (g) Methylidyne **CH (g)**

$\Delta H^0_{298} = 594.1 \pm 17.5$ kJ·mol^{-1} [1] $S^0_{298} = 183$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 29.17$ J·mol^{-1}·K^{-1} (298 K) [1]

$CHKO_3$ (s) Potassium Hydrogen Carbonate **$CHKO_3$ (s)**

$KHCO_3$ (s) $KHCO_3$ (s)

$\Delta H^0_{298} = -964.8$ kJ·mol^{-1} [4] $S^0_{298} = 115.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 47.7 + 143.1 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 423 K) [4]

CHN (g) Hydrogen Cyanide **CHN** (g)
HCN (g) HCN (g)

mp = 250 K (-23 °C) bp = 300 K (27 °C)
ΔH^0_{298} = 135.1 ± 8.4 kJ·mol^{-1} [1] S^0_{298} = 201.8 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 41.49 + 9.09 \cdot 10^{-3} \cdot T - 0.82 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CHNO (g) Hydrogen Isocyanate **CHNO** (g)
HNCO (g) HNCO (g)

ΔH^0_{298} = – 101.7 ± 8 kJ·mol^{-1} [1] S^0_{298} = 238.2 ± 0.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$ = 45.04 J·mol^{-1}·K^{-1} (298 K) [1]

$CHNaO_2$ (s) Sodium Formiate **$CHNaO_2$** (s)
$NaCHO_2$ (s) $NaCHO_2$ (s)

ΔH^0_{298} = – 666 kJ·mol^{-1} [7] S^0_{298} = 104 J·mol^{-1}·K^{-1} [7]
$C_p{}^0$ = 83 J·mol^{-1}·K^{-1} (298 K) [7]

$CHNaO_3$ (s) Sodium Hydrogen Carbonate **$CHNaO_3$** (s)
$NaHCO_3$ (s) $NaHCO_3$ (s)

ΔH^0_{298} = – 936.3 kJ·mol^{-1} [4] S^0_{298} = 101.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 45.31 + 143.1 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 543 K) [4]

CHO (g) Formyl **CHO** (g)
HCO (g) HCO (g)

ΔH^0_{298} = 43.5 ± 8 kJ·mol^{-1} [1] S^0_{298} = 224.6 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$ = 34.6 J·mol^{-1}·K^{-1} (298 K) [1]

CHP (g) Methinophosphide **CHP** (g)
HCP (g) HCP (g)

ΔH^0_{298} = 149.9 ± 63 kJ·mol^{-1} [1] S^0_{298} = 215.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$ = 37.17 J·mol^{-1}·K^{-1} (298 K) [1]

CH_2 (g) Methylene **CH_2 (g)**

ΔH^0_{298} = 386.4 ± 4.2 kJ·mol^{-1} [1] S^0_{298} = 193.9 ± 0.5 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 34.6 J·mol^{-1}·K^{-1} (298 K) [1]

CH_2O (g) Formaldehyde **CH_2O (g)**

mp = 181 K (-92 °C) bp = 254 K (-19 °C)
ΔH^0_{298} = – 115.9 ± 6.3 kJ·mol^{-1} [1] S^0_{298} = 219 ± 0.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 21.08 + 53.87 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^{6} \cdot T^{-2} - 13.41 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CH_2O_2 (l) Formic Acid **CH_2O_2 (l)**
HCOOH (l) HCOOH (l)

mp = 281 K (8 °C) bp = 373 K (100 °C)
ΔH^0_{298} = – 424.7 kJ·mol^{-1} [4] S^0_{298} = 129 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 99.16 J·mol^{-1}·K^{-1} (298 K) [4]
$\lg(p,K) = -2.66 \cdot 10^3 \cdot T^{-1} - 5.37 \cdot \lg(T) + 20.94$ (298 ... 373 K) [4]
{Reaction: evaporation}

CH_2O_2 (l) Formic Acid **CH_2O_2 (l)**
HCOOH (l) HCOOH (l)

ΔH^0_{373} = – 417.3 kJ·mol^{-1} [4] S^0_{373} = 151.2 J·mol^{-1}·K^{-1} [4]

CH_2O_2 (g) Formic Acid **CH_2O_2 (g)**
HCOOH (g) HCOOH (g)

ΔH^0_{373} = – 383 kJ·mol^{-1} [4] S^0_{373} = 243 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.24 + 69 \cdot 10^{-3} \cdot T - 0.67 \cdot 10^{6} \cdot T^{-2} - 20.56 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (373 ... 1500 K) [4]

CH_2O_2 (g) Formic Acid **CH_2O_2 (g)**
HCOOH (g) HCOOH (g)

ΔH^0_{298} = – 378.6 kJ·mol^{-1} [2] S^0_{298} = 248.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 45.2 J·mol^{-1}·K^{-1} (298 K) [2]

CH_3 (g) Methyl **CH_3 (g)**

ΔH^0_{298} = 145.7 ± 0.8 kJ·mol^{-1} [1]
S^0_{298} = 194.2 ± 1.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 38.69 J·mol^{-1}·K^{-1} (298 K) [1]

CH_4 (g) Methane **CH_4 (g)**

mp = 89 K (-184 °C)
bp = 109 K (-164 °C)
ΔH^0_{298} = – 74.9 ± 0.3 kJ·mol^{-1} [1]
S^0_{298} = 186.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 11.93 + 77.65 ·10^{-3}·T + 0.14 ·10^6·T^{-2} – 18.41 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CH_4O (l) Methanol **CH_4O (l)**
CH_3OH (l) CH_3OH (l)

mp = 179 K (-94 °C)
bp = 338 K (65 °C)
ΔH^0_{298} = – 239.5 kJ·mol^{-1} [4]
S^0_{298} = 126.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 81.59 J·mol^{-1}·K^{-1} (298 K) [4]
lg(p,K) = – 2.6 ·10^3·T^{-1} – 4.65 · lg(T) + 19.45 (298 ... 338 K) [4]
{Reaction: evaporation}

CH_4O (l) Methanol **CH_4O (l)**
CH_3OH (l) CH_3OH (l)

ΔH^0_{338} = – 236.2 kJ·mol^{-1} [4]
S^0_{338} = 136.8 J·mol^{-1}·K^{-1} [4]

CH_4O (g) Methanol **CH_4O (g)**
CH_3OH (g) CH_3OH (g)

ΔH^0_{338} = – 199.5 kJ·mol^{-1} [4]
S^0_{338} = 245.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 4.31 + 128.73 ·10^{-3}·T + 0.45 ·10^6·T^{-2} – 44.1 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (338 ... 800 K) [4]

CH_4O (g) Methanol **CH_4O (g)**
CH_3OH (g) CH_3OH (g)

ΔH^0_{298} = – 201.2 kJ·mol^{-1} [2]
S^0_{298} = 239.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 43.8 J·mol^{-1}·K^{-1} (298 K) [2]

$CH_6N_2O_2$ (s) Ammonium Carbamate **$CH_6N_2O_2$ (s)**
$NH_2CO_2NH_4$ (s) $NH_2CO_2NH_4$ (s)

$\Delta H^0_{298} = -645$ kJ·mol^{-1} [7] $S^0_{298} = 134$ J·mol^{-1}·K^{-1} [7]

CHf (s) Hafnium Carbide **CHf (s)**
HfC (s) HfC (s)

mp = 4103 K (3830 °C)
$\Delta H^0_{298} = -226$ kJ·mol^{-1} [4] $S^0_{298} = 39.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 42.33 + 12.13 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CIN (g) Cyanogen Iodide **CIN (g)**
CNI (g) CNI (g)

$\Delta H^0_{298} = 225.9 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 257.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 51.46 + 5.77 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

CI_4 (g) Carbon(IV) Iodide **CI_4 (g)**

mp = 444 K (171 °C) bp = 580 K (307 °C)
$\Delta H^0_{298} = 262.9$ kJ·mol^{-1} [4] $S^0_{298} = 266.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 106.07 + 1.39 \cdot 10^{-3} \cdot T - 0.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

CKN (s) Potassium Cyanide **CKN (s)**
KCN (s) KCN (s)

mp = 895 K (622 °C) bp = 1896 K (1623 °C)
$\Delta H^0_{298} = -113.5 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 127.8 \pm 1.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 66.28 + 0.42 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 895 K) [4]
$\lg(p,K) = -10.32 \cdot 10^3 \cdot T^{-1} - 1.24 \cdot \lg(T) + 10.04$ (700 ... 895 K) [4]
{Reaction: evaporation as KCN(g)}

CKN (s) Potassium Cyanide **CKN (s)**
KCN (s) KCN (s)

$\Delta H^0_{895} = -73.8$ kJ·mol^{-1} [4] $S^0_{895} = 200.9$ J·mol^{-1}·K^{-1} [4]

CKN (l) Potassium Cyanide **CKN (l)**
KCN (l) KCN (l)

$\Delta H^0_{895} = -59.1$ kJ·mol^{-1} [4] $S^0_{895} = 217.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 75.31$ J·mol^{-1}·K^{-1} (895 K) [4]
$\lg(p,K) = -9.82 \cdot 10^3 \cdot T^{-1} - 1.97 \cdot \lg(T) + 11.64$ (895 ... 1896 K) [4]
{Reaction: evaporation as KCN(g)}

CKN (l) Potassium Cyanide **CKN (l)**
KCN (l) KCN (l)

$\Delta H^0_{1896} = 16.3$ kJ·mol^{-1} [4] $S^0_{1896} = 273.8$ J·mol^{-1}·K^{-1} [4]

CKN (g) Potassium Cyanide **CKN (g)**
KCN (g) KCN (g)

$\Delta H^0_{1896} = 176.5$ kJ·mol^{-1} [4] $S^0_{1896} = 356.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 53.91 + 3.8 \cdot 10^{-3} \cdot T - 0.41 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1896 ... 2000 K) [4]

CKN (l) Potassium Cyanide **CKN (l)**
KCN (l) KCN (l)

$\Delta H^0_{298} = -104.1$ kJ·mol^{-1} [1] $S^0_{298} = 134.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 75.31$ J·mol^{-1}·K^{-1} (298 K) [1]

CKN (g) Potassium Cyanide **CKN (g)**
KCN (g) KCN (g)

$\Delta H^0_{298} = 81.9$ kJ·mol^{-1} [4] $S^0_{298} = 253.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 53.91 + 3.8 \cdot 10^{-3} \cdot T - 0.41 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CKNS (s) Potassium Thiocyanate **CKNS (s)**
KSCN (s) KSCN (s)

mp = 446 K (173 °C)
$\Delta H^0_{298} = -200$ kJ·mol^{-1} [7] $S^0_{298} = 124$ J·mol^{-1}·K^{-1} [7]
$C_p^0 = 89$ J·mol^{-1}·K^{-1} (298 K) [7]

CK_2O_3 (s) Potassium Carbonate **CK_2O_3 (s)**
K_2CO_3 (s) K_2CO_3 (s)

mp = 1173 K (900 °C)
$\Delta H^0_{298} = -1151$ kJ·mol^{-1} [4] $S^0_{298} = 155.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 97.95 + 92.09 \cdot 10^{-3} \cdot T - 0.99 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1173 K) [4]

CK_2O_3 (s) Potassium Carbonate **CK_2O_3 (s)**
K_2CO_3 (s) K_2CO_3 (s)

$\Delta H^0_{1173} = -1008.5$ kJ·mol^{-1} [4] $S^0_{1173} = 365.1$ J·mol^{-1}·K^{-1} [4]

CK_2O_3 (l) Potassium Carbonate **CK_2O_3 (l)**
K_2CO_3 (l) K_2CO_3 (l)

$\Delta H^0_{1173} = -980.7$ kJ·mol^{-1} [4] $S^0_{1173} = 388.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 209.2$ J·mol^{-1}·K^{-1} (1173 K) [4]
$\lg(p,K) = -21.96 \cdot 10^3 \cdot T^{-1} - 3.37 \cdot \lg(T) + 19.38$ (1300 ... 2000 K) [4]
{Reaction: decomposition $K_2CO_3(s) = K_2O(s) + CO_2(g)$}

CK_2O_3 (l) Potassium Carbonate **CK_2O_3 (l)**
K_2CO_3 (l) K_2CO_3 (l)

$\Delta H^0_{298} = -1130.6$ kJ·mol^{-1} [1] $S^0_{298} = 170.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 209.2$ J·mol^{-1}·K^{-1} (1173 K) [4]

CLi_2O_3 (s) Lithium Carbonate **CLi_2O_3 (s)**
Li_2CO_3 (s) alpha Li_2CO_3 (s)

mp = 993 K (720 °C)
$\Delta H^0_{298} = -1215.4$ kJ·mol^{-1} [4] $S^0_{298} = 90.2 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 56.82 + 138.07 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 623 K) [4]

CLi_2O_3 (s) Lithium Carbonate **CLi_2O_3 (s)**
Li_2CO_3 (s) alpha Li_2CO_3 (s)

$\Delta H^0_{623} = -1176.3$ kJ·mol^{-1} [4] $S^0_{623} = 176.9$ J·mol^{-1}·K^{-1} [4]

CLi_2O_3 (s) Lithium Carbonate **CLi_2O_3 (s)**

Li_2CO_3 (s) beta Li_2CO_3 (s)

$\Delta H^0_{623} = -1175.8$ kJ·mol^{-1} [4] $S^0_{623} = 177.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 132.38$ J·mol^{-1}·K^{-1} (623 K) [4]

CLi_2O_3 (s) Lithium Carbonate **CLi_2O_3 (s)**

Li_2CO_3 (s) beta Li_2CO_3 (s)

$\Delta H^0_{683} = -1167.8$ kJ·mol^{-1} [4] $S^0_{683} = 190$ J·mol^{-1}·K^{-1} [4]

CLi_2O_3 (s) Lithium Carbonate **CLi_2O_3 (s)**

Li_2CO_3 (s) gamma Li_2CO_3 (s)

$\Delta H^0_{683} = -1165.3$ kJ·mol^{-1} [4] $S^0_{683} = 193.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 14.35 + 180.75 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (683 ... 993 K) [4]

$\lg(p,K) = -12.62 \cdot 10^3 \cdot T^{-1} - 3.87 \cdot \lg(T) + 20.65$ (683 ... 993 K) [4]

{Reaction: decomposition $Li_2CO_3(s) = Li_2O(s) + CO_2(g)$}

CLi_2O_3 (s) Lithium Carbonate **CLi_2O_3 (s)**

Li_2CO_3 (s) gamma Li_2CO_3 (s)

$\Delta H^0_{993} = -1113.9$ kJ·mol^{-1} [4] $S^0_{993} = 255$ J·mol^{-1}·K^{-1} [4]

CLi_2O_3 (l) Lithium Carbonate **CLi_2O_3 (l)**

Li_2CO_3 (l) Li_2CO_3 (l)

$\Delta H^0_{993} = -1069.2$ kJ·mol^{-1} [4] $S^0_{993} = 300.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 185.44$ J·mol^{-1}·K^{-1} (993 K) [4]

CLi_2O_3 (l) Lithium Carbonate **CLi_2O_3 (l)**

Li_2CO_3 (l) Li_2CO_3 (l)

$\Delta H^0_{298} = -1175.1$ kJ·mol^{-1} [1] $S^0_{298} = 130.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 96.23$ J·mol^{-1}·K^{-1} (298 K) [1]

$CMgO_3$ (s) Magnesium Carbonate **$CMgO_3$ (s)**
$MgCO_3$ (s) $MgCO_3$ (s)

$\Delta H^0_{298} = -1095.8$ kJ·mol^{-1} [4] $S^0_{298} = 65.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 77.91 + 57.74 \cdot 10^{-3} \cdot T - 1.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 812 K) [4]
$\lg(p,K) = -5.66 \cdot 10^3 \cdot T^{-1} - 1.18 \cdot \lg(T) + 12.81$ (300 ... 593 K) [4]
{Reaction: decomposition $MgCO_3(s) = MgO(s) + CO_2(g)$}

$CMnO_3$ (s) Manganese Carbonate **$CMnO_3$ (s)**
$MnCO_3$ (s) $MnCO_3$ (s)

$\Delta H^0_{298} = -881.5$ kJ·mol^{-1} [4] $S^0_{298} = 105.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 79.83 + 50.21 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 656 K) [4]
$\lg(p,K) = -5.67 \cdot 10^3 \cdot T^{-1} - 1.2 \cdot \lg(T) + 12.02$ (400 ... 656 K) [4]
{Reaction: decomposition $MnCO_3(s) = MnO(s) + CO_2(g)$}

CMn_3 (s) Manganese Carbide **CMn_3 (s)**
Mn_3C (s) alpha Mn_3C (s)

mp = 1793 K (1520 °C)
$\Delta H^0_{298} = -15.1$ kJ·mol^{-1} [4] $S^0_{298} = 98.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 105.69 + 23.43 \cdot 10^{-3} \cdot T - 1.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1310 K) [4]

CMn_3 (s) Manganese Carbide **CMn_3 (s)**
Mn_3C (s) alpha Mn_3C (s)

$\Delta H^0_{1310} = 106.5$ kJ·mol^{-1} [4] $S^0_{1310} = 269.8$ J·mol^{-1}·K^{-1} [4]

CMn_3 (s) Manganese Carbide **CMn_3 (s)**
Mn_3C (s) beta Mn_3C (s)

$\Delta H^0_{1310} = 121.5$ kJ·mol^{-1} [4] $S^0_{1310} = 281.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 158.99$ J·mol^{-1}·K^{-1} (1310 K) [4]

CMo (s) Molybdenum Carbide **CMo** (s)
MoC (s) MoC (s)

$\Delta H^0_{298} = -28.5$ kJ·mol^{-1} [2] $S^0_{298} = 36.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 30.13 + 23.61 \cdot 10^{-3} \cdot T - 0.54 \cdot 10^6 \cdot T^{-2} - 5.82 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1437 K) [4]

CMo_2 (s) Molybdenum Carbide **CMo_2** (s)
Mo_2C (s) alpha Mo_2C (s)

mp = 2795 K (2522 °C)
$\Delta H^0_{298} = -49.5$ kJ·mol^{-1} [4] $S^0_{298} = 65.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 64.35 + 23.61 \cdot 10^{-3} \cdot T - 0.95 \cdot 10^6 \cdot T^{-2} - 4.49 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

CMo_2 (s) Molybdenum Carbide **CMo_2** (s)
Mo_2C (s) alpha Mo_2C (s)

$\Delta H^0_{1500} = 45.8$ kJ·mol^{-1} [4] $S^0_{1500} = 188.1$ J·mol^{-1}·K^{-1} [4]

CMo_2 (s) Molybdenum Carbide **CMo_2** (s)
Mo_2C (s) beta Mo_2C (s)

$\Delta H^0_{1500} = 67.7$ kJ·mol^{-1} [4] $S^0_{1500} = 202.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 79.48 + 8.36 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1500 ... 2000 K) [4]

CN (g) Cyanogen **CN** (g)

$\Delta H^0_{298} = 435.1 \pm 10$ kJ·mol^{-1} [1] $S^0_{298} = 202.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 29.1 + 4.4 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CNNa (s) Sodium Cyanide **CNNa** (s)
NaCN (s) NaCN (s)

mp = 835 K (562 °C) bp = 1779 K (1506 °C)
$\Delta H^0_{298} = -90.7 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 115.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 68.58 + 0.93 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 835 K) [4]

CNNa (s) Sodium Cyanide **CNNa (s)**
NaCN (s) NaCN (s)

$\Delta H^0_{835} = -53.7$ kJ·mol^{-1} [4] $S^0_{835} = 186.8$ J·mol^{-1}·K^{-1} [4]

CNNa (l) Sodium Cyanide **CNNa (l)**
NaCN (l) NaCN (l)

$\Delta H^0_{835} = -44.9$ kJ·mol^{-1} [4] $S^0_{835} = 197.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 79.5$ J·mol^{-1}·K^{-1} (835 K) [4]

CNNa (l) Sodium Cyanide **CNNa (l)**
NaCN (l) NaCN (l)

$\Delta H^0_{298} = -84.4$ kJ·mol^{-1} [1] $S^0_{298} = 125.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 68.68$ J·mol^{-1}·K^{-1} (298 K) [1]

CNNa (g) Sodium Cyanide **CNNa (g)**
NaCN (g) NaCN (g)

$\Delta H^0_{298} = 99.2$ kJ·mol^{-1} [4] $S^0_{298} = 243.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 54 + 3.75 \cdot 10^{-3} \cdot T - 0.5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -9.95 \cdot 10^3 \cdot T^{-1} - 2.53 \cdot \lg(T) + 13.76$ (835 ... 1779 K) [4]
{Reaction: evaporation of NaCN(l)}

CNNaO (s) Sodium Cyanate **CNNaO (s)**
NaCNO (s) NaCNO (s)

$\Delta H^0_{298} = -405$ kJ·mol^{-1} [7] $S^0_{298} = 97$ J·mol^{-1}·K^{-1} [7]
$C_p^0 = 87$ J·mol^{-1}·K^{-1} (298 K) [7]

CNO (g) NCO-Radical **CNO (g)**
NCO (g) NCO (g)

$\Delta H^0_{298} = 159.4 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 232.2 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 40.05$ J·mol^{-1}·K^{-1} (298 K) [1]

CN_2 (g) CNN-Radical **CN_2 (g)**
CNN (g) CNN (g)

ΔH^0_{298} = 585 ± 126 kJ·mol^{-1} [1] S^0_{298} = 231.7 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 42.28 J·mol^{-1}·K^{-1} (298 K) [1]

CN_2 (g) NCN-Radical **CN_2 (g)**
NCN (g) NCN (g)

ΔH^0_{298} = 472.8 ± 21 kJ·mol^{-1} [1] S^0_{298} = 226.2 ± 0.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 42.19 J·mol^{-1}·K^{-1} (298 K) [1]

CNa_2O_3 (s) Sodium Carbonate **CNa_2O_3 (s)**
Na_2CO_3 (s) alpha Na_2CO_3 (s)

mp = 1123 K (850 °C)
ΔH^0_{298} = – 1130.8 kJ·mol^{-1} [1] S^0_{298} = 138.8 ± 0.8 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 11 + 244.05 ·10^{-3}·T + 2.45 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 723 K) [4]

CNa_2O_3 (s) Sodium Carbonate **CNa_2O_3 (s)**
Na_2CO_3 (s) alpha Na_2CO_3 (s)

ΔH^0_{723} = – 1068.3 kJ·mol^{-1} [4] S^0_{723} = 263.6 J·mol^{-1}·K^{-1} [4]

CNa_2O_3 (s) Sodium Carbonate **CNa_2O_3 (s)**
Na_2CO_3 (s) beta Na_2CO_3 (s)

ΔH^0_{723} = – 1067.6 kJ·mol^{-1} [4] S^0_{723} = 264.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 50.08 + 129.08 ·10^{-3}·T J·mol^{-1}·K^{-1} (723 ... 1123 K) [4]

CNa_2O_3 (s) Sodium Carbonate **CNa_2O_3 (s)**
Na_2CO_3 (s) beta Na_2CO_3 (s)

ΔH^0_{1123} = – 999.9 kJ·mol^{-1} [4] S^0_{1123} = 338.3 J·mol^{-1}·K^{-1} [4]

CNa_2O_3 (l) Sodium Carbonate **CNa_2O_3 (l)**
Na_2CO_3 (l) Na_2CO_3 (l)

$\Delta H^0_{1123} = -970.3$ kJ·mol^{-1} [4] $S^0_{1123} = 364.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 189.54$ J·mol^{-1}·K^{-1} (1123 K) [4]

CNa_2O_3 (l) Sodium Carbonate **CNa_2O_3 (l)**
Na_2CO_3 (l) Na_2CO_3 (l)

$\Delta H^0_{298} = -1108.5$ kJ·mol^{-1} [1] $S^0_{298} = 156.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 111$ J·mol^{-1}·K^{-1} (298 K) [1]

CNb (s) Niobium Carbide **CNb (s)**
NbC (s) NbC (s)

mp = 3881 K (3608 °C)
$\Delta H^0_{298} = -138.9$ kJ·mol^{-1} [2] $S^0_{298} = 35.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 45.15 + 7.22 \cdot 10^{-3} \cdot T - 0.9 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CNb_2 (s) Niobium Carbide **CNb_2 (s)**
Nb_2C (s) Nb_2C (s)

$\Delta H^0_{298} = -185.8$ kJ·mol^{-1} [4] $S^0_{298} = 64$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 66.44 + 12.55 \cdot 10^{-3} \cdot T - 0.86 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CNiO_3$ (s) Nickel Carbonate **$CNiO_3$ (s)**
$NiCO_3$ (s) $NiCO_3$ (s)

$\Delta H^0_{298} = -696.3$ kJ·mol^{-1} [4] $S^0_{298} = 86.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 88.7 + 38.91 \cdot 10^{-3} \cdot T - 1.23 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 381 K) [4]
$\lg(p,K) = -3.35 \cdot 10^{3} \cdot T^{-1} - 0.47 \cdot \lg(T) + 10.01$ (298 ... 381 K) [4]
{Reaction: decomposition $NiCO_3(s) = NiO(s) + CO_2(g)$}

CNi_3 (s) Nickel Carbide **CNi_3 (s)**
Ni_3C (s) Ni_3C (s)

$\Delta H^0_{298} = 67.4$ kJ·mol^{-1} [2] $S^0_{298} = 106.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 106.7$ J·mol^{-1}·K^{-1} (298 K) [2]

CO (g) Carbon(II) Oxide **CO (g)**

mp = 68 K (-205 °C) bp = 81 K (-192 °C)

$\Delta H^0_{298} = -\ 110.5 \pm 0.2$ kJ·mol^{-1} [1] $S^0_{298} = 197.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 30.96 + 2.44 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

$\lg(p,K) = -4.43 \cdot 10^3 \cdot T^{-1} + 0.1 \cdot \lg(T) + 4.25$ (400 ... 3000 K) [4]

{Reaction: Boudouard equilibrium 1/2C(s) + 1/2CO_2(g) = CO(g)}

COS (g) Carbon Oxide Sulfide **COS (g)**

mp = 135 K (-138 °C) bp = 223 K (-50 °C)

$\Delta H^0_{298} = -\ 138.4 \pm 1.1$ kJ·mol^{-1} [1] $S^0_{298} = 231.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 52.08 + 5.49 \cdot 10^{-3} \cdot T - 1.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CO_2 (g) Carbon(IV) Oxide **CO_2 (g)**

mp = 216 K (-57 °C) bp = 195 K (-78 °C)

$\Delta H^0_{298} = -\ 393.5 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 213.8 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 51.13 + 4.37 \cdot 10^{-3} \cdot T - 1.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

CO_3Pb (s) Lead Carbonate **CO_3Pb (s)**

$PbCO_3$ (s) $PbCO_3$ (s)

$\Delta H^0_{298} = -\ 699.1$ kJ·mol^{-1} [2] $S^0_{298} = 131$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 51.84 + 119.66 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 581 K) [4]

$\lg(p,K) = -4.61 \cdot 10^3 \cdot T^{-1} - 1.41 \cdot \lg(T) + 11.82$ (298 ... 581 K) [4]

{Reaction: decomposition $PbCO_3$(s) = PbO(s) + CO_2(g)}

CO_3Rb_2 (s) Rubidium Carbonate **CO_3Rb_2 (s)**

Rb_2CO_3 (s) Rb_2CO_3 (s)

mp = 1146 K (873 °C)

$\Delta H^0_{298} = -\ 1133$ kJ·mol^{-1} [4] $S^0_{298} = 181.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 105.86 + 80.75 \cdot 10^{-3} \cdot T - 1.09 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1146 K) [4]

CO_3Sr (s) Strontium Carbonate **CO_3Sr (s)**

$SrCO_3$ (s) alpha $SrCO_3$ (s)

mp = 1173 K (900 °C)

$\Delta H^0_{298} = -1235.1$ kJ·mol^{-1} [4] $S^0_{298} = 97.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 88.78 + 35.9 \cdot 10^{-3} \cdot T - 1.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1197 K) [4]

$\lg(p,K) = -13.45 \cdot 10^3 \cdot T^{-1} - 1.42 \cdot \lg(T) + 13.61$ (800 ... 1197 K) [4]

{Reaction: decomposition $SrCO_3(s) = SrO(s) + CO_2(g)$}

CO_3Sr (s) Strontium Carbonate **CO_3Sr (s)**

$SrCO_3$ (s) alpha $SrCO_3$ (s)

$\Delta H^0_{1197} = -1135.1$ kJ·mol^{-1} [4] $S^0_{1197} = 244.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 130.67$ J·mol^{-1}·K^{-1} (1197 K) [4]

CO_3Sr (s) Strontium Carbonate **CO_3Sr (s)**

$SrCO_3$ (s) beta $SrCO_3$ (s)

$\Delta H^0_{1157} = -1115.4$ kJ·mol^{-1} [4] $S^0_{1197} = 261$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 142.26$ J·mol^{-1}·K^{-1} (1197 K) [4]

$\lg(p,K) = -13.37 \cdot 10^3 \cdot T^{-1} - 3.3 \cdot \lg(T) + 19.33$ (1197 ... 1513 K) [4]

{Reaction: decomposition $SrCO_3(s) = SrO(s) + CO_2(g)$}

CO_3Zn (s) Zinc Carbonate **CO_3Zn (s)**

$ZnCO_3$ (s) $ZnCO_3$ (s)

$\Delta H^0_{298} = -817.9$ kJ·mol^{-1} [4] $S^0_{298} = 82.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 38.91 + 138.07 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 422 K) [4]

$\lg(p,K) = -3.94 \cdot 10^3 \cdot T^{-1} - 0.62 \cdot \lg(T) + 10.96$ (298 ... 422 K) [4]

{Reaction: decomposition $ZnCO_3(s) = ZnO(s) + CO_2(g)$}

CO_4Pb_2 (s) Lead Carbonate Oxide **CO_4Pb_2 (s)**

$PbO \cdot PbCO_3$ (s) $PbO \cdot PbCO_3$ (s)

$\Delta H^0_{298} = -921.6$ kJ·mol^{-1} [4] $S^0_{298} = 193.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 104.22 + 128.32 \cdot 10^{-3} \cdot T - 0.82 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 588 K) [4]

CO_5U (s) Uranyl Carbonate **CO_5U (s)**
UO_2CO_3 (s) UO_2CO_3 (s)

$\Delta H^0_{298} = -1691.2$ kJ·mol^{-1} [4] $S^0_{298} = 138.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 110.75 + 54.18 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 409 K) [4]

CP (g) Carbon Phosphide **CP (g)**

$\Delta H^0_{298} = 449.9 \pm 9$ kJ·mol^{-1} [1] $S^0_{298} = 216.3 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 31.3 + 4.27 \cdot 10^{-3} \cdot T - 0.24 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

CS (g) Carbon(II) Sulfide **CS (g)**

$\Delta H^0_{298} = 280.3 \pm 25$ kJ·mol^{-1} [1] $S^0_{298} = 210.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 29.38 + 8.65 \cdot 10^{-3} \cdot T - 0.19 \cdot 10^{6} \cdot T^{-2} - 2.39 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CS_2 (l) Carbon(IV) Sulfide **CS_2 (l)**

mp = 161 K (-112 °C) bp = 319 K (46 °C)
$\Delta H^0_{298} = 89.1$ kJ·mol^{-1} [4] $S^0_{298} = 151$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 76.99$ J·mol^{-1}·K^{-1} (298 K) [4]
$\lg(p,K) = -1.99 \cdot 10^{3} \cdot T^{-1} - 4.07 \cdot \lg(T) + 16.42$ (298 ... 319 K) [4]
{Reaction: evaporation}

CS_2 (l) Carbon(IV) Sulfide **CS_2 (l)**

$\Delta H^0_{319} = 90.7$ kJ·mol^{-1} [4] $S^0_{319} = 156.2$ J·mol^{-1}·K^{-1} [4]

CS_2 (g) Carbon(IV) Sulfide **CS_2 (g)**

$\Delta H^0_{319} = 117.9$ kJ·mol^{-1} [4] $S^0_{319} = 241.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 49.58 + 13.68 \cdot 10^{-3} \cdot T - 0.7 \cdot 10^{6} \cdot T^{-2} - 3.77 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (319 ... 2000 K) [4]

CS_2 (g) Carbon(IV) Sulfide **CS_2 (g)**

$\Delta H^0_{298} = 116.9 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 238 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 52.09 + 6.69 \cdot 10^{-3} \cdot T - 0.75 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1800 K) [3]

CSe (g) Carbon(II) Selenide **CSe (g)**

ΔH^0_{298} = 366.9 kJ·mol^{-1} [5] S^0_{298} = 222.6 J·mol^{-1}·K^{-1} [5]

$C_p^0 = 29.66 + 4.35 \cdot 10^{-3} \cdot T - 0.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

CSe_2 (l) Carbon(IV) Selenide **CSe_2 (l)**

ΔH^0_{298} = 220.9 kJ·mol^{-1} [5] S^0_{298} = 169.5 J·mol^{-1}·K^{-1} [5]

$C_p^0 = 68.7 + 66.53 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (230 ... 328 K) [5]

CSe_2 (g) Carbon(IV) Selenide **CSe_2 (g)**

ΔH^0_{298} = 258.2 kJ·mol^{-1} [5] S^0_{298} = 263.2 J·mol^{-1}·K^{-1} [5]

$C_p^0 = 56.99 + 2.93 \cdot 10^{-3} \cdot T - 6.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

CSi (s) Silicon Carbide **CSi (s)**
SiC (s) alpha SiC (s)

ΔH^0_{298} = – 71.5 ± 6.3 kJ·mol^{-1} [1] S^0_{298} = 16.5 ± 0.1 J·mol^{-1}·K^{-1} [1]

C_p^0 = 26.76 J·mol^{-1}·K^{-1} (298 K) [1]

CSi (s) Silicon Carbide **CSi (s)**
SiC (s) beta SiC (s)

ΔH^0_{298} = – 73.2 ± 6.3 kJ·mol^{-1} [1] S^0_{298} = 16.6 ± 0.1 J·mol^{-1}·K^{-1} [1]

C_p^0 = 26.84 J·mol^{-1}·K^{-1} (298 K) [1]

CSi (g) Silicon Carbide **CSi (g)**
SiC (g) SiC (g)

ΔH^0_{298} = 719.6 ± 33 kJ·mol^{-1} [1] S^0_{298} = 213 J·mol^{-1}·K^{-1} [1]

$C_p^0 = 34.83 + 1.17 \cdot 10^{-3} \cdot T - 0.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2818 K) [4]

CSi_2 (g) Silicon Carbide **CSi_2 (g)**
Si_2C (g) Si_2C (g)

ΔH^0_{298} = 535.6 ± 25 kJ·mol^{-1} [1] S^0_{298} = 242.3 J·mol^{-1}·K^{-1} [1]

$C_p^0 = 55.19 + 3.72 \cdot 10^{-3} \cdot T - 2.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2818 K) [4]

CTa (s) Tantalum Carbide **CTa** (s)
TaC (s) TaC (s)

mp = 4100 K (3827 °C)
$\Delta H^0_{298} = -144.1 \pm 3.8$ kJ·mol^{-1} [1] $S^0_{298} = 42.4 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 43.3 + 8.16 \cdot 10^{-3} \cdot T - 0.8 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CTa (l) Tantalum Carbide **CTa** (l)
TaC (l) TaC (l)

$\Delta H^0_{298} = -34$ kJ·mol^{-1} [1] $S^0_{298} = 68.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 36.79$ J·mol^{-1}·K^{-1} (298 K) [1]

CTa$_2$ (s) Tantalum Carbide **CTa$_2$** (s)
Ta_2C (s) Ta_2C (s)

mp = 3600 K (3327 °C)
$\Delta H^0_{298} = -208.4$ kJ·mol^{-1} [4] $S^0_{298} = 81.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 66.44 + 13.93 \cdot 10^{-3} \cdot T - 0.86 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CTe (g) Carbon(IV) Telluride **CTe** (g)

$\Delta H^0_{298} = [464.4]$ kJ·mol^{-1} [5] $S^0_{298} = [230.1]$ J·mol^{-1}·K^{-1} [5]

CTh (s) Thorium Carbide **CTh** (s)
ThC (s) ThC (s)

mp = 2773 K (2500 °C)
$\Delta H^0_{298} = -126.4$ kJ·mol^{-1} [4] $S^0_{298} = 58$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 42.89 + 7.36 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2200 K) [4]

CTi (s) Titanium Carbide **CTi** (s)
TiC (s) TiC (s)

mp = 3340 K (3067 °C)
$\Delta H^0_{298} = -184.1 \pm 4$ kJ·mol^{-1} [1] $S^0_{298} = 24.2 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 46.88 + 5.9 \cdot 10^{-3} \cdot T - 1.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CTi (l) Titanium Carbide **CTi (l)**
TiC (l) TiC (l)

$\Delta H^0_{298} = -108.3$ kJ·mol^{-1} [1] $S^0_{298} = 47.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 33.81$ J·mol^{-1}·K^{-1} (298 K) [1]

CU (s) Uranium Carbide **CU (s)**
UC (s) UC (s)

mp = 2803 K (2530 °C)
$\Delta H^0_{298} = -98.3$ kJ·mol^{-1} [4] $S^0_{298} = 59.2$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 55.28 + 7.39 \cdot 10^{-3} \cdot T - 0.65 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CV_2 (s) Vanadium Carbide **CV_2 (s)**
V_2C (s) V_2C (s)

$\Delta H^0_{298} = -117.2$ kJ·mol^{-1} [2] $S^0_{298} = 51.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 55.9$ J·mol^{-1}·K^{-1} (298 K) [2]

CW (s) Tungsten Carbide **CW (s)**
WC (s) WC (s)

$\Delta H^0_{298} = -40.6$ kJ·mol^{-1} [4] $S^0_{298} = 34.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 43.38 + 8.64 \cdot 10^{-3} \cdot T - 0.93 \cdot 10^6 \cdot T^{-2} - 1.02 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

CW_2 (s) Tungsten Carbide **CW_2 (s)**
W_2C (s) W_2C (s)

mp = 3058 K (2785 °C)
$\Delta H^0_{298} = -26.4$ kJ·mol^{-1} [2] $S^0_{298} = 81.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 89.75 + 10.88 \cdot 10^{-3} \cdot T - 1.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

CZr (s) Zirconium Carbide **CZr (s)**
ZrC (s) ZrC (s)

mp = 3690 K (3417 °C)
$\Delta H^0_{298} = -207.1$ kJ·mol^{-1} [4] $S^0_{298} = 33.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.66 + 10.46 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CZr (l) | Zirconium Carbide | **CZr (l)**
ZrC (l) | | ZrC (l)

$\Delta H^0_{298} = -118.9$ kJ·mol^{-1} [1] | $S^0_{298} = 53.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.9$ J·mol^{-1}·K^{-1} (298 K) [1]

$C_{1.94}U$ (s) | Uranium Carbide | **$C_{1.94}U$ (s)**
$UC_{1.94}$ (s) | | $UC_{1.94}$ (s)

mp = 2858 K (2585 °C)
$\Delta H^0_{298} = -87$ kJ·mol^{-1} [2] | $S^0_{298} = 71$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 60.8$ J·mol^{-1}·K^{-1} (298 K) [2]

C_2 (g) | Carbon | **C_2 (g)**

$\Delta H^0_{298} = 837.7 \pm 3.8$ kJ·mol^{-1} [1] | $S^0_{298} = 199.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 32.88 + 2.6 \cdot 10^{-3} \cdot T + 0.86 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 4055 K) [4]
$\lg(p,K) = -44.29 \cdot 10^{3} \cdot T^{-1} - 1.12 \cdot \lg(T) + 14.07$ (2300 ... 4055 K) [4]
{Reaction: evaporation of C(s)}

C_2Ca (s) | Calcium Carbide | **C_2Ca (s)**
CaC_2 (s) | alpha | CaC_2 (s)

mp = 2573 K (2300 °C)
$\Delta H^0_{298} = -59.4$ kJ·mol^{-1} [4] | $S^0_{298} = 70.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 68.62 + 11.88 \cdot 10^{-3} \cdot T - 0.87 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 720 K) [4]

C_2Ca (s) | Calcium Carbide | **C_2Ca (s)**
CaC_2 (s) | alpha | CaC_2 (s)

$\Delta H^0_{720} = -29.6$ kJ·mol^{-1} [4] | $S^0_{720} = 131.8$ J·mol^{-1}·K^{-1} [4]

C_2Ca (s) | Calcium Carbide | **C_2Ca (s)**
CaC_2 (s) | beta | CaC_2 (s)

$\Delta H^0_{720} = -24.1$ kJ·mol^{-1} [4] | $S^0_{720} = 139.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 64.43 + 8.37 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (720 ... 2573 K) [4]

C_2CaMgO_6 (s) Calcium Magnesium Carbonate **C_2CaMgO_6 (s)**

$CaCO_3 \cdot MgCO_3$ (s) Dolomite $CaCO_3 \cdot MgCO_3$ (s)

$\Delta H^0_{298} = -2326.3$ kJ·mol^{-1} [2] $S^0_{298} = 155.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 155.23 + 80.33 \cdot 10^{-3} \cdot T - 2.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 703 K) [4]

C_2Ce (s) Cerium Dicarbide **C_2Ce (s)**

CeC_2 (s) CeC_2 (s)

mp = 2693 K (2420 °C)

$\Delta H^0_{298} = -97.1$ kJ·mol^{-1} [4] $S^0_{298} = 90$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 68.62 + 9.2 \cdot 10^{-3} \cdot T - 0.92 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

C_2ClH (g) Chloroethyne **C_2ClH (g)**

C_2HCl (g) C_2HCl (g)

$\Delta H^0_{298} = 213.8 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 242$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 54.3$ J·mol^{-1}·K^{-1} (298 K) [1]

C_2ClH_3 (g) Chloroethene **C_2ClH_3 (g)**

C_2H_3Cl (g) C_2H_3Cl (g)

$\Delta H^0_{298} = 35.1$ kJ·mol^{-1} [2] $S^0_{298} = 264$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 53.7$ J·mol^{-1}·K^{-1} (298 K) [2]

C_2ClH_5 (g) Chloroethane **C_2ClH_5 (g)**

C_2H_5Cl (g) C_2H_5Cl (g)

$\Delta H^0_{298} = -111.7$ kJ·mol^{-1} [2] $S^0_{298} = 276$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 62.2$ J·mol^{-1}·K^{-1} (298 K) [2]

C_2Cl_2 (g) Dichloroethyne **C_2Cl_2 (g)**

$\Delta H^0_{298} = 209.6 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 272 \pm 13$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 65.57$ J·mol^{-1}·K^{-1} (298 K) [1]

C_2Cl_4 (g) Tetrachloroethene **C_2Cl_4 (g)**

bp = 394 K (121 °C)

$\Delta H^0_{298} = -12.4 \pm 2.9$ kJ·mol^{-1} [1] $S^0_{298} = 343.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 123.24 + 4.45 \cdot 10^{-3} \cdot T - 2.73 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

C_2Cl_6 (g) Tetrachloroethane **C_2Cl_6 (g)**

bp = 457 K (184 °C)

$\Delta H^0_{298} = -134.2 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 397.9$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 171.72 + 7.83 \cdot 10^{-3} \cdot T - 3.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

C_2Cr_3 (s) Chromium Carbide **C_2Cr_3 (s)**

Cr_3C_2 (s) Cr_3C_2 (s)

mp = 2188 K (1915 °C)

$\Delta H^0_{298} = -85.4 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 85.4 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 123.26 + 25.9 \cdot 10^{-3} \cdot T - 2.82 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2168 K) [4]

C_2FH (g) Fluoroethyne **C_2FH (g)**

C_2HF (g) C_2HF (g)

$\Delta H^0_{298} = 125.5 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 231.6$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 52.32$ J·mol^{-1}·K^{-1} (298 K) [1]

C_2F_2 (g) Difluoroethyne **C_2F_2 (g)**

$\Delta H^0_{298} = 20.9 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 244.1 \pm 63$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 56.94$ J·mol^{-1}·K^{-1} (298 K) [1]

C_2F_3N (g) Trifluoroacetonitrile **C_2F_3N (g)**

CF_3CN (g) CF_3CN (g)

$\Delta H^0_{298} = -495.4 \pm 2.9$ kJ·mol^{-1} [1] $S^0_{298} = 298.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 78.26$ J·mol^{-1}·K^{-1} (298 K) [1]

C_2F_4 (g) Tetrafluoroethene **C_2F_4 (g)**

$\Delta H^0_{298} = -658.6 \pm 2.9$ kJ·mol^{-1} [1]
$S^0_{298} = 300 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 80.46$ J·mol^{-1}·K^{-1} (298 K) [1]

C_2F_6 (g) Hexafluoroethane **C_2F_6 (g)**

mp = 173 K (-100 °C)
bp = 195 K (-78 °C)
$\Delta H^0_{298} = -1343.9 \pm 5$ kJ·mol^{-1} [1]
$S^0_{298} = 332.2 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 136.24 + 46.82 \cdot 10^{-3} \cdot T - 3.87 \cdot 10^{6} \cdot T^{-2} - 13.65 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

C_2H (g) Ethynyl **C_2H (g)**

$\Delta H^0_{298} = 477 \pm 29$ kJ·mol^{-1} [1]
$S^0_{298} = 207.4 \pm 5.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 37.1$ J·mol^{-1}·K^{-1} (298 K) [1]

C_2H_2 (g) Ethyne **C_2H_2 (g)**

mp = 192 K (-81 °C)
bp = 189 K (-84 °C)
$\Delta H^0_{298} = 226.7 \pm 0.8$ kJ·mol^{-1} [1]
$S^0_{298} = 201$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 43.63 + 31.65 \cdot 10^{-3} \cdot T - 0.75 \cdot 10^{6} \cdot T^{-2} - 6.31 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

C_2H_2O (g) Ethenone **C_2H_2O (g)**

$\Delta H^0_{298} = -61.1$ kJ·mol^{-1} [2]
$S^0_{298} = 241.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 46.3$ J·mol^{-1}·K^{-1} (298 K) [2]

$C_2H_3NaO_2$ (s) Sodium Acetate **$C_2H_3NaO_2$ (s)**
$NaC_2H_3O_2$ (s) $NaC_2H_3O_2$ (s)

$\Delta H^0_{298} = -709$ kJ·mol^{-1} [7]
$S^0_{298} = 123$ J·mol^{-1}·K^{-1} [7]
$C_p^0 = 80$ J·mol^{-1}·K^{-1} (298 K) [7]

C_2H_4 (g) Ethene **C_2H_4 (g)**

mp = 104 K (-169 °C) bp = 169 K (-104 °C)

$\Delta H^0_{298} = 52.5 \pm 0.3$ kJ·mol^{-1} [1] $S^0_{298} = 219.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 39.29 + 57.13 \cdot 10^{-3} \cdot T - 1.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

C_2H_4O (g) Acetaldehyde **C_2H_4O (g)**

$\Delta H^0_{298} = -166.4$ kJ·mol^{-1} [2] $S^0_{298} = 264.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 53.7$ J·mol^{-1}·K^{-1} (298 K) [2]

C_2H_4O (g) Oxirane **C_2H_4O (g)**

$\Delta H^0_{298} = -52.6 \pm 0.6$ kJ·mol^{-1} [1] $S^0_{298} = 243$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 47.9$ J·mol^{-1}·K^{-1} (298 K) [1]

$C_2H_4O_2$ (l) Acetic Acid **$C_2H_4O_2$ (l)**

$\Delta H^0_{298} = -484.1$ kJ·mol^{-1} [2] $S^0_{298} = 159.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 123.4$ J·mol^{-1}·K^{-1} (298 K) [2]

$C_2H_4O_2$ (g) Acetic Acid **$C_2H_4O_2$ (g)**

$\Delta H^0_{298} = -434.8$ kJ·mol^{-1} [2] $S^0_{298} = 282.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 66.5$ J·mol^{-1}·K^{-1} (298 K) [2]

C_2H_6 (g) Ethane **C_2H_6 (g)**

mp = 101 K (-172 °C) bp = 185 K (-88 °C)

$\Delta H^0_{298} = -84.7$ kJ·mol^{-1} [4] $S^0_{298} = 229.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 28.19 + 122.6 \cdot 10^{-3} \cdot T - 0.91 \cdot 10^6 \cdot T^{-2} - 27.84 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

C_2H_6O (l) Ethanol **C_2H_6O (l)**

C_2H_5OH (l) C_2H_5OH (l)

mp = 161 K (-112 °C) bp = 351 K (78 °C)

$\Delta H^0_{298} = -277$ kJ·mol^{-1} [2] $S^0_{298} = 160.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 112.13$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -2.95 \cdot 10^3 \cdot T^{-1} - 5.3 \cdot \lg(T) + 21.91$ (298 ... 351 K) [4]

{Reaction: evaporation}

C_2H_6O (g) Ethanol **C_2H_6O (g)**

C_2H_5OH (g) C_2H_5OH (g)

$\Delta H^0_{298} = -234.8$ kJ·mol^{-1} [2] $S^0_{298} = 282.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 65.4$ J·mol^{-1}·K^{-1} (298 K) [2]

$C_2K_2N_2$ (g) Potassium Cyanide **$C_2K_2N_2$ (g)**

$(KCN)_2$ (g) $(KCN)_2$ (g)

$\Delta H^0_{298} = -8.4 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 373.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 116.1 + 7.51 \cdot 10^{-3} \cdot T - 0.8 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -10.53 \cdot 10^3 \cdot T^{-1} - 2.97 \cdot \lg(T) + 13.51$ (895 ... 1896 K) [4]

{Reaction: evaporation of KCN(s)}

C_2La (s) Lanthanum Carbide **C_2La (s)**

LaC_2 (s) LaC_2 (s)

$\Delta H^0_{298} = -87.9$ kJ·mol^{-1} [96] $S^0_{298} = 75.3$ J·mol^{-1}·K^{-1} [96]

C_2La (g) Lanthanum Carbide **C_2La (g)**

LaC_2 (g) LaC_2 (g)

$\Delta H^0_{298} = 594.1$ kJ·mol^{-1} [96] $S^0_{298} = 261.9$ J·mol^{-1}·K^{-1} [96]

C_2Li_2 (s) Lithium Carbide **C_2Li_2 (s)**
Li_2C_2 (s) Li_2C_2 (s)

mp = 1200 K (927 °C)
$\Delta H^0_{298} = -59.4 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 58.6 \pm 4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 101.84 + 10.21 \cdot 10^{-3} \cdot T - 2.96 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

C_2Mg (s) Magnesium Carbide **C_2Mg (s)**
MgC_2 (s) MgC_2 (s)

$\Delta H^0_{298} = 87.9 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 54.4 \pm 8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 71.21 + 6.44 \cdot 10^{-3} \cdot T - 1.5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 873 K) [4]

C_2N (g) CNC-Radical **C_2N (g)**

$\Delta H^0_{298} = 556.5 \pm 126$ kJ·mol^{-1} [1] $S^0_{298} = 230.9 \pm 8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 45.75$ J·mol^{-1}·K^{-1} (298 K) [1]

C_2N_2 (g) Dicyan **C_2N_2 (g)**
$(CN)_2$ (g) $(CN)_2$ (g)

mp = 239 K (-34 °C) bp = 253 K (-20 °C)
$\Delta H^0_{298} = 309.1 \pm 1.8$ kJ·mol^{-1} [1] $S^0_{298} = 241.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 56.07 + 27.43 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2} - 6.85 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$C_2N_2Na_2$ (g) Sodium Cyanide **$C_2N_2Na_2$ (g)**
$(NaCN)_2$ (g) $(NaCN)_2$ (g)

$\Delta H^0_{298} = -8.8 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 347.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 116.06 + 7.61 \cdot 10^{-3} \cdot T - 1.02 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -8.94 \cdot 10^3 \cdot T^{-1} - 4.06 \cdot \lg(T) + 17.31$ (835 ... 1779 K) [4]
{Reaction: evaporation of NaCN(s)}

C_2O (g) Carbon Suboxide **C_2O (g)**

$\Delta H^0_{298} = 286.6 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 233.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 43.06$ J·mol^{-1}·K^{-1} (298 K) [1]

C_2Pu (s) Plutonium Carbide **C_2Pu (s)**

PuC_2 (s) PuC_2 (s)

mp = 2623 K (2350 °C)

$\Delta H^0_{298} = -32.4$ kJ·mol⁻¹ [4] $S^0_{298} = 102.8$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 60.17 + 27.03 \cdot 10^{-3} \cdot T - 1.15 \cdot 10^6 \cdot T^{-2} - 5.61 \cdot 10^{-6} \cdot T^2$ J·mol⁻¹·K⁻¹ (298 ... 2623 K) [4]

C_2Si (g) Silicon Carbide **C_2Si (g)**

SiC_2 (g) SiC_2 (g)

$\Delta H^0_{298} = 615 \pm 29$ kJ·mol⁻¹ [1] $S^0_{298} = 236.7$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 54.64 + 3.59 \cdot 10^{-3} \cdot T - 0.99 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2818 K) [4]

C_2Sm (s) Samarium Carbide **C_2Sm (s)**

SmC_2 (s) SmC_2 (s)

$\Delta H^0_{298} = -71.1$ kJ·mol⁻¹ [4] $S^0_{298} = 96$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 68.62 + 11.3 \cdot 10^{-3} \cdot T - 0.8 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1443 K) [4]

C_2Sr (s) Strontium Carbide **C_2Sr (s)**

SrC_2 (s) SrC_2 (s)

$\Delta H^0_{298} = -84.5$ kJ·mol⁻¹ [4] $S^0_{298} = 71.1$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 68.62 + 11.3 \cdot 10^{-3} \cdot T - 0.8 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1500 K) [4]

C_2Th (s) Thorium Carbide **C_2Th (s)**

ThC_2 (s) alpha ThC_2 (s)

mp = 2883 K (2610 °C)

$\Delta H^0_{298} = -125.1$ kJ·mol⁻¹ [4] $S^0_{298} = 68.7$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 63.89 + 12.09 \cdot 10^{-3} \cdot T - 0.93 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1700 K) [4]

C_2Th (s) Thorium Carbide **C_2Th (s)**

ThC_2 (s) alpha ThC_2 (s)

$\Delta H^0_{1700} = -21.2$ kJ·mol⁻¹ [4] $S^0_{1700} = 191.8$ J·mol⁻¹·K⁻¹ [4]

C_2Th (s) | Thorium Carbide | **C_2Th (s)**
ThC_2 (s) | beta | ThC_2 (s)

$\Delta H^0_{1700} = -19.1$ kJ·mol^{-1} [4] $S^0_{1700} = 193.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 83.68$ J·mol^{-1}·K^{-1} (1700 K) [4]

C_2Th (s) | Thorium Carbide | **C_2Th (s)**
ThC_2 (s) | beta | ThC_2 (s)

$\Delta H^0_{1763} = -13.8$ kJ·mol^{-1} [4] $S^0_{1763} = 196.1$ J·mol^{-1}·K^{-1} [4]

C_2Th (s) | Thorium Carbide | **C_2Th (s)**
ThC_2 (s) | gamma | ThC_2 (s)

$\Delta H^0_{1763} = -3.3$ kJ·mol^{-1} [4] $S^0_{1763} = 202$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 83.68$ J·mol^{-1}·K^{-1} (1763 K) [4]

C_2Th (g) | Thorium Carbide | **C_2Th (g)**
ThC_2 (g) | | ThC_2 (g)

$\Delta H^0_{298} = 724$ kJ·mol^{-1} [4] $S^0_{298} = 256.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 54.27 + 2.69 \cdot 10^{-3} \cdot T - 0.24 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2883 K) [4]

C_2U (s) | Uranium Carbide | **C_2U (s)**
UC_2 (s) | | UC_2 (s)

mp = 2858 K (2585 °C)
$\Delta H^0_{298} = -91.8$ kJ·mol^{-1} [4] $S^0_{298} = 71$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 69.04 + 8.54 \cdot 10^{-3} \cdot T - 0.94 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2041 K) [4]

C_3 (g) | Carbon | **C_3 (g)**

$\Delta H^0_{298} = 820 \pm 17$ kJ·mol^{-1} [1] $S^0_{298} = 237.2 \pm 13$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 42.3 + 3.7 \cdot 10^{-3} \cdot T - 0.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 4055 K) [4]
$\lg(p,K) = -43.5 \cdot 10^3 \cdot T^{-1} - 2.62 \cdot \lg(T) + 20.08$ (2200 ... 4055 K) [4]
{Reaction: evaporation of C(s)}

C_3Ce_2 (s) Cerium Carbide **C_3Ce_2 (s)**

Ce_2C_3 (s) Ce_2C_3 (s)

mp = 1778 K (1505 °C)

$\Delta H^0_{298} = -176.6$ kJ·mol^{-1} [2] $S^0_{298} = 173.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 122.38 + 11.92 \cdot 10^{-3} \cdot T - 2.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (293 ... 1500 K) [4]

C_3Cr_7 (s) Chromium Carbide **C_3Cr_7 (s)**

Cr_7C_3 (s) Cr_7C_3 (s)

mp = 2055 K (1782 °C)

$\Delta H^0_{298} = -160.7 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 201 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 233.89 + 62.34 \cdot 10^{-3} \cdot T - 3.81 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2055 K) [4]

C_3H_4 (g) Propadiene **C_3H_4 (g)**

$\Delta H^0_{298} = 192.1$ kJ·mol^{-1} [2] $S^0_{298} = 244$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 59.1$ J·mol^{-1}·K^{-1} (298 K) [2]

C_3H_4 (g) Propyne **C_3H_4 (g)**

$\Delta H^0_{298} = 185.4$ kJ·mol^{-1} [2] $S^0_{298} = 248.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 60.7$ J·mol^{-1}·K^{-1} (298 K) [2]

C_3H_6 (g) Cyclopropane **C_3H_6 (g)**

$\Delta H^0_{298} = 53.2$ kJ·mol^{-1} [2] $S^0_{298} = 238$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 90.2$ J·mol^{-1}·K^{-1} (298 K) [2]

C_3H_6 (g) Propene **C_3H_6 (g)**

$\Delta H^0_{298} = 20.4$ kJ·mol^{-1} [2] $S^0_{298} = 267$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 63.9$ J·mol^{-1}·K^{-1} (298 K) [2]

C_3H_6O (l) Acetone **C_3H_6O (l)**

$\Delta H^0_{298} = -248.1$ kJ·mol^{-1} [2] $S^0_{298} = 200.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 125$ J·mol^{-1}·K^{-1} (298 K) [2]

C_3H_6O (g) Acetone **C_3H_6O (g)**

$\Delta H^0_{298} = -217.6$ kJ·mol^{-1} [2] $S^0_{298} = 295$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 73.4$ J·mol^{-1}·K^{-1} (298 K) [2]

C_3H_8 (g) Propan **C_3H_8 (g)**

mp = 86 K (-187 °C) bp = 231 K (-42 °C)
$\Delta H^0_{298} = -103.8$ kJ·mol^{-1} [2] $S^0_{298} = 270$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 19.01 + 224.48 \cdot 10^{-3} \cdot T - 0.58 \cdot 10^{6} \cdot T^{-2} - 66.47 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

C_3Mg_2 (s) Magnesium Carbide **C_3Mg_2 (s)**
Mg_2C_3 (s) Mg_2C_3 (s)

$\Delta H^0_{298} = 79.5 \pm 33$ kJ·mol^{-1} [1] $S^0_{298} = 100.4 \pm 13$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 118.74 + 10.71 \cdot 10^{-3} \cdot T - 2.5 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

C_3Mn_7 (s) Manganese Carbide **C_3Mn_7 (s)**
Mn_7C_3 (s) Mn_7C_3 (s)

mp = 1623 K (1350 °C)
$\Delta H^0_{298} = -110.9$ kJ·mol^{-1} [4] $S^0_{298} = 238.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 246.65 + 54.81 \cdot 10^{-3} \cdot T - 3.98 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1623 K) [4]

C_3O_2 (g) Carbon Suboxide **C_3O_2 (g)**

$\Delta H^0_{298} = -93.6 \pm 1.8$ kJ·mol^{-1} [1] $S^0_{298} = 276.1 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 66.99$ J·mol^{-1}·K^{-1} (298 K) [1]

C_3Pu_2 (s) Plutonium Carbide **C_3Pu_2 (s)**

Pu_2C_3 (s) Pu_2C_3 (s)

mp = 2323 K (2050 °C)

$\Delta H^0_{298} = -168.6$ kJ·mol^{-1} [4] $S^0_{298} = 150$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 97.82 + 40.79 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2323 K) [4]

C_3U_2 (s) Uranium Carbide **C_3U_2 (s)**

U_2C_3 (s) U_2C_3 (s)

$\Delta H^0_{298} = -185.3$ kJ·mol^{-1} [4] $S^0_{298} = 137.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 121 + 12.8 \cdot 10^{-3} \cdot T - 1.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2096 K) [4]

C_4 (g) Carbon **C_4 (g)**

$\Delta H^0_{298} = 971 \pm 33$ kJ·mol^{-1} [1] $S^0_{298} = 228.3 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 50.18$ J·mol^{-1}·K^{-1} (298 K) [1]

C_4H_6 (g) But-1-yne **C_4H_6 (g)**

$\Delta H^0_{298} = 166.1$ kJ·mol^{-1} [2] $S^0_{298} = 290.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 116.3$ J·mol^{-1}·K^{-1} (298 K) [2]

C_4H_8 (g) Cyclobutane **C_4H_8 (g)**

$\Delta H^0_{298} = 26.7$ kJ·mol^{-1} [2] $S^0_{298} = 265.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 70.6$ J·mol^{-1}·K^{-1} (298 K) [2]

C_4H_{10} (g) n-Butane **C_4H_{10} (g)**

mp = 138 K (-135 °C) bp = 272 K (-1 °C)

$\Delta H^0_{298} = -126.1$ kJ·mol^{-1} [2] $S^0_{298} = 310.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 40.25 + 265.08 \cdot 10^{-3} \cdot T - 1.27 \cdot 10^6 \cdot T^{-2} - 76.36 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$C_4H_{12}Si$ (g) Tetramethylsilane **$C_4H_{12}Si$ (g)**
$Si(CH_3)_4$ (g) $Si(CH_3)_4$ (g)

$\Delta H^0_{298} = -286.6$ kJ·mol^{-1} [1] $S^0_{298} = 361.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 138.57$ J·mol^{-1}·K^{-1} (298 K) [1]

C_4Mn_{15} (s) Manganese Carbide **C_4Mn_{15} (s)**
$Mn_{15}C_4$ (s) $Mn_{15}C_4$ (s)

$\Delta H^0_{298} = -175.7$ kJ·mol^{-1} [2] $S^0_{298} = 136$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 448$ J·mol^{-1}·K^{-1} (298 K) [2]

C_4N_2 (g) 2-Butynedinitrile **C_4N_2 (g)**

$\Delta H^0_{298} = 533.5 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 290.1 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 85.89$ J·mol^{-1}·K^{-1} (298 K) [1]

C_4NiO_4 (l) Nickel Tetracarbonyl **C_4NiO_4 (l)**
$Ni(CO)_4$ (l) $Ni(CO)_4$ (l)

mp = 254 K (-19 °C)
$\Delta H^0_{298} = -631.8 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 319.6 \pm 12.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 187.28 + 55.23 \cdot 10^{-3} \cdot T + 0.51 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 315 K) [4]

C_4NiO_4 (g) Nickel Tetracarbonyl **C_4NiO_4 (g)**
$Ni(CO)_4$ (g) $Ni(CO)_4$ (g)

$\Delta H^0_{298} = -601.6 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 415.5 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 161.12 + 29.82 \cdot 10^{-3} \cdot T - 2.06 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 800 K) [4]

C_5 (g) Carbon **C_5 (g)**

$\Delta H^0_{298} = 979 \pm 25$ kJ·mol^{-1} [1] $S^0_{298} = 242 \pm 16.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 61.14$ J·mol^{-1}·K^{-1} (298 K) [1]

C_5FeO_5 (l) Iron Pentacarbonyl **C_5FeO_5 (l)**

$Fe(CO)_5$ (l) $Fe(CO)_5$ (l)

$\Delta H^0_{298} = -766.1 \pm 7.1$ kJ·mol^{-1} [1] $S^0_{298} = 337.1 \pm 4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 233.78$ J·mol^{-1}·K^{-1} (298 K) [1]

C_5FeO_5 (g) Iron Pentacarbonyl **C_5FeO_5 (g)**

$Fe(CO)_5$ (g) $Fe(CO)_5$ (g)

$\Delta H^0_{298} = -725.9 \pm 7.1$ kJ·mol^{-1} [1] $S^0_{298} = 439.3 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 190.79 + 45.4 \cdot 10^{-3} \cdot T - 3.04 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 800 K) [4]

C_5H_8 (g) Cyclopentene **C_5H_8 (g)**

$\Delta H^0_{298} = 32.9$ kJ·mol^{-1} [2] $S^0_{298} = 289.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 75$ J·mol^{-1}·K^{-1} (298 K) [2]

C_5H_8 (g) Penta-1.2-diene **C_5H_8 (g)**

$\Delta H^0_{298} = 145.6$ kJ·mol^{-1} [2] $S^0_{298} = 333.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 105.1$ J·mol^{-1}·K^{-1} (298 K) [2]

C_5H_{10} (g) Cyclopentane **C_5H_{10} (g)**

$\Delta H^0_{298} = -77.2$ kJ·mol^{-1} [2] $S^0_{298} = 293$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 82.9$ J·mol^{-1}·K^{-1} (298 K) [2]

C_5H_{12} (l) n-Pentan **C_5H_{12} (l)**

mp = 145 K (-128 °C) bp = 309 K (36 °C)

$\Delta H^0_{298} = -173.8$ kJ·mol^{-1} [4] $S^0_{298} = 259.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 165.69$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -2.04 \cdot 10^3 \cdot T^{-1} - 4.68 \cdot \lg(T) + 18.25$ (298 ... 309 K) [4]

{Reaction: evaporation}

C_5H_{12} (l) n-Pentan **C_5H_{12} (l)**

$\Delta H^0_{309} = -172$ kJ·mol^{-1} [4] $S^0_{309} = 265.8$ J·mol^{-1}·K^{-1} [4]

C_5H_{12} (g) n-Pentan **C_5H_{12} (g)**

$\Delta H^0_{309} = -145$ kJ·mol^{-1} [4] $S^0_{309} = 353.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 124.68 + 136.9 \cdot 10^{-3} \cdot T - 3.24 \cdot 10^{6} \cdot T^{-2} - 25.62 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (309 ... 1000 K) [4]

C_5H_{12} (g) n-Pentan **C_5H_{12} (g)**

$\Delta H^0_{298} = -146.4$ kJ·mol^{-1} [2] $S^0_{298} = 349.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 120.1$ J·mol^{-1}·K^{-1} (298 K) [2]

C_6ClH_5 (g) Chlorobenzene **C_6ClH_5 (g)**
C_6H_5Cl (g) C_6H_5Cl (g)

$\Delta H^0_{298} = 51.8$ kJ·mol^{-1} [182] $S^0_{298} = 313.8$ J·mol^{-1}·K^{-1} [182]
$C_p{}^0 = 99.5$ J·mol^{-1}·K^{-1} (298 K) [182]

C_6CrO_6 (s) Chromium Hexacarbonyl **C_6CrO_6 (s)**
$Cr(CO)_6$ (s) $Cr(CO)_6$ (s)

mp = 425 K (152 °C) bp = 424 K (151 °C)
$\Delta H^0_{298} = -1077.4$ kJ·mol^{-1} [4] $S^0_{298} = 314.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 217.69 + 75.31 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 424 K) [4]
$\lg(p,K) = -4.13 \cdot 10^{3} \cdot T^{-1} - 3.92 \cdot \lg(T) + 20.04$ (298 ... 424 K) [4]
{Reaction: evaporation}

C_6CrO_6 (s) Chromium Hexacarbonyl **C_6CrO_6 (s)**
$Cr(CO)_6$ (s) $Cr(CO)_6$ (s)

$\Delta H^0_{424} = -1046.6$ kJ·mol^{-1} [4] $S^0_{424} = 400.4$ J·mol^{-1}·K^{-1} [4]

C_6CrO_6 (g) Chromium Hexacarbonyl **C_6CrO_6 (g)**

$Cr(CO)_6$ (g) $Cr(CO)_6$ (g)

$\Delta H^0_{424} = -981.4$ kJ·mol^{-1} [4] $S^0_{424} = 554.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 218.92$ J·mol^{-1}·K^{-1} (424 K) [4]

$\lg(p,K) = -3.11 \cdot 10^3 \cdot T^{-1} - 0.58 \cdot \lg(T) + 8.13$ (424 ... 800 K) [4]

{Reaction: evaporation of $Cr(CO)_6$(l)}

C_6CrO_6 (g) Chromium Hexacarbonyl **C_6CrO_6 (g)**

$Cr(CO)_6$ (g) $Cr(CO)_6$ (g)

$\Delta H^0_{298} = -1008$ kJ·mol^{-1} [4] $S^0_{298} = 479.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 169.24 + 117.15 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 800 K) [4]

C_6Cr_{23} (s) Chromium Carbide **C_6Cr_{23} (s)**

$Cr_{23}C_6$ (s) $Cr_{23}C_6$ (s)

mp = 1791 K (1518 °C)

$\Delta H^0_{298} = -328.4 \pm 41.9$ kJ·mol^{-1} [1] $S^0_{298} = 612.1 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 683.25 + 209.2 \cdot 10^{-3} \cdot T - 10.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1791 K) [4]

C_6H_6 (l) Benzene **C_6H_6 (l)**

mp = 279 K (6 °C) bp = 353 K (80 °C)

$\Delta H^0_{298} = 49$ kJ·mol^{-1} [2] $S^0_{298} = 171.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 136.11$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -2.5 \cdot 10^3 \cdot T^{-1} - 5.43 \cdot \lg(T) + 20.9$ (298 ... 353 K) [4]

{Reaction: evaporation}

C_6H_6 (g) Benzene **C_6H_6 (g)**

$\Delta H^0_{298} = 82.9$ kJ·mol^{-1} [2] $S^0_{298} = 269.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 82.5$ J·mol^{-1}·K^{-1} (298 K) [2]

C_6H_6O (g) Phenol **C_6H_6O (g)**

C_6H_5OH (g) C_6H_5OH (g)

$\Delta H^0_{298} = -96.4$ kJ·mol^{-1} [182] $S^0_{298} = 309.3$ J·mol^{-1}·K^{-1} [182]

$C_p{}^0 = 104.3$ J·mol^{-1}·K^{-1} (298 K) [182]

C_6H_{10} (l) Cyclohexene **C_6H_{10} (l)**

$\Delta H^0_{298} = -38.8$ kJ·mol^{-1} [2] $S^0_{298} = 216.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 140.2$ J·mol^{-1}·K^{-1} (298 K) [2]

C_6H_{10} (g) Cyclohexene **C_6H_{10} (g)**

$\Delta H^0_{298} = -5.4$ kJ·mol^{-1} [2] $S^0_{298} = 310.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 103.7$ J·mol^{-1}·K^{-1} (298 K) [2]

C_6H_{12} (l) Cyclohexane **C_6H_{12} (l)**

$\Delta H^0_{298} = -156.2$ kJ·mol^{-1} [2] $S^0_{298} = 204.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 156.5$ J·mol^{-1}·K^{-1} (298 K) [2]

C_6H_{12} (g) Cyclohexane **C_6H_{12} (g)**

$\Delta H^0_{298} = -123.1$ kJ·mol^{-1} [2] $S^0_{298} = 298.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 105.6$ J·mol^{-1}·K^{-1} (298 K) [2]

C_6H_{12} (l) Methylcyclopentane **C_6H_{12} (l)**

$\Delta H^0_{298} = -138.4$ kJ·mol^{-1} [2] $S^0_{298} = 247.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 158.7$ J·mol^{-1}·K^{-1} (298 K) [2]

C_6H_{12} (g) Methylcyclopentane **C_6H_{12} (g)**

$\Delta H^0_{298} = -106.7$ kJ·mol^{-1} [2] $S^0_{298} = 340$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 109.8$ J·mol^{-1}·K^{-1} (298 K) [2]

C_6H_{14} (l) n-Hexane **C_6H_{14} (l)**

mp = 178 K (-95 °C) bp = 342 K (69 °C)
$\Delta H^0_{298} = -198.8$ kJ·mol^{-1} [2] $S^0_{298} = 292.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 195.02$ J·mol^{-1}·K^{-1} (298 ... 342 K) [4]
$\lg(p,K) = -2.29 \cdot 10^3 \cdot T^{-1} - 4.68 \cdot \lg(T) + 18.54$ (298 ... 342 K) [4]
{Reaction: evaporation}

C_6H_{14} (l) n-Hexane **C_6H_{14} (l)**

$\Delta H^0_{342} = -190.2$ kJ·mol^{-1} [4] $S^0_{342} = 319.2$ J·mol^{-1}·K^{-1} [4]

C_6H_{14} (g) n-Hexane **C_6H_{14} (g)**

$\Delta H^0_{342} = -160$ kJ·mol^{-1} [4] $S^0_{342} = 408.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 65.65 + 377.59 \cdot 10^{-3} \cdot T - 2.01 \cdot 10^6 \cdot T^{-2} - 109.54 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (342 ... 1000 K) [4]

C_6H_{14} (g) n-Hexane **C_6H_{14} (g)**

$\Delta H^0_{298} = -167.2$ kJ·mol^{-1} [2] $S^0_{298} = 388.5$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 143$ J·mol^{-1}·K^{-1} (298 K) [2]

C_6MoO_6 (s) Molybdenum Hexacarbonyl **C_6MoO_6 (s)**
$Mo(CO)_6$ (s) $Mo(CO)_6$ (s)

bp = 439 K (166 °C)
$\Delta H^0_{298} = -983.2$ kJ·mol^{-1} [4] $S^0_{298} = 327.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 217.32 + 83.68 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 439 K) [4]

C_6MoO_6 (g) Molybdenum Hexacarbonyl **C_6MoO_6 (g)**
$Mo(CO)_6$ (g) $Mo(CO)_6$ (g)

$\Delta H^0_{298} = -915.8$ kJ·mol^{-1} [4] $S^0_{298} = 482.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 178.87 + 108.78 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 800 K) [4]
$\lg(p,K) = -3.98 \cdot 10^3 \cdot T^{-1} - 3.51 \cdot \lg(T) + 18.34$ (298 ... 439 K) [4]
{Reaction: evaporation of $Mo(CO)_6$(s)}

C_6O_6W (s) Tungsten Hexacarbonyl **C_6O_6W (s)**

$W(CO)_6$ (s) $W(CO)_6$ (s)

$\Delta H^0_{298} = -951.9$ kJ·mol^{-1} [2] $S^0_{298} = 332.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 164.6 + 261.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 451 K) [4]

C_6O_6W (g) Tungsten Hexacarbonyl **C_6O_6W (g)**

$W(CO)_6$ (g) $W(CO)_6$ (g)

bp = 451 K (178 °C)

$\Delta H^0_{298} = -876.4$ kJ·mol^{-1} [4] $S^0_{298} = 501.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 294.32 + 21.46 \cdot 10^{-3} \cdot T - 8.16 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 800 K) [4]

$\lg(p,K) = -4.36 \cdot 10^{3} \cdot T^{-1} - 3.14 \cdot \lg(T) + 17.99$ (298 ... 451 K) [4]

{Reaction: evaporation of $W(CO)_6$(s)}

C_7H_6O (g) Benzaldehyde **C_7H_6O (g)**

C_6H_5CHO (g) C_6H_5CHO (g)

$\Delta H^0_{298} = -65.1$ kJ·mol^{-1} [182] $S^0_{298} = 329.3$ J·mol^{-1}·K^{-1} [182]

$C_p^0 = 114.7$ J·mol^{-1}·K^{-1} (298 K) [182]

C_7H_8 (l) Toluene **C_7H_8 (l)**

$\Delta H^0_{298} = 12$ kJ·mol^{-1} [2] $S^0_{298} = 221$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 166$ J·mol^{-1}·K^{-1} (298 K) [2]

C_7H_8 (g) Toluene **C_7H_8 (g)**

$\Delta H^0_{298} = 50$ kJ·mol^{-1} [2] $S^0_{298} = 320.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 105.1$ J·mol^{-1}·K^{-1} (298 K) [2]

C_7H_{14} (l) Cycloheptane **C_7H_{14} (l)**

$\Delta H^0_{298} = -158.1$ kJ·mol^{-1} [2] $S^0_{298} = 242.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 180.7$ J·mol^{-1}·K^{-1} (298 K) [2]

C_7H_{14} (g) Cycloheptane **C_7H_{14} (g)**

$\Delta H^0_{298} = -119.3$ kJ·mol^{-1} [2] $S^0_{298} = 342.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 122.9$ J·mol^{-1}·K^{-1} (298 K) [2]

C_7H_{14} (l) Methylcyclohexane **C_7H_{14} (l)**

$\Delta H^0_{298} = -190.2$ kJ·mol^{-1} [2] $S^0_{298} = 247.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 184.6$ J·mol^{-1}·K^{-1} (298 K) [2]

C_7H_{14} (g) Methylcyclohexane **C_7H_{14} (g)**

$\Delta H^0_{298} = -154.8$ kJ·mol^{-1} [2] $S^0_{298} = 343.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 134.8$ J·mol^{-1}·K^{-1} (298 K) [2]

C_7H_{16} (l) Heptane **C_7H_{16} (l)**

$\Delta H^0_{298} = -224.4$ kJ·mol^{-1} [2] $S^0_{298} = 328.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 224.7$ J·mol^{-1}·K^{-1} (298 K) [2]

C_7H_{16} (g) Heptane **C_7H_{16} (g)**

$\Delta H^0_{298} = -187.8$ kJ·mol^{-1} [2] $S^0_{298} = 428$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 165.9$ J·mol^{-1}·K^{-1} (298 K) [2]

C_8H_{10} (l) o-Xylene **C_8H_{10} (l)**

$\Delta H^0_{298} = -24.4$ kJ·mol^{-1} [2] $S^0_{298} = 246$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 188.8$ J·mol^{-1}·K^{-1} (298 K) [2]

C_8H_{10} (g) o-Xylene **C_8H_{10} (g)**

$\Delta H^0_{298} = 19$ kJ·mol^{-1} [2] $S^0_{298} = 352.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 133.2$ J·mol^{-1}·K^{-1} (298 K) [2]

C_8H_{10} (l)	Ethylbenzene	**C_8H_{10} (l)**
ΔH^0_{298} = – 12.5 kJ·mol^{-1} [2] $C_p{}^0$= 185.9 J·mol^{-1}·K^{-1} (298 K) [2]		S^0_{298} = 255.2 J·mol^{-1}·K^{-1} [2]
C_8H_{10} (g)	Ethylbenzene	**C_8H_{10} (g)**
ΔH^0_{298} = 29.8 kJ·mol^{-1} [2] $C_p{}^0$= 128.3 J·mol^{-1}·K^{-1} (298 K) [2]		S^0_{298} = 360.6 J·mol^{-1}·K^{-1} [2]
C_8H_{16} (l)	Ethylcyclohexane	**C_8H_{16} (l)**
ΔH^0_{298} = – 212.2 kJ·mol^{-1} [2] $C_p{}^0$= 211.8 J·mol^{-1}·K^{-1} (298 K) [2]		S^0_{298} = 280.9 J·mol^{-1}·K^{-1} [2]
C_8H_{16} (g)	Ethylcyclohexane	**C_8H_{16} (g)**
ΔH^0_{298} = – 171.8 kJ·mol^{-1} [2] $C_p{}^0$= 158.7 J·mol^{-1}·K^{-1} (298 K) [2]		S^0_{298} = 382.7 J·mol^{-1}·K^{-1} [2]
C_8H_{18} (l)	Octane	**C_8H_{18} (l)**
ΔH^0_{298} = – 250 kJ·mol^{-1} [2] $C_p{}^0$= 254.1 J·mol^{-1}·K^{-1} (298 K) [2]		S^0_{298} = 361.2 J·mol^{-1}·K^{-1} [2]
C_8H_{18} (g)	Octane	**C_8H_{18} (g)**
ΔH^0_{298} = – 208.4 kJ·mol^{-1} [2] $C_p{}^0$= 193.8 J·mol^{-1}·K^{-1} (298 K) [2]		S^0_{298} = 466.8 J·mol^{-1}·K^{-1} [2]
C_9H_{20} (l)	Nonane	**C_9H_{20} (l)**
ΔH^0_{298} = – 275.5 kJ·mol^{-1} [2] $C_p{}^0$= 284.4 J·mol^{-1}·K^{-1} (298 K) [2]		S^0_{298} = 393.7 J·mol^{-1}·K^{-1} [2]

C_9H_{20} (g)	Nonane	C_9H_{20} (g)

$\Delta H^0_{298} = -229$ kJ·mol^{-1} [2] $S^0_{298} = 505.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 217.4$ J·mol^{-1}·K^{-1} (298 K) [2]

$C_{10}H_{22}$ (l)	Decane	$C_{10}H_{22}$ (l)

$\Delta H^0_{298} = -301$ kJ·mol^{-1} [2] $S^0_{298} = 425.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 314.5$ J·mol^{-1}·K^{-1} (298 K) [2]

$C_{10}H_{22}$ (g)	Decane	$C_{10}H_{22}$ (g)

$\Delta H^0_{298} = -249.7$ kJ·mol^{-1} [2] $S^0_{298} = 544.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 241.7$ J·mol^{-1}·K^{-1} (298 K) [2]

C_{60} (s)	Fullerene - 60	C_{60} (s)

$\Delta H^0_{298} = 2282.3 \pm 9.6$ kJ·mol^{-1} [274]

Ca (s)	Calcium alpha	Ca (s)

mp = 1115 K (842 °C) bp = 1774 K (1501 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 41.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 16.38 + 22.11 \cdot 10^{-3} \cdot T + 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 716 K) [4]

Ca (s)	Calcium alpha	Ca (s)

$\Delta H^0_{716} = 12.1$ kJ·mol^{-1} [4] $S^0_{716} = 66.4$ J·mol^{-1}·K^{-1} [4]

Ca (s)	Calcium beta	Ca (s)

$\Delta H^0_{716} = 13$ kJ·mol^{-1} [4] $S^0_{716} = 67.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 6.28 + 32.38 \cdot 10^{-3} \cdot T + 1.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (716 ... 1115 K) [4]
$\lg(p,K) = -9.7 \cdot 10^3 \cdot T^{-1} - 1.99 \cdot \lg(T) + 12.08$ (716 ... 1115 K) [4]
{Reaction: evaporation as Ca(g)}

Ca (s) Calcium beta **Ca** (s)

$\Delta H^0_{1115} = 27.8$ kJ·mol^{-1} [4] $S^0_{1115} = 84$ J·mol^{-1}·K^{-1} [4]

Ca (l) Calcium **Ca** (l)

$\Delta H^0_{1115} = 36.4$ kJ·mol^{-1} [4] $S^0_{1115} = 91.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 35$ J·mol^{-1}·K^{-1} (1115 K) [4]

$\lg(p,K) = -9.1 \cdot 10^3 \cdot T^{-1} - 1.71 \cdot \lg(T) + 10.67$ (1115 ... 1774 K) [4]

{Reaction: evaporation as Ca(g)}

Ca (s) Calcium beta **Ca** (s)

$\Delta H^0_{298} = 1.1$ kJ·mol^{-1} [1] $S^0_{298} = 43.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 6.28 + 32.38 \cdot 10^{-3} \cdot T + 1.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (716 ... 1115 K) [4]

Ca (l) Calcium **Ca** (l)

$\Delta H^0_{298} = 7.8$ kJ·mol^{-1} [1] $S^0_{298} = 45.5$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 35$ J·mol^{-1}·K^{-1} (1115 K) [4]

Ca (g) Calcium **Ca** (g)

$\Delta H^0_{298} = 177.8 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 154.9$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 20.79$ J·mol^{-1}·K^{-1} (298 K) [1]

CaCl (g) Calcium(I) Chloride **CaCl** (g)

$\Delta H^0_{298} = -104.6 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 241.6 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 37.26 + 0.57 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CaCl_2$ (s) Calcium(II) Chloride **$CaCl_2$ (s)**

mp = 1045 K (772 °C) bp = 2279 K (2006 °C)

$\Delta H^0_{298} = -795.4$ kJ·mol^{-1} [4] $S^0_{298} = 108.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 69.84 + 15.39 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1045 K) [4]

$\lg(p,K) = -17.49 \cdot 10^3 \cdot T^{-1} - 2.72 \cdot \lg(T) + 17.77$ (1000 ... 1045 K) [4]

{Reaction: evaporation as $CaCl_2$(g)}

$CaCl_2$ (s) Calcium(II) Chloride **$CaCl_2$ (s)**

$\Delta H^0_{1045} = -735.9$ kJ·mol^{-1} [4] $S^0_{1045} = 206.6$ J·mol^{-1}·K^{-1} [4]

$CaCl_2$ (l) Calcium(II) Chloride **$CaCl_2$ (l)**

$\Delta H^0_{1045} = -708.6$ kJ·mol^{-1} [4] $S^0_{1045} = 232.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 102.53$ J·mol^{-1}·K^{-1} (1045 K) [4]

$\lg(p,K) = -17.03 \cdot 10^3 \cdot T^{-1} - 4.85 \cdot \lg(T) + 23.76$ (1045 ... 2279 K) [4]

{Reaction: evaporation as $CaCl_2$(g)}

$CaCl_2$ (l) Calcium(II) Chloride **$CaCl_2$ (l)**

$\Delta H^0_{298} = -774.1$ kJ·mol^{-1} [1] $S^0_{298} = 123.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 72.86$ J·mol^{-1}·K^{-1} (298 K) [1]

$CaCl_2$ (g) Calcium(II) Chloride **$CaCl_2$ (g)**

$\Delta H^0_{298} = -471.5 \pm 4$ kJ·mol^{-1} [1] $S^0_{298} = 290.3 \pm 8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 62.13 + 0.14 \cdot 10^{-3} \cdot T - 0.25 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2279 K) [4]

$CaCl_2O$ (s) Calcium Chloride Hypochlorite **$CaCl_2O$ (s)**

Ca(OCl)Cl (s) Ca(OCl)Cl (s)

$\Delta H^0_{298} = -746.4$ kJ·mol^{-1} [2] $S^0_{298} = 113$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 100.27$ J·mol^{-1}·K^{-1} (298 K) [2]

$CaCl_5Ga$ (g) Calcium Gallium Chloride **$CaCl_5Ga$ (g)**

$CaGaCl_5$ (g) $CaGaCl_5$ (g)

$\Delta H^0_{298} = -\ 1052.2$ kJ·mol^{-1} [168, 8] $S^0_{298} = 477.3$ J·mol^{-1}·K^{-1} [168, 8]

$CaCl_8Ga_2$ (g) Calcium Gallium Chloride **$CaCl_8Ga_2$ (g)**

$CaGa_2Cl_8$ (g) $CaGa_2Cl_8$ (g)

$\Delta H^0_{298} = -\ 1701.4$ kJ·mol^{-1} [168, 8] $S^0_{298} = 643.2$ J·mol^{-1}·K^{-1} [168, 8]

$CaCr_2O_4$ (s) Calcium Chromate(III) **$CaCr_2O_4$ (s)**

$CaO \cdot Cr_2O_3$ (s) $CaO \cdot Cr_2O_3$ (s)

mp = 2370 K (2097 °C)

$\Delta H^0_{298} = -\ 1829.7$ kJ·mol^{-1} [4] $S^0_{298} = 125.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 169.66 + 13.26 \cdot 10^{-3} \cdot T - 2.4 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1918 K) [4]

CaF (g) Calcium(I) Fluoride **CaF (g)**

$\Delta H^0_{298} = -\ 272 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 229.7 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 36.68 + 0.43 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CaF_2 (s) Calcium(II) Fluoride **CaF_2 (s)**

mp = 1690 K (1417 °C) bp = 2757 K (2484 °C)

$\Delta H^0_{298} = -\ 1229.3$ kJ·mol^{-1} [4] $S^0_{298} = 68.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 41.06 + 55.46 \cdot 10^{-3} \cdot T + 0.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1430 K) [4]

$\lg(p,K) = -\ 25.29 \cdot 10^3 \cdot T^{-1} - 7.15 \cdot \lg(T) + 34.06$ (1300 ... 1430 K) [4]

{Reaction: evaporation as CaF_2(g)}

CaF_2 (s) Calcium(II) Fluoride **CaF_2 (s)**

$\Delta H^0_{1690} = -\ 1094.1$ kJ·mol^{-1} [4] $S^0_{1690} = 221.3$ J·mol^{-1}·K^{-1} [4]

CaF_2 (l) Calcium(II) Fluoride **CaF_2 (l)**

$\Delta H^0_{1690} = -\ 1064.4$ kJ·mol^{-1} [4] $S^0_{1690} = 238.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 99.16$ J·mol^{-1}·K^{-1} (1690 K) [4]
$\lg(p,K) = -\ 22.02 \cdot 10^3 \cdot T^{-1} - \ 4.93 \cdot \lg(T) + 24.95$ (1690 ... 2000 K) [4]
{Reaction: evaporation as CaF_2(g)}

CaF_2 (l) Calcium(II) Fluoride **CaF_2 (l)**

$\Delta H^0_{298} = -\ 1186.1$ kJ·mol^{-1} [1] $S^0_{298} = 92.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 99.16$ J·mol^{-1}·K^{-1} (1690 K) [4]

CaF_2 (g) Calcium(II) Fluoride **CaF_2 (g)**

$\Delta H^0_{298} = -\ 791.2$ kJ·mol^{-1} [4] $S^0_{298} = 273.8 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 57.22 + 0.61 \cdot 10^{-3} \cdot T - \ 0.54 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CaFe_2O_4$ (s) Calcium Ferrate(III) **$CaFe_2O_4$ (s)**
$CaO \cdot Fe_2O_3$ (s) $CaO \cdot Fe_2O_3$ (s)

mp = 1489 K (1216 °C)
$\Delta H^0_{298} = -\ 1479.4$ kJ·mol^{-1} [4] $S^0_{298} = 145.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 164.93 + 19.92 \cdot 10^{-3} \cdot T - \ 1.53 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1489 K) [4]

$CaFe_2O_4$ (s) Calcium Ferrate(III) **$CaFe_2O_4$ (s)**
$CaO \cdot Fe_2O_3$ (s) $CaO \cdot Fe_2O_3$ (s)

$\Delta H^0_{1489} = -\ 1265.9$ kJ·mol^{-1} [4] $S^0_{1489} = 425.9$ J·mol^{-1}·K^{-1} [4]

$CaFe_2O_4$ (l) Calcium Ferrate(III) **$CaFe_2O_4$ (l)**
$CaO \cdot Fe_2O_3$ (l) $CaO \cdot Fe_2O_3$ (l)

$\Delta H^0_{1489} = -\ 1157.6$ kJ·mol^{-1} [4] $S^0_{1489} = 498.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 229.7$ J·mol^{-1}·K^{-1} (1489 K) [4]

$CaGeO_3$ (s) Calcium Germanate **$CaGeO_3$ (s)**

$CaO \cdot GeO_2$ (s) $CaO \cdot GeO_2$ (s)

mp = 1693 K (1420 °C)

$\Delta H^0_{298} = -1285.3$ kJ·mol^{-1} [4] $S^0_{298} = 87.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 120.5 + 16.11 \cdot 10^{-3} \cdot T - 2.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1693 K) [4]

CaH (g) Calcium(I) Hydride **CaH (g)**

$\Delta H^0_{298} = 228.9$ kJ·mol^{-1} [4] $S^0_{298} = 201.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 32.13 + 3.1 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CaHO_4P$ (s) Calcium Hydrogen Phosphate **$CaHO_4P$ (s)**

$CaHPO_4$ (s) $CaHPO_4$ (s)

$\Delta H^0_{298} = -1814.4$ kJ·mol^{-1} [2] $S^0_{298} = 111.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 138.41 + 55.1 \cdot 10^{-3} \cdot T - 4.04 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$CaHO_{4.5}S$ (s) Calcium Sulfate Hemihydrate **$CaHO_{4.5}S$ (s)**

$CaSO_4 \cdot 0.5H_2O$ (s) $CaSO_4 \cdot 0.5H_2O$ (s)

$\Delta H^0_{298} = -1576.7$ kJ·mol^{-1} [2] $S^0_{298} = 130.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 118$ J·mol^{-1}·K^{-1} (298 K) [2]

CaH_2 (s) Calcium(II) Hydride alpha **CaH_2 (s)**

$\Delta H^0_{298} = -177$ kJ·mol^{-1} [2] $S^0_{298} = 41.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 29.71 + 24.48 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1053 K) [3]

CaH_2 (s) Calcium(II) Hydride alpha **CaH_2 (s)**

$\Delta H^0_{1053} = -135.5$ kJ·mol^{-1} [2] $S^0_{1053} = 107.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 69$ J·mol^{-1}·K^{-1} (1053 K) [2]

CaH_2 (s) Calcium(II) Hydride beta **CaH_2 (s)**

$\Delta H^0_{1053} = -128.8$ kJ·mol^{-1} [2] $S^0_{1053} = 113.6$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 69$ J·mol^{-1}·K^{-1} (1053 K) [2]

CaH_2O_2 (s) Calcium Hydroxide **CaH_2O_2 (s)**
$Ca(OH)_2$ (s) $Ca(OH)_2$ (s)

$\Delta H^0_{298} = -986.1 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 83.4 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 101.79 + 18 \cdot 10^{-3} \cdot T - 1.74 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 793 K) [4]
$\lg(p,K) = -6.02 \cdot 10^{3} \cdot T^{-1} - 2.25 \cdot \lg(T) + 14.11$ (400 ... 793 K) [4]
{Reaction: decomposition $Ca(OH)_2(s) = CaO(s) + H_2O(g)$}

CaH_2O_2 (g) Calcium Hydroxide **CaH_2O_2 (g)**
$Ca(OH)_2$ (g) $Ca(OH)_2$ (g)

$\Delta H^0_{298} = -610.8 \pm 37.7$ kJ·mol^{-1} [1] $S^0_{298} = 285.6 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 73.45$ J·mol^{-1}·K^{-1} (298 K) [1]

$CaH_4N_2O_8$ (s) Calcium Nitrate Dihydrate **$CaH_4N_2O_8$ (s)**
$Ca(NO_3)_2 \cdot 2H_2O$ (s) $Ca(NO_3)_2 \cdot 2H_2O$ (s)

$\Delta H^0_{298} = -1540.8$ kJ·mol^{-1} [2] $S^0_{298} = 269.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 231.5$ J·mol^{-1}·K^{-1} (298 K) [2]

CaH_4O_6S (s) Calcium Sulfate Dihydrate, Gypsum **CaH_4O_6S (s)**
$CaSO_4 \cdot 2H_2O$ (s) $CaSO_4 \cdot 2H_2O$ (s)

$\Delta H^0_{298} = -2022.6$ kJ·mol^{-1} [2] $S^0_{298} = 194.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 186$ J·mol^{-1}·K^{-1} (298 K) [2]

CaH_5O_6P (s) Calcium Hydrogen Phosphate Dihydrate **CaH_5O_6P (s)**
$CaHPO_4 \cdot 2H_2O$ (s) $CaHPO_4 \cdot 2H_2O$ (s)

$\Delta H^0_{298} = -2403.7$ kJ·mol^{-1} [2] $S^0_{298} = 189.5$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 196.95$ J·mol^{-1}·K^{-1} (298 K) [2]

$CaHfO_3$ (s) Calcium Hafnate **$CaHfO_3$ (s)**

$CaO \cdot HfO_2$ (s) $CaO \cdot HfO_2$ (s)

$\Delta H^0_{298} = -\ 1779.8$ kJ·mol^{-1} [4] $S^0_{298} = 99.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 121.71 + 13.56 \cdot 10^{-3} \cdot T -\ 1.78 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

CaI (g) Calcium(I) Iodide **CaI (g)**

$\Delta H^0_{298} = -\ 5.1$ kJ·mol^{-1} [4] $S^0_{298} = 261.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 37.37 + 0.34 \cdot 10^{-3} \cdot T -\ 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CaI_2 (s) Calcium(II) Iodide **CaI_2 (s)**

mp = 1052 K (779 °C) bp = 2033 K (1760 °C)

$\Delta H^0_{298} = -\ 536.8 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 145.3 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 71.35 + 19.65 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1052 K) [4]

$\lg(p,K) = -\ 15.2 \cdot 10^3 \cdot T^{-1} -\ 3.29 \cdot \lg(T) + 19.5$ (900 ... 1052 K) [4]

{Reaction: evaporation as CaI_2(g)}

CaI_2 (s) Calcium(II) Iodide **CaI_2 (s)**

$\Delta H^0_{1052} = -\ 473$ kJ·mol^{-1} [4] $S^0_{1052} = 250$ J·mol^{-1}·K^{-1} [4]

CaI_2 (l) Calcium(II) Iodide **CaI_2 (l)**

$\Delta H^0_{1052} = -\ 431.2$ kJ·mol^{-1} [4] $S^0_{1052} = 289.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 103.35$ J·mol^{-1}·K^{-1} (1052 K) [4]

$\lg(p,K) = -\ 13.76 \cdot 10^3 \cdot T^{-1} -\ 4.94 \cdot \lg(T) + 23.11$ (1052 ... 2033 K) [4]

{Reaction: evaporation as CaI_2(g)}

CaI_2 (l) Calcium(II) Iodide **CaI_2 (l)**

$\Delta H^0_{298} = -\ 500.2$ kJ·mol^{-1} [1] $S^0_{298} = 178.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 77.16$ J·mol^{-1}·K^{-1} (298 K) [1]

CaI_2 (g) Calcium(II) Iodide **CaI_2 (g)**

$\Delta H^0_{298} = -258.2 \pm 17$ kJ·mol^{-1} [1] $S^0_{298} = 327.6 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 62.29 + 0.04 \cdot 10^{-3} \cdot T - 0.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2033 K) [4]

$CaMgO_2$ (s) Calcium Magnesium Oxide **$CaMgO_2$ (s)**
$CaO \cdot MgO$ (s) $CaO \cdot MgO$ (s)

$\Delta H^0_{298} = -1243.9$ kJ·mol^{-1} [2] $S^0_{298} = 66.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 97.82 + 7.66 \cdot 10^{-3} \cdot T - 1.82 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1800 K) [4]

$CaMgO_4Si$ (s) Calcium Magnesium Silicate **$CaMgO_4Si$ (s)**
$CaO \cdot MgO \cdot SiO_2$ (s) $CaO \cdot MgO \cdot SiO_2$ (s)

$\Delta H^0_{298} = -2263.1$ kJ·mol^{-1} [2] $S^0_{298} = 109.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 150.62 + 32.01 \cdot 10^{-3} \cdot T - 3.28 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

$CaMgO_6Si_2$ (s) Calcium Magnesium Silicate **$CaMgO_6Si_2$ (s)**
$CaO \cdot MgO \cdot 2SiO_2$ (s) Diopside $CaO \cdot MgO \cdot 2SiO_2$ (s)

mp = 1665 K (1392 °C)
$\Delta H^0_{298} = -3203.2$ kJ·mol^{-1} [4] $S^0_{298} = 143.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 186.02 + 123.76 \cdot 10^{-3} \cdot T - 5.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1665 K) [4]

$CaMgO_6Si_2$ (s) Calcium Magnesium Silicate **$CaMgO_6Si_2$ (s)**
$CaO \cdot MgO \cdot 2SiO_2$ (s) $CaO \cdot MgO \cdot 2SiO_2$ (s)

$\Delta H^0_{1665} = -2865.5$ kJ·mol^{-1} [4] $S^0_{1665} = 542.8$ J·mol^{-1}·K^{-1} [4]

$CaMgO_6Si_2$ (l) Calcium Magnesium Silicate **$CaMgO_6Si_2$ (l)**
$CaO \cdot MgO \cdot 2SiO_2$ (l) $CaO \cdot MgO \cdot 2SiO_2$ (l)

$\Delta H^0_{1665} = -2737.1$ kJ·mol^{-1} [4] $S^0_{1665} = 620$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 355.64$ J·mol^{-1}·K^{-1} (1665 K) [4]

$CaMg_2$ (s) Calcium Magnesium **$CaMg_2$ (s)**

mp = 988 K (715 °C)
$\Delta H^0_{298} = -40.2$ kJ·mol^{-1} [2] $S^0_{298} = 104.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 75.7$ J·mol^{-1}·K^{-1} (298 K) [2]

$CaMoO_4$ (s) Calcium Molybdate **$CaMoO_4$ (s)**
$CaO \cdot MoO_3$ (s) $CaO \cdot MoO_3$ (s)

mp = 1718 K (1445 °C)
$\Delta H^0_{298} = -1542.2$ kJ·mol^{-1} [2] $S^0_{298} = 122.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 133.47 + 29.2 \cdot 10^{-3} \cdot T - 2.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1718 K) [4]

CaN_2O_6 (s) Calcium Nitrate **CaN_2O_6 (s)**
$Ca(NO_3)_2$ (s) $Ca(NO_3)_2$ (s)

mp = 834 K (561 °C)
$\Delta H^0_{298} = -938.4$ kJ·mol^{-1} [2] $S^0_{298} = 193.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 122.88 + 154.01 \cdot 10^{-3} \cdot T - 1.73 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 834 K) [4]

$CaNb_2O_6$ (s) Calcium Niobate **$CaNb_2O_6$ (s)**
$CaO \cdot Nb_2O_5$ (s) $CaO \cdot Nb_2O_5$ (s)

mp = 1833 K (1560 °C)
$\Delta H^0_{298} = -2675.3$ kJ·mol^{-1} [4] $S^0_{298} = 178.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 214.64 + 20.92 \cdot 10^{-3} \cdot T - 3.87 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1833 K) [4]

CaO (s) Calcium Oxide **CaO (s)**

$\Delta H^0_{298} = -635.1 \pm 0.9$ kJ·mol^{-1} [1] $S^0_{298} = 38.2 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 50.42 + 4.18 \cdot 10^{-3} \cdot T - 0.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 3200 K) [4]

CaO (l) Calcium Oxide **CaO (l)**

$\Delta H^0_{298} = -557.3$ kJ·mol^{-1} [1] $S^0_{298} = 62.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 42.12$ J·mol^{-1}·K^{-1} (298 K) [1]

CaO (g) Calcium Oxide **CaO (g)**

$\Delta H^0_{298} = 43.9 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 219.7 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 32.46$ J·mol^{-1}·K^{-1} (298 K) [1]

CaO_2 (s) Calcium Peroxide **CaO_2 (s)**

$\Delta H^0_{298} = -659$ kJ·mol^{-1} [4] $S^0_{298} = 83.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 82.84$ J·mol^{-1}·K^{-1} (298 K) [4]
$\lg(p,K) = -3.21 \cdot 10^3 \cdot T^{-1} - 5.55 \cdot \lg(T) + 22.09$ (298 ... 429 K) [4]
{Reaction: decomposition $2CaO_2(s) = 2CaO(s) + O_2(g)$}

CaO_3S (s) Calcium Sulfite **CaO_3S (s)**
$CaSO_3$ (s) $CaSO_3$ (s)

$\Delta H^0_{298} = -1171.5$ kJ·mol^{-1} [4] $S^0_{298} = 101.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 76.99 + 48.53 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 659 K) [4]

CaO_3Si (s) Calcium Silicate **CaO_3Si (s)**
$CaO \cdot SiO_2$ (s) Wollastonite $CaO \cdot SiO_2$ (s)

$\Delta H^0_{298} = -1634.9$ kJ·mol^{-1} [2] $S^0_{298} = 81.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 111.46 + 15.06 \cdot 10^{-3} \cdot T - 2.73 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1450 K) [3]

CaO_3Si (s) Calcium Silicate **CaO_3Si (s)**
$CaO \cdot SiO_2$ (s) Pseudowollastonite $CaO \cdot SiO_2$ (s)

$\Delta H^0_{298} = -1628.4$ kJ·mol^{-1} [2] $S^0_{298} = 87.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 108.16 + 16.48 \cdot 10^{-3} \cdot T - 2.36 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1700 K) [3]

CaO_3Ti (s) Calcium Titanate **CaO_3Ti (s)**
$CaO \cdot TiO_2$ (s) Perowskite $CaO \cdot TiO_2$ (s)

mp = 2243 K (1970 °C)
$\Delta H^0_{298} = -1659$ kJ·mol^{-1} [4] $S^0_{298} = 93.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 127.49 + 5.69 \cdot 10^{-3} \cdot T - 2.8 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1530 K) [4]

CaO_3Zr (s) Calcium Zirconate **CaO_3Zr (s)**
$CaO \cdot ZrO_2$ (s) $CaO \cdot ZrO_2$ (s)

mp = 2598 K (2325 °C)
$\Delta H^0_{298} = -1766.9$ kJ·mol^{-1} [2] $S^0_{298} = 93.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 119.24 + 12.05 \cdot 10^{-3} \cdot T - 2.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CaO_4S (s) Calcium Sulfate **CaO_4S (s)**
$CaSO_4$ (s) $CaSO_4$ (s)

mp = 1723 K (1450 °C)
$\Delta H^0_{298} = -1434.1$ kJ·mol^{-1} [2] $S^0_{298} = 106.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 70.21 + 98.74 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1723 K) [4]

CaO_4U (s) Calcium Uranate(VI) **CaO_4U (s)**
$CaO \cdot UO_3$ (s) alpha $CaO \cdot UO_3$ (s)

$\Delta H^0_{298} = -1997.4$ kJ·mol^{-1} [2] $S^0_{298} = 143.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 115.6 + 49.79 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (293 ... 1025 K) [4]

CaO_4W (s) Calcium Tungstate(VI) **CaO_4W (s)**
$CaO \cdot WO_3$ (s) $CaO \cdot WO_3$ (s)

mp = 1853 K (1580 °C)
$\Delta H^0_{298} = -1624$ kJ·mol^{-1} [4] $S^0_{298} = 126.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 134.56 + 20.67 \cdot 10^{-3} \cdot T - 2.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1853 K) [4]

CaO_5SiTi (s) Calcium Titanate Silicate **CaO_5SiTi (s)**
$CaO \cdot TiO_2 \cdot SiO_2$ (s) Sphene $CaO \cdot TiO_2 \cdot SiO_2$ (s)

mp = 1673 K (1400 °C)
$\Delta H^0_{298} = -2603.3$ kJ·mol^{-1} [2] $S^0_{298} = 129.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 177.36 + 23.18 \cdot 10^{-3} \cdot T - 4.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1673 K) [4]

CaO_5SiTi (s) Calcium Titanate Silicate **CaO_5SiTi (s)**
$CaO \cdot TiO_2 \cdot SiO_2$ (s) $CaO \cdot TiO_2 \cdot SiO_2$ (s)

$\Delta H^0_{1673} = -2338.9$ kJ·mol^{-1} [4] $S^0_{1673} = 445.1$ J·mol^{-1}·K^{-1} [4]

CaO_5SiTi (l) Calcium Titanate Silicate **CaO_5SiTi (l)**

$CaO \cdot TiO_2 \cdot SiO_2$ (l) $CaO \cdot TiO_2 \cdot SiO_2$ (l)

$\Delta H^0_{1673} = -2215$ kJ·mol⁻¹ [4] $S^0_{1673} = 519.1$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 279.49$ J·mol⁻¹·K⁻¹ (1673 K) [4]

CaO_6V_2 (s) Calcium Vanadate **CaO_6V_2 (s)**

$CaO \cdot V_2O_5$ (s) $CaO \cdot V_2O_5$ (s)

mp = 1051 K (778 °C)

$\Delta H^0_{298} = -2329.3$ kJ·mol⁻¹ [2] $S^0_{298} = 179.1$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 135.23 + 119.16 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 1051 K) [4]

CaPb (s) Calcium Lead **CaPb (s)**

$\Delta H^0_{298} = -121$ kJ·mol⁻¹ [2] $S^0_{298} = 80.8$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 50.3$ J·mol⁻¹·K⁻¹ (298 K) [2]

CaS (s) Calcium Sulfide **CaS (s)**

mp = 2798 K (2525 °C)

$\Delta H^0_{298} = -473.2 \pm 2.9$ kJ·mol⁻¹ [1] $S^0_{298} = 56.6 \pm 1.3$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 50.63 + 3.7 \cdot 10^{-3} \cdot T - 0.39 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2798 K) [4]

CaS (g) Calcium Sulfide **CaS (g)**

$\Delta H^0_{298} = 123.6 \pm 8.4$ kJ·mol⁻¹ [1] $S^0_{298} = 232.6 \pm 0.4$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 37.2 + 0.11 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 3000 K) [4]

CaSe (s) Calcium Selenide **CaSe (s)**

$\Delta H^0_{298} = -368.2$ kJ·mol⁻¹ [2] $S^0_{298} = 69$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 45.61 + 8.37 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 1000 K) [4]

CaSi (s) Calcium Silicide **CaSi (s)**

$\Delta H^0_{298} = -151$ kJ·mol⁻¹ [2] $S^0_{298} = 45.2$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 46.4$ J·mol⁻¹·K⁻¹ (298 K) [2]

$CaSi_2$ (s) Calcium Silicide **$CaSi_2$ (s)**

$\Delta H^0_{298} = -151$ kJ·mol^{-1} [2] $S^0_{298} = 50.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 68.2$ J·mol^{-1}·K^{-1} (298 K) [2]

CaSn (s) Calcium Tin **CaSn (s)**

$\Delta H^0_{298} = -159$ kJ·mol^{-1} [2] $S^0_{298} = 70.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 48.1$ J·mol^{-1}·K^{-1} (298 K) [2]

CaTe (s) Calcium Telluride **CaTe (s)**

$\Delta H^0_{298} = -272$ kJ·mol^{-1} [4] $S^0_{298} = 80.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 38.49 + 10.46 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

CaZn (s) Calcium Zinc **CaZn (s)**

$\Delta H^0_{298} = -73.2$ kJ·mol^{-1} [2] $S^0_{298} = 66.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 49.3$ J·mol^{-1}·K^{-1} (298 K) [2]

$CaZn_2$ (s) Calcium Zinc **$CaZn_2$ (s)**

$\Delta H^0_{298} = -94.1$ kJ·mol^{-1} [2] $S^0_{298} = 101.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 74.8$ J·mol^{-1}·K^{-1} (298 K) [2]

Ca_2 (g) Calcium **Ca_2 (g)**

$\Delta H^0_{298} = 341.6 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 257.2 \pm 0.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36.58$ J·mol^{-1}·K^{-1} (298 K) [1]
$\lg(p,K) = -17.49 \cdot 10^3 \cdot T^{-1} - 3.92 \cdot \lg(T) + 20.08$ (1100 ... 1774 K) [4]
{Reaction: evaporation of Ca(l)}

$Ca_2Fe_2O_5$ (s) Calcium Ferrate(III) **$Ca_2Fe_2O_5$ (s)**
$2CaO \cdot Fe_2O_3$ (s) $2CaO \cdot Fe_2O_3$ (s)

mp = 1722 K (1449 °C)
$\Delta H^0_{298} = -2133.7$ kJ·mol^{-1} [4] $S^0_{298} = 188.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 248.61 - 4.89 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1722 K) [4]

$Ca_2Fe_2O_5$ (s) Calcium Ferrate(III) **$Ca_2Fe_2O_5$ (s)**

$2CaO \cdot Fe_2O_3$ (s) $2CaO \cdot Fe_2O_3$ (s)

$\Delta H^0_{1722} = -1793.3$ kJ·mol^{-1} [4] $S^0_{1722} = 598$ J·mol^{-1}·K^{-1} [4]

$Ca_2Fe_2O_5$ (l) Calcium Ferrate(III) **$Ca_2Fe_2O_5$ (l)**

$2CaO \cdot Fe_2O_3$ (l) $2CaO \cdot Fe_2O_3$ (l)

$\Delta H^0_{1722} = -1642.3$ kJ·mol^{-1} [4] $S^0_{1722} = 685.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 310.45$ J·mol^{-1}·K^{-1} (1722 K) [4]

$Ca_2MgO_7Si_2$ (s) Calcium Magnesium Silicate **$Ca_2MgO_7Si_2$ (s)**

$2CaO \cdot MgO \cdot 2SiO_2$ (s) Akermanite $2CaO \cdot MgO \cdot 2SiO_2$ (s)

mp = 1727 K (1454 °C)

$\Delta H^0_{298} = -3877.2$ kJ·mol^{-1} [2] $S^0_{298} = 209.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 251.96 + 47.24 \cdot 10^{-3} \cdot T - 4.8 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1727 K) [4]

Ca_2O_4Si (s) Calcium Silicate **Ca_2O_4Si (s)**

$2CaO \cdot SiO_2$ (s) Olivine $2CaO \cdot SiO_2$ (s)

$\Delta H^0_{298} = -2315.2$ kJ·mol^{-1} [2] $S^0_{298} = 120.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 126.7$ J·mol^{-1}·K^{-1} (298 K) [2]

Ca_2O_4Si (s) Calcium Silicate **Ca_2O_4Si (s)**

$2CaO \cdot SiO_2$ (s) Larnite $2CaO \cdot SiO_2$ (s)

$\Delta H^0_{298} = -2304.8$ kJ·mol^{-1} [2] $S^0_{298} = 127.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 128.8$ J·mol^{-1}·K^{-1} (298 K) [2]

$Ca_2O_7P_2$ (s) Calcium Diphosphate **$Ca_2O_7P_2$ (s)**

$2CaO \cdot P_2O_5$ (s) beta $2CaO \cdot P_2O_5$ (s)

mp = 1626 K (1353 °C)

$\Delta H^0_{298} = -3338.8$ kJ·mol^{-1} [4] $S^0_{298} = 189.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 221.88 + 61.76 \cdot 10^{-3} \cdot T - 4.67 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1413 K) [4]

$Ca_2O_7P_2$ (s) Calcium Diphosphate **$Ca_2O_7P_2$ (s)**
$2CaO \cdot P_2O_5$ (s) beta $2CaO \cdot P_2O_5$ (s)

$\Delta H^0_{1413} = -3044.9$ kJ·mol^{-1} [4] $S^0_{1413} = 578.2$ J·mol^{-1}·K^{-1} [4]

$Ca_2O_7P_2$ (s) Calcium Diphosphate **$Ca_2O_7P_2$ (s)**
$2CaO \cdot P_2O_5$ (s) alpha $2CaO \cdot P_2O_5$ (s)

$\Delta H^0_{1413} = -3038.2$ kJ·mol^{-1} [4] $S^0_{1413} = 582.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 318.61$ J·mol^{-1}·K^{-1} (1413 K) [4]

$Ca_2O_7P_2$ (s) Calcium Diphosphate **$Ca_2O_7P_2$ (s)**
$2CaO \cdot P_2O_5$ (s) alpha $2CaO \cdot P_2O_5$ (s)

$\Delta H^0_{1626} = -2970.3$ kJ·mol^{-1} [4] $S^0_{1626} = 627.7$ J·mol^{-1}·K^{-1} [4]

$Ca_2O_7P_2$ (l) Calcium Diphosphate **$Ca_2O_7P_2$ (l)**
$2CaO \cdot P_2O_5$ (l) $2CaO \cdot P_2O_5$ (l)

$\Delta H^0_{1626} = -2869.5$ kJ·mol^{-1} [4] $S^0_{1626} = 689.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 405.01$ J·mol^{-1}·K^{-1} (1626 K) [4]

$Ca_2O_7V_2$ (s) Calcium Divanadate(V) **$Ca_2O_7V_2$ (s)**
$2CaO \cdot V_2O_5$ (s) $2CaO \cdot V_2O_5$ (s)

mp = 1288 K (1015 °C)
$\Delta H^0_{298} = -3083.4$ kJ·mol^{-1} [2] $S^0_{298} = 220.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 177.82 + 121 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1288 K) [4]

Ca_2Pb (s) Calcium Lead **Ca_2Pb (s)**

mp = 1467 K (1194 °C)
$\Delta H^0_{298} = -209.2$ kJ·mol^{-1} [4] $S^0_{298} = 126.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 62.43 + 22.08 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1385 K) [4]

Ca_2Si (s) Calcium Silicide **Ca_2Si (s)**

$\Delta H^0_{298} = -209$ kJ·mol^{-1} [2] $S^0_{298} = 81.2$ J·mol^{-1}·K^{-1} [2]
$C_p^{\,0} = 72.7$ J·mol^{-1}·K^{-1} (298 K) [2]

Ca_2Sn (s) Calcium Tin **Ca_2Sn (s)**

mp = 1408 K (1135 °C)
$\Delta H^0_{298} = -314$ kJ·mol^{-1} [2] $S^0_{298} = 100.4$ J·mol^{-1}·K^{-1} [2]
$C_p^{\,0} = 71.6$ J·mol^{-1}·K^{-1} (298 K) [2]

$Ca_3MgO_8Si_2$ (s) Merwinite **$Ca_3MgO_8Si_2$ (s)**
$3CaO \cdot MgO \cdot 2SiO_2$ (s) $3CaO \cdot MgO \cdot 2SiO_2$ (s)

$\Delta H^0_{298} = -4567.7$ kJ·mol^{-1} [2] $S^0_{298} = 253.1$ J·mol^{-1}·K^{-1} [2]
$C_p^{\,0} = 252.3$ J·mol^{-1}·K^{-1} (298 K) [2]

Ca_3N_2 (s) Calcium Nitride **Ca_3N_2 (s)**

mp = 1468 K (1195 °C)
$\Delta H^0_{298} = -439.3$ kJ·mol^{-1} [4] $S^0_{298} = 107.9$ J·mol^{-1}·K^{-1} [4]
$C_p^{\,0} = 138.78 + 15.48 \cdot 10^{-3} \cdot T - 2.63 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1468 K) [4]

Ca_3O_5Si (s) Calcium Silicate **Ca_3O_5Si (s)**
$3CaO \cdot SiO_2$ (s) $3CaO \cdot SiO_2$ (s)

$\Delta H^0_{298} = -2929.2$ kJ·mol^{-1} [2] $S^0_{298} = 168.6$ J·mol^{-1}·K^{-1} [2]
$C_p^{\,0} = 171.9$ J·mol^{-1}·K^{-1} (298 K) [2]

Ca_3O_6W (s) Calcium Tungstate(VI) **Ca_3O_6W (s)**
$3CaO \cdot WO_3$ (s) $3CaO \cdot WO_3$ (s)

mp = 2520 K (2247 °C)
$\Delta H^0_{298} = -2933$ kJ·mol^{-1} [4] $S^0_{298} = 195$ J·mol^{-1}·K^{-1} [4]
$C_p^{\,0} = 236.52 + 29.71 \cdot 10^{-3} \cdot T - 3.83 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Ca_3O_7Si_2$ (s) Calcium Silicate **$Ca_3O_7Si_2$ (s)**

$3CaO \cdot 2SiO_2$ (s) Rankinite $3CaO \cdot 2SiO_2$ (s)

$\Delta H^0_{298} = -3961$ kJ·mol^{-1} [2] $S^0_{298} = 210.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 214.4$ J·mol^{-1}·K^{-1} (298 K) [2]

$Ca_3O_7Ti_2$ (s) Calcium Titanate **$Ca_3O_7Ti_2$ (s)**

$3CaO \cdot 2TiO_2$ (s) $3CaO \cdot 2TiO_2$ (s)

mp = 2013 K (1740 °C)

$\Delta H^0_{298} = -4004$ kJ·mol^{-1} [4] $S^0_{298} = 234.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 299.24 + 15.9 \cdot 10^{-3} \cdot T - 5.72 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2013 K) [4]

$Ca_3O_8P_2$ (s) Calcium Phosphate **$Ca_3O_8P_2$ (s)**

$3CaO \cdot P_2O_5$ (s) beta $3CaO \cdot P_2O_5$ (s)

mp = 2080 K (1807 °C)

$\Delta H^0_{298} = -4120.8$ kJ·mol^{-1} [2] $S^0_{298} = 236$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 201.84 + 163.51 \cdot 10^{-3} \cdot T - 2.09 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1373 K) [4]

$Ca_3O_8P_2$ (s) Calcium Phosphate **$Ca_3O_8P_2$ (s)**

$3CaO \cdot P_2O_5$ (s) beta $3CaO \cdot P_2O_5$ (s)

$\Delta H^0_{1373} = -3762.5$ kJ·mol^{-1} [4] $S^0_{1373} = 708.8$ J·mol^{-1}·K^{-1} [4]

$Ca_3O_8P_2$ (s) Calcium Phosphate **$Ca_3O_8P_2$ (s)**

$3CaO \cdot P_2O_5$ (s) alpha $3CaO \cdot P_2O_5$ (s)

$\Delta H^0_{1373} = -3747$ kJ·mol^{-1} [4] $S^0_{1373} = 720.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 330.54$ J·mol^{-1}·K^{-1} (1373 ... 2000 K) [4]

$Ca_3O_8V_2$ (s) Calcium Vanadate(V) **$Ca_3O_8V_2$ (s)**

$3CaO \cdot V_2O_5$ (s) $3CaO \cdot V_2O_5$ (s)

mp = 1653 K (1380 °C)

$\Delta H^0_{298} = -3777.9$ kJ·mol^{-1} [2] $S^0_{298} = 274.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 226.82 + 101.34 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1653 K) [4]

Ca_3P_2 (s) Calcium Phosphide **Ca_3P_2 (s)**

$\Delta H^0_{298} = -506.3$ kJ·mol^{-1} [2] $S^0_{298} = 123.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 107.95 + 28.03 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Ca_3Sb_2 (s) Calcium Antimonide **Ca_3Sb_2 (s)**

mp = 1623 K (1350 °C)
$\Delta H^0_{298} = -728$ kJ·mol^{-1} [2] $S^0_{298} = 157.3$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 105.02 + 29.5 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1623 K) [4]

$Ca_4O_{10}Ti_3$ (s) Calcium Titanate **$Ca_4O_{10}Ti_3$ (s)**
$4CaO \cdot 3TiO_2$ (s) $4CaO \cdot 3TiO_2$ (s)

mp = 2078 K (1805 °C)
$\Delta H^0_{298} = -5671.7$ kJ·mol^{-1} [4] $S^0_{298} = 328.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 424.05 + 21.59 \cdot 10^{-3} \cdot T - 8.24 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2078 K) [4]

Cd (s) Cadmium **Cd (s)**

mp = 594 K (321 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 51.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 22.05 + 12.55 \cdot 10^{-3} \cdot T + 0.01 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 594 K) [4]
$\lg(p,K) = -5.97 \cdot 10^{3} \cdot T^{-1} - 0.91 \cdot \lg(T) + 8.74$ (400 ... 594 K) [4]
{Reaction: evaporation}

Cd (s) Cadmium **Cd (s)**

$\Delta H^0_{594} = 8.2$ kJ·mol^{-1} [2] $S^0_{594} = 70.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 29.5$ J·mol^{-1}·K^{-1} (594 K) [2]

Cd (l) Cadmium **Cd (l)**

$\Delta H^0_{594} = 14.4$ kJ·mol^{-1} [2] $S^0_{594} = 81.2$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 29.71$ J·mol^{-1}·K^{-1} (594 ... 1039 K) [4]
$\lg(p,K) = -5.69 \cdot 10^{3} \cdot T^{-1} - 1.07 \cdot \lg(T) + 8.7$ (594 ... 1039 K) [4]
{Reaction: evaporation}

Cd (g) Cadmium **Cd (g)**

ΔH^0_{298} = 111.8 kJ·mol^{-1} [2] S^0_{298} = 167.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 20.79 J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CdCl_2$ (s) Cadmium(II) Chloride **$CdCl_2$ (s)**

mp = 842 K (569 °C)
ΔH^0_{298} = – 391.5 kJ·mol^{-1} [2] S^0_{298} = 115.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 70.08 + 21.95 ·10^{-3}·T – 0.18 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 842 K) [4]
lg(p,K) = – 10.18 ·10^3·T^{-1} – 2.79 · lg(T) + 17.69 (600 ... 842 K) [4]
{Reaction: evaporation as $CdCl_2$(g)}

$CdCl_2$ (s) Cadmium(II) Chloride **$CdCl_2$ (s)**

ΔH^0_{842} = – 347 kJ·mol^{-1} [4] S^0_{842} = 199.1 J·mol^{-1}·K^{-1} [4]

$CdCl_2$ (l) Cadmium(II) Chloride **$CdCl_2$ (l)**

ΔH^0_{842} = – 309.7 kJ·mol^{-1} [4] S^0_{842} = 243.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 111.29 J·mol^{-1}·K^{-1} (842 ... 1236 K) [4]
lg(p,K) = – 9.34 ·10^3·T^{-1} – 5.83 · lg(T) + 25.58 (842 ... 1236 K) [4]
{Reaction: evaporation as $CdCl_2$(g)}

$CdCl_2$ (g) Cadmium(II) Chloride **$CdCl_2$ (g)**

ΔH^0_{298} = – 205.2 kJ·mol^{-1} [4] S^0_{298} = 294.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 63.3 – 0.46 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CdCl_3K$ (s) Potassium Cadmium Chloride **$CdCl_3K$ (s)**
$KCdCl_3$ (s) $KCdCl_3$ (s)

ΔH^0_{298} = – 849.9 ± 1 kJ·mol^{-1} [242] S^0_{298} = [197.9] J·mol^{-1}·K^{-1} [243, 8]
$C_p{}^0$= [126.17] J·mol^{-1}·K^{-1} (298 K) [271]

$CdCl_6K_4$ (s) Potassium Cadmium Chloride **$CdCl_6K_4$ (s)**
K_4CdCl_6 (s) K_4CdCl_6 (s)

$\Delta H^0_{298} = -2177.5 \pm 4$ kJ·mol^{-1} [242] $S^0_{298} = [445.7]$ J·mol^{-1}·K^{-1} [244, 8]
$C_p{}^0 = [280.91]$ J·mol^{-1}·K^{-1} (298 K) [271]

$CdCl_8Fe_2$ (g) Cadmium Iron Chloride **$CdCl_8Fe_2$ (g)**
$CdFe_2Cl_8$ (g) $CdFe_2Cl_8$ (g)

$\Delta H^0_{298} = -997.6$ kJ·mol^{-1} [169, 8] $S^0_{298} = 694.2$ J·mol^{-1}·K^{-1} [169, 8]

$CdCs_2I_4$ (s) Cesium Cadmium(II) Iodide **$CdCs_2I_4$ (s)**
Cs_2CdI_4 (s) Cs_2CdI_4 (s)

$\Delta H^0_{298} = -920.4 \pm 1.4$ kJ·mol^{-1} [99] $S^0_{298} = [402.7]$ J·mol^{-1}·K^{-1} [100]
$C_p{}^0 = [185.08]$ J·mol^{-1}·K^{-1} (298 K) [271]

CdF_2 (s) Cadmium(II) Fluoride **CdF_2 (s)**

mp = 1345 K (1072 °C) bp = 2024 K (1751 °C)
$\Delta H^0_{298} = -700.4$ kJ·mol^{-1} [2] $S^0_{298} = 83.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 60.04 + 23.01 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1345 K) [4]
$\lg(p,K) = -17.19 \cdot 10^3 \cdot T^{-1} - 3.16 \cdot \lg(T) + 19.26$ (1000 ... 1345 K) [4]
{Reaction: evaporation as CdF_2(g)}

CdF_2 (s) Cadmium(II) Fluoride **CdF_2 (s)**

$\Delta H^0_{1345} = -617.8$ kJ·mol^{-1} [4] $S^0_{1345} = 198.2$ J·mol^{-1}·K^{-1} [4]

CdF_2 (l) Cadmium(II) Fluoride **CdF_2 (l)**

$\Delta H^0_{1345} = -595.2$ kJ·mol^{-1} [4] $S^0_{1345} = 215$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 94.14$ J·mol^{-1}·K^{-1} (1345 ... 2024 K) [4]
$\lg(p,K) = -16.47 \cdot 10^3 \cdot T^{-1} - 3.98 \cdot \lg(T) + 21.3$ (1345 ... 2024 K) [4]
{Reaction: evaporation as CdF_2(g)}

CdF_2 (g) Cadmium(II) Fluoride **CdF_2 (g)**

$\Delta H^0_{298} = -386.7$ kJ·mol^{-1} [4] $S^0_{298} = 262.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 61.3 - 0.69 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2024 K) [4]

$CdGa_2O_4$ (s) Cadmium Gallium Oxide **$CdGa_2O_4$ (s)**

$\Delta H^0_{298} = -1356.9$ kJ·mol^{-1} [2] $S^0_{298} = 139.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 161.13 + 21.84 \cdot 10^{-3} \cdot T - 2.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

$CdGa_2S_4$ (s) Cadmium Gallium Sulfide **$CdGa_2S_4$ (s)**

$\Delta H^0_{298} = -693.5$ kJ·mol^{-1} [190, 8] $S^0_{298} = [216.7]$ J·mol^{-1}·K^{-1} [205]
$C_p^0 = [153.26]$ J·mol^{-1}·K^{-1} (298 K) [271]

$CdGa_8S_{13}$ (s) Cadmium Gallium Sulfide **$CdGa_8S_{13}$ (s)**

$\Delta H^0_{298} = -2245.3$ kJ·mol^{-1} [190, 8] $S^0_{298} = [643.6]$ J·mol^{-1}·K^{-1} [191]
$C_p^0 = [467.03]$ J·mol^{-1}·K^{-1} (298 K) [271]

CdH_2O_2 (s) Cadmium Hydroxide **CdH_2O_2 (s)**
$Cd(OH)_2$ (s) $Cd(OH)_2$ (s)

$\Delta H^0_{298} = -560.7$ kJ·mol^{-1} [2] $S^0_{298} = 96$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 118.8$ J·mol^{-1}·K^{-1} (298 K) [2]

CdI_2 (s) Cadmium(II) Iodide **CdI_2 (s)**

mp = 661 K (388 °C)
$\Delta H^0_{298} = -204.2$ kJ·mol^{-1} [4] $S^0_{298} = 158.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 71.94 + 26.85 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 661 K) [4]
$\lg(p,K) = -8.01 \cdot 10^3 \cdot T^{-1} - 2.75 \cdot \lg(T) + 16.68$ (500 ... 661 K) [4]
{Reaction: evaporation as CdI_2(g)}

CdI_2 (s) Cadmium(II) Iodide **CdI_2 (s)**

$\Delta H^0_{661} = -173.4$ kJ·mol^{-1} [4] $S^0_{661} = 225.3$ J·mol^{-1}·K^{-1} [4]

CdI_2 (l) Cadmium(II) Iodide **CdI_2 (l)**

$\Delta H^0_{661} = -156.4$ kJ·mol^{-1} [4] $S^0_{661} = 251$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 102.09$ J·mol^{-1}·K^{-1} (661 ... 1016 K) [4]
$\lg(p,K) = -7.59 \cdot 10^3 \cdot T^{-1} - 4.41 \cdot \lg(T) + 20.73$ (661 ... 1016 K) [4]
{Reaction: evaporation as CdI_2(g)}

CdI_2 (g) Cadmium(II) Iodide **CdI_2 (g)**

$\Delta H^0_{298} = -58.4$ kJ·mol^{-1} [4] $S^0_{298} = 322.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 66.23 - 0.5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CdIn_2S_4$ (s) Cadmium Indium Sulfide **$CdIn_2S_4$ (s)**

$\Delta H^0_{298} = -511.9$ kJ·mol^{-1} [190, 8] $S^0_{298} = [238]$ J·mol^{-1}·K^{-1} [193]
$C_p{}^0 = [166.65]$ J·mol^{-1}·K^{-1} (298 K) [271]

CdN_2O_6 (s) Cadmium Nitrate **CdN_2O_6 (s)**
$Cd(NO_3)_2$ (s) alpha $Cd(NO_3)_2$ (s)

mp = 626 K (353 °C)
$\Delta H^0_{298} = -457$ kJ·mol^{-1} [4] $S^0_{298} = 208$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 179.91$ J·mol^{-1}·K^{-1} (298 K) [4]

CdN_2O_6 (s) Cadmium Nitrate **CdN_2O_6 (s)**
$Cd(NO_3)_2$ (s) alpha $Cd(NO_3)_2$ (s)

$\Delta H^0_{431} = -433.1$ kJ·mol^{-1} [4] $S^0_{431} = 274.2$ J·mol^{-1}·K^{-1} [4]

CdN_2O_6 (s) Cadmium Nitrate **CdN_2O_6 (s)**
$Cd(NO_3)_2$ (s) beta $Cd(NO_3)_2$ (s)

$\Delta H^0_{431} = -430.1$ kJ·mol^{-1} [4] $S^0_{431} = 281$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 213.38$ J·mol^{-1}·K^{-1} (431 K) [4]

CdO (s) Cadmium Oxide **CdO (s)**

$\Delta H^0_{298} = -259$ kJ·mol^{-1} [2] $S^0_{298} = 54.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 48.24 + 6.36 \cdot 10^{-3} \cdot T - 0.53 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1755 K) [4]

CdO (g) Cadmium Oxide **CdO (g)**

$\Delta H^0_{298} = 81.1$ kJ·mol^{-1} [2] $S^0_{298} = 233.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 33.9$ J·mol^{-1}·K^{-1} (298 K) [2]

CdO_3Se (s) Cadmium Selenite **CdO_3Se (s)**

$CdSeO_3$ (s) $CdSeO_3$ (s)

mp = 953 K (680 °C)

$\Delta H^0_{298} = -576.6$ kJ·mol^{-1} [4] $S^0_{298} = 138.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 78.45 + 54.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 953 K) [4]

CdO_3Se (s) Cadmium Selenite **CdO_3Se (s)**

$CdSeO_3$ (s) $CdSeO_3$ (s)

$\Delta H^0_{953} = -502.9$ kJ·mol^{-1} [4] $S^0_{953} = 264.9$ J·mol^{-1}·K^{-1} [4]

CdO_3Se (l) Cadmium Selenite **CdO_3Se (l)**

$CdSeO_3$ (l) $CdSeO_3$ (l)

$\Delta H^0_{953} = -444.3$ kJ·mol^{-1} [4] $S^0_{953} = 326.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 142.67$ J·mol^{-1}·K^{-1} (953 ... 1200 K) [4]

CdO_3Si (s) Cadmium Silicate **CdO_3Si (s)**

$CdO \cdot SiO_2$ (s) $CdO \cdot SiO_2$ (s)

mp = 1785 K (1512 °C)

$\Delta H^0_{298} = -1189.1$ kJ·mol^{-1} [2] $S^0_{298} = 97.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 87.86 + 42.68 \cdot 10^{-3} \cdot T - 1.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1785 K) [4]

CdO_3Ti (s) Cadmium Titanate **CdO_3Ti (s)**
$CdO \cdot TiO_2$ (s) alpha $CdO \cdot TiO_2$ (s)

$\Delta H^0_{298} = -1230.6$ kJ·mol^{-1} [2] $S^0_{298} = 105$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 116.11 + 9.62 \cdot 10^{-3} \cdot T - 1.82 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1100 K) [4]

CdO_3Ti (s) Cadmium Titanate **CdO_3Ti (s)**
$CdO \cdot TiO_2$ (s) alpha $CdO \cdot TiO_2$ (s)

$\Delta H^0_{1100} = -1136.8$ kJ·mol^{-1} [4] $S^0_{1100} = 254.8$ J·mol^{-1}·K^{-1} [4]

CdO_3Ti (s) Cadmium Titanate **CdO_3Ti (s)**
$CdO \cdot TiO_2$ (s) beta $CdO \cdot TiO_2$ (s)

$\Delta H^0_{1100} = -1121.8$ kJ·mol^{-1} [4] $S^0_{1100} = 268.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 116.11 + 9.62 \cdot 10^{-3} \cdot T - 1.82 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1100 ... 1600 K) [4]

CdO_4S (s) Cadmium Sulfate **CdO_4S (s)**
$CdSO_4$ (s) $CdSO_4$ (s)

$\Delta H^0_{298} = -933.3$ kJ·mol^{-1} [2] $S^0_{298} = 123$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 76.74 + 77.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1326 K) [4]

CdO_4Se (s) Cadmium Selenate **CdO_4Se (s)**
$CdSeO_4$ (s) $CdSeO_4$ (s)

$\Delta H^0_{298} = -633$ kJ·mol^{-1} [4] $S^0_{298} = 164.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 76.74 + 77.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1006 K) [4]

CdO_4W (s) Cadmium Tungstate(VI) **CdO_4W (s)**
$CdO \cdot WO_3$ (s) $CdO \cdot WO_3$ (s)

mp = 1575 K (1302 °C)
$\Delta H^0_{298} = -1180.2$ kJ·mol^{-1} [2] $S^0_{298} = 154.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 114.64 + 33.05 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1575 K) [4]

CdS (s) | Cadmium Sulfide | **CdS** (s)

mp = 1748 K (1475 °C)
$\Delta H^0_{298} = -154.6$ kJ·mol^{-1} [4] $S^0_{298} = 74.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 44.56 + 13.81 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1748 K) [4]

CdS (g) | Cadmium Sulfide | **CdS** (g)

$\Delta H^0_{298} = 190.4$ kJ·mol^{-1} [4] $S^0_{298} = 246.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.35 + 0.04 \cdot 10^{-3} \cdot T - 0.14 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1748 K) [4]

CdSb (s) | Cadmium Antimonide | **CdSb** (s)

mp = 729 K (456 °C)
$\Delta H^0_{298} = -13.3$ kJ·mol^{-1} [4] $S^0_{298} = 95.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 44.52 + 19.41 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 729 K) [4]

CdSb (s) | Cadmium Antimonide | **CdSb** (s)

$\Delta H^0_{729} = 10.1$ kJ·mol^{-1} [4] $S^0_{729} = 143.8$ J·mol^{-1}·K^{-1} [4]

CdSb (l) | Cadmium Antimonide | **CdSb** (l)

$\Delta H^0_{729} = 45.7$ kJ·mol^{-1} [4] $S^0_{729} = 192.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 62.76$ J·mol^{-1}·K^{-1} (729 K) [4]

CdSe (s) | Cadmium Selenide | **CdSe** (s)

mp = 1512 K (1239 °C)
$\Delta H^0_{298} = -145.6$ kJ·mol^{-1} [4] $S^0_{298} = 84.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 46.82 + 9.33 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1512 K) [4]

CdSe (g) | Cadmium Selenide | **CdSe** (g)

$\Delta H^0_{298} = 225.9$ kJ·mol^{-1} [4] $S^0_{298} = 258.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.4 + 0.01 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CdTe (s) Cadmium Telluride **CdTe (s)**

mp = 1372 K (1099 °C)
$\Delta H^0_{298} = -97.9$ kJ·mol^{-1} [4] $S^0_{298} = 93.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 52.51 + 19 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1372 K) [4]

CdTe (s) Cadmium Telluride **CdTe (s)**

$\Delta H^0_{1372} = -26.4$ kJ·mol^{-1} [4] $S^0_{1372} = 189.8$ J·mol^{-1}·K^{-1} [4]

CdTe (l) Cadmium Telluride **CdTe (l)**

$\Delta H^0_{1372} = 17.6$ kJ·mol^{-1} [4] $S^0_{1372} = 221.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 64.85$ J·mol^{-1}·K^{-1} (1372 ... 1490 K) [4]

CdTe (g) Cadmium Telluride **CdTe (g)**

$\Delta H^0_{298} = 242.7$ kJ·mol^{-1} [4] $S^0_{298} = 266.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.41 - 0.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Cd_{11}U$ (s) Cadmium Uranium **$Cd_{11}U$ (s)**

$\Delta H^0_{298} = -45.6$ kJ·mol^{-1} [2] $S^0_{298} = 583.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 313.96$ J·mol^{-1}·K^{-1} (298 K) [2]

Ce (s) Cerium alpha **Ce (s)**

mp = 1071 K (798 °C) bp = 3695 K (3422 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 69.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 22.38 + 15.06 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 998 K) [4]

Ce (s) Cerium alpha **Ce (s)**

$\Delta H^0_{998} = 22.5$ kJ·mol^{-1} [4] $S^0_{998} = 107$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.42$ J·mol^{-1}·K^{-1} (998 K) [4]

Ce (s) Cerium beta **Ce (s)**

ΔH^0_{998} = 25.5 kJ·mol^{-1} [4] S^0_{998} = 110 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 37.66 J·mol^{-1}·K^{-1} (998 K) [4]

Ce (s) Cerium beta **Ce (s)**

ΔH^0_{1071} = 28.2 kJ·mol^{-1} [4] S^0_{1071} = 112.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 37.66 J·mol^{-1}·K^{-1} (1071 K) [4]

Ce (l) Cerium **Ce (l)**

ΔH^0_{1071} = 33.5 kJ·mol^{-1} [4] S^0_{1071} = 117.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 37.66 J·mol^{-1}·K^{-1} (1071 K) [4]
$\lg(p,K) = -21.52 \cdot 10^3 \cdot T^{-1} + 0.22 \cdot \lg(T) + 5.06$ (1500 ... 2500 K) [4]
{Reaction: evaporation}

Ce (g) Cerium **Ce (g)**

ΔH^0_{298} = 424.1 kJ·mol^{-1} [4] S^0_{298} = 191.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 24.91 + 15 \cdot 10^{-3} \cdot T - 0.67 \cdot 10^6 \cdot T^{-2} - 3.74 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

$CeCl_3$ (s) Cerium(III) Chloride **$CeCl_3$ (s)**

mp = 1080 K (807 °C) bp = 1997 K (1724 °C)
ΔH^0_{298} = – 1053.5 kJ·mol^{-1} [2] S^0_{298} = 151 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 115.4 + 11.08 \cdot 10^{-3} \cdot T - 2.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1080 K) [4]
$\lg(p,K) = -18.14 \cdot 10^3 \cdot T^{-1} - 4.54 \cdot \lg(T) + 25.36$ (900 ... 1080 K) [4]
{Reaction: evaporation as $CeCl_3$(g)}

$CeCl_3$ (s) Cerium(III) Chloride **$CeCl_3$ (s)**

ΔH^0_{1080} = – 964 kJ·mol^{-1} [4] S^0_{1080} = 293.6 J·mol^{-1}·K^{-1} [4]

$CeCl_3$ (l) Cerium(III) Chloride **$CeCl_3$ (l)**

$\Delta H^0_{1080} = -918.8$ kJ·mol^{-1} [4] $S^0_{1080} = 335.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 159.83$ J·mol^{-1}·K^{-1} (1080 ... 1997 K) [4]
$\lg(p,K) = -17.71 \cdot 10^3 \cdot T^{-1} - 8.67 \cdot \lg(T) + 37.48$ (1080 ... 1997 K) [4]
{Reaction: evaporation as $CeCl_3$(g)}

$CeCl_3$ (g) Cerium(III) Chloride **$CeCl_3$ (g)**

$\Delta H^0_{298} = -723$ kJ·mol^{-1} [2] $S^0_{298} = 370.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 83.17 + 3.15 \cdot 10^{-3} \cdot T - 0.51 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CeCrO_3$ (s) Cerium Chromium Oxide **$CeCrO_3$ (s)**

$\Delta H^0_{298} = -1540.1$ kJ·mol^{-1} [2] $S^0_{298} = 105$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 132.74$ J·mol^{-1}·K^{-1} (298 K) [2]

CeF_3 (s) Cerium(III) Fluoride **CeF_3 (s)**

mp = 1710 K (1437 °C) bp = 2552 K (2279 °C)
$\Delta H^0_{298} = -1688.9$ kJ·mol^{-1} [2] $S^0_{298} = 115.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 73.79 + 43.38 \cdot 10^{-3} \cdot T + 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1710 K) [4]
$\lg(p,K) = -24.98 \cdot 10^3 \cdot T^{-1} - 6.02 \cdot \lg(T) + 31.09$ (1200 ... 1710 K) [4]
{Reaction: evaporation as CeF_3(g)}

CeF_3 (s) Cerium(III) Fluoride **CeF_3 (s)**

$\Delta H^0_{1710} = -1521.7$ kJ·mol^{-1} [4] $S^0_{1710} = 308.7$ J·mol^{-1}·K^{-1} [4]

CeF_3 (l) Cerium(III) Fluoride **CeF_3 (l)**

$\Delta H^0_{1710} = -1443$ kJ·mol^{-1} [4] $S^0_{1710} = 354.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 133.89$ J·mol^{-1}·K^{-1} (1710 K) [4]
$\lg(p,K) = -20.37 \cdot 10^3 \cdot T^{-1} - 5.41 \cdot \lg(T) + 26.42$ (1710 ... 2000 K) [4]
{Reaction: evaporation as $CeFe_3$(g)}

CeF_3 (g) Cerium(III) Fluoride **CeF_3 (g)**

$\Delta H^0_{298} = -1248.5$ kJ·mol^{-1} [2] $S^0_{298} = 337.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 82 + 3.86 \cdot 10^{-3} \cdot T - 0.94 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CeF_4 (g) Cerium(IV) Fluoride **CeF_4 (g)**

$\Delta H^0_{298} = -1651.1 \pm 12.4$ kJ·mol^{-1} [112] $S^0_{298} = [351.7] \pm 11.3$ J·mol^{-1}·K^{-1} [15]

CeH_2 (s) Cerium(II) Hydride **CeH_2 (s)**

$\Delta H^0_{298} = -193.3$ kJ·mol^{-1} [4] $S^0_{298} = 55.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 35.15 + 19.25 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

CeI_3 (s) Cerium(III) Iodide **CeI_3 (s)**

mp = 1033 K (760 °C) bp = 1780 K (1507 °C)
$\Delta H^0_{298} = -649.8$ kJ·mol^{-1} [2] $S^0_{298} = 227.2$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 94.14 + 26.41 \cdot 10^{-3} \cdot T - 0.14 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1033 K) [4]
$\lg(p,K) = -15.24 \cdot 10^3 \cdot T^{-1} - 3.89 \cdot \lg(T) + 22.25$ (800 ... 1033 K) [4]
{Reaction: evaporation as CeI_3(g)}

CeI_3 (s) Cerium(III) Iodide **CeI_3 (s)**

$\Delta H^0_{1033} = -568$ kJ·mol^{-1} [4] $S^0_{1033} = 362.8$ J·mol^{-1}·K^{-1} [4]

CeI_3 (l) Cerium(III) Iodide **CeI_3 (l)**

$\Delta H^0_{1033} = -529.1$ kJ·mol^{-1} [4] $S^0_{1033} = 400.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 152.72$ J·mol^{-1}·K^{-1} (1033 ... 1780 K) [4]
$\lg(p,K) = -14.97 \cdot 10^3 \cdot T^{-1} - 7.85 \cdot \lg(T) + 33.93$ (1033 ... 1780 K) [4]
{Reaction: evaporation as CeI_3(g)}

CeI_3 (g) Cerium(III) Iodide **CeI_3 (g)**

$\Delta H^0_{298} = -372$ kJ·mol^{-1} [2] $S^0_{298} = 427.3$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 83.42 + 3 \cdot 10^{-3} \cdot T - 0.24 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CeMg (s) Magnesium Cerium **CeMg (s)**
MgCe (s) MgCe (s)

mp = 984 K (711 °C)
$\Delta H^0_{298} = -16.2$ kJ·mol^{-1} [2] $S^0_{298} = 105.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 44.56 + 25.86 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 984 K) [4]

CeN (s) Cerium Nitride **CeN (s)**

mp = 2830 K (2557 °C)
$\Delta H^0_{298} = -326.4$ kJ·mol^{-1} [4] $S^0_{298} = 60.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 48.53 + 6.07 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CeO (g) Cerium(II) Oxide **CeO (g)**

$\Delta H^0_{298} = -128.4$ kJ·mol^{-1} [4] $S^0_{298} = 243.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 30.34 + 7.39 \cdot 10^{-3} \cdot T - 0.13 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

CeO_2 (s) Cerium(IV) Oxide **CeO_2 (s)**

mp = 2670 K (2397 °C)
$\Delta H^0_{298} = -1088.7$ kJ·mol^{-1} [2] $S^0_{298} = 62.3$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 64.81 + 17.7 \cdot 10^{-3} \cdot T - 0.76 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2450 K) [4]

CeO_3Sr (s) Strontium Cerium Oxide **CeO_3Sr (s)**
$SrO \cdot CeO_2$ (s) $SrO \cdot CeO_2$ (s)

$\Delta H^0_{298} = -1687.1 \pm 2.7$ kJ·mol^{-1} [109] $S^0_{298} = [117.8]$ J·mol^{-1}·K^{-1} [111]
$C_p^0 = [106.99]$ J·mol^{-1}·K^{-1} (298 K) [271]

CeS (s) Cerium(II) Sulfide **CeS (s)**

mp = 2723 K (2450 °C)
$\Delta H^0_{298} = -456.5$ kJ·mol^{-1} [2] $S^0_{298} = 78.2$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 42.01 + 26.74 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

CeS (g) Cerium(II) Sulfide **CeS** (g)

ΔH^0_{298} = 172.8 kJ·mol^{-1} [4] S^0_{298} = 259.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 37.11 + 0.16 ·10^{-3}·T – 0.26 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

CeS$_2$ (s) Cerium(IV) Sulfide **CeS$_2$** (s)

mp = 1950 K (1677 °C)
ΔH^0_{298} = – 618.2 kJ·mol^{-1} [4] S^0_{298} = 100.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 74.81 + 5.52 ·10^{-3}·T – 1.28 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1152 K) [4]

CeSe (g) Cerium(II) Selenide **CeSe** (g)

ΔH^0_{298} = [225.5] kJ·mol^{-1} [5] S^0_{298} = [271] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.33] + [0.04] ·10^{-3}·T + [– 0.15] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

CeTe (s) Cerium(II) Telluride **CeTe** (s)

mp = 2090 K (1817 °C)
ΔH^0_{298} = [– 301.2] kJ·mol^{-1} [5] S^0_{298} = [97.9] J·mol^{-1}·K^{-1} [5]

CeTe (g) Cerium(II) Telluride **CeTe** (g)

ΔH^0_{298} = 289.5 kJ·mol^{-1} [2] S^0_{298} = 278.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 36.1 J·mol^{-1}·K^{-1} (298 K) [2]

Ce$_2$Cr$_2$O$_6$ (s) Cerium Chromate(III) **Ce$_2$Cr$_2$O$_6$** (s)
$Ce_2O_3 \cdot Cr_2O_3$ (s) $Ce_2O_3 \cdot Cr_2O_3$ (s)

mp = 2493 K (2220 °C)
ΔH^0_{298} = – 3066 kJ·mol^{-1} [4] S^0_{298} = 218.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 227.19 + 50.63 ·10^{-3}·T – 2.49 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Ce$_2$O$_2$S (s) Cerium Sulfate Oxide **Ce$_2$O$_2$S** (s)

ΔH^0_{298} = – 1696.6 kJ·mol^{-1} [4] S^0_{298} = 130.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 124.89 + 23.64 ·10^{-3}·T – 2.09 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1700 K) [4]

Ce_2O_3 (s) Cerium(III) Oxide **Ce_2O_3 (s)**

mp = 2450 K (2177 °C)
ΔH^0_{298} = – 1799.7 kJ·mol^{-1} [4] S^0_{298} = 148.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 130.8 + 13.77 ·10^{-3}·T – 1.59 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2450 K) [4]

$Ce_2O_7Si_2$ (s) Cerium(III) Silicate **$Ce_2O_7Si_2$ (s)**
$Ce_2Si_2O_7$ (s) beta $Ce_2Si_2O_7$ (s)

ΔH^0_{298} = – 3807.6 ± 4.5 kJ·mol^{-1} [103] S^0_{298} = [234.9] J·mol^{-1}·K^{-1} [104]
$C_p{}^0$= [205.88] J·mol^{-1}·K^{-1} (298 K) [271]

$Ce_2O_{12}S_3$ (s) Cerium(III) Sulfate **$Ce_2O_{12}S_3$ (s)**
$Ce_2(SO_4)_3$ (s) $Ce_2(SO_4)_3$ (s)

ΔH^0_{298} = – 3955.1 kJ·mol^{-1} [4] S^0_{298} = 287.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 221.75 + 198.74 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1106 K) [4]

Ce_2S_3 (s) Cerium(III) Sulfide **Ce_2S_3 (s)**

mp = 2163 K (1890 °C)
ΔH^0_{298} = – 1188.3 kJ·mol^{-1} [2] S^0_{298} = 180.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 124.93 + 12.72 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 2163 K) [4]

Ce_2Se_3 (s) Cerium(III) Selenide **Ce_2Se_3 (s)**

ΔH^0_{298} = [– 933] kJ·mol^{-1} [5] S^0_{298} = [217.6] J·mol^{-1}·K^{-1} [5]

Ce_2Te_3 (s) Cerium(III) Telluride **Ce_2Te_3 (s)**

ΔH^0_{298} = [– 774] kJ·mol^{-1} [5] S^0_{298} = [238.5] J·mol^{-1}·K^{-1} [5]

Ce_3S_4 (s) Cerium Sulfide **Ce_3S_4 (s)**

mp = 2323 K (2050 °C)
ΔH^0_{298} = – 1652.7 kJ·mol^{-1} [2] S^0_{298} = 255.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 167.82 + 39.66 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

Cl (g) Chlorine **Cl** (g)

ΔH^0_{298} = 121.3 kJ·mol^{-1} [1] S^0_{298} = 165.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 23.74 – 1.28 ·10^{-3}·T – 0.13 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClCo (g) Cobalt(I) Chloride **ClCo** (g)
CoCl (g) CoCl (g)

ΔH^0_{298} = 192.9 ± 12.6 kJ·mol^{-1} [1] S^0_{298} = 245.7 ± 6.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 37.15 + 0.45 ·10^{-3}·T – 0.19 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClCs (s) Cesium Chloride **ClCs** (s)
CsCl (s) alpha CsCl (s)

mp = 918 K (645 °C) bp = 1569 K (1296 °C)
ΔH^0_{298} = – 442.8 ± 0.8 kJ·mol^{-1} [1] S^0_{298} = 101.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 53.35 + 5.15 ·10^{-3}·T – 0.21 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 743 K) [4]

ClCs (s) Cesium Chloride **ClCs** (s)
CsCl (s) alpha CsCl (s)

ΔH^0_{743} = – 418.2 kJ·mol^{-1} [4] S^0_{743} = 151.2 J·mol^{-1}·K^{-1} [4]

ClCs (s) Cesium Chloride **ClCs** (s)
CsCl (s) beta CsCl (s)

ΔH^0_{743} = – 414.4 kJ·mol^{-1} [4] S^0_{743} = 156.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 3.35 + 73.64 ·10^{-3}·T – 0.38 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (743 ... 918 K) [4]

ClCs (s) Cesium Chloride **ClCs** (s)
CsCl (s) beta CsCl (s)

ΔH^0_{918} = – 403.2 kJ·mol^{-1} [4] S^0_{918} = 169.7 J·mol^{-1}·K^{-1} [4]

ClCs (l) Cesium Chloride **ClCs** (l)
CsCl (l) CsCl (l)

ΔH^0_{918} = – 382.9 kJ·mol^{-1} [4] S^0_{918} = 191.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 57.99 + 17.91 ·10^{-3}·T J·mol^{-1}·K^{-1} (918 ... 1569 K) [4]

ClCs (l) Cesium Chloride **ClCs (l)**
CsCl (l) CsCl (l)

$\Delta H^0_{298} = -434.5$ kJ·mol^{-1} [1] $S^0_{298} = 101.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 77.4$ J·mol^{-1}·K^{-1} (298 K) [1]

ClCs (g) Cesium Chloride **ClCs (g)**
CsCl (g) CsCl (g)

$\Delta H^0_{298} = -240.2 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 256.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.4 + 0.79 \cdot 10^{-3} \cdot T - 0.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -10.8 \cdot 10^3 \cdot T^{-1} - 3.12 \cdot \lg(T) + 17.33$ (700 ... 918 K) [4]
{Reaction: evaporation of CsCl(l)}

ClCsO$_4$ (s) Cesium Perchlorate **ClCsO$_4$ (s)**
CsClO$_4$ (s) alpha CsClO$_4$ (s)

mp = 850 K (577 °C)
$\Delta H^0_{298} = -437.2$ kJ·mol^{-1} [4] $S^0_{298} = 175.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 30.5 + 259.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 501 K) [4]

ClCsO$_4$ (s) Cesium Perchlorate **ClCsO$_4$ (s)**
CsClO$_4$ (s) alpha CsClO$_4$ (s)

$\Delta H^0_{501} = -410$ kJ·mol^{-1} [4] $S^0_{501} = 243.7$ J·mol^{-1}·K^{-1} [4]

ClCsO$_4$ (s) Cesium Perchlorate **ClCsO$_4$ (s)**
CsClO$_4$ (s) beta CsClO$_4$ (s)

$\Delta H^0_{501} = -402.5$ kJ·mol^{-1} [4] $S^0_{501} = 258.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 176.15$ J·mol^{-1}·K^{-1} (501 K) [4]

ClCu (s) Copper(I) Chloride **ClCu (s)**
CuCl (s) alpha CuCl (s)

mp = 709 K (436 °C) bp = 1482 K (1209 °C)
$\Delta H^0_{298} = -136.8$ kJ·mol^{-1} [4] $S^0_{298} = 87.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 51.09 + 17.66 \cdot 10^{-3} \cdot T - 0.27 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 683 K) [4]

ClCu (s) Copper(I) Chloride alpha **ClCu (s)**
CuCl (s) CuCl (s)

$\Delta H^0_{683} = -114.3$ kJ·mol^{-1} [4] $S^0_{683} = 135.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 62.57$ J·mol^{-1}·K^{-1} (683 K) [4]

ClCu (s) Copper(I) Chloride beta **ClCu (s)**
CuCl (s) CuCl (s)

$\Delta H^0_{683} = -108.6$ kJ·mol^{-1} [4] $S^0_{683} = 143.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 62.76$ J·mol^{-1}·K^{-1} (683 K) [4]

ClCu (s) Copper(I) Chloride beta **ClCu (s)**
CuCl (s) CuCl (s)

$\Delta H^0_{709} = -106.9$ kJ·mol^{-1} [4] $S^0_{709} = 146.2$ J·mol^{-1}·K^{-1} [4]

ClCu (l) Copper(I) Chloride **ClCu (l)**
CuCl (l) CuCl (l)

$\Delta H^0_{709} = -100$ kJ·mol^{-1} [4] $S^0_{709} = 155.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 64.43$ J·mol^{-1}·K^{-1} (709 K) [4]

ClCu (l) Copper(I) Chloride **ClCu (l)**
CuCl (l) CuCl (l)

$\Delta H^0_{298} = -131.2$ kJ·mol^{-1} [1] $S^0_{298} = 93.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 66.94$ J·mol^{-1}·K^{-1} (298 K) [1]

ClCu (g) Copper(I) Chloride **ClCu (g)**
CuCl (g) CuCl (g)

$\Delta H^0_{298} = 91.1 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 237.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 37.36 + 0.5 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -11.77 \cdot 10^{3} \cdot T^{-1} - 3.22 \cdot \lg(T) + 16.47$ (800 ... 1482 K) [4]
{Reaction: evaporation of CuCl(l)}

ClD (g) Hydrochloric Acid-D **ClD (g)**
DCl (g) DCl (g)

$\Delta H^0_{298} = -93.3 \pm 0.2$ kJ·mol^{-1} [1] $S^0_{298} = 192.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 29.17$ J·mol^{-1}·K^{-1} (298 K) [1]

ClDO (g) Hypochlorous Acid-D **ClDO (g)**
DOCl (g) DOCl (g)

$\Delta H^0_{298} = -78.2 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 240.3 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 38.54$ J·mol^{-1}·K^{-1} (298 K) [1]

ClF (g) Chlorine Fluoride **ClF (g)**

$\Delta H^0_{298} = -50.3 \pm 0.4$ kJ·mol^{-1} [1] $S^0_{298} = 217.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 35.65 + 1.51 \cdot 10^{-3} \cdot T - 0.36 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

$ClFLi_2$ (g) Lithium Chloride Fluoride **$ClFLi_2$ (g)**
Li_2ClF (g) Li_2ClF (g)

$\Delta H^0_{298} = -754$ kJ·mol^{-1} [1] $S^0_{298} = 268$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 62.84$ J·mol^{-1}·K^{-1} (298 K) [1]

ClFMg (g) Magnesium Chloride Fluoride **ClFMg (g)**
MgClF (g) MgClF (g)

$\Delta H^0_{298} = -569.2 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 260.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 57.14 + 0.56 \cdot 10^{-3} \cdot T - 0.69 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$ClFO_2S$ (g) Sulfuryl Chloride Fluoride **$ClFO_2S$ (g)**
SO_2ClF (g) SO_2ClF (g)

$\Delta H^0_{298} = -556.5 \pm 21$ kJ·mol^{-1} [1] $S^0_{298} = 302.9 \pm 1.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 71.59$ J·mol^{-1}·K^{-1} (298 K) [1]

$ClFO_3$ (g) Perchloryl Fluoride **$ClFO_3$ (g)**

ClO_3F (g) ClO_3F (g)

$\Delta H^0_{298} = -21.4 \pm 2.9$ kJ·mol^{-1} [1] $S^0_{298} = 279 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 64.92$ J·mol^{-1}·K^{-1} (298 K) [1]

ClF_2OP (g) Phosphoryl Chloride Fluoride **ClF_2OP (g)**

$POClF_2$ (g) $POClF_2$ (g)

$\Delta H^0_{298} = -970.7$ kJ·mol^{-1} [1] $S^0_{298} = 301.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 68.84$ J·mol^{-1}·K^{-1} (298 K) [1]

ClF_3 (g) Chlorine(III) Fluoride **ClF_3 (g)**

$\Delta H^0_{298} = -158.9 \pm 2.9$ kJ·mol^{-1} [1] $S^0_{298} = 281.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 63.85$ J·mol^{-1}·K^{-1} (298 K) [1]

ClF_3Si (g) Chlorotrifluorosilane **ClF_3Si (g)**

$SiClF_3$ (g) $SiClF_3$ (g)

$\Delta H^0_{298} = -1318 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 308.7 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 79.37$ J·mol^{-1}·K^{-1} (298 K) [1]

ClF_5 (g) Chlorine(V) Fluoride **ClF_5 (g)**

$\Delta H^0_{298} = -238.5 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 310.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 97.17$ J·mol^{-1}·K^{-1} (298 K) [1]

ClF_5S (g) Sulfur Chloride Fluoride **ClF_5S (g)**

$SClF_5$ (g) $SClF_5$ (g)

$\Delta H^0_{298} = -1038.9 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 319.9 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 104.3$ J·mol^{-1}·K^{-1} (298 K) [1]

ClFe (g) Iron(I) Chloride **ClFe (g)**
FeCl (g) FeCl (g)

$\Delta H^0_{298} = 251 \pm 84$ kJ·mol^{-1} [1] $S^0_{298} = 257.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 40.39 - 0.23 \cdot 10^{-3} \cdot T - 0.19 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClFeO (s) Iron Chloride Oxide **ClFeO (s)**
FeOCl (s) FeOCl (s)

$\Delta H^0_{298} = -408.4$ kJ·mol^{-1} [4] $S^0_{298} = 76.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 69.04 + 26.82 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 592 K) [4]

ClGa (g) Gallium(I) Chloride **ClGa (g)**
GaCl (g) GaCl (g)

$\Delta H^0_{298} = -80.8$ kJ·mol^{-1} [4] $S^0_{298} = 240.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 37.22 + 0.66 \cdot 10^{-3} \cdot T - 0.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClGdO (s) Gadolinium Chloride Oxide **ClGdO (s)**
GdOCl (s) GdOCl (s)

$\Delta H^0_{298} = -983.7$ kJ·mol^{-1} [4] $S^0_{298} = 95.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 66.94 + 16.4 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

ClGe (g) Germanium(I) Chloride **ClGe (g)**
GeCl (g) GeCl (g)

$\Delta H^0_{298} = 73$ kJ·mol^{-1} [4] $S^0_{298} = 245.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 43.18 - 2.23 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClH (g) Hydrogen Chloride **ClH (g)**
HCl (g) HCl (g)

mp = 159 K (-114 °C) bp = 188 K (-85 °C)
$\Delta H^0_{298} = -92.3 \pm 0.2$ kJ·mol^{-1} [1] $S^0_{298} = 186.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 26.53 + 4.6 \cdot 10^{-3} \cdot T + 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -4.85 \cdot 10^3 \cdot T^{-1} + 0.21 \cdot \lg(T) - 1.04$ (600 ... 2000 K) [4]
{Reaction: decomposition HCl(g) = 1/2H_2(g) + 1/2Cl_2(g)}

ClHO (g) Hypochlorous Acid **ClHO (g)**
HOCl (g) HOCl (g)

$\Delta H^0_{298} = -74.5 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 236.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 40.67 + 7.78 \cdot 10^{-3} \cdot T - 0.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

ClH$_2$LiO (s) Lithium Chloride Monohydrate **ClH$_2$LiO (s)**
LiCl · H_2O (s) LiCl · H_2O (s)

$\Delta H^0_{298} = -713$ kJ·mol^{-1} [7] $S^0_{298} = 103$ J·mol^{-1}·K^{-1} [7]
$C_p{}^0 = 98$ J·mol^{-1}·K^{-1} (298 K) [7]

ClH$_3$Si (g) Chlorosilane **ClH$_3$Si (g)**
SiH_3Cl (g) SiH_3Cl (g)

mp = 155 K (-118 °C) bp = 243 K (-30 °C)
$\Delta H^0_{298} = -141.8 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 250.8 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 63.47 + 33.23 \cdot 10^{-3} \cdot T - 2.03 \cdot 10^6 \cdot T^{-2} - 6.6 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1685 K) [4]

ClH$_4$N (s) Ammonium Chloride alpha **ClH$_4$N (s)**
NH_4Cl (s) NH_4Cl (s)

mp = 893 K (620 °C)
$\Delta H^0_{298} = -314.5$ kJ·mol^{-1} [4] $S^0_{298} = 95$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 38.87 + 160.25 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 458 K) [4]
$\lg(p,K) = -4.85 \cdot 10^3 \cdot T^{-1} - 1.87 \cdot \lg(T) + 12.89$ (298 ... 458 K) [4]
{Reaction: decomposition $NH_4Cl(s) = NH_3(g) + HCl(g)$}

ClH$_4$N (s) Ammonium Chloride alpha **ClH$_4$N (s)**
NH_4Cl (s) NH_4Cl (s)

$\Delta H^0_{458} = -298.6$ kJ·mol^{-1} [4] $S^0_{458} = 137.3$ J·mol^{-1}·K^{-1} [4]

ClH_4N (s) Ammonium Chloride **ClH_4N (s)**
NH_4Cl (s) beta NH_4Cl (s)

$\Delta H^0_{458} = -294.7$ kJ·mol^{-1} [4] $S^0_{458} = 145.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 34.64 + 111.71 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (458 ... 611 K) [4]
$\lg(p,K) = -4.61 \cdot 10^3 \cdot T^{-1} - 1.21 \cdot \lg(T) + 10.62$ (458 ... 611 K) [4]
{Reaction: decomposition $NH_4Cl(s) = NH_3(g) + HCl(g)$}

ClH_4NO_4 (s) Ammonium Perchlorate **ClH_4NO_4 (s)**
NH_4ClO_4 (s) NH_4ClO_4 (s)

$\Delta H^0_{298} = -295.8 \pm 0.2$ kJ·mol^{-1} [1] $S^0_{298} = 184.2 \pm 1.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 67.77 + 202.36 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 513 K) [4]

ClHg (g) Mercury(I) Chloride **ClHg (g)**
HgCl (g) HgCl (g)

$\Delta H^0_{298} = 81.3$ kJ·mol^{-1} [4] $S^0_{298} = 260.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 36.8 + 1.11 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClI (s) Iodine(I) Chloride **ClI (s)**
ICl (s) ICl (s)

$\Delta H^0_{298} = -35.4 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 97.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 55.23$ J·mol^{-1}·K^{-1} (298 K) [1]

ClI (l) Iodine(I) Chloride **ClI (l)**
ICl (l) ICl (l)

$\Delta H^0_{298} = -23.9$ kJ·mol^{-1} [1] $S^0_{298} = 136.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 102.76$ J·mol^{-1}·K^{-1} (298 K) [1]

ClI (g) Iodine(I) Chloride **ClI (g)**
ICl (g) ICl (g)

$\Delta H^0_{298} = 17.5 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 247.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 35.55$ J·mol^{-1}·K^{-1} (298 K) [1]

ClIn (s) | Indium(I) Chloride | **ClIn** (s)
InCl (s) | alpha | InCl (s)

$\Delta H^0_{298} = -186$ kJ·mol^{-1} [2] $S^0_{298} = 95$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 35.15 + 41.84 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 393 K) [4]

ClIn (s) | Indium(I) Chloride | **ClIn** (s)
InCl (s) | alpha | InCl (s)

$\Delta H^0_{393} = -181.3$ kJ·mol^{-1} [4] $S^0_{393} = 108.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 51.59$ J·mol^{-1}·K^{-1} (393 K) [4]

ClIn (s) | Indium(I) Chloride | **ClIn** (s)
InCl (s) | beta | InCl (s)

$\Delta H^0_{393} = -174.4$ kJ·mol^{-1} [4] $S^0_{393} = 126.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 58.58$ J·mol^{-1}·K^{-1} (393 K) [4]
$\lg(p,K) = -5.79 \cdot 10^3 \cdot T^{-1} - 2.59 \cdot \lg(T) + 14.75$ (393 ... 498 K) [4]
{Reaction: evaporation as InCl(g)}

ClIn (s) | Indium(I) Chloride | **ClIn** (s)
InCl (s) | beta | InCl (s)

$\Delta H^0_{498} = -168.2$ kJ·mol^{-1} [4] $S^0_{498} = 140.1$ J·mol^{-1}·K^{-1} [4]

ClIn (l) | Indium(I) Chloride | **ClIn** (l)
InCl (l) | | InCl (l)

$\Delta H^0_{498} = -159$ kJ·mol^{-1} [4] $S^0_{498} = 158.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 62.76$ J·mol^{-1}·K^{-1} (498 K) [4]
$\lg(p,K) = -5.4 \cdot 10^3 \cdot T^{-1} - 3.02 \cdot \lg(T) + 15.12$ (498 ... 863 K) [4]
{Reaction: evaporation as InCl(g)}

ClIn (g) | Indium(I) Chloride | **ClIn** (g)
InCl (g) | | InCl (g)

$\Delta H^0_{298} = -75.5$ kJ·mol^{-1} [4] $S^0_{298} = 248.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 37.27 + 0.7 \cdot 10^{-3} \cdot T - 0.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClK (s) Potassium Chloride **ClK** (s)
KCl (s) KCl (s)

mp = 1045 K (772 °C) bp = 1714 K (1441 °C)
$\Delta H^0_{298} = -436.5$ kJ·mol^{-1} [4] $S^0_{298} = 82.6 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 39.94 + 25.47 \cdot 10^{-3} \cdot T + 0.36 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1045 K) [4]

ClK (s) Potassium Chloride **ClK** (s)
KCl (s) KCl (s)

$\Delta H^0_{1045} = -393$ kJ·mol^{-1} [4] $S^0_{1045} = 153.6$ J·mol^{-1}·K^{-1} [4]

ClK (l) Potassium Chloride **ClK** (l)
KCl (l) KCl (l)

$\Delta H^0_{1045} = -366.8$ kJ·mol^{-1} [4] $S^0_{1045} = 178.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 73.39$ J·mol^{-1}·K^{-1} (1045 K) [4]

ClK (l) Potassium Chloride **ClK** (l)
KCl (l) KCl (l)

$\Delta H^0_{298} = -421.8$ kJ·mol^{-1} [1] $S^0_{298} = 86.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 73.6$ J·mol^{-1}·K^{-1} (298 K) [1]

ClK (g) Potassium Chloride **ClK** (g)
KCl (g) KCl (g)

$\Delta H^0_{298} = -214.7 \pm 0.4$ kJ·mol^{-1} [1] $S^0_{298} = 239.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.15 + 0.96 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -12.15 \cdot 10^3 \cdot T^{-1} - 2.99 \cdot \lg(T) + 17.25$ (700 ... 1045 K) [4]
{Reaction: evaporation of KCl(s)}

$ClKO_3$ (s) Potassium Chlorate **$ClKO_3$** (s)
$KClO_3$ (s) $KClO_3$ (s)

mp = 630 K (357 °C)
$\Delta H^0_{298} = -389.1$ kJ·mol^{-1} [4] $S^0_{298} = 143.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 97.49 + 60.67 \cdot 10^{-3} \cdot T - 1.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 630 K) [4]

$ClKO_4$ (s) | Potassium Perchlorate | **$ClKO_4$ (s)**
$KClO_4$ (s) | alpha | $KClO_4$ (s)

mp = 798 K (525 °C)
ΔH^0_{298} = – 430.1 ± 4 kJ·mol^{-1} [1] S^0_{298} = 151 ± 0.8 J·mol^{-1}·K^{-1} [1]
C_p^0= 138.49 + 62.76 ·10^{-3}·T – 3.98 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 573 K) [4]

$ClKO_4$ (s) | Potassium Perchlorate | **$ClKO_4$ (s)**
$KClO_4$ (s) | alpha | $KClO_4$ (s)

ΔH^0_{573} = – 390.9 kJ·mol^{-1} [4] S^0_{573} = 242.5 J·mol^{-1}·K^{-1} [4]

$ClKO_4$ (s) | Potassium Perchlorate | **$ClKO_4$ (s)**
$KClO_4$ (s) | beta | $KClO_4$ (s)

ΔH^0_{573} = – 377.2 kJ·mol^{-1} [4] S^0_{573} = 266.5 J·mol^{-1}·K^{-1} [4]
C_p^0= 134.91 + 65.77 ·10^{-3}·T – 3.26 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (573 ... 798 K) [4]

ClLaO (s) | Lanthanum Chloride Oxide | **ClLaO (s)**
LaOCl (s) | | LaOCl (s)

ΔH^0_{298} = – 1018.8 kJ·mol^{-1} [4] S^0_{298} = 82.8 J·mol^{-1}·K^{-1} [2]
C_p^0= 70.5 + 12.26 ·10^{-3}·T – 0.46 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

ClLi (s) | Lithium Chloride | **ClLi (s)**
LiCl (s) | | LiCl (s)

mp = 883 K (610 °C) bp = 1633 K (1360 °C)
ΔH^0_{298} = – 408.6 kJ·mol^{-1} [4] S^0_{298} = 59.3 ± 0.1 J·mol^{-1}·K^{-1} [1]
C_p^0= 42.15 + 22.76 ·10^{-3}·T – 0.08 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 883 K) [4]

ClLi (s) | Lithium Chloride | **ClLi (s)**
LiCl (s) | | LiCl (s)

ΔH^0_{883} = – 376.3 kJ·mol^{-1} [4] S^0_{883} = 118 J·mol^{-1}·K^{-1} [4]

ClLi (l) Lithium Chloride **ClLi** (l)
LiCl (l) LiCl (l)

$\Delta H^0_{883} = -356.8$ kJ·mol^{-1} [4] $S^0_{883} = 140.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 62.59 - 9.46 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (883 ... 1633 K) [4]

ClLi (l) Lithium Chloride **ClLi** (l)
LiCl (l) LiCl (l)

$\Delta H^0_{298} = -390.8$ kJ·mol^{-1} [1] $S^0_{298} = 78.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 48.03$ J·mol^{-1}·K^{-1} (298 K) [1]

ClLi (g) Lithium Chloride **ClLi** (g)
LiCl (g) LiCl (g)

$\Delta H^0_{298} = -195.7 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 212.9$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 36.56 + 1.07 \cdot 10^{-3} \cdot T - 0.32 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -11.62 \cdot 10^{3} \cdot T^{-1} - 2.79 \cdot \lg(T) + 16.42$ (700 ... 883 K) [4]
{Reaction: evaporation of LiCl(s)}

ClLiO (g) Lithium Chloride Oxide **ClLiO** (g)
LiOCl (g) LiOCl (g)

$\Delta H^0_{298} = -14.2 \pm 84$ kJ·mol^{-1} [1] $S^0_{298} = 256.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 42.96$ J·mol^{-1}·K^{-1} (298 K) [1]

$ClLiO_4$ (s) Lithium Perchlorate **$ClLiO_4$** (s)
$LiClO_4$ (s) $LiClO_4$ (s)

mp = 509 K (236 °C)
$\Delta H^0_{298} = -380.7 \pm 2.9$ kJ·mol^{-1} [1] $S^0_{298} = 126 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 137.24 + 44.64 \cdot 10^{-3} \cdot T - 4.05 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 509 K) [4]

$ClLiO_4$ (s) Lithium Perchlorate **$ClLiO_4$** (s)
$LiClO_4$ (s) $LiClO_4$ (s)

$\Delta H^0_{509} = -353.6$ kJ·mol^{-1} [4] $S^0_{509} = 193.9$ J·mol^{-1}·K^{-1} [4]

$ClLiO_4$ (l) Lithium Perchlorate **$ClLiO_4$ (l)**
$LiClO_4$ (l) $LiClO_4$ (l)

$\Delta H^0_{509} = -324.3$ kJ·mol^{-1} [4] $S^0_{509} = 251.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 161.08$ J·mol^{-1}·K^{-1} (509 K) [4]

$ClLiO_4$ (l) Lithium Perchlorate **$ClLiO_4$ (l)**
$LiClO_4$ (l) $LiClO_4$ (l)

$\Delta H^0_{298} = -358.4$ kJ·mol^{-1} [1] $S^0_{298} = 164.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 161.08$ J·mol^{-1}·K^{-1} (298 K) [1]

ClMg (g) Magnesium(I) Chloride **ClMg (g)**
MgCl (g) MgCl (g)

$\Delta H^0_{298} = -43.5 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 233.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.1 - 0.53 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClMo (g) Molybdenum(I) Chloride **ClMo (g)**
MoCl (g) MoCl (g)

$\Delta H^0_{298} = 407.4$ kJ·mol^{-1} [4] $S^0_{298} = 258.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 35.04 + 1.98 \cdot 10^{-3} \cdot T + 0.05 \cdot 10^6 \cdot T^{-2} + 0.05 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClNO (g) Nitrosyl Chloride **ClNO (g)**
NOCl (g) NOCl (g)

mp = 209 K (-64 °C) bp = 268 K (-5 °C)
$\Delta H^0_{298} = 51.7 \pm 0.4$ kJ·mol^{-1} [1] $S^0_{298} = 261.7 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 48.83 + 6.81 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$ClNO_2$ (g) Nitryl Chloride **$ClNO_2$ (g)**
NO_2Cl (g) NO_2Cl (g)

mp = 242 K (-31 °C) bp = 278 K (5 °C)
$\Delta H^0_{298} = 12.1 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 272.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 69.69 + 6.76 \cdot 10^{-3} \cdot T - 1.83 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClNa (s) Sodium Chloride **ClNa (s)**
NaCl (s) NaCl (s)

mp = 1074 K (801 °C) bp = 1757 K (1484 °C)
ΔH^0_{298} = – 411.1 ± 0.3 kJ·mol^{-1} [1] S^0_{298} = 72.1 ± 0.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 42 + 22.39 \cdot 10^{-3} \cdot T + 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1074 K) [4]

ClNa (s) Sodium Chloride **ClNa (s)**
NaCl (s) NaCl (s)

ΔH^0_{1074} = – 362.7 kJ·mol^{-1} [4] S^0_{1074} = 151.7 J·mol^{-1}·K^{-1} [4]

ClNa (l) Sodium Chloride **ClNa (l)**
NaCl (l) NaCl (l)

ΔH^0_{1074} = – 334.4 kJ·mol^{-1} [4] S^0_{1074} = 178.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$ = 68.45 J·mol^{-1}·K^{-1} (1074 K) [4]

ClNa (l) Sodium Chloride **ClNa (l)**
NaCl (l) NaCl (l)

ΔH^0_{298} = – 385.9 kJ·mol^{-1} [1] S^0_{298} = 95.1 J·mol^{-1}·K^{-1} [1]

ClNa (g) Sodium Chloride **ClNa (g)**
NaCl (g) NaCl (g)

ΔH^0_{298} = – 181.4 ± 2.1 kJ·mol^{-1} [1] S^0_{298} = 229.8 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.28 + 0.78 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -11.97 \cdot 10^3 \cdot T^{-1} - 3.26 \cdot \lg(T) + 17.87$ (700 ... 1074 K) [4]
{Reaction: evaporation of NaCl(s)}

$ClNaO_3$ (s) Sodium Chlorate **$ClNaO_3$ (s)**
$NaClO_3$ (s) $NaClO_3$ (s)

mp = 528 K (255 °C)
ΔH^0_{298} = – 357.7 kJ·mol^{-1} [4] S^0_{298} = 126.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 54.69 + 154.81 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 528 K) [4]

$ClNaO_3$ (s) Sodium Chlorate **$ClNaO_3$ (s)**

$NaClO_3$ (s) $NaClO_3$ (s)

$\Delta H^0_{528} = -330.5$ kJ·mol^{-1} [4] $S^0_{528} = 193.2$ J·mol^{-1}·K^{-1} [4]

$ClNaO_3$ (l) Sodium Chlorate **$ClNaO_3$ (l)**

$NaClO_3$ (l) $NaClO_3$ (l)

$\Delta H^0_{528} = -307.9$ kJ·mol^{-1} [4] $S^0_{528} = 236$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 133.05$ J·mol^{-1}·K^{-1} (528 K) [4]

$ClNaO_4$ (s) Sodium Perchlorate **$ClNaO_4$ (s)**

$NaClO_4$ (s) alpha $NaClO_4$ (s)

mp = 742 K (469 °C)

$\Delta H^0_{298} = -377.8$ kJ·mol^{-1} [4] $S^0_{298} = 143.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 139 + 53.56 \cdot 10^{-3} \cdot T - 3.9 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 581 K) [4]

$ClNaO_4$ (s) Sodium Perchlorate **$ClNaO_4$ (s)**

$NaClO_4$ (s) alpha $NaClO_4$ (s)

$\Delta H^0_{581} = -338.2$ kJ·mol^{-1} [4] $S^0_{581} = 235.7$ J·mol^{-1}·K^{-1} [4]

$ClNaO_4$ (s) Sodium Perchlorate **$ClNaO_4$ (s)**

$NaClO_4$ (s) beta $NaClO_4$ (s)

$\Delta H^0_{581} = -337.1$ kJ·mol^{-1} [4] $S^0_{581} = 237.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 139 + 53.56 \cdot 10^{-3} \cdot T - 3.9 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (581 ... 742 K) [4]

$ClNbO_2$ (s) Niobium Chloride Oxide **$ClNbO_2$ (s)**

NbO_2Cl (s) NbO_2Cl (s)

$\Delta H^0_{298} = -983.2$ kJ·mol^{-1} [2] $S^0_{298} = 88.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 93.1$ J·mol^{-1}·K^{-1} (298 K) [2]

ClNdO (s) Neodymium Chloride Oxide **ClNdO (s)**
NdOCl (s) NdOCl (s)

$\Delta H^0_{298} = -1005.8$ kJ·mol^{-1} [4] $S^0_{298} = 79.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 68.62 + 19.12 \cdot 10^{-3} \cdot T - 0.4 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

ClNi (g) Nickel(I) Chloride **ClNi (g)**
NiCl (g) NiCl (g)

$\Delta H^0_{298} = 182 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 251.9 \pm 13$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 39.3 + 0.84 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClO (g) Chlorine Oxide **ClO (g)**

$\Delta H^0_{298} = 101.2 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 225.1 \pm 0.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 31.55$ J·mol^{-1}·K^{-1} (298 K) [1]

ClOPu (s) Plutonium Chloride Oxide **ClOPu (s)**
PuOCl (s) PuOCl (s)

$\Delta H^0_{298} = -929.7$ kJ·mol^{-1} [4] $S^0_{298} = 105.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 76.53 + 23.89 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

ClOSb (s) Antimony Chloride Oxide **ClOSb (s)**
SbOCl (s) SbOCl (s)

$\Delta H^0_{298} = -374.1$ kJ·mol^{-1} [2] $S^0_{298} = 107.5$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 74.5$ J·mol^{-1}·K^{-1} (298 K) [2]

ClOSm (s) Samarium Chloride Oxide **ClOSm (s)**
SmOCl (s) SmOCl (s)

$\Delta H^0_{298} = -1000.4$ kJ·mol^{-1} [4] $S^0_{298} = 100.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 70.71 + 22.38 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

ClOTi (g) Titanium Chloride Oxide **ClOTi (g)**
TiOCl (g) TiOCl (g)

$\Delta H^0_{298} = -244.3$ kJ·mol^{-1} [1] $S^0_{298} = 263.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 51.65$ J·mol^{-1}·K^{-1} (298 K) [1]

ClOU (s) Uranium Chloride Oxide **ClOU (s)**
UOCl (s) UOCl (s)

$\Delta H^0_{298} = -833.9$ kJ·mol^{-1} [4] $S^0_{298} = 102.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 75.81 + 14.35 \cdot 10^{-3} \cdot T - 0.83 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 900 K) [4]

ClOV (s) Vanadium Chloride Oxide **ClOV (s)**
VOCl (s) VOCl (s)

$\Delta H^0_{298} = -606.6$ kJ·mol^{-1} [62] $S^0_{298} = 74.9$ J·mol^{-1}·K^{-1} [62]
$C_p^0 = 55.32 + 34.33 \cdot 10^{-3} \cdot T - 0.78 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [62]

ClOV (g) Vanadium Chloride Oxide **ClOV (g)**
VOCl (g) VOCl (g)

$\Delta H^0_{298} = -319.2$ kJ·mol^{-1} [62] $S^0_{298} = 288.7$ J·mol^{-1}·K^{-1} [62]
$C_p^0 = 60.76 + 1.05 \cdot 10^{-3} \cdot T - 1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [62]

ClO_2 (g) Chlorine Oxide **ClO_2 (g)**
OClO (g) OClO (g)

$\Delta H^0_{298} = 97 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 256.8 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 41.95$ J·mol^{-1}·K^{-1} (298 K) [1]

ClO_2 (g) Chlorine Oxide **ClO_2 (g)**
ClOO (g) ClOO (g)

$\Delta H^0_{298} = 98 \pm 4$ kJ·mol^{-1} [1] $S^0_{298} = 269.3 \pm 0.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 46.12$ J·mol^{-1}·K^{-1} (298 K) [1]

ClO_2Ta (s) Tantalum Chloride Oxide **ClO_2Ta (s)**

TaO_2Cl (s) TaO_2Cl (s)

$\Delta H^0_{298} = -1004.2$ kJ·mol^{-1} [4] $S^0_{298} = 94.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 96.23 + 16.32 \cdot 10^{-3} \cdot T - 0.71 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 811 K) [4]

ClO_2U (s) Uranium Chloride Oxide **ClO_2U (s)**

UO_2Cl (s) UO_2Cl (s)

$\Delta H^0_{298} = -1169.4$ kJ·mol^{-1} [4] $S^0_{298} = 112.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 90.12 + 22.26 \cdot 10^{-3} \cdot T - 0.77 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

ClO_3 (g) Chlorine Oxide **ClO_3 (g)**

$\Delta H^0_{298} = 194 \pm 12$ kJ·mol^{-1} [1] $S^0_{298} = 270.8 \pm 0.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 53.33$ J·mol^{-1}·K^{-1} (298 K) [1]

ClP (g) Phosphorus(I) Chloride **ClP (g)**

PCl (g) PCl (g)

$\Delta H^0_{298} = 129$ kJ·mol^{-1} [1] $S^0_{298} = 237.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 34.72$ J·mol^{-1}·K^{-1} (298 K) [1]

ClPb (g) Lead(I) Chloride **ClPb (g)**

PbCl (g) PbCl (g)

$\Delta H^0_{298} = 15.1$ kJ·mol^{-1} [4] $S^0_{298} = 261.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 37.11 + 0.84 \cdot 10^{-3} \cdot T - 0.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClRb (s) Rubidium Chloride **ClRb (s)**

RbCl (s) RbCl (s)

mp = 996 K (723 °C)

$\Delta H^0_{298} = -435.1$ kJ·mol^{-1} [4] $S^0_{298} = 95.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 48.24 + 10.46 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 996 K) [4]

$\lg(p,K) = -10.92 \cdot 10^3 \cdot T^{-1} - 2.32 \cdot \lg(T) + 14.53$ (700 ... 996 K) [4]

{Reaction: evaporation as RbCl(g)}

ClRb (s) Rubidium Chloride **ClRb** (s)
RbCl (s) RbCl (s)

$\Delta H^0_{996} = -396.7$ kJ·mol^{-1} [4] $S^0_{996} = 160.7$ J·mol^{-1}·K^{-1} [4]

ClRb (l) Rubidium Chloride **ClRb** (l)
RbCl (l) RbCl (l)

$\Delta H^0_{996} = -373$ kJ·mol^{-1} [4] $S^0_{996} = 184.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 64.02$ J·mol^{-1}·K^{-1} (996 K) [4]
$\lg(p,K) = -10 \cdot 10^3 \cdot T^{-1} - 3.08 \cdot \lg(T) + 15.89$ (996 ... 1679 K) [4]
{Reaction: evaporation as RbCl(g)}

ClRb (g) Rubidium Chloride **ClRb** (g)
RbCl (g) RbCl (g)

$\Delta H^0_{298} = -233.1$ kJ·mol^{-1} [4] $S^0_{298} = 241.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.15 + 0.96 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClS (g) Sulfur(I) Chloride **ClS** (g)
SCl (g) SCl (g)

$\Delta H^0_{298} = 156.5 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 237.3 \pm 2.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 37.07 + 1 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClS_2 (g) Sulfur Chloride **ClS_2** (g)
S_2Cl (g) S_2Cl (g)

$\Delta H^0_{298} = 78.6 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 291.7 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 50.95$ J·mol^{-1}·K^{-1} (298 K) [1]

ClSb (g) Antimony(I) Chloride **ClSb** (g)
SbCl (g) SbCl (g)

$\Delta H^0_{298} = -10.7$ kJ·mol^{-1} [2] $S^0_{298} = 247$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 35.5$ J·mol^{-1}·K^{-1} (298 K) [2]

ClSc (g) Scandium(I) Chloride **ClSc (g)**

ScCl (g) ScCl (g)

ΔH^0_{298} = 115.9 kJ·mol^{-1} [93] S^0_{298} = 234.3 J·mol^{-1}·K^{-1} [93]

ClSi (g) Silicon(I) Chloride **ClSi (g)**

SiCl (g) SiCl (g)

ΔH^0_{298} = 198.3 ± 6.7 kJ·mol^{-1} [1] S^0_{298} = 237.8 ± 0.2 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 35.78 J·mol^{-1}·K^{-1} (298 K) [1]

ClSr (g) Strontium(I) Chloride **ClSr (g)**

SrCl (g) SrCl (g)

ΔH^0_{298} = – 123.9 ± 8.4 kJ·mol^{-1} [1] S^0_{298} = 252.3 ± 0.4 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 37.34 + 0.57 $\cdot 10^{-3} \cdot T$ – 0.11 $\cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClTa (g) Tantalum(I) Chloride **ClTa (g)**

TaCl (g) TaCl (g)

ΔH^0_{298} = 359.8 kJ·mol^{-1} [2] S^0_{298} = 384.8 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 36.98 + 0.64 $\cdot 10^{-3} \cdot T$ – 0.2 $\cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ClTi (g) Titanium(I) Chloride **ClTi (g)**

TiCl (g) TiCl (g)

ΔH^0_{298} = 154.4 ± 41.8 kJ·mol^{-1} [1] S^0_{298} = 249.2 ± 8.4 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 43.94 + 0.25 $\cdot 10^{-3} \cdot T$ – 0.61 $\cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1939 K) [4]

ClTl (s) Thallium(I) Chloride **ClTl (s)**

TlCl (s) TlCl (s)

mp = 704 K (431 °C) bp = 1083 K (810 °C)

ΔH^0_{298} = – 204.2 kJ·mol^{-1} [2] S^0_{298} = 111.3 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 45.19 + 19.26 $\cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 704 K) [4]

ClTl (s) Thallium(I) Chloride **ClTl (s)**

TlCl (s) TlCl (s)

ΔH^0_{704} = – 181.9 kJ·mol^{-1} [4] S^0_{704} = 157.9 J·mol^{-1}·K^{-1} [4]

ClTl (l) Thallium(I) Chloride **ClTl (l)**

TlCl (l) TlCl (l)

$\Delta H^0_{704} = -166.3$ kJ·mol⁻¹ [4] $S^0_{704} = 180$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 74.89$ J·mol⁻¹·K⁻¹ (704 K) [4]

ClTl (g) Thallium(I) Chloride **ClTl (g)**

TlCl (g) TlCl (g)

$\Delta H^0_{298} = -67.4$ kJ·mol⁻¹ [2] $S^0_{298} = 256.3$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 37.4 - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

$\lg(p,K) = -7.25 \cdot 10^3 \cdot T^{-1} - 2.47 \cdot \lg(T) + 14.58$ (500 ... 704 K) [4]

{Reaction: evaporation of TlCl(s)}

ClW (g) Tungsten(I) Chloride **ClW (g)**

WCl (g) WCl (g)

$\Delta H^0_{298} = 553.5 \pm 41.8$ kJ·mol⁻¹ [1] $S^0_{298} = 261.9$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 36.24 + 1.59 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

ClY (g) Yttrium(I) Chloride **ClY (g)**

YCl (g) YCl (g)

$\Delta H^0_{298} = 200$ kJ·mol⁻¹ [4] $S^0_{298} = 244.2$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 37.38 + 0.46 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

ClZr (s) Zirconium(I) Chloride **ClZr (s)**

ZrCl (s) ZrCl (s)

$\Delta H^0_{298} = -303.2 \pm 3.4$ kJ·mol⁻¹ [90] $S^0_{298} = 60.9 \pm 0.1$ J·mol⁻¹·K⁻¹ [90]

$C_p^0 = 47.26$ J·mol⁻¹·K⁻¹ (298 K) [90]

ClZr (g) Zirconium(I) Chloride **ClZr (g)**

ZrCl (g) ZrCl (g)

$\Delta H^0_{298} = 205.4 \pm 20.9$ kJ·mol⁻¹ [1] $S^0_{298} = 254.2 \pm 8.4$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 34.45 + 5.05 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Cl_2 (g) Chlorine **Cl_2 (g)**

mp = 172 K (-101 °C) bp = 238 K (-35 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 223.1 J·mol^{-1}·K^{-1} [1]
C_p^0= 36.61 + 1.08 ·10^{-3}·T – 0.27 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Co (s) Cobalt(II) Chloride **Cl_2Co (s)**
$CoCl_2$ (s) $CoCl_2$ (s)

mp = 994 K (721 °C) bp = 1354 K (1081 °C)
ΔH^0_{298} = – 312.5 ± 1.7 kJ·mol^{-1} [1] S^0_{298} = 109.3 ± 0.2 J·mol^{-1}·K^{-1} [1]
C_p^0= 81.58 + 7.41 ·10^{-3}·T – 0.47 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 994 K) [4]

Cl_2Co (s) Cobalt(II) Chloride **Cl_2Co (s)**
$CoCl_2$ (s) $CoCl_2$ (s)

ΔH^0_{994} = – 253.6 kJ·mol^{-1} [4] S^0_{994} = 210.3 J·mol^{-1}·K^{-1} [4]

Cl_2Co (l) Cobalt(II) Chloride **Cl_2Co (l)**
$CoCl_2$ (l) $CoCl_2$ (l)

ΔH^0_{994} = – 209.6 kJ·mol^{-1} [4] S^0_{994} = 254.5 J·mol^{-1}·K^{-1} [4]
C_p^0= 96.23 J·mol^{-1}·K^{-1} (994 K) [4]

Cl_2Co (l) Cobalt(II) Chloride **Cl_2Co (l)**
$CoCl_2$ (l) $CoCl_2$ (l)

ΔH^0_{298} = – 271.5 kJ·mol^{-1} [1] S^0_{298} = 149 J·mol^{-1}·K^{-1} [1]
C_p^0= 78.49 J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2Co (g) Cobalt(II) Chloride **Cl_2Co (g)**
$CoCl_2$ (g) $CoCl_2$ (g)

ΔH^0_{298} = – 93.7 ± 8 kJ·mol^{-1} [1] S^0_{298} = 298.5 ± 8.4 J·mol^{-1}·K^{-1} [1]
C_p^0= 60.73 + 2.82 ·10^{-3}·T – 0.17 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
lg(p,K) = – 11.87 ·10^3·T^{-1} – 2.92 · lg(T) + 18.51 (700 ... 994 K) [4]
{Reaction: evaporation of $CoCl_2$(s)}

Cl_2Cr (s) Chromium(II) Chloride **Cl_2Cr (s)**
$CrCl_2$ (s) $CrCl_2$ (s)

mp = 1088 K (815 °C) bp = 1576 K (1303 °C)
$\Delta H^0_{298} = -395.4$ kJ·mol^{-1} [2] $S^0_{298} = 115.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 71.36 + 13 \cdot 10^{-3} \cdot T - 0.53 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1088 K) [4]
$\lg(p,K) = -14.01 \cdot 10^3 \cdot T^{-1} - 2.53 \cdot \lg(T) + 17.73$ (800 ... 1088 K) [4]
{Reaction: evaporation as $CrCl_2$(g)}

Cl_2Cr (s) Chromium(II) Chloride **Cl_2Cr (s)**
$CrCl_2$ (s) $CrCl_2$ (s)

$\Delta H^0_{1088} = -333.2$ kJ·mol^{-1} [4] $S^0_{1088} = 215.2$ J·mol^{-1}·K^{-1} [4]

Cl_2Cr (l) Chromium(II) Chloride **Cl_2Cr (l)**
$CrCl_2$ (l) $CrCl_2$ (l)

$\Delta H^0_{1088} = -286.3$ kJ·mol^{-1} [4] $S^0_{1088} = 258.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 100.42$ J·mol^{-1}·K^{-1} (1088 K) [4]
$\lg(p,K) = -12.5 \cdot 10^3 \cdot T^{-1} - 4.54 \cdot \lg(T) + 22.45$ (1088 ... 1576 K) [4]
{Reaction: evaporation of $CrCl_2$(l)}

Cl_2Cr (g) Chromium(II) Chloride **Cl_2Cr (g)**
$CrCl_2$ (g) $CrCl_2$ (g)

$\Delta H^0_{298} = -136.3$ kJ·mol^{-1} [4] $S^0_{298} = 308$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 61.12 + 1.36 \cdot 10^{-3} \cdot T - 0.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2CrO (g) Chromium Chloride Oxide **Cl_2CrO (g)**
$CrOCl_2$ (g) $CrOCl_2$ (g)

$\Delta H^0_{298} = -366.8$ kJ·mol^{-1} [65] $S^0_{298} = 310.9$ J·mol^{-1}·K^{-1} [65]
$C_p{}^0 = 81.46 + 0.86 \cdot 10^{-3} \cdot T - 0.89 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [65]

Cl_2CrO_2 (l) Chromyl Chloride **Cl_2CrO_2 (l)**

CrO_2Cl_2 (l) CrO_2Cl_2 (l)

bp = 390 K (117 °C)

$\Delta H^0_{298} = -579.5$ kJ·mol^{-1} [4] $S^0_{298} = 221.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 156.9$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -3.24 \cdot 10^3 \cdot T^{-1} - 8.52 \cdot \lg(T) + 30.37$ (298 ... 390 K) [4]

{Reaction: evaporation}

Cl_2CrO_2 (g) Chromyl Chloride **Cl_2CrO_2 (g)**

CrO_2Cl_2 (g) CrO_2Cl_2 (g)

$\Delta H^0_{298} = -538.6$ kJ·mol^{-1} [4] $S^0_{298} = 329$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 105.31 + 1.33 \cdot 10^{-3} \cdot T - 2.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Cs_2 (g) Cesium Chloride **Cl_2Cs_2 (g)**

$(CsCl)_2$ (g) $(CsCl)_2$ (g)

$\Delta H^0_{298} = -659.8 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 383.4 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 83.12 + 0.02 \cdot 10^{-3} \cdot T - 0.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -12.27 \cdot 10^3 \cdot T^{-1} - 5.41 \cdot \lg(T) + 25.6$ (700 ... 918 K) [4]

{Reaction: evaporation of CsCl(s)}

Cl_2Cu (s) Copper(II) Chloride **Cl_2Cu (s)**

$CuCl_2$ (s) $CuCl_2$ (s)

$\Delta H^0_{298} = -218$ kJ·mol^{-1} [4] $S^0_{298} = 108$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 78.87 + 2.93 \cdot 10^{-3} \cdot T - 0.71 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 862 K) [4]

$\lg(p,K) = -8.42 \cdot 10^3 \cdot T^{-1} + 0.12 \cdot \lg(T) + 9.04$ (500 ... 683 K) [4]

{Reaction: decomposition $2CuCl_2(s) = 2CuCl(s) + Cl_2(g)$}

$Cl_2CuH_4O_2$ (s) Copper(II) Chloride Dihydrate **$Cl_2CuH_4O_2$ (s)**

$CuCl_2 \cdot 2H_2O$ (s) $CuCl_2 \cdot 2H_2O$ (s)

$\Delta H^0_{298} = -821$ kJ·mol^{-1} [7] $S^0_{298} = 167$ J·mol^{-1}·K^{-1} [7]

Cl_2FOP (g) Phosphoryl Chloride Fluoride **Cl_2FOP (g)**

$POCl_2F$ (g) $POCl_2F$ (g)

$\Delta H^0_{298} = -765.7$ kJ·mol^{-1} [1] $S^0_{298} = 320.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 79.32$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2Fe (s) Iron(II) Chloride **Cl_2Fe (s)**

$FeCl_2$ (s) $FeCl_2$ (s)

mp = 950 K (677 °C) bp = 1293 K (1020 °C)

$\Delta H^0_{298} = -341.6$ kJ·mol^{-1} [4] $S^0_{298} = 117.9 \pm 3.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 78.26 + 9.95 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 950 K) [4]

Cl_2Fe (s) Iron(II) Chloride **Cl_2Fe (s)**

$FeCl_2$ (s) $FeCl_2$ (s)

$\Delta H^0_{950} = -287.5$ kJ·mol^{-1} [4] $S^0_{950} = 213$ J·mol^{-1}·K^{-1} [4]

Cl_2Fe (l) Iron(II) Chloride **Cl_2Fe (l)**

$FeCl_2$ (l) $FeCl_2$ (l)

$\Delta H^0_{950} = -244.6$ kJ·mol^{-1} [4] $S^0_{950} = 258.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 102.09$ J·mol^{-1}·K^{-1} (950 K) [4]

Cl_2Fe (l) Iron(II) Chloride **Cl_2Fe (l)**

$FeCl_2$ (l) $FeCl_2$ (l)

$\Delta H^0_{298} = -311.3$ kJ·mol^{-1} [1] $S^0_{298} = 139.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 102.17$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2Fe (g) Iron(II) Chloride **Cl_2Fe (g)**

$FeCl_2$ (g) $FeCl_2$ (g)

$\Delta H^0_{298} = -141 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 299.3 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 59.95 + 2.92 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -10.9 \cdot 10^{3} \cdot T^{-1} - 2.83 \cdot \lg(T) + 17.82$ (600 ... 950 K) [4]

{Reaction: evaporation of $FeCl_2$(s)}

Cl_2Ga (g) Gallium(II) Chloride **Cl_2Ga (g)**

$GaCl_2$ (g) $GaCl_2$ (g)

mp = 444 K (171 °C)

ΔH^0_{298} = – 130 ± 29 kJ·mol^{-1} [263] S^0_{298} = 301 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 57.59 + 0.44 \cdot 10^{-3} \cdot T - 0.41 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Ga_2 (g) Gallium(I) Chloride **Cl_2Ga_2 (g)**

Ga_2Cl_2 (g) Ga_2Cl_2 (g)

ΔH^0_{298} = – 220 ± 19 kJ·mol^{-1} [262] S^0_{298} = 353.6 ± 7.1 J·mol^{-1}·K^{-1} [263]

$C_p{}^0 = 79.74$ J·mol^{-1}·K^{-1} (298 K) [263]

Cl_2Ge (g) Germanium(II) Chloride **Cl_2Ge (g)**

$GeCl_2$ (g) $GeCl_2$ (g)

ΔH^0_{298} = – 171 kJ·mol^{-1} [2] S^0_{298} = 295.8 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 57.85 + 0.22 \cdot 10^{-3} \cdot T - 0.37 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2H_2Si (g) Dichlorosilane **Cl_2H_2Si (g)**

SiH_2Cl_2 (g) SiH_2Cl_2 (g)

mp = 151 K (-122 °C) bp = 281 K (8 °C)

ΔH^0_{298} = – 320.5 kJ·mol^{-1} [1] S^0_{298} = 286.7 ± 0.3 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 77.21 + 23 \cdot 10^{-3} \cdot T - 1.98 \cdot 10^6 \cdot T^{-2} - 4.57 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1685 K) [4]

Cl_2Hf (g) Hafnium(II) Chloride **Cl_2Hf (g)**

$HfCl_2$ (g) $HfCl_2$ (g)

ΔH^0_{298} = – 318 kJ·mol^{-1} [2] S^0_{298} = 295.4 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 57.7$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_2Hg (s) Mercury(II) Chloride **Cl_2Hg (s)**

$HgCl_2$ (s) $HgCl_2$ (s)

mp = 550 K (277 °C) bp = 756 K (483 °C)

$\Delta H^0_{298} = -227.2$ kJ·mol⁻¹ [4] $S^0_{298} = 144.5$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 70 + 20.29 \cdot 10^{-3} \cdot T - 0.19 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 550 K) [4]

$\lg(p,K) = -4.67 \cdot 10^3 \cdot T^{-1} - 2.13 \cdot \lg(T) + 14.06$ (298 ... 550 K) [4]

{Reaction: evaporation as $HgCl_2$(g)}

Cl_2Hg (s) Mercury(II) Chloride **Cl_2Hg (s)**

$HgCl_2$ (s) $HgCl_2$ (s)

$\Delta H^0_{550} = -207.7$ kJ·mol⁻¹ [4] $S^0_{550} = 191.7$ J·mol⁻¹·K⁻¹ [4]

Cl_2Hg (l) Mercury(II) Chloride **Cl_2Hg (l)**

$HgCl_2$ (l) $HgCl_2$ (l)

$\Delta H^0_{550} = -188.3$ kJ·mol⁻¹ [4] $S^0_{550} = 227$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 102.09$ J·mol⁻¹·K⁻¹ (550 K) [4]

Cl_2Hg (l) Mercury(II) Chloride **Cl_2Hg (l)**

$HgCl_2$ (l) $HgCl_2$ (l)

$\Delta H^0_{298} = -213.2$ kJ·mol⁻¹ [1] $S^0_{298} = 164.5$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 102.09$ J·mol⁻¹·K⁻¹ (298 K) [1]

Cl_2Hg (g) Mercury(II) Chloride **Cl_2Hg (g)**

$HgCl_2$ (g) $HgCl_2$ (g)

$\Delta H^0_{298} = -146.3 \pm 6.3$ kJ·mol⁻¹ [1] $S^0_{298} = 294.8$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 62.13 + 0.13 \cdot 10^{-3} \cdot T - 0.36 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Cl_2Hg_2 (s) Mercury(I) Chloride **Cl_2Hg_2 (s)**

Hg_2Cl_2 (s) Hg_2Cl_2 (s)

$\Delta H^0_{298} = -267.1$ kJ·mol⁻¹ [4] $S^0_{298} = 192.5$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 98.74 + 23.01 \cdot 10^{-3} \cdot T - 0.36 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 655 K) [4]

Cl_2In (s) Indium Chloride **Cl_2In (s)**
$InCl_2$ (s) $InCl_2$ (s)

mp = 509 K (236 °C)
$\Delta H^0_{298} = -362.7$ kJ·mol^{-1} [4] $S^0_{298} = 122.2$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 58.58 + 50.21 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 509 K) [4]

Cl_2In (s) Indium Chloride **Cl_2In (s)**
$InCl_2$ (s) $InCl_2$ (s)

$\Delta H^0_{509} = -346.1$ kJ·mol^{-1} [4] $S^0_{509} = 164.1$ J·mol^{-1}·K^{-1} [4]

Cl_2In (l) Indium Chloride **Cl_2In (l)**
$InCl_2$ (l) $InCl_2$ (l)

$\Delta H^0_{509} = -331.4$ kJ·mol^{-1} [4] $S^0_{509} = 193$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 97.49$ J·mol^{-1}·K^{-1} (509 K) [4]

Cl_2In_2 (g) Indium(I) Chloride **Cl_2In_2 (g)**
In_2Cl_2 (g) In_2Cl_2 (g)

$\Delta H^0_{298} = -232 \pm 8.8$ kJ·mol^{-1} [258] $S^0_{298} = [362.6]$ J·mol^{-1}·K^{-1} [261]

Cl_2K_2 (g) Potassium Chloride **Cl_2K_2 (g)**
$(KCl)_2$ (g) $(KCl)_2$ (g)

$\Delta H^0_{298} = -617.6 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 352.9$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 83.12 + 0.01 \cdot 10^{-3} \cdot T - 0.2 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -14.59 \cdot 10^{3} \cdot T^{-1} - 5.4 \cdot \lg(T) + 26.31$ (800 ... 1045 K) [4]
{Reaction: evaporation of KCl(s)}

Cl_2Li_2 (g) Lithium Chloride **Cl_2Li_2 (g)**
$(LiCl)_2$ (g) $(LiCl)_2$ (g)

$\Delta H^0_{298} = -593.5$ kJ·mol^{-1} [4] $S^0_{298} = 288.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 82.27 + 0.54 \cdot 10^{-3} \cdot T - 0.91 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -12.52 \cdot 10^{3} \cdot T^{-1} - 4.68 \cdot \lg(T) + 23.03$ (700 ... 883 K) [4]
{Reaction: evaporation of LiCl(s)}

Cl_2Mg (s) Magnesium(II) Chloride **Cl_2Mg (s)**

$MgCl_2$ (s) $MgCl_2$ (s)

mp = 980 K (707 °C) bp = 1634 K (1361 °C)

$\Delta H^0_{298} = -644.2$ kJ·mol^{-1} [4] $S^0_{298} = 89.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 76.4 + 9.25 \cdot 10^{-3} \cdot T - 0.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 980 K) [4]

Cl_2Mg (s) Magnesium(II) Chloride **Cl_2Mg (s)**

$MgCl_2$ (s) $MgCl_2$ (s)

$\Delta H^0_{980} = -589.8$ kJ·mol^{-1} [4] $S^0_{980} = 183.2$ J·mol^{-1}·K^{-1} [4]

Cl_2Mg (l) Magnesium(II) Chloride **Cl_2Mg (l)**

$MgCl_2$ (l) $MgCl_2$ (l)

$\Delta H^0_{980} = -549.9$ kJ·mol^{-1} [4] $S^0_{980} = 223.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 92.8$ J·mol^{-1}·K^{-1} (980 K) [4]

Cl_2Mg (g) Magnesium(II) Chloride **Cl_2Mg (g)**

$MgCl_2$ (g) $MgCl_2$ (g)

$\Delta H^0_{298} = -392.5 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 277 \pm 2.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 61.58 + 0.48 \cdot 10^{-3} \cdot T - 0.41 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -13.61 \cdot 10^3 \cdot T^{-1} - 2.68 \cdot \lg(T) + 17.82$ (800 ... 980 K) [4]

{Reaction: evaporation of $MgCl_2$(s)}

Cl_2Mn (s) Manganese(II) Chloride **Cl_2Mn (s)**

$MnCl_2$ (s) $MnCl_2$ (s)

mp = 923 K (650 °C)

$\Delta H^0_{298} = -481.3$ kJ·mol^{-1} [2] $S^0_{298} = 118.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 73.8 + 15.23 \cdot 10^{-3} \cdot T - 0.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 923 K) [4]

$\lg(p,K) = -11.79 \cdot 10^3 \cdot T^{-1} - 2.81 \cdot \lg(T) + 17.63$ (700 ... 923 K) [4]

{Reaction: evaporation as $MnCl_2$(g)}

Cl_2Mn (s) Manganese(II) Chloride **Cl_2Mn (s)**

$MnCl_2$ (s) $MnCl_2$ (s)

$\Delta H^0_{923} = -430.4$ kJ·mol^{-1} [4] $S^0_{923} = 208.8$ J·mol^{-1}·K^{-1} [4]

Cl_2Mn (l) Manganese(II) Chloride **Cl_2Mn (l)**

$MnCl_2$ (l) $MnCl_2$ (l)

$\Delta H^0_{923} = -392.7$ kJ·mol^{-1} [4] $S^0_{923} = 249.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 94.31$ J·mol^{-1}·K^{-1} (923 K) [4]

$\lg(p,K) = -10.26 \cdot 10^3 \cdot T^{-1} - 3.91 \cdot \lg(T) + 19.23$ (923 ... 1509 K) [4]

{Reaction: evaporation as $MnCl_2$(g)}

Cl_2Mn (g) Manganese(II) Chloride **Cl_2Mn (g)**

$MnCl_2$ (g) $MnCl_2$ (g)

$\Delta H^0_{298} = -264.1$ kJ·mol^{-1} [4] $S^0_{298} = 295.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 61.58 + 0.48 \cdot 10^{-3} \cdot T - 0.41 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Mo (s) Molybdenum(II) Chloride **Cl_2Mo (s)**

$MoCl_2$ (s) $MoCl_2$ (s)

$\Delta H^0_{298} = -279.7$ kJ·mol^{-1} [4] $S^0_{298} = 116.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 71.5 + 25.52 \cdot 10^{-3} \cdot T - 0.4 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1219 K) [4]

Cl_2Mo (g) Molybdenum(II) Chloride **Cl_2Mo (g)**

$MoCl_2$ (g) $MoCl_2$ (g)

$\Delta H^0_{298} = 83.1$ kJ·mol^{-1} [4] $S^0_{298} = 294$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 76.86 - 11.57 \cdot 10^{-3} \cdot T - 0.56 \cdot 10^6 \cdot T^{-2} + 2.61 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2MoO_2 (s) Molybdenum Chloride Oxide **Cl_2MoO_2 (s)**

MoO_2Cl_2 (s) MoO_2Cl_2 (s)

bp = 430 K (157 °C)

$\Delta H^0_{298} = -725.8$ kJ·mol^{-1} [4] $S^0_{298} = 120.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 127.4 + 7.03 \cdot 10^{-3} \cdot T - 1.94 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 430 K) [4]

$\lg(p,K) = -5.23 \cdot 10^3 \cdot T^{-1} - 2.97 \cdot \lg(T) + 19.99$ (298 ... 430 K) [4]

{Reaction: evaporation as MoO_2Cl_2(g)}

Cl_2MoO_2 (s) Molybdenum Chloride Oxide **Cl_2MoO_2 (s)**

MoO_2Cl_2 (s) MoO_2Cl_2 (s)

$\Delta H^0_{430} = -710.7$ kJ·mol^{-1} [4] $S^0_{430} = 162.4$ J·mol^{-1}·K^{-1} [4]

Cl_2MoO_2 (g) Molybdenum Chloride Oxide **Cl_2MoO_2 (g)**

MoO_2Cl_2 (g) MoO_2Cl_2 (g)

$\Delta H^0_{430} = -621.1$ kJ·mol^{-1} [4] $S^0_{430} = 370.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 103.38 + 2.44 \cdot 10^{-3} \cdot T - 1.8 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (430 ... 2000 K) [4]

Cl_2MoO_2 (g) Molybdenum Chloride Oxide **Cl_2MoO_2 (g)**

MoO_2Cl_2 (g) MoO_2Cl_2 (g)

$\Delta H^0_{298} = -633$ kJ·mol^{-1} [1] $S^0_{298} = 337.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 83.82$ J·mol^{-1}·K^{-1} (298 K) [4]

Cl_2Na_2 (g) Sodium Chloride **Cl_2Na_2 (g)**

$(NaCl)_2$ (g) $(NaCl)_2$ (g)

$\Delta H^0_{298} = -586.7$ kJ·mol^{-1} [4] $S^0_{298} = 325.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 83.02 + 0.08 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -13.23 \cdot 10^3 \cdot T^{-1} - 5.69 \cdot \lg(T) + 26.33$ (700 ... 1074 K) [4]

{Reaction: evaporation of NaCl(s)}

Cl_2Nb (s) Niobium(II) Chloride **Cl_2Nb (s)**

$NbCl_2$ (s) $NbCl_2$ (s)

$\Delta H^0_{298} = -407.1$ kJ·mol^{-1} [2] $S^0_{298} = 117.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 71.6$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_2NbO (s) Niobium Chloride Oxide **Cl_2NbO (s)**

$NbOCl_2$ (s) $NbOCl_2$ (s)

$\Delta H^0_{298} = -774.5$ kJ·mol^{-1} [2] $S^0_{298} = 121.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 96.23 + 16.74 \cdot 10^{-3} \cdot T - 0.71 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Cl_2Ni (s) Nickel(II) Chloride **Cl_2Ni (s)**

$NiCl_2$ (s) $NiCl_2$ (s)

mp = 1274 K (1001 °C) bp = 1228 K (955 °C)

$\Delta H^0_{298} = -304.9 \pm 0.2$ kJ·mol^{-1} [1] $S^0_{298} = 98.2 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 73.19 + 13.12 \cdot 10^{-3} \cdot T - 0.48 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1228 K) [4]

$\lg(p,K) = -12.72 \cdot 10^{3} \cdot T^{-1} - 2.25 \cdot \lg(T) + 17.31$ (700 ... 1228 K) [4]

{Reaction: evaporation of $NiCl_2$(s)}

Cl_2Ni (l) Nickel(II) Chloride **Cl_2Ni (l)**

$NiCl_2$ (l) $NiCl_2$ (l)

$\Delta H^0_{298} = -233.5$ kJ·mol^{-1} [1] $S^0_{298} = 151.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 71.66$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2Ni (g) Nickel(II) Chloride **Cl_2Ni (g)**

$NiCl_2$ (g) $NiCl_2$ (g)

$\Delta H^0_{298} = -70.2$ kJ·mol^{-1} [4] $S^0_{298} = 298.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 68.29 - 0.97 \cdot 10^{-3} \cdot T - 0.66 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2O (g) Chlorine Oxide **Cl_2O (g)**

ClOCl (g) ClOCl (g)

$\Delta H^0_{298} = 81 \pm 2$ kJ·mol^{-1} [1] $S^0_{298} = 271.7 \pm 1.5$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 47.91$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2O (g) Chlorosyl Chloride **Cl_2O (g)**

ClClO (g) ClClO (g)

ΔH^0_{298} = 90 ± 30 kJ·mol^{-1} [1] S^0_{298} = 278.8 ± 2 J·mol^{-1}·K^{-1} [1]

C_p^0= 48.84 J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2OS (l) Thionyl Chloride **Cl_2OS (l)**

$SOCl_2$ (l) $SOCl_2$ (l)

ΔH^0_{298} = – 247.4 kJ·mol^{-1} [4] S^0_{298} = 207.4 J·mol^{-1}·K^{-1} [4]

C_p^0= 121 J·mol^{-1}·K^{-1} (298 K) [4]

Cl_2OS (g) Thionyl Chloride **Cl_2OS (g)**

$SOCl_2$ (g) $SOCl_2$ (g)

ΔH^0_{298} = – 212.3 kJ·mol^{-1} [2] S^0_{298} = 308.1 J·mol^{-1}·K^{-1} [2]

C_p^0= 74.27 + 7.2 ·10^{-3}·T – 0.87 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2OSe (l) Selenium Chloride Oxide **Cl_2OSe (l)**

$SeOCl_2$ (l) $SeOCl_2$ (l)

ΔH^0_{298} = – 183 ± 13 kJ·mol^{-1} [55] S^0_{298} = 193.8 ± 5 J·mol^{-1}·K^{-1} [55]

Cl_2OTe (g) Tellurium Chloride Oxide **Cl_2OTe (g)**

$TeOCl_2$ (g) $TeOCl_2$ (g)

ΔH^0_{298} = – 188.3 ± 10.5 kJ·mol^{-1} [52] S^0_{298} = 324.3 ± 12.6 J·mol^{-1}·K^{-1} [52]

C_p^0= 81.46 + 0.88 ·10^{-3}·T – 0.89 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 K) [63]

Cl_2OTh (s) Thorium Chloride Oxide **Cl_2OTh (s)**

$ThOCl_2$ (s) $ThOCl_2$ (s)

ΔH^0_{298} = – 1232.2 kJ·mol^{-1} [2] S^0_{298} = 119.6 J·mol^{-1}·K^{-1} [4]

C_p^0= 94.77 + 16.31 ·10^{-3}·T – 0.77 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1309 K) [4]

Cl_2OTi (g) Titanium Chloride Oxide **Cl_2OTi (g)**
$TiOCl_2$ (g) $TiOCl_2$ (g)

$\Delta H^0_{298} = -545.6$ kJ·mol^{-1} [1] $S^0_{298} = 321$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 71.95$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2OU (s) Uranium(IV) Chloride Oxide **Cl_2OU (s)**
$UOCl_2$ (s) $UOCl_2$ (s)

$\Delta H^0_{298} = -1067.5$ kJ·mol^{-1} [4] $S^0_{298} = 138.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 98.95 + 14.64 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Cl_2OV (s) Vanadium Chloride Oxide **Cl_2OV (s)**
$VOCl_2$ (s) $VOCl_2$ (s)

$\Delta H^0_{298} = -690.4$ kJ·mol^{-1} [62] $S^0_{298} = 119.2$ J·mol^{-1}·K^{-1} [62]
$C_p{}^0 = 95.06 + 14.94 \cdot 10^{-3} \cdot T - 0.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [62]

Cl_2OV (g) Vanadium Chloride Oxide **Cl_2OV (g)**
$VOCl_2$ (g) $VOCl_2$ (g)

$\Delta H^0_{298} = -545.6$ kJ·mol^{-1} [62] $S^0_{298} = 311.3$ J·mol^{-1}·K^{-1} [62]
$C_p{}^0 = 81.59 + 0.84 \cdot 10^{-3} \cdot T - 0.88 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [62]

Cl_2O_2 (g) Chlorine Oxide **Cl_2O_2 (g)**
ClO_2Cl (g) ClO_2Cl (g)

$\Delta H^0_{298} = 133 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 301 \pm 5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 64.7$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2O_2 (g) Chloryl Chloride **Cl_2O_2 (g)**
ClOClO (g) ClOClO (g)

$\Delta H^0_{298} = 176.4 \pm 15$ kJ·mol^{-1} [1] $S^0_{298} = 309.2 \pm 2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 67.42$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2O_2 (g) Chlorine Chlorite **Cl_2O_2 (g)**
$ClClO_2$ (g) $ClClO_2$ (g)

$\Delta H^0_{298} = 136.6 \pm 16$ kJ·mol^{-1} [1] $S^0_{298} = 294.4 \pm 2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 60.7$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2O_2S (l) Sulfuryl Chloride **Cl_2O_2S (l)**
SO_2Cl_2 (l) SO_2Cl_2 (l)

bp = 343 K (70 °C)
$\Delta H^0_{298} = -394.1$ kJ·mol^{-1} [4] $S^0_{298} = 196$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 133.89$ J·mol^{-1}·K^{-1} (298 K) [4]

Cl_2O_2S (g) Sulfuryl Chloride **Cl_2O_2S (g)**
SO_2Cl_2 (g) SO_2Cl_2 (g)

$\Delta H^0_{298} = -354.8 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 311.1 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 97.23 + 5.73 \cdot 10^{-3} \cdot T - 2.1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2O_2U (s) Uranyl Dichloride **Cl_2O_2U (s)**
UO_2Cl_2 (s) UO_2Cl_2 (s)

mp = 850 K (577 °C)
$\Delta H^0_{298} = -1243.5$ kJ·mol^{-1} [4] $S^0_{298} = 150.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 115.23 + 18.2 \cdot 10^{-3} \cdot T - 1.14 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 850 K) [4]
$\lg(p,K) = -14.54 \cdot 10^{3} \cdot T^{-1} - 2.94 \cdot \lg(T) + 20.31$ (700 ... 850 K) [4]
{Reaction: evaporation}

Cl_2O_2U (s) Uranyl Dichloride **Cl_2O_2U (s)**
UO_2Cl_2 (s) UO_2Cl_2 (s)

$\Delta H^0_{850} = -1176.6$ kJ·mol^{-1} [4] $S^0_{850} = 275.8$ J·mol^{-1}·K^{-1} [4]

Cl_2O_2U (l) Uranyl Dichloride **Cl_2O_2U (l)**
UO_2Cl_2 (l) UO_2Cl_2 (l)

$\Delta H^0_{850} = -1132.6$ kJ·mol^{-1} [4] $S^0_{850} = 327.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 159.83$ J·mol^{-1}·K^{-1} (850 K) [4]

Cl_2O_2U (g) Uranyl Dichloride **Cl_2O_2U (g)**

UO_2Cl_2 (g) UO_2Cl_2 (g)

$\Delta H^0_{298} = -973.9$ kJ·mol⁻¹ [4] $S^0_{298} = 372.5$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 102.42 + 3.59 \cdot 10^{-3} \cdot T - 1.32 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Cl_2O_2W (s) Tungsten Dichloride Dioxide **Cl_2O_2W (s)**

WO_2Cl_2 (s) WO_2Cl_2 (s)

$\Delta H^0_{298} = -780.3 \pm 5.9$ kJ·mol⁻¹ [1] $S^0_{298} = 200.8$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 79.51 + 94.11 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 642 K) [4]

$\lg(p,K) = -6.33 \cdot 10^{3} \cdot T^{-1} - 4.06 \cdot \lg(T) + 20.15$ (400 ... 642 K) [4]

{Reaction: evaporation}

Cl_2O_2W (g) Tungsten Dichloride Dioxide **Cl_2O_2W (g)**

WO_2Cl_2 (g) WO_2Cl_2 (g)

$\Delta H^0_{298} = -671.5 \pm 25$ kJ·mol⁻¹ [1] $S^0_{298} = 353.9$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 103.58 + 2.3 \cdot 10^{-3} \cdot T - 1.57 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Cl_2Pb (s) Lead(II) Chloride **Cl_2Pb (s)**

$PbCl_2$ (s) $PbCl_2$ (s)

mp = 774 K (501 °C) bp = 1223 K (950 °C)

$\Delta H^0_{298} = -359.4 \pm 0.8$ kJ·mol⁻¹ [1] $S^0_{298} = 136 \pm 2.1$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 68.49 + 29.04 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 774 K) [4]

$\lg(p,K) = -10.25 \cdot 10^{3} \cdot T^{-1} - 3.72 \cdot \lg(T) + 20.52$ (600 ... 774 K) [4]

{Reaction: evaporation as $PbCl_2$(g)}

Cl_2Pb (s) Lead(II) Chloride **Cl_2Pb (s)**

$PbCl_2$ (s) $PbCl_2$ (s)

$\Delta H^0_{774} = -319.4$ kJ·mol⁻¹ [4] $S^0_{774} = 215.1$ J·mol⁻¹·K⁻¹ [4]

Cl_2Pb (l) Lead(II) Chloride **Cl_2Pb (l)**

$PbCl_2$ (l) $PbCl_2$ (l)

$\Delta H^0_{774} = -297.5$ kJ·mol^{-1} [4] $S^0_{774} = 243.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 111.5$ J·mol^{-1}·K^{-1} (774 K) [4]

$\lg(p,K) = -10.02 \cdot 10^3 \cdot T^{-1} - 6.45 \cdot \lg(T) + 28.11$ (774 ... 1223 K) [4]

{Reaction: evaporation as $PbCl_2$(g)}

Cl_2Pb (g) Lead(II) Chloride **Cl_2Pb (g)**

$PbCl_2$ (g) $PbCl_2$ (g)

$\Delta H^0_{298} = -174.1 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 317.2 \pm 2.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 58.05 + 0.09 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Pd (s) Palladium(II) Chloride **Cl_2Pd (s)**

$PdCl_2$ (s) $PdCl_2$ (s)

mp = 952 K (679 °C)

$\Delta H^0_{298} = -173.2$ kJ·mol^{-1} [4] $S^0_{298} = 104.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 69.04 + 20.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 952 K) [4]

$\lg(p,K) = -9.42 \cdot 10^3 \cdot T^{-1} - 2.37 \cdot \lg(T) + 15.22$ (600 ... 952 K) [4]

{Reaction: decomposition $PdCl_2$(s) = Pd(s) + Cl_2(g)}

Cl_2Pd (s) Palladium(II) Chloride **Cl_2Pd (s)**

$PdCl_2$ (s) $PdCl_2$ (s)

$\Delta H^0_{952} = -119.5$ kJ·mol^{-1} [4] $S^0_{952} = 198.3$ J·mol^{-1}·K^{-1} [4]

Cl_2Pd (l) Palladium(II) Chloride **Cl_2Pd (l)**

$PdCl_2$ (l) $PdCl_2$ (l)

$\Delta H^0_{952} = -101.1$ kJ·mol^{-1} [4] $S^0_{952} = 217.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 94.14$ J·mol^{-1}·K^{-1} (952 K) [4]

Cl_2Pd (g) Palladium(II) Chloride **Cl_2Pd (g)**

$PdCl_2$ (g) $PdCl_2$ (g)

ΔH^0_{298} = 117.6 kJ·mol^{-1} [4] S^0_{298} = 307 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 68.29 - 0.97 \cdot 10^{-3} \cdot T - 0.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1825 K) [4]

$\lg(p,K) = -15.65 \cdot 10^3 \cdot T^{-1} - 2.5 \cdot \lg(T) + 18.15$ (800 ... 952 K) [4]

{Reaction: evaporation of $PdCl_2$(s)}

Cl_2Pt (s) Platinum(II) Chloride **Cl_2Pt (s)**

$PtCl_2$ (s) $PtCl_2$ (s)

ΔH^0_{298} = – 116.1 kJ·mol^{-1} [4] S^0_{298} = 121.2 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 64.43 + 36.82 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 854 K) [4]

$\lg(p,K) = -6.5 \cdot 10^3 \cdot T^{-1} - 2.84 \cdot \lg(T) + 15.94$ (400 ... 854 K) [4]

{Reaction: decomposition $PtCl_2$(s) = Pt(s) + Cl_2(g)}

Cl_2Pt (g) Platinum(II) Chloride **Cl_2Pt (g)**

$PtCl_2$ (g) $PtCl_2$ (g)

ΔH^0_{298} = 125.5 ± 4.2 kJ·mol^{-1} [75] S^0_{298} = 297.1 ± 8.4 J·mol^{-1}·K^{-1} [75]

Cl_2Rb_2 (g) Rubidium Chloride **Cl_2Rb_2 (g)**

$(RbCl)_2$ (g) $(RbCl)_2$ (g)

ΔH^0_{298} = – 619 kJ·mol^{-1} [2] S^0_{298} = 373.3 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 81.6 J·mol^{-1}·K^{-1} (298 K) [2]

Cl_2Rh (g) Rhodium(II) Chloride **Cl_2Rh (g)**

$RhCl_2$ (g) $RhCl_2$ (g)

ΔH^0_{298} = 126.8 kJ·mol^{-1} [2] S^0_{298} = 288.5 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 53.8 J·mol^{-1}·K^{-1} (298 K) [2]

Cl_2S (l) Sulfur(II) Chloride **Cl_2S (l)**

SCl_2 (l) SCl_2 (l)

mp = 195 K (-78 °C)

$\Delta H^0_{298} = -49.8 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 183.7 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 91$ J·mol^{-1}·K^{-1} (298 K) [4]

Cl_2S (g) Sulfur(II) Chloride **Cl_2S (g)**

SCl_2 (g) SCl_2 (g)

$\Delta H^0_{298} = -17.6 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 281.6 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 57.53 + 0.36 \cdot 10^{-3} \cdot T - 0.6 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2S_2 (l) Dichlorodisulfane **Cl_2S_2 (l)**

S_2Cl_2 (l) S_2Cl_2 (l)

mp = 193 K (-80 °C)

$\Delta H^0_{298} = -58.2 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 223.8 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 124.29$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2S_2 (g) Sulfur Chloride **Cl_2S_2 (g)**

ClSSCl (g) ClSSCl (g)

$\Delta H^0_{298} = -16.7 \pm 4$ kJ·mol^{-1} [1] $S^0_{298} = 327.2 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 80.79 + 3.04 \cdot 10^{-3} \cdot T - 0.78 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Se (g) Selenium(II) Chloride **Cl_2Se (g)**

$SeCl_2$ (g) $SeCl_2$ (g)

$\Delta H^0_{298} = -33.5$ kJ·mol^{-1} [2] $S^0_{298} = 295.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 57.95 + 0.13 \cdot 10^{-3} \cdot T - 0.39 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Se_2 (l) Diselenium Dichloride **Cl_2Se_2 (l)**

Se_2Cl_2 (l) Se_2Cl_2 (l)

$\Delta H^0_{298} = -83.7$ kJ·mol^{-1} [2] $S^0_{298} = 246.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 127.2$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_2Se_2 (g) Diselenium Dichloride **Cl_2Se_2 (g)**

Se_2Cl_2 (g) Se_2Cl_2 (g)

mp = 188 K (-85 °C)

$\Delta H^0_{298} = -21.8$ kJ·mol^{-1} [2] $S^0_{298} = 353.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 82.38 + 1.57 \cdot 10^{-3} \cdot T - 0.45 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Si (g) Silicon(II) Chloride **Cl_2Si (g)**

$SiCl_2$ (g) $SiCl_2$ (g)

$\Delta H^0_{298} = -168.6 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 281.3 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 57.3 + 0.56 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Sm (s) Samarium(II) Chloride **Cl_2Sm (s)**

$SmCl_2$ (s) $SmCl_2$ (s)

mp = 1013 K (740 °C) bp = 2233 K (1960 °C)

$\Delta H^0_{298} = -816.3$ kJ·mol^{-1} [4] $S^0_{298} = 127.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 77.4 + 16.74 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1013 K) [4]

Cl_2Sm (s) Samarium(II) Chloride **Cl_2Sm (s)**

$SmCl_2$ (s) $SmCl_2$ (s)

$\Delta H^0_{1013} = -753.1$ kJ·mol^{-1} [4] $S^0_{1013} = 234.2$ J·mol^{-1}·K^{-1} [4]

Cl_2Sm (l) Samarium(II) Chloride **Cl_2Sm (l)**

$SmCl_2$ (l) $SmCl_2$ (l)

$\Delta H^0_{1013} = -738.9$ kJ·mol^{-1} [4] $S^0_{1013} = 248.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 100.42$ J·mol^{-1}·K^{-1} (1013 K) [4]

$\lg(p,K) = -16.81 \cdot 10^3 \cdot T^{-1} - 5.13 \cdot \lg(T) + 24.71$ (1013 ... 2000 K) [4]

{Reaction: evaporation as $SmCl_2$(g)}

Cl_2Sm (g) Samarium(II) Chloride **Cl_2Sm (g)**

$SmCl_2$ (g) $SmCl_2$ (g)

$\Delta H^0_{298} = -500.4$ kJ·mol^{-1} [4] $S^0_{298} = 315.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 57.68 + 0.28 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Sn (s) Tin(II) Chloride **Cl_2Sn (s)**

$SnCl_2$ (s) $SnCl_2$ (s)

mp = 520 K (247 °C) bp = 885 K (612 °C)

$\Delta H^0_{298} = -328$ kJ·mol^{-1} [2] $S^0_{298} = 134.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 64.73 + 44.61 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 520 K) [4]

$\lg(p,K) = -7.34 \cdot 10^3 \cdot T^{-1} - 3.67 \cdot \lg(T) + 19.78$ (400 ... 520 K) [4]

{Reaction: evaporation as $SnCl_2$(g)}

Cl_2Sn (s) Tin(II) Chloride **Cl_2Sn (s)**

$SnCl_2$ (s) $SnCl_2$ (s)

$\Delta H^0_{520} = -309.6$ kJ·mol^{-1} [4] $S^0_{520} = 180$ J·mol^{-1}·K^{-1} [4]

Cl_2Sn (l) Tin(II) Chloride **Cl_2Sn (l)**

$SnCl_2$ (l) $SnCl_2$ (l)

$\Delta H^0_{520} = -295$ kJ·mol^{-1} [4] $S^0_{520} = 208.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 100.5$ J·mol^{-1}·K^{-1} (520 K) [4]

$\lg(p,K) = -6.93 \cdot 10^3 \cdot T^{-1} - 5.19 \cdot \lg(T) + 23.12$ (520 ... 885 K) [4]

{Reaction: evaporation as $SnCl_2$(g)}

Cl_2Sn (g) Tin(II) Chloride **Cl_2Sn (g)**

$SnCl_2$ (g) $SnCl_2$ (g)

$\Delta H^0_{298} = -197.9$ kJ·mol^{-1} [2] $S^0_{298} = 305.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 57.99 + 0.13 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Sr (s) Strontium(II) Chloride **Cl_2Sr (s)**

$SrCl_2$ (s) $SrCl_2$ (s)

mp = 1146 K (873 °C) bp = 2313 K (2040 °C)

$\Delta H^0_{298} = -828.9 \pm 2.5$ kJ·mol^{-1} [1] $S^0_{298} = 114.8 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 33.44 + 79.87 \cdot 10^{-3} \cdot T + 1.63 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 990 K) [4]

$\lg(p,K) = -21.69 \cdot 10^3 \cdot T^{-1} - 10.14 \cdot \lg(T) + 43.42$ (990 ... 1146 K) [4]

{Reaction: evaporation as $SrCl_2$(g)}

Cl_2Sr (s) Strontium(II) Chloride **Cl_2Sr (s)**
$SrCl_2$ (s) $SrCl_2$ (s)

$\Delta H^0_{1146} = -744.1$ kJ·mol^{-1} [4] $S^0_{1146} = 239.5$ J·mol^{-1}·K^{-1} [4]

Cl_2Sr (l) Strontium(II) Chloride **Cl_2Sr (l)**
$SrCl_2$ (l) $SrCl_2$ (l)

$\Delta H^0_{1146} = -727.7$ kJ·mol^{-1} [4] $S^0_{1146} = 253.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 100$ J·mol^{-1}·K^{-1} (1146 K) [4]
$\lg(p,K) = -18.38 \cdot 10^3 \cdot T^{-1} - 5.11 \cdot \lg(T) + 25.14$ (1146 ... 2000 K) [4]
{Reaction: evaporation as $SrCl_2$(g)}

Cl_2Sr (g) Strontium(II) Chloride **Cl_2Sr (g)**
$SrCl_2$ (g) $SrCl_2$ (g)

$\Delta H^0_{298} = -473.2 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 316.3 \pm 5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 58.1 + 0.06 \cdot 10^{-3} \cdot T - 0.21 \cdot 10^6 \cdot T^{-2} - 0.21 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Ta (g) Tantalum(II) Chloride **Cl_2Ta (g)**
$TaCl_2$ (g) $TaCl_2$ (g)

$\Delta H^0_{298} = -66.9$ kJ·mol^{-1} [2] $S^0_{298} = 298.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 62.06 + 0.13 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Te (s) Tellurium(II) Chloride **Cl_2Te (s)**
$TeCl_2$ (s) $TeCl_2$ (s)

mp = 448 K (175 °C)
$\Delta H^0_{298} = -190.2$ kJ·mol^{-1} [4] $S^0_{298} = 161.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 83.68$ J·mol^{-1}·K^{-1} (298 K) [4]
$\lg(p,K) = -4.54 \cdot 10^3 \cdot T^{-1} - 3.4 \cdot \lg(T) + 17.42$ (298 ... 448 K) [4]
{Reaction: evaporation as $TeCl_2$(g)}

Cl_2Te (s) Tellurium(II) Chloride **Cl_2Te (s)**
$TeCl_2$ (s) $TeCl_2$ (s)

$\Delta H^0_{448} = -177.7$ kJ·mol^{-1} [4] $S^0_{448} = 195.5$ J·mol^{-1}·K^{-1} [4]

Cl_2Te (l) Tellurium(II) Chloride **Cl_2Te (l)**

$TeCl_2$ (l) $TeCl_2$ (l)

$\Delta H^0_{448} = -166.4$ kJ·mol^{-1} [4] $S^0_{448} = 220.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 94.14$ J·mol^{-1}·K^{-1} (448 K) [4]

Cl_2Te (g) Tellurium(II) Chloride **Cl_2Te (g)**

$TeCl_2$ (g) $TeCl_2$ (g)

$\Delta H^0_{298} = -111.7$ kJ·mol^{-1} [4] $S^0_{298} = 305.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 58.03 + 0.09 \cdot 10^{-3} \cdot T - 0.33 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Ti (s) Titanium(II) Chloride **Cl_2Ti (s)**

$TiCl_2$ (s) $TiCl_2$ (s)

$\Delta H^0_{298} = -515.5 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 87.3 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 68.37 + 18.03 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1246 K) [4]

Cl_2Ti (g) Titanium(II) Chloride **Cl_2Ti (g)**

$TiCl_2$ (g) $TiCl_2$ (g)

$\Delta H^0_{298} = -237.2 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 278.3 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 60.12 + 2.22 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1939 K) [4]

Cl_2Tl_2 (g) Thallium(I) Chloride **Cl_2Tl_2 (g)**

$(TlCl)_2$ (g) $(TlCl)_2$ (g)

$\Delta H^0_{298} = -238.9$ kJ·mol^{-1} [2] $S^0_{298} = 386.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 83.11 + 0.03 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -9.22 \cdot 10^{3} \cdot T^{-1} - 3.9 \cdot \lg(T) + 19.84$ (600 ... 704 K) [4]

{Reaction: evaporation of TlCl(l)}

Cl_2V (s) Vanadium(II) Chloride **Cl_2V (s)**

VCl_2 (s) VCl_2 (s)

mp = 1620 K (1347 °C) bp = 1650 K (1377 °C)

$\Delta H^0_{298} = -461.5$ kJ·mol^{-1} [4] $S^0_{298} = 97.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 71.91 + 11.93 \cdot 10^{-3} \cdot T - 0.32 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1620 K) [4]

Cl_2V (g) Vanadium(II) Chloride **Cl_2V (g)**

VCl_2 (g) VCl_2 (g)

$\Delta H^0_{298} = -203.1$ kJ·mol^{-1} [2] $S^0_{298} = 284.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 74.5$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_2W (s) Tungsten(II) Chloride **Cl_2W (s)**

WCl_2 (s) WCl_2 (s)

$\Delta H^0_{298} = -260.3$ kJ·mol^{-1} [4] $S^0_{298} = 130.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 71.28 + 21.9 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 862 K) [4]

Cl_2W (g) Tungsten(II) Chloride **Cl_2W (g)**

WCl_2 (g) WCl_2 (g)

$\Delta H^0_{298} = -12.6 \pm 105$ kJ·mol^{-1} [1] $S^0_{298} = 309.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 58.17 + 4.51 \cdot 10^{-3} \cdot T - 0.1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Yb (s) Ytterbium(II) Chloride **Cl_2Yb (s)**

$YbCl_2$ (s) $YbCl_2$ (s)

mp = 1000 K (727 °C) bp = 2200 K (1927 °C)

$\Delta H^0_{298} = -799.1$ kJ·mol^{-1} [4] $S^0_{298} = 122.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 67.99 + 20.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Cl_2Zn (s) Zinc(II) Chloride **Cl_2Zn (s)**

$ZnCl_2$ (s) $ZnCl_2$ (s)

mp = 591 K (318 °C) bp = 1004 K (731 °C)

$\Delta H^0_{298} = -415.1$ kJ·mol^{-1} [2] $S^0_{298} = 111.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 59.83 + 37.66 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 591 K) [4]

$\lg(p,K) = -8.08 \cdot 10^{3} \cdot T^{-1} - 2.42 \cdot \lg(T) + 15.81$ (500 ... 591 K) [4]

{Reaction: evaporation as $ZnCl_2$(g)}

Cl_2Zn (s) Zinc(II) Chloride **Cl_2Zn (s)**

$ZnCl_2$ (s) $ZnCl_2$ (s)

$\Delta H^0_{591} = -392.6$ kJ·mol^{-1} [4] $S^0_{591} = 163.4$ J·mol^{-1}·K^{-1} [4]

Cl_2Zn (l) Zinc(II) Chloride **Cl_2Zn (l)**

$ZnCl_2$ (l) $ZnCl_2$ (l)

$\Delta H^0_{591} = -382.3$ kJ·mol^{-1} [4] $S^0_{591} = 181$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 100.83$ J·mol^{-1}·K^{-1} (591 K) [4]

$\lg(p,K) = -8.15 \cdot 10^3 \cdot T^{-1} - 4.81 \cdot \lg(T) + 22.55$ (591 ... 1004 K) [4]

{Reaction: evaporation as $ZnCl_2$(g)}

Cl_2Zn (g) Zinc(II) Chloride **Cl_2Zn (g)**

$ZnCl_2$ (g) $ZnCl_2$ (g)

$\Delta H^0_{298} = -267.3$ kJ·mol^{-1} [4] $S^0_{298} = 277.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 61.71 - 0.43 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_2Zr (s) Zirconium(II) Chloride **Cl_2Zr (s)**

$ZrCl_2$ (s) $ZrCl_2$ (s)

bp = 1564 K (1291 °C)

$\Delta H^0_{298} = -431 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 110 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 73.32 + 13.1 \cdot 10^{-3} \cdot T - 0.41 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Cl_2Zr (l) Zirconium(II) Chloride **Cl_2Zr (l)**

$ZrCl_2$ (l) $ZrCl_2$ (l)

$\Delta H^0_{298} = -411.6$ kJ·mol^{-1} [1] $S^0_{298} = 122.5$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 91$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_2Zr (g) Zirconium(II) Chloride **Cl_2Zr (g)**

$ZrCl_2$ (g) $ZrCl_2$ (g)

$\Delta H^0_{298} = -186.2 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 292.6 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 61.12 + 1.36 \cdot 10^{-3} \cdot T - 0.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Cl_{2.33}Nb$ (s) Niobium Chloride **$Cl_{2.33}Nb$ (s)**

$NbCl_{2.33}$ (s) $NbCl_{2.33}$ (s)

$\Delta H^0_{298} = -474.5$ kJ·mol^{-1} [2] $S^0_{298} = 130.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 79.5$ J·mol^{-1}·K^{-1} (298 K) [2]

$Cl_{2.67}Nb$ (s) Niobium Chloride **$Cl_{2.67}Nb$ (s)**

$NbCl_{2.67}$ (s) $NbCl_{2.67}$ (s)

$\Delta H^0_{298} = -538.1$ kJ·mol^{-1} [2] $S^0_{298} = 137.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 85.4$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_3Co (g) Cobalt(III) Chloride **Cl_3Co (g)**

$CoCl_3$ (g) $CoCl_3$ (g)

$\Delta H^0_{298} = -163.6 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 334.2 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 87.61 - 2 \cdot 10^{-3} \cdot T - 0.96 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -8.15 \cdot 10^3 \cdot T^{-1} - 2.51 \cdot \lg(T) + 13.31$ (600 ... 994 K) [4]

{Reaction: $CoCl_2$(s) + 1/2Cl_2(g) = $CoCl_3$(g)}

Cl_3Cr (s) Chromium(III) Chloride **Cl_3Cr (s)**

$CrCl_3$ (s) $CrCl_3$ (s)

bp = 1279 K (1006 °C)

$\Delta H^0_{298} = -556.5$ kJ·mol^{-1} [2] $S^0_{298} = 123$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 98.83 + 13.98 \cdot 10^{-3} \cdot T - 1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1088 K) [4]

Cl_3Cr (g) Chromium(III) Chloride **Cl_3Cr (g)**

$CrCl_3$ (g) $CrCl_3$ (g)

$\Delta H^0_{298} = -325.2$ kJ·mol^{-1} [4] $S^0_{298} = 317.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 83.35 + 3.16 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3CsMg (s) Cesium Magnesium Chloride **Cl_3CsMg (s)**

$CsCl \cdot MgCl_2$ (s) $CsCl \cdot MgCl_2$ (s)

$\Delta H^0_{298} = -1113$ kJ·mol^{-1} [206] $S^0_{298} = [190.7]$ J·mol^{-1}·K^{-1} [208]

$C_p{}^0 = [123.80]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_3Cu_3 (g) Copper(I) Chloride **Cl_3Cu_3 (g)**
$(CuCl)_3$ (g) $(CuCl)_3$ (g)

$\Delta H^0_{298} = -263.7$ kJ·mol^{-1} [4] $S^0_{298} = 429.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 132.88 + 0.08 \cdot 10^{-3} \cdot T - 0.77 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -8.58 \cdot 10^3 \cdot T^{-1} - 6.2 \cdot \lg(T) + 27.07$ (500 ... 683 K) [4]
{Reaction: evaporation as Cu_3Cl_3(g)}

Cl_3Dy (s) Dysprosium(III) Chloride **Cl_3Dy (s)**
$DyCl_3$ (s) $DyCl_3$ (s)

mp = 924 K (651 °C) bp = 1810 K (1537 °C)
$\Delta H^0_{298} = -998.3$ kJ·mol^{-1} [4] $S^0_{298} = 150.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 98.69 + 13.32 \cdot 10^{-3} \cdot T - 0.5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 924 K) [4]
$\lg(p,K) = -17.3 \cdot 10^3 \cdot T^{-1} - 3.22 \cdot \lg(T) + 21.58$ (900 ... 924 K) [4]
{Reaction: evaporation as $DyCl_3$(g)}

Cl_3Dy (s) Dysprosium(III) Chloride **Cl_3Dy (s)**
$DyCl_3$ (s) $DyCl_3$ (s)

$\Delta H^0_{924} = -932.6$ kJ·mol^{-1} [4] $S^0_{924} = 268.3$ J·mol^{-1}·K^{-1} [4]

Cl_3Dy (l) Dysprosium(III) Chloride **Cl_3Dy (l)**
$DyCl_3$ (l) $DyCl_3$ (l)

$\Delta H^0_{924} = -888.7$ kJ·mol^{-1} [4] $S^0_{924} = 315.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 144.77$ J·mol^{-1}·K^{-1} (924 K) [4]
$\lg(p,K) = -16.59 \cdot 10^3 \cdot T^{-1} - 7.19 \cdot \lg(T) + 32.59$ (924 ... 1810 K) [4]
{Reaction: evaporation as $DyCl_3$(g)}

Cl_3Dy (g) Dysprosium(III) Chloride **Cl_3Dy (g)**
$DyCl_3$ (g) $DyCl_3$ (g)

$\Delta H^0_{298} = -677.4$ kJ·mol^{-1} [2] $S^0_{298} = 379.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 81.25 + 2.9 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Cl_3DyH_{12}O_6$ (s) Dysprosium(III) Chloride Hexahydrate **$Cl_3DyH_{12}O_6$ (s)**

$DyCl_3 \cdot 6H_2O$ (s) $DyCl_3 \cdot 6H_2O$ (s)

$\Delta H^0_{298} = -2870$ kJ·mol^{-1} [2] $S^0_{298} = 401.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 346$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_3Er (s) Erbium(III) Chloride **Cl_3Er (s)**

$ErCl_3$ (s) $ErCl_3$ (s)

mp = 1049 K (776 °C) bp = 1750 K (1477 °C)

$\Delta H^0_{298} = -994.5$ kJ·mol^{-1} [2] $S^0_{298} = 154.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 95.11 + 18.75 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1049 K) [4]

$\lg(p,K) = -15.82 \cdot 10^3 \cdot T^{-1} - 3.57 \cdot \lg(T) + 21.66$ (800 ... 1049 K) [4]

{Reaction: evaporation as $ErCl_3$(g)}

Cl_3Er (s) Erbium(III) Chloride **Cl_3Er (s)**

$ErCl_3$ (s) $ErCl_3$ (s)

$\Delta H^0_{1049} = -914.2$ kJ·mol^{-1} [4] $S^0_{1049} = 287.3$ J·mol^{-1}·K^{-1} [4]

Cl_3Er (l) Erbium(III) Chloride **Cl_3Er (l)**

$ErCl_3$ (l) $ErCl_3$ (l)

$\Delta H^0_{1049} = -872.5$ kJ·mol^{-1} [4] $S^0_{1049} = 327.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 148.53$ J·mol^{-1}·K^{-1} (1049 K) [4]

$\lg(p,K) = -15.61 \cdot 10^3 \cdot T^{-1} - 7.9 \cdot \lg(T) + 34.54$ (1049 ... 1750 K) [4]

{Reaction: evaporation as $ErCl_3$(g)}

Cl_3Er (g) Erbium(III) Chloride **Cl_3Er (g)**

$ErCl_3$ (g) $ErCl_3$ (g)

$\Delta H^0_{298} = -703.9$ kJ·mol^{-1} [4] $S^0_{298} = 363.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 82.87 + 0.17 \cdot 10^{-3} \cdot T - 0.43 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Cl_3ErH_{12}O_6$ (s) Erbium(III) Chloride Hexahydrate **$Cl_3ErH_{12}O_6$ (s)**

$ErCl_3 \cdot 6H_2O$ (s) $ErCl_3 \cdot 6H_2O$ (s)

$\Delta H^0_{298} = -2874.4$ kJ·mol^{-1} [2] $S^0_{298} = 398.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 343.1$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_3Eu (s) Europium(III) Chloride **Cl_3Eu (s)**

$EuCl_3$ (s) $EuCl_3$ (s)

mp = 897 K (624 °C) bp = 1873 K (1600 °C)

$\Delta H^0_{298} = -936$ kJ·mol^{-1} [2] $S^0_{298} = 144.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 102.86 + 26.1 \cdot 10^{-3} \cdot T - 0.33 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 897 K) [4]

$\lg(p,K) = -15.21 \cdot 10^3 \cdot T^{-1} - 3.85 \cdot \lg(T) + 23.12$ (800 ... 897 K) [4]

{Reaction: evaporation as $EuCl_3$(g)}

Cl_3Eu (s) Europium(III) Chloride **Cl_3Eu (s)**

$EuCl_3$ (s) $EuCl_3$ (s)

$\Delta H^0_{897} = -865.8$ kJ·mol^{-1} [4] $S^0_{897} = 271.3$ J·mol^{-1}·K^{-1} [4]

Cl_3Eu (l) Europium(III) Chloride **Cl_3Eu (l)**

$EuCl_3$ (l) $EuCl_3$ (l)

$\Delta H^0_{897} = -814.7$ kJ·mol^{-1} [4] $S^0_{897} = 328.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 142.26$ J·mol^{-1}·K^{-1} (897 K) [4]

$\lg(p,K) = -13.4 \cdot 10^3 \cdot T^{-1} - 6.02 \cdot \lg(T) + 27.5$ (897 ... 1300 K) [4]

{Reaction: evaporation as $EuCl_3$(g)}

Cl_3Eu (g) Europium(III) Chloride **Cl_3Eu (g)**

$EuCl_3$ (g) $EuCl_3$ (g)

$\Delta H^0_{298} = -658.1$ kJ·mol^{-1} [2] $S^0_{298} = 363.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 94.55 - 1.46 \cdot 10^{-3} \cdot T - 0.54 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Cl_3EuH_{12}O_6$ (s) Europium(III) Chloride Hexahydrate **$Cl_3EuH_{12}O_6$ (s)**

$EuCl_3 \cdot 6H_2O$ (s) $EuCl_3 \cdot 6H_2O$ (s)

ΔH^0_{298} = – 2784.9 kJ·mol⁻¹ [2] S^0_{298} = 407.1 J·mol⁻¹·K⁻¹ [2]

$C_p{}^0$= 366.9 J·mol⁻¹·K⁻¹ (298 K) [2]

Cl_3FSi (g) Trichlorofluorosilane **Cl_3FSi (g)**

$SiCl_3F$ (g) $SiCl_3F$ (g)

ΔH^0_{298} = – 841 ± 62.8 kJ·mol⁻¹ [1] S^0_{298} = 336.1 ± 16.7 J·mol⁻¹·K⁻¹ [1]

$C_p{}^0$= 90.08 J·mol⁻¹·K⁻¹ (298 K) [1]

Cl_3Fe (s) Iron(III) Chloride **Cl_3Fe (s)**

$FeCl_3$ (s) $FeCl_3$ (s)

mp = 577 K (304 °C) bp = 604 K (331 °C)

ΔH^0_{298} = – 399.2 kJ·mol⁻¹ [4] S^0_{298} = 147.8 J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 74.59 + 78.27 \cdot 10^{-3} \cdot T - 0.09 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 577 K) [4]

Cl_3Fe (s) Iron(III) Chloride **Cl_3Fe (s)**

$FeCl_3$ (s) $FeCl_3$ (s)

ΔH^0_{577} = – 369 kJ·mol⁻¹ [4] S^0_{577} = 218.5 J·mol⁻¹·K⁻¹ [4]

Cl_3Fe (l) Iron(III) Chloride **Cl_3Fe (l)**

$FeCl_3$ (l) $FeCl_3$ (l)

ΔH^0_{577} = – 325.9 kJ·mol⁻¹ [4] S^0_{577} = 293.2 J·mol⁻¹·K⁻¹ [4]

$C_p{}^0$= 133.89 J·mol⁻¹·K⁻¹ (577 K) [4]

Cl_3Fe (l) Iron(III) Chloride **Cl_3Fe (l)**

$FeCl_3$ (l) $FeCl_3$ (l)

ΔH^0_{298} = – 362.8 kJ·mol⁻¹ [1] S^0_{298} = 200.7 J·mol⁻¹·K⁻¹ [1]

$C_p{}^0$= 133.89 J·mol⁻¹·K⁻¹ (298 K) [1]

Cl_3Fe (g) Iron(III) Chloride **Cl_3Fe (g)**

$FeCl_3$ (g) $FeCl_3$ (g)

$\Delta H^0_{298} = -253.1 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 344.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 82.88 + 0.16 \cdot 10^{-3} \cdot T - 0.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -8.14 \cdot 10^3 \cdot T^{-1} - 3.8 \cdot \lg(T) + 21.49$ (400 ... 577 K) [4]

{Reaction: evaporation of $FeCl_3$(s)}

Cl_3Ga (s) Gallium(III) Chloride **Cl_3Ga (s)**

$GaCl_3$ (s) $GaCl_3$ (s)

mp = 351 K (78 °C) bp = 474 K (201 °C)

$\Delta H^0_{298} = -524.7$ kJ·mol^{-1} [2] $S^0_{298} = 135.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 118.4$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_3Ga (s) Gallium(III) Chloride **Cl_3Ga (s)**

$GaCl_3$ (s) $GaCl_3$ (s)

$\Delta H^0_{351} = -518.4$ kJ·mol^{-1} [4] $S^0_{351} = 154.5$ J·mol^{-1}·K^{-1} [4]

Cl_3Ga (l) Gallium(III) Chloride **Cl_3Ga (l)**

$GaCl_3$ (l) $GaCl_3$ (l)

$\Delta H^0_{351} = -506.9$ kJ·mol^{-1} [4] $S^0_{351} = 187.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 128.03$ J·mol^{-1}·K^{-1} (351 K) [4]

Cl_3Ga (g) Gallium(III) Chloride **Cl_3Ga (g)**

$GaCl_3$ (g) $GaCl_3$ (g)

$\Delta H^0_{298} = -422.9$ kJ·mol^{-1} [4] $S^0_{298} = 325.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 82.43 + 0.44 \cdot 10^{-3} \cdot T - 0.68 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -5.98 \cdot 10^3 \cdot T^{-1} - 5.1 \cdot \lg(T) + 24.76$ (298 ... 351 K) [4]

{Reaction: evaporation of $GaCl_3$(s)}

Cl_3Gd (s) Gadolinium(III) Chloride **Cl_3Gd (s)**

$GdCl_3$ (s) $GdCl_3$ (s)

mp = 875 K (602 °C) bp = 1919 K (1646 °C)

$\Delta H^0_{298} = -1008.3$ kJ·mol^{-1} [4] $S^0_{298} = 151.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 93.1 + 25.05 \cdot 10^{-3} \cdot T - 0.25 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 875 K) [4]

Cl_3Gd (s) Gadolinium(III) Chloride **Cl_3Gd (s)**

$GdCl_3$ (s) $GdCl_3$ (s)

$\Delta H^0_{875} = -946.7$ kJ·mol^{-1} [4] $S^0_{875} = 265$ J·mol^{-1}·K^{-1} [4]

Cl_3Gd (l) Gadolinium(III) Chloride **Cl_3Gd (l)**

$GdCl_3$ (l) $GdCl_3$ (l)

$\Delta H^0_{875} = -906$ kJ·mol^{-1} [4] $S^0_{875} = 311.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 139.33$ J·mol^{-1}·K^{-1} (875 K) [4]

$\lg(p,K) = -15.97 \cdot 10^3 \cdot T^{-1} - 6.8 \cdot \lg(T) + 30.65$ (875 ... 1919 K) [4]

{Reaction: evaporation as $GdCl_3$(g)}

Cl_3Gd (g) Gadolinium(III) Chloride **Cl_3Gd (g)**

$GdCl_3$ (g) $GdCl_3$ (g)

$\Delta H^0_{298} = -696.6$ kJ·mol^{-1} [2] $S^0_{298} = 371.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 82.86 + 0.18 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3Ge (g) Germanium(III) Chloride **Cl_3Ge (g)**

$GeCl_3$ (g) $GeCl_3$ (g)

$\Delta H^0_{298} = -320.8$ kJ·mol^{-1} [4] $S^0_{298} = 335.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 82.72 + 0.26 \cdot 10^{-3} \cdot T - 0.58 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3HSi (g) Trichlorosilane **Cl_3HSi (g)**

$SiHCl_3$ (g) $SiHCl_3$ (g)

mp = 145 K (-128 °C) bp = 305 K (32 °C)

$\Delta H^0_{298} = -496.2 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 313.7 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 85.72 + 21.41 \cdot 10^{-3} \cdot T - 0.15 \cdot 10^6 \cdot T^{-2} - 5.75 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1685 K) [4]

$Cl_3H_{12}N_4Sc$ (s) Tetraammine Scandium(III) Chloride **$Cl_3H_{12}N_4Sc$ (s)**

$ScCl_3 \cdot 4NH_3$ (s) $ScCl_3 \cdot 4NH_3$ (s)

$\Delta H^0_{298} = -1414.2$ kJ·mol⁻¹ [93] $S^0_{298} = [293]$ J·mol⁻¹·K⁻¹ [93]

$Cl_3H_{14}LaO_7$ (s) Lanthanum(III) Chloride Heptahydrate **$Cl_3H_{14}LaO_7$ (s)**

$LaCl_3 \cdot 7H_2O$ (s) $LaCl_3 \cdot 7H_2O$ (s)

$\Delta H^0_{298} = -3178.6$ kJ·mol⁻¹ [96] $S^0_{298} = 462.8$ J·mol⁻¹·K⁻¹ [96]

$Cl_3H_{15}N_5Sc$ (s) Pentaammine Scandium(III) Chloride **$Cl_3H_{15}N_5Sc$ (s)**

$ScCl_3 \cdot 5NH_3$ (s) $ScCl_3 \cdot 5NH_3$ (s)

$\Delta H^0_{298} = -1514.6$ kJ·mol⁻¹ [93] $S^0_{298} = [343]$ J·mol⁻¹·K⁻¹ [93]

$Cl_3H_{21}N_7Sc$ (s) Heptaammine Scandium(III) Chloride **$Cl_3H_{21}N_7Sc$ (s)**

$ScCl_3 \cdot 7NH_3$ (s) $ScCl_3 \cdot 7NH_3$ (s)

$\Delta H^0_{298} = -1698.7$ kJ·mol⁻¹ [93] $S^0_{298} = 443.5$ J·mol⁻¹·K⁻¹ [93]

Cl_3Hf (g) Hafnium(III) Chloride **Cl_3Hf (g)**

$HfCl_3$ (g) $HfCl_3$ (g)

$\Delta H^0_{298} = -644.3$ kJ·mol⁻¹ [2] $S^0_{298} = 352.8$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 76.6$ J·mol⁻¹·K⁻¹ (298 K) [2]

Cl_3Ho (s) Holmium(III) Chloride **Cl_3Ho (s)**

$HoCl_3$ (s) $HoCl_3$ (s)

mp = 993 K (720 °C) bp = 1780 K (1507 °C)

$\Delta H^0_{298} = -1005.4$ kJ·mol⁻¹ [2] $S^0_{298} = 154$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 102.81 + 4.59 \cdot 10^{-3} \cdot T - 0.71 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 993 K) [4]

$\lg(p,K) = -15.7 \cdot 10^3 \cdot T^{-1} - 2.79 \cdot \lg(T) + 19.19$ (800 ... 993 K) [4]

{Reaction: evaporation as $HoCl_3$(g)}

Cl_3Ho (s) Holmium(III) Chloride **Cl_3Ho (s)**

$HoCl_3$ (s) $HoCl_3$ (s)

$\Delta H^0_{993} = -933.6$ kJ·mol^{-1} [4] $S^0_{993} = 277.2$ J·mol^{-1}·K^{-1} [4]

Cl_3Ho (l) Holmium(III) Chloride **Cl_3Ho (l)**

$HoCl_3$ (l) $HoCl_3$ (l)

$\Delta H^0_{993} = -889.3$ kJ·mol^{-1} [4] $S^0_{993} = 321.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 143.51$ J·mol^{-1}·K^{-1} (993 K) [4]

$\lg(p,K) = -15.27 \cdot 10^3 \cdot T^{-1} - 7.18 \cdot \lg(T) + 31.92$ (993 ... 1780 K) [4]

{Reaction: evaporation as $HoCl_3$(g)}

Cl_3Ho (g) Holmium(III) Chloride **Cl_3Ho (g)**

$HoCl_3$ (g) $HoCl_3$ (g)

$\Delta H^0_{298} = -712.9$ kJ·mol^{-1} [4] $S^0_{298} = 363.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 81.68 + 1.74 \cdot 10^{-3} \cdot T - 0.36 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3In (s) Indium(III) Chloride **Cl_3In (s)**

$InCl_3$ (s) $InCl_3$ (s)

mp = 856 K (583 °C) bp = 779 K (506 °C)

$\Delta H^0_{298} = -537.2$ kJ·mol^{-1} [2] $S^0_{298} = 141$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 78.66 + 55.65 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 779 K) [4]

Cl_3In (g) Indium(III) Chloride **Cl_3In (g)**

$InCl_3$ (g) $InCl_3$ (g)

$\Delta H^0_{298} = -376.3$ kJ·mol^{-1} [4] $S^0_{298} = 341.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 82.63 + 0.28 \cdot 10^{-3} \cdot T - 0.54 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -9.06 \cdot 10^3 \cdot T^{-1} - 3.96 \cdot \lg(T) + 22.33$ (500 ... 779 K) [4]

{Reaction: evaporation as $InCl_3$(g)}

Cl_3Ir (s) Iridium(III) Chloride **Cl_3Ir (s)**

$IrCl_3$ (s) $IrCl_3$ (s)

$\Delta H^0_{298} = -256.8$ kJ·mol^{-1} [4] $S^0_{298} = 116.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 84.94 + 18.83 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1041 K) [4]

$\lg(p,K) = -9.15 \cdot 10^3 \cdot T^{-1} - 1.24 \cdot \lg(T) + 12.53$ (600 ... 1041 K) [4]

{Reaction: decomposition $IrCl_3$(s) = Ir(s) + $3/2Cl_2$(g)}

Cl_3KMg (s) Potassium Magnesium Chloride **Cl_3KMg (s)**

KCl · $MgCl_2$ (s) KCl · $MgCl_2$ (s)

$\Delta H^0_{298} = -1088$ kJ·mol^{-1} [206] $S^0_{298} = [172.1]$ J·mol^{-1}·K^{-1} [211]

$C_p^0 = [122.86]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_3La (s) Lanthanum(III) Chloride **Cl_3La (s)**

$LaCl_3$ (s) $LaCl_3$ (s)

mp = 1131 K (858 °C) bp = 2045 K (1772 °C)

$\Delta H^0_{298} = -1071.1$ kJ·mol^{-1} [2] $S^0_{298} = 137.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 94.13 + 30.43 \cdot 10^{-3} \cdot T - 0.45 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1131 K) [4]

$\lg(p,K) = -18.84 \cdot 10^3 \cdot T^{-1} - 5.04 \cdot \lg(T) + 27.35$ (900 ... 1131 K) [4]

{Reaction: evaporation as $LaCl_3$(g)}

Cl_3La (s) Lanthanum(III) Chloride **Cl_3La (s)**

$LaCl_3$ (s) $LaCl_3$ (s)

$\Delta H^0_{1131} = -975.3$ kJ·mol^{-1} [4] $S^0_{1131} = 286.1$ J·mol^{-1}·K^{-1} [4]

Cl_3La (l) Lanthanum(III) Chloride **Cl_3La (l)**

$LaCl_3$ (l) $LaCl_3$ (l)

$\Delta H^0_{1131} = -917.3$ kJ·mol^{-1} [4] $S^0_{1131} = 337.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 157.74$ J·mol^{-1}·K^{-1} (1131 K) [4]

$\lg(p,K) = -17.75 \cdot 10^3 \cdot T^{-1} - 9 \cdot \lg(T) + 38.48$ (1131 ... 2045 K) [4]

{Reaction: evaporation as $LaCl_3$(g)}

Cl_3La (g) Lanthanum(III) Chloride **Cl_3La (g)**

$LaCl_3$ (g) $LaCl_3$ (g)

$\Delta H^0_{298} = -730.3$ kJ·mol^{-1} [4] $S^0_{298} = 364.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 82.89 + 0.16 \cdot 10^{-3} \cdot T - 0.4 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2045 K) [4]

Cl_3Li_3 (g) Lithium Chloride **Cl_3Li_3 (g)**

$(LiCl)_3$ (g) $(LiCl)_3$ (g)

$\Delta H^0_{298} = -962.3$ kJ·mol^{-1} [4] $S^0_{298} = 335.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 126.9 + 3.8 \cdot 10^{-3} \cdot T - 2.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -10.25 \cdot 10^3 \cdot T^{-1} - 2.64 \cdot \lg(T) + 11.13$ (900 ... 1633 K) [4]

{Reaction: evaporation of LiCl(l)}

Cl_3Lu (s) Lutetium(III) Chloride **Cl_3Lu (s)**

$LuCl_3$ (s) $LuCl_3$ (s)

$\Delta H^0_{298} = -987.1 \pm 2.5$ kJ·mol^{-1} [266] $S^0_{298} = [148.5]$ J·mol^{-1}·K^{-1} [267]

Cl_3Lu (g) Lutetium(III) Chloride **Cl_3Lu (g)**

$LuCl_3$ (g) $LuCl_3$ (g)

$\Delta H^0_{298} = -626.3$ kJ·mol^{-1} [4] $S^0_{298} = 352.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 82.84 + 0.19 \cdot 10^{-3} \cdot T - 0.43 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3MgNa (s) Sodium Magnesium Chloride **Cl_3MgNa (s)**

$NaCl \cdot MgCl_2$ (s) $NaCl \cdot MgCl_2$ (s)

$\Delta H^0_{298} = -1053$ kJ·mol^{-1} [206] $S^0_{298} = [161.6]$ J·mol^{-1}·K^{-1} [219]

$C_p{}^0 = [121.75]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_3MgRb (s) Rubidium Magnesium Chloride **Cl_3MgRb (s)**

$RbCl \cdot MgCl_2$ (s) $RbCl \cdot MgCl_2$ (s)

$\Delta H^0_{298} = -1095$ kJ·mol^{-1} [206] $S^0_{298} = [184.7]$ J·mol^{-1}·K^{-1} [215]

$C_p{}^0 = [122.64]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_3Mo (s) Molybdenum(III) Chloride **Cl_3Mo (s)**

$MoCl_3$ (s) $MoCl_3$ (s)

$\Delta H^0_{298} = -428.1$ kJ·mol^{-1} [4] $S^0_{298} = 124.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = -111.42 + 471.56 \cdot 10^{-3} \cdot T + 5.84 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 926 K) [4]

Cl_3Mo (g) Molybdenum(III) Chloride **Cl_3Mo (g)**

$MoCl_3$ (g) $MoCl_3$ (g)

$\Delta H^0_{298} = -149.6$ kJ·mol^{-1} [4] $S^0_{298} = 332.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 82.06 + 2.33 \cdot 10^{-3} \cdot T - 0.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3NaSn (g) Sodium Tin Chloride **Cl_3NaSn (g)**

$NaSnCl_3$ (g) $NaSnCl_3$ (g)

$\Delta H^0_{298} = -576.3$ kJ·mol^{-1} [158, 8] $S^0_{298} = 382.7$ J·mol^{-1}·K^{-1} [158, 8]

Cl_3Nb (s) Niobium(III) Chloride **Cl_3Nb (s)**

$NbCl_3$ (s) $NbCl_3$ (s)

$\Delta H^0_{298} = -581.6$ kJ·mol^{-1} [2] $S^0_{298} = 147.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 100.42 + 16.74 \cdot 10^{-3} \cdot T - 0.71 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 700 K) [4]

Cl_3NbO (s) Niobium(V) Chloride Oxide **Cl_3NbO (s)**

$NbOCl_3$ (s) $NbOCl_3$ (s)

bp = 607 K (334 °C)

$\Delta H^0_{298} = -880.7$ kJ·mol^{-1} [4] $S^0_{298} = 142$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 133.47 - 1.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 607 K) [4]

$\lg(p,K) = -7.08 \cdot 10^3 \cdot T^{-1} - 2.82 \cdot \lg(T) + 19.52$ (400 ... 607 K) [4]

{Reaction: evaporation}

Cl_3NbO (g) Niobium(V) Chloride Oxide **Cl_3NbO (g)**

$NbOCl_3$ (g) $NbOCl_3$ (g)

$\Delta H^0_{298} = -752.3$ kJ·mol^{-1} [2] $S^0_{298} = 358.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 107.95 - 0.84 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3Nd (s) Neodymium(III) Chloride **Cl_3Nd (s)**

$NdCl_3$ (s) $NdCl_3$ (s)

mp = 1032 K (759 °C) bp = 1976 K (1703 °C)

ΔH^0_{298} = – 1041.8 kJ·mol^{-1} [2] S^0_{298} = 153.5 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 85.63 + 45.25 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1032 K) [4]

lg(p,K) = – 17.86 ·10^3·T^{-1} – 4.9 · lg(T) + 26.56 (900 ... 1032 K) [4]

{Reaction: evaporation as $NdCl_3$(g)}

Cl_3Nd (s) Neodymium(III) Chloride **Cl_3Nd (s)**

$NdCl_3$ (s) $NdCl_3$ (s)

ΔH^0_{1032} = – 956.9 kJ·mol^{-1} [4] S^0_{1032} = 293.1 J·mol^{-1}·K^{-1} [4]

Cl_3Nd (l) Neodymium(III) Chloride **Cl_3Nd (l)**

$NdCl_3$ (l) $NdCl_3$ (l)

ΔH^0_{1032} = – 906.7 kJ·mol^{-1} [4] S^0_{1032} = 341.7 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 146.44 J·mol^{-1}·K^{-1} (1032 K) [4]

lg(p,K) = – 16.11 ·10^3·T^{-1} – 6.9 · lg(T) + 30.89 (1032 ... 1976 K) [4]

{Reaction: evaporation as $NdCl_3$(g)}

Cl_3Nd (g) Neodymium(III) Chloride **Cl_3Nd (g)**

$NdCl_3$ (g) $NdCl_3$ (g)

ΔH^0_{298} = – 719.1 kJ·mol^{-1} [4] S^0_{298} = 374.4 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 83.39 + 3.99 ·10^{-3}·T – 0.56 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3Np (s) Neptunium(III) Chloride **Cl_3Np (s)**

$NpCl_3$ (s) $NpCl_3$ (s)

ΔH^0_{298} = – 903.7 kJ·mol^{-1} [2] S^0_{298} = 160.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 101.6 J·mol^{-1}·K^{-1} (298 K) [2]

Cl_3OP (l) Phosphoryl Chloride **Cl_3OP (l)**

$POCl_3$ (l) $POCl_3$ (l)

mp = 275 K (2 °C) bp = 381 K (108 °C)

$\Delta H^0_{298} = -597.1$ kJ·mol^{-1} [2] $S^0_{298} = 222.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 138.79$ J·mol^{-1}·K^{-1} (298 K) [4]

Cl_3OP (g) Phosphoryl Chloride **Cl_3OP (g)**

$POCl_3$ (g) $POCl_3$ (g)

$\Delta H^0_{298} = -559.8 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 325.5$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 102.9 + 2.61 \cdot 10^{-3} \cdot T - 1.73 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3OTa (s) Tantalum(V) Chloride Oxide **Cl_3OTa (s)**

$TaOCl_3$ (s) $TaOCl_3$ (s)

$\Delta H^0_{298} = -951.7$ kJ·mol^{-1} [4] $S^0_{298} = 139.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 133.47 - 1.21 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 600 K) [4]

Cl_3OTa (g) Tantalum(V) Chloride Oxide **Cl_3OTa (g)**

$TaOCl_3$ (g) $TaOCl_3$ (g)

$\Delta H^0_{298} = -781.5$ kJ·mol^{-1} [4] $S^0_{298} = 361.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 107.95 - 0.84 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3OU (s) Uranium(V) Chloride Oxide **Cl_3OU (s)**

$UOCl_3$ (s) $UOCl_3$ (s)

$\Delta H^0_{298} = -1151.6$ kJ·mol^{-1} [4] $S^0_{298} = 170.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 122.59 + 20.92 \cdot 10^{-3} \cdot T - 1.19 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 900 K) [4]

Cl_3OV (l) Vanadium(V) Chloride Oxide **Cl_3OV (l)**

$VOCl_3$ (l) $VOCl_3$ (l)

$\Delta H^0_{298} = -735.5$ kJ·mol^{-1} [4] $S^0_{298} = 241.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 150.62$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -2.9 \cdot 10^{3} \cdot T^{-1} - 6.67 \cdot \lg(T) + 24.61$ (298 ... 400 K) [4]

{Reaction: evaporation}

Cl_3OV (g) Vanadium(V) Chloride Oxide **Cl_3OV (g)**

$VOCl_3$ (g) $VOCl_3$ (g)

ΔH^0_{298} = – 696.2 kJ·mol^{-1} [4] S^0_{298} = 342.8 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 108.99 – 1.72 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Cl_3O_4U_2$ (s) Uranium Chloride Oxide **$Cl_3O_4U_2$ (s)**

$U_2O_4Cl_3$ (s) $U_2O_4Cl_3$ (s)

ΔH^0_{298} = – 2404.5 kJ·mol^{-1} [4] S^0_{298} = 276.1 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 225.94 + 35.56 ·10^{-3}·T – 2.93 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 900 K) [4]

Cl_3P (l) Phosphorus(III) Chloride **Cl_3P (l)**

PCl_3 (l) PCl_3 (l)

bp = 348 K (75 °C)

ΔH^0_{298} = – 319.7 kJ·mol^{-1} [4] S^0_{298} = 217.1 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 131.38 J·mol^{-1}·K^{-1} (298 ... 348 K) [4]

Cl_3P (g) Phosphorus(III) Chloride **Cl_3P (g)**

PCl_3 (g) PCl_3 (g)

ΔH^0_{298} = – 288.7 ± 5.4 kJ·mol^{-1} [1] S^0_{298} = 311.7 ± 0.4 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 82.37 + 0.41 ·10^{-3}·T – 1.07 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3PS (g) Phosphorus Sulfide Chloride **Cl_3PS (g)**

$SPCl_3$ (g) $SPCl_3$ (g)

ΔH^0_{298} = – 380.7 kJ·mol^{-1} [1] S^0_{298} = 337.3 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 89.84 J·mol^{-1}·K^{-1} (298 K) [1]

Cl_3Pm (s) Promethium(III) Chloride **Cl_3Pm (s)**

$PmCl_3$ (s) $PmCl_3$ (s)

ΔH^0_{298} = – 1030 ± 10 kJ·mol^{-1} [266] S^0_{298} = [145.2] J·mol^{-1}·K^{-1} [267]

Cl_3Pr (s) Praseodymium(III) Chloride **Cl_3Pr (s)**

$PrCl_3$ (s) $PrCl_3$ (s)

mp = 1059 K (786 °C) bp = 1982 K (1709 °C)

$\Delta H^0_{298} = -1056.9$ kJ·mol⁻¹ [2] $S^0_{298} = 153.3$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 92.13 + 40.66 \cdot 10^{-3} \cdot T - 0.47 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1059 K) [4]

$\lg(p,K) = -18.15 \cdot 10^3 \cdot T^{-1} - 5.39 \cdot \lg(T) + 28.1$ (900 ... 1059 K) [4]

{Reaction: evaporation as $PrCl_3$(g)}

Cl_3Pr (s) Praseodymium(III) Chloride **Cl_3Pr (s)**

$PrCl_3$ (s) $PrCl_3$ (s)

$\Delta H^0_{1059} = -966.9$ kJ·mol⁻¹ [4] $S^0_{1059} = 298.6$ J·mol⁻¹·K⁻¹ [4]

Cl_3Pr (l) Praseodymium(III) Chloride **Cl_3Pr (l)**

$PrCl_3$ (l) $PrCl_3$ (l)

$\Delta H^0_{1059} = -916.3$ kJ·mol⁻¹ [4] $S^0_{1059} = 346.4$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 133.89$ J·mol⁻¹·K⁻¹ (1059 K) [4]

$\lg(p,K) = -15.44 \cdot 10^3 \cdot T^{-1} - 5.3 \cdot \lg(T) + 25.27$ (1059 ... 1982 K) [4]

{Reaction: evaporation as $PrCl_3$(g)}

Cl_3Pr (g) Praseodymium(III) Chloride **Cl_3Pr (g)**

$PrCl_3$ (g) $PrCl_3$ (g)

$\Delta H^0_{298} = -731$ kJ·mol⁻¹ [4] $S^0_{298} = 374$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 81.84 + 5.41 \cdot 10^{-3} \cdot T - 0.45 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Cl_3Pt (s) Platinum(III) Chloride **Cl_3Pt (s)**

$PtCl_3$ (s) $PtCl_3$ (s)

$\Delta H^0_{298} = -176.8$ kJ·mol⁻¹ [4] $S^0_{298} = 141.2$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 121.34$ J·mol⁻¹·K⁻¹ (298 K) [4]

Cl_3Pt (g) Platinum(III) Chloride **Cl_3Pt (g)**

$PtCl_3$ (g) $PtCl_3$ (g)

$\Delta H^0_{298} = 43.9$ kJ·mol⁻¹ [74] $S^0_{298} = 336.8 \pm 4.2$ J·mol⁻¹·K⁻¹ [74]

Cl_3Pu (s) Plutonium(III) Chloride **Cl_3Pu (s)**

$PuCl_3$ (s) $PuCl_3$ (s)

mp = 1033 K (760 °C) bp = 2065 K (1792 °C)

ΔH^0_{298} = – 961.5 kJ·mol^{-1} [4] S^0_{298} = 159 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 94.12 + 27.1 \cdot 10^{-3} \cdot T + 0.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1033 K) [4]

$\lg(p,K) = -18.27 \cdot 10^3 \cdot T^{-1} - 5.34 \cdot \lg(T) + 29.73$ (800 ... 1033 K) [4]

{Reaction: evaporation as $PuCl_3$(g)}

Cl_3Pu (s) Plutonium(III) Chloride **Cl_3Pu (s)**

$PuCl_3$ (s) $PuCl_3$ (s)

ΔH^0_{1033} = – 878.9 kJ·mol^{-1} [4] S^0_{1033} = 296.2 J·mol^{-1}·K^{-1} [4]

Cl_3Pu (l) Plutonium(III) Chloride **Cl_3Pu (l)**

$PuCl_3$ (l) $PuCl_3$ (l)

ΔH^0_{1033} = – 815.3 kJ·mol^{-1} [4] S^0_{1033} = 357.7 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 133.89$ J·mol^{-1}·K^{-1} (1033 K) [4]

$\lg(p,K) = -15.49 \cdot 10^3 \cdot T^{-1} - 6.45 \cdot \lg(T) + 28.88$ (1033 ... 2065 K) [4]

{Reaction: evaporation as $PuCl_3$(g)}

Cl_3Re (s) Rhenium(III) Chloride **Cl_3Re (s)**

$ReCl_3$ (s) $ReCl_3$ (s)

ΔH^0_{298} = – 264 kJ·mol^{-1} [2] S^0_{298} = 123.8 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 105.48 + 27.61 \cdot 10^{-3} \cdot T - 1.91 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 700 K) [4]

Cl_3Re (g) Rhenium(III) Chloride **Cl_3Re (g)**

$ReCl_3$ (g) $ReCl_3$ (g)

ΔH^0_{298} = – 200 ± 7.1 kJ·mol^{-1} [50] S^0_{298} = 355.6 ± 4.2 J·mol^{-1}·K^{-1} [50]

$C_p{}^0 = 75.31$ J·mol^{-1}·K^{-1} (298 K) [50]

Cl_3Rh (s) Rhodium(III) Chloride **Cl_3Rh (s)**

$RhCl_3$ (s) $RhCl_3$ (s)

$\Delta H^0_{298} = -274.6$ kJ·mol^{-1} [4] $S^0_{298} = 122.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 105.44 + 27.61 \cdot 10^{-3} \cdot T - 1.91 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1221 K) [4]

$\lg(p,K) = -10.15 \cdot 10^3 \cdot T^{-1} - 3.26 \cdot \lg(T) + 18.38$ (600 ... 1221 K) [4]

{Reaction: decomposition $2/3RhCl_3(s) = 2/3Rh(s) + Cl_2(g)$}

Cl_3Rh (g) Rhodium(III) Chloride **Cl_3Rh (g)**

$RhCl_3$ (g) $RhCl_3$ (g)

$\Delta H^0_{298} = 66.9$ kJ·mol^{-1} [2] $S^0_{298} = 373.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 71.2$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_3Ru (s) Ruthenium(III) Chloride **Cl_3Ru (s)**

$RuCl_3$ (s) $RuCl_3$ (s)

$\Delta H^0_{298} = -24.7$ kJ·mol^{-1} [4] $S^0_{298} = 121.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 115.06$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -8.87 \cdot 10^3 \cdot T^{-1} - 2.59 \cdot \lg(T) + 15.8$ (500 ... 1123 K) [4]

{Reaction: decomposition $2/3RuCl_3(s) = 2/3Ru(s) + Cl_2(g)$}

Cl_3Ru (g) Ruthenium(III) Chloride **Cl_3Ru (g)**

$RuCl_3$ (g) $RuCl_3$ (g)

$\Delta H^0_{298} = 56.1$ kJ·mol^{-1} [4] $S^0_{298} = 397.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 56.9 + 7.66 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

$\lg(p,K) = -16.5 \cdot 10^3 \cdot T^{-1} - 6.15 \cdot \lg(T) + 32.05$ (800 ... 1123 K) [4]

{Reaction: evaporation of $RuCl_3(s)$}

Cl_3Sb (s) Antimony(III) Chloride **Cl_3Sb (s)**

$SbCl_3$ (s) $SbCl_3$ (s)

mp = 346 K (73 °C) bp = 496 K (223 °C)

$\Delta H^0_{298} = -382.2$ kJ·mol^{-1} [4] $S^0_{298} = 184.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 40.17 + 225.94 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 346 K) [4]

$\lg(p,K) = -4.16 \cdot 10^3 \cdot T^{-1} - 4.26 \cdot \lg(T) + 20.5$ (298 ... 346 K) [4]

{Reaction: evaporation as $SbCl_3(g)$}

Cl_3Sb (s) Antimony(III) Chloride **Cl_3Sb (s)**

$SbCl_3$ (s) $SbCl_3$ (s)

$\Delta H^0_{346} = -376.8$ kJ·mol⁻¹ [4] $S^0_{346} = 200.9$ J·mol⁻¹·K⁻¹ [4]

Cl_3Sb (l) Antimony(III) Chloride **Cl_3Sb (l)**

$SbCl_3$ (l) $SbCl_3$ (l)

$\Delta H^0_{346} = -363.8$ kJ·mol⁻¹ [4] $S^0_{346} = 238.4$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 123.85$ J·mol⁻¹·K⁻¹ (346 K) [4]

Cl_3Sb (g) Antimony(III) Chloride **Cl_3Sb (g)**

$SbCl_3$ (g) $SbCl_3$ (g)

$\Delta H^0_{298} = -313.1$ kJ·mol⁻¹ [4] $S^0_{298} = 339.1$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 82.38 + 0.7 \cdot 10^{-3} \cdot T - 0.52 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Cl_3Sc (s) Scandium(III) Chloride **Cl_3Sc (s)**

$ScCl_3$ (s) $ScCl_3$ (s)

mp = 1240 K (967 °C) bp = 1359 K (1086 °C)

$\Delta H^0_{298} = -918.8$ kJ·mol⁻¹ [4] $S^0_{298} = 121.3$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 95.65 + 15.4 \cdot 10^{-3} \cdot T - 0.73 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1240 K) [4]

$\lg(p,K) = -13.49 \cdot 10^3 \cdot T^{-1} - 3.24 \cdot \lg(T) + 20.35$ (700 ... 1240 K) [4]

{Reaction: evaporation as $ScCl_3$(g)}

Cl_3Sc (s) Scandium(III) Chloride **Cl_3Sc (s)**

$ScCl_3$ (s) $ScCl_3$ (s)

$\Delta H^0_{1240} = -819.4$ kJ·mol⁻¹ [4] $S^0_{1240} = 268.3$ J·mol⁻¹·K⁻¹ [4]

Cl_3Sc (l) Scandium(III) Chloride **Cl_3Sc (l)**

$ScCl_3$ (l) $ScCl_3$ (l)

$\Delta H^0_{1240} = -752.1$ kJ·mol⁻¹ [4] $S^0_{1240} = 322.6$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 143.43$ J·mol⁻¹·K⁻¹ (1240 K) [4]

Cl_3Sc (g) Scandium(III) Chloride **Cl_3Sc (g)**

$ScCl_3$ (g) $ScCl_3$ (g)

ΔH^0_{298} = – 669.5 kJ·mol^{-1} [4] S^0_{298} = 326.7 J·mol^{-1}·K^{-1} [4]

C_p^0= 81.97 + 0.63 ·10^{-3}·T – 0.99 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3Si (g) Silicon(III) Chloride **Cl_3Si (g)**

$SiCl_3$ (g) $SiCl_3$ (g)

ΔH^0_{298} = – 390.4 ± 16.7 kJ·mol^{-1} [1] S^0_{298} = 318.2 ± 4.2 J·mol^{-1}·K^{-1} [1]

C_p^0= 81.39 + 1.05 ·10^{-3}·T – 0.98 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3Sm (s) Samarium(III) Chloride **Cl_3Sm (s)**

$SmCl_3$ (s) $SmCl_3$ (s)

mp = 950 K (677 °C)

ΔH^0_{298} = – 1025.9 kJ·mol^{-1} [2] S^0_{298} = 147.7 J·mol^{-1}·K^{-1} [4]

C_p^0= 98.24 + 24.69 ·10^{-3}·T – 0.54 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 950 K) [4]

Cl_3Sm (s) Samarium(III) Chloride **Cl_3Sm (s)**

$SmCl_3$ (s) $SmCl_3$ (s)

ΔH^0_{950} = – 953.1 kJ·mol^{-1} [4] S^0_{950} = 274.9 J·mol^{-1}·K^{-1} [4]

Cl_3Sm (l) Samarium(III) Chloride **Cl_3Sm (l)**

$SmCl_3$ (l) $SmCl_3$ (l)

ΔH^0_{950} = – 907.1 kJ·mol^{-1} [4] S^0_{950} = 323.3 J·mol^{-1}·K^{-1} [4]

C_p^0= 142.26 J·mol^{-1}·K^{-1} (950 K) [4]

Cl_3Ta (s) Tantalum(III) Chloride **Cl_3Ta (s)**

$TaCl_3$ (s) $TaCl_3$ (s)

ΔH^0_{298} = – 550.5 kJ·mol^{-1} [4] S^0_{298} = 154.8 J·mol^{-1}·K^{-1} [2]

C_p^0= 96.23 + 16.32 ·10^{-3}·T – 0.71 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 912 K) [4]

Cl_3Ta (g) | Tantalum(III) Chloride | **Cl_3Ta (g)**

$TaCl_3$ (g) | | $TaCl_3$ (g)

$\Delta H^0_{298} = -322.2$ kJ·mol^{-1} [2] | $S^0_{298} = 346$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 82.27 + 0.64 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3Tb (s) | Terbium(III) Chloride | **Cl_3Tb (s)**

$TbCl_3$ (s) | alpha | $TbCl_3$ (s)

mp = 855 K (582 °C) | bp = 1869 K (1596 °C)

$\Delta H^0_{298} = -997$ kJ·mol^{-1} [2] | $S^0_{298} = 153.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 92.71 + 29.2 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 783 K) [4]

Cl_3Tb (s) | Terbium(III) Chloride | **Cl_3Tb (s)**

$TbCl_3$ (s) | alpha | $TbCl_3$ (s)

$\Delta H^0_{783} = -945.2$ kJ·mol^{-1} [4] | $S^0_{783} = 255.1$ J·mol^{-1}·K^{-1} [4]

Cl_3Tb (s) | Terbium(III) Chloride | **Cl_3Tb (s)**

$TbCl_3$ (s) | beta | $TbCl_3$ (s)

$\Delta H^0_{783} = -931.1$ kJ·mol^{-1} [4] | $S^0_{783} = 273.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 124.93$ J·mol^{-1}·K^{-1} (783 K) [4]

Cl_3Tb (s) | Terbium(III) Chloride | **Cl_3Tb (s)**

$TbCl_3$ (s) | beta | $TbCl_3$ (s)

$\Delta H^0_{855} = -922.1$ kJ·mol^{-1} [4] | $S^0_{855} = 284.1$ J·mol^{-1}·K^{-1} [4]

Cl_3Tb (l) | Terbium(III) Chloride | **Cl_3Tb (l)**

$TbCl_3$ (l) | | $TbCl_3$ (l)

$\Delta H^0_{855} = -897.1$ kJ·mol^{-1} [4] | $S^0_{855} = 313.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 144.47$ J·mol^{-1}·K^{-1} (855 K) [4]

$\lg(p,K) = -15.66 \cdot 10^3 \cdot T^{-1} - 6.79 \cdot \lg(T) + 30.6$ (855 ... 1869 K) [4]

{Reaction: evaporation as $TbCl_3$(g)}

Cl_3Tb (g) Terbium(III) Chloride **Cl_3Tb (g)**

$TbCl_3$ (g) $TbCl_3$ (g)

$\Delta H^0_{298} = -691.2$ kJ·mol^{-1} [2] $S^0_{298} = 375.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 81.87 + 4.77 \cdot 10^{-3} \cdot T - 0.45 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3Ti (s) Titanium(III) Chloride **Cl_3Ti (s)**

$TiCl_3$ (s) $TiCl_3$ (s)

$\Delta H^0_{298} = -721.7 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 139.8 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 95.81 + 11.06 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1017 K) [4]

Cl_3Ti (g) Titanium(III) Chloride **Cl_3Ti (g)**

$TiCl_3$ (g) $TiCl_3$ (g)

$\Delta H^0_{298} = -539.3 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 316.9 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 87.26 - 0.71 \cdot 10^{-3} \cdot T - 1.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3Tl (s) Thallium(III) Chloride **Cl_3Tl (s)**

$TlCl_3$ (s) $TlCl_3$ (s)

$\Delta H^0_{298} = -315.1$ kJ·mol^{-1} [2] $S^0_{298} = 152.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 108.7$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_3Tm (s) Thulium(III) Chloride **Cl_3Tm (s)**

$TmCl_3$ (s) $TmCl_3$ (s)

mp = 1101 K (828 °C) bp = 1800 K (1527 °C)

$\Delta H^0_{298} = -988.1$ kJ·mol^{-1} [4] $S^0_{298} = 159$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 95.6 + 11.72 \cdot 10^{-3} \cdot T - 0.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1101 K) [4]

$\lg(p,K) = -15.99 \cdot 10^3 \cdot T^{-1} - 2.9 \cdot \lg(T) + 19.39$ (900 ... 1101 K) [4]

{Reaction: evaporation as $TmCl_3$(g)}

Cl_3Tm (s) Thulium(III) Chloride **Cl_3Tm (s)**

$TmCl_3$ (s) $TmCl_3$ (s)

$\Delta H^0_{1101} = -905$ kJ·mol^{-1} [4] $S^0_{1101} = 292.6$ J·mol^{-1}·K^{-1} [4]

Cl_3Tm (l) Thulium(III) Chloride **Cl_3Tm (l)**

$TmCl_3$ (l) $TmCl_3$ (l)

$\Delta H^0_{1101} = -859.7$ kJ·mol^{-1} [4] $S^0_{1101} = 333.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 148.53$ J·mol^{-1}·K^{-1} (1101 K) [4]

$\lg(p,K) = -16.01 \cdot 10^3 \cdot T^{-1} - 7.9 \cdot \lg(T) + 34.61$ (1101 ... 1800 K) [4]

{Reaction: evaporation as $TmCl_3$(g)}

Cl_3Tm (g) Thulium(III) Chloride **Cl_3Tm (g)**

$TmCl_3$ (g) $TmCl_3$ (g)

$\Delta H^0_{298} = -691.1$ kJ·mol^{-1} [4] $S^0_{298} = 364.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 82.88 + 0.16 \cdot 10^{-3} \cdot T - 0.43 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3U (s) Uranium(III) Chloride **Cl_3U (s)**

UCl_3 (s) UCl_3 (s)

mp = 1114 K (841 °C) bp = 1851 K (1578 °C)

$\Delta H^0_{298} = -861.9$ kJ·mol^{-1} [2] $S^0_{298} = 159$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 87.78 + 31.13 \cdot 10^{-3} \cdot T + 0.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1114 K) [4]

$\lg(p,K) = -15.54 \cdot 10^3 \cdot T^{-1} - 4.31 \cdot \lg(T) + 23.44$ (800 ... 1114 K) [4]

{Reaction: evaporation as UCl_3(g)}

Cl_3U (s) Uranium(III) Chloride **Cl_3U (s)**

UCl_3 (s) UCl_3 (s)

$\Delta H^0_{1114} = -771.2$ kJ·mol^{-1} [4] $S^0_{1114} = 302.6$ J·mol^{-1}·K^{-1} [4]

Cl_3U (l) Uranium(III) Chloride **Cl_3U (l)**

UCl_3 (l) UCl_3 (l)

$\Delta H^0_{1114} = -722.5$ kJ·mol^{-1} [4] $S^0_{1114} = 346.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 129.7$ J·mol^{-1}·K^{-1} (1114 K) [4]

$\lg(p,K) = -13.51 \cdot 10^3 \cdot T^{-1} - 5.35 \cdot \lg(T) + 24.78$ (1114 ... 1851 K) [4]

{Reaction: evaporation as UCl_3(g)}

Cl_3U (g) Uranium(III) Chloride **Cl_3U (g)**
UCl_3 (g) UCl_3 (g)

$\Delta H^0_{298} = -580.7$ kJ·mol^{-1} [4] $S^0_{298} = 357$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 82.06 + 2.33 \cdot 10^{-3} \cdot T - 0.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3V (s) Vanadium(III) Chloride **Cl_3V (s)**
VCl_3 (s) VCl_3 (s)

$\Delta H^0_{298} = -581.1$ kJ·mol^{-1} [2] $S^0_{298} = 131$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 96.23 + 16.4 \cdot 10^{-3} \cdot T - 0.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 916 K) [4]

Cl_3V (g) Vanadium(III) Chloride **Cl_3V (g)**
VCl_3 (g) VCl_3 (g)

$\Delta H^0_{298} = -380.7$ kJ·mol^{-1} [62] $S^0_{298} = 359.8$ J·mol^{-1}·K^{-1} [62]
$C_p^0 = 83.81 + 1.43 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [62]

Cl_3Y (s) Yttrium(III) Chloride **Cl_3Y (s)**
YCl_3 (s) YCl_3 (s)

mp = 994 K (721 °C) bp = 1757 K (1484 °C)
$\Delta H^0_{298} = -1000$ kJ·mol^{-1} [2] $S^0_{298} = 140.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 104.71 + 3.22 \cdot 10^{-3} \cdot T - 1.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 994 K) [4]

Cl_3Y (s) Yttrium(III) Chloride **Cl_3Y (s)**
YCl_3 (s) YCl_3 (s)

$\Delta H^0_{994} = -928.5$ kJ·mol^{-1} [4] $S^0_{994} = 262.3$ J·mol^{-1}·K^{-1} [4]

Cl_3Y (l) Yttrium(III) Chloride **Cl_3Y (l)**
YCl_3 (l) YCl_3 (l)

$\Delta H^0_{994} = -897$ kJ·mol^{-1} [4] $S^0_{994} = 294$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 156.48$ J·mol^{-1}·K^{-1} (994 K) [4]
$\lg(p,K) = -17.16 \cdot 10^3 \cdot T^{-1} - 8.8 \cdot \lg(T) + 38.32$ (994 ... 1757 K) [4]
{Reaction: evaporation as YCl_3(g)}

Cl_3Y (g) Yttrium(III) Chloride **Cl_3Y (g)**

YCl_3 (g) YCl_3 (g)

$\Delta H^0_{298} = -698.2$ kJ·mol^{-1} [4] $S^0_{298} = 351.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 83.68 - 0.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3Yb (s) Ytterbium(III) Chloride **Cl_3Yb (s)**

$YbCl_3$ (s) $YbCl_3$ (s)

mp = 1148 K (875 °C)

$\Delta H^0_{298} = -961.1$ kJ·mol^{-1} [4] $S^0_{298} = 135.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 94.68 + 9.33 \cdot 10^{-3} \cdot T - 0.19 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1148 K) [4]

$\lg(p,K) = -17.27 \cdot 10^3 \cdot T^{-1} - 2.58 \cdot \lg(T) + 19.98$ (900 ... 1148 K) [4]

{Reaction: evaporation as $YbCl_3$(g)}

Cl_3Yb (s) Ytterbium(III) Chloride **Cl_3Yb (s)**

$YbCl_3$ (s) $YbCl_3$ (s)

$\Delta H^0_{1148} = -875.3$ kJ·mol^{-1} [4] $S^0_{1148} = 269.7$ J·mol^{-1}·K^{-1} [4]

Cl_3Yb (l) Ytterbium(III) Chloride **Cl_3Yb (l)**

$YbCl_3$ (l) $YbCl_3$ (l)

$\Delta H^0_{1148} = -811.7$ kJ·mol^{-1} [4] $S^0_{1148} = 325.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 121.34$ J·mol^{-1}·K^{-1} (1148 K) [4]

$\lg(p,K) = -14.97 \cdot 10^3 \cdot T^{-1} - 4.64 \cdot \lg(T) + 24.28$ (1148 ... 1300 K) [4]

{Reaction: evaporation as $YbCl_3$(g)}

Cl_3Yb (g) Ytterbium(III) Chloride **Cl_3Yb (g)**

$YbCl_3$ (g) $YbCl_3$ (g)

$\Delta H^0_{298} = -638.9$ kJ·mol^{-1} [2] $S^0_{298} = 370$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 82.89 + 0.15 \cdot 10^{-3} \cdot T - 0.43 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_3Zr (s) Zirconium(III) Chloride **Cl_3Zr (s)**
$ZrCl_3$ (s) $ZrCl_3$ (s)

$\Delta H^0_{298} = -714.2 \pm 62.8$ kJ·mol^{-1} [1] $S^0_{298} = 145.8 \pm 12.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 99.13 + 13.58 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 714 K) [4]

Cl_3Zr (g) Zirconium(III) Chloride **Cl_3Zr (g)**
$ZrCl_3$ (g) $ZrCl_3$ (g)

$\Delta H^0_{298} = -524.3 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 339.3 \pm 12.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 83.35 + 3.16 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Cl_{3.13}Nb$ (s) Niobium Chloride **$Cl_{3.13}Nb$ (s)**
$NbCl_{3.13}$ (s) $NbCl_{3.13}$ (s)

$\Delta H^0_{298} = -605.4$ kJ·mol^{-1} [2] $S^0_{298} = 151.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 97.4$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_4Co_2 (g) Cobalt(II) Chloride **Cl_4Co_2 (g)**
$(CoCl_2)_2$ (g) $(CoCl_2)_2$ (g)

$\Delta H^0_{298} = -350.6 \pm 29.3$ kJ·mol^{-1} [1] $S^0_{298} = 450.4 \pm 16.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 131.47 + 2.78 \cdot 10^{-3} \cdot T - 0.43 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -15.15 \cdot 10^3 \cdot T^{-1} - 4.94 \cdot \lg(T) + 26.78$ (700 ... 994 K) [4]
{Reaction: evaporation of $CoCl_2$(s)}

Cl_4Cr (g) Chromium(IV) Chloride **Cl_4Cr (g)**
$CrCl_4$ (g) $CrCl_4$ (g)

$\Delta H^0_{298} = -426.8$ kJ·mol^{-1} [4] $S^0_{298} = 364.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 106.43 + 1.31 \cdot 10^{-3} \cdot T - 0.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4Cs_2Mg (s) Cesium Magnesium Chloride **Cl_4Cs_2Mg (s)**
$2CsCl \cdot MgCl_2$ (s) $2CsCl \cdot MgCl_2$ (s)

$\Delta H^0_{298} = -1548$ kJ·mol^{-1} [206] $S^0_{298} = [291.9]$ J·mol^{-1}·K^{-1} [209]
$C_p{}^0 = [176.32]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_4FeNa (g) Sodium Iron Chloride **Cl_4FeNa (g)**

$NaFeCl_4$ (g) $NaFeCl_4$ (g)

$\Delta H^0_{298} = -649.3$ kJ·mol^{-1} [169, 8] $S^0_{298} = 445.3$ J·mol^{-1}·K^{-1} [169, 8]

Cl_4Fe_2 (g) Iron(II) Chloride **Cl_4Fe_2 (g)**

$(FeCl_2)_2$ (g) $(FeCl_2)_2$ (g)

$\Delta H^0_{298} = -431.4 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 464.4 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 130.87 + 2.7 \cdot 10^{-3} \cdot T - 0.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -13.91 \cdot 10^3 \cdot T^{-1} - 4.73 \cdot \lg(T) + 26.03$ (700 ... 950 K) [4]

{Reaction: evaporation of $FeCl_2$(s)}

Cl_4Ga_2 (g) Gallium Chloride **Cl_4Ga_2 (g)**

Ga_2Cl_4 (g) Ga_2Cl_4 (g)

$\Delta H^0_{298} = -570 \pm 15$ kJ·mol^{-1} [262] $S^0_{298} = 446.8 \pm 8.9$ J·mol^{-1}·K^{-1} [263]

$C_p{}^0 = 107.22$ J·mol^{-1}·K^{-1} (298 K) [263]

Cl_4Ge (l) Germanium(IV) Chloride **Cl_4Ge (l)**

$GeCl_4$ (l) $GeCl_4$ (l)

mp = 223 K (-50 °C) bp = 356 K (83 °C)

$\Delta H^0_{298} = -531.8$ kJ·mol^{-1} [4] $S^0_{298} = 245.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 156.9$ J·mol^{-1}·K^{-1} (298 K) [4]

Cl_4Ge (g) Germanium(IV) Chloride **Cl_4Ge (g)**

$GeCl_4$ (g) $GeCl_4$ (g)

$\Delta H^0_{298} = -495.8$ kJ·mol^{-1} [4] $S^0_{298} = 347.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 106.79 + 0.83 \cdot 10^{-3} \cdot T - 0.99 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4Hf (s) Hafnium(IV) Chloride **Cl_4Hf (s)**

$HfCl_4$ (s) $HfCl_4$ (s)

bp = 589 K (316 °C)

$\Delta H^0_{298} = -990.4$ kJ·mol^{-1} [2] $S^0_{298} = 190.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 129.17 + 3.87 \cdot 10^{-3} \cdot T - 0.87 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 589 K) [4]

$\lg(p,K) = -5.82 \cdot 10^3 \cdot T^{-1} - 2.71 \cdot \lg(T) + 17.39$ (298 ... 589 K) [4]

{Reaction: evaporation as $HfCl_4$(g)}

Cl_4Hf (g) Hafnium(IV) Chloride **Cl_4Hf (g)**

$HfCl_4$ (g) $HfCl_4$ (g)

$\Delta H^0_{298} = -885.7$ kJ·mol^{-1} [2] $S^0_{298} = 372.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 106.82 + 1.18 \cdot 10^{-3} \cdot T - 0.73 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4In_2 (g) Indium Chloride **Cl_4In_2 (g)**

In_2Cl_4 (g) In_2Cl_4 (g)

$\Delta H^0_{298} = -573.2 \pm 12.6$ kJ·mol^{-1} [258] $S^0_{298} = [443.7]$ J·mol^{-1}·K^{-1} [259]

Cl_4K_2Mg (s) Potassium Magnesium Chloride **Cl_4K_2Mg (s)**

2KCl · $MgCl_2$ (s) 2KCl · $MgCl_2$ (s)

$\Delta H^0_{298} = -1523$ kJ·mol^{-1} [206] $S^0_{298} = [254.7]$ J·mol^{-1}·K^{-1} [213]

$C_p^0 = [174.44]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_4MgNa_2 (s) Sodium Magnesium Chloride **Cl_4MgNa_2 (s)**

2NaCl · $MgCl_2$ (s) 2NaCl · $MgCl_2$ (s)

$\Delta H^0_{298} = -1464$ kJ·mol^{-1} [206] $S^0_{298} = [233.7]$ J·mol^{-1}·K^{-1} [220]

$C_p^0 = [172.22]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_4MgRb_2 (s) Rubidium Magnesium Chloride **Cl_4MgRb_2 (s)**

2RbCl · $MgCl_2$ (s) 2RbCl · $MgCl_2$ (s)

$\Delta H^0_{298} = -1530$ kJ·mol^{-1} [206] $S^0_{298} = [279.9]$ J·mol^{-1}·K^{-1} [217]

$C_p^0 = [174.00]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_4Mg_2 (g) Magnesium(II) Chloride **Cl_4Mg_2 (g)**
$(MgCl_2)_2$ (g) $(MgCl_2)_2$ (g)

$\Delta H^0_{298} = -954.4 \pm 29.3$ kJ·mol^{-1} [1] $S^0_{298} = 418.8 \pm 20.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 132.3 + 0.47 \cdot 10^{-3} \cdot T - 0.78 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -14.94 \cdot 10^3 \cdot T^{-1} - 6.4 \cdot \lg(T) + 28.44$ (980 ... 1634 K) [4]
{Reaction: evaporation of $MgCl_2$(l)}

Cl_4Mn_2 (g) Manganese(II) Chloride **Cl_4Mn_2 (g)**
Mn_2Cl_4 (g) Mn_2Cl_4 (g)

$\Delta H^0_{298} = -698$ kJ·mol^{-1} [58] $S^0_{298} = 456.5$ J·mol^{-1}·K^{-1} [58]

Cl_4Mo (s) Molybdenum(IV) Chloride **Cl_4Mo (s)**
$MoCl_4$ (s) $MoCl_4$ (s)

$\Delta H^0_{298} = -494.7$ kJ·mol^{-1} [4] $S^0_{298} = 182.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 108.08 + 54.77 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 603 K) [4]
$\lg(p,K) = -6.28 \cdot 10^3 \cdot T^{-1} - 3.73 \cdot \lg(T) + 20.79$ (400 ... 603 K) [4]
{Reaction: evaporation as $MoCl_4$(g)}

Cl_4Mo (s) Molybdenum(IV) Chloride **Cl_4Mo (s)**
$MoCl_4$ (s) $MoCl_4$ (s)

$\Delta H^0_{603} = -454.2$ kJ·mol^{-1} [4] $S^0_{603} = 275.7$ J·mol^{-1}·K^{-1} [4]

Cl_4Mo (g) Molybdenum(IV) Chloride **Cl_4Mo (g)**
$MoCl_4$ (g) $MoCl_4$ (g)

$\Delta H^0_{603} = -352.7$ kJ·mol^{-1} [4] $S^0_{603} = 444.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 107.94 - 0.42 \cdot 10^{-3} \cdot T - 0.87 \cdot 10^6 \cdot T^{-2} + 0.28 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (603 K) [4]

Cl_4Mo (g) Molybdenum(IV) Chloride **Cl_4Mo (g)**
$MoCl_4$ (g) $MoCl_4$ (g)

$\Delta H^0_{298} = -384.9 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 371.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 98.11$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_4Nb (s) Niobium(IV) Chloride **Cl_4Nb (s)**

$NbCl_4$ (s) $NbCl_4$ (s)

$\Delta H^0_{298} = -694.5$ kJ·mol^{-1} [2] $S^0_{298} = 184.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 133.47 - 1.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 602 K) [4]

Cl_4Nb (g) Niobium(IV) Chloride **Cl_4Nb (g)**

$NbCl_4$ (g) $NbCl_4$ (g)

$\Delta H^0_{298} = -561$ kJ·mol^{-1} [2] $S^0_{298} = 355.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 98.5$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_4Np (s) Neptunium(IV) Chloride **Cl_4Np (s)**

$NpCl_4$ (s) $NpCl_4$ (s)

$\Delta H^0_{298} = -987.4$ kJ·mol^{-1} [2] $S^0_{298} = 199.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 120.8$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_4ORe (g) Rhenium Chloride Oxide **Cl_4ORe (g)**

$ReOCl_4$ (g) $ReOCl_4$ (g)

$\Delta H^0_{298} = -405 \pm 28.9$ kJ·mol^{-1} [50] $S^0_{298} = 384.9 \pm 4.2$ J·mol^{-1}·K^{-1} [50]

$C_p{}^0 = 108.78$ J·mol^{-1}·K^{-1} (298 K) [50]

Cl_4OW (s) Tungsten(VI) Chloride Oxide **Cl_4OW (s)**

$WOCl_4$ (s) $WOCl_4$ (s)

mp = 484 K (211 °C) bp = 493 K (220 °C)

$\Delta H^0_{298} = -671.1 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 172.8 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 115 + 104.69 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 484 K) [4]

$\lg(p,K) = -5.79 \cdot 10^3 \cdot T^{-1} - 5.25 \cdot \lg(T) + 25.98$ (298 ... 484 K) [4]

{Reaction: evaporation}

Cl_4OW (l) Tungsten(VI) Chloride Oxide **Cl_4OW (l)**

$WOCl_4$ (l) $WOCl_4$ (l)

$\Delta H^0_{298} = -630.6$ kJ·mol^{-1} [1] $S^0_{298} = 253.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 182$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_4OW (g) Tungsten(VI) Chloride Oxide **Cl_4OW (g)**

$WOCl_4$ (g) $WOCl_4$ (g)

$\Delta H^0_{298} = -573.5 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 377.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 128.84 + 1.85 \cdot 10^{-3} \cdot T - 2.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4Pb (g) Lead(IV) Chloride **Cl_4Pb (g)**

$PbCl_4$ (g) $PbCl_4$ (g)

$\Delta H^0_{298} = -553.4$ kJ·mol^{-1} [4] $S^0_{298} = 381.7 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 107.83 + 0.29 \cdot 10^{-3} \cdot T - 0.64 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4Pt (s) Platinum(IV) Chloride **Cl_4Pt (s)**

$PtCl_4$ (s) $PtCl_4$ (s)

$\Delta H^0_{298} = -219.1$ kJ·mol^{-1} [4] $S^0_{298} = 185.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 146.44$ J·mol^{-1}·K^{-1} (298 K) [4]

Cl_4Pu (g) Plutonium(IV) Chloride **Cl_4Pu (g)**

$PuCl_4$ (g) $PuCl_4$ (g)

$\Delta H^0_{298} = -793.7$ kJ·mol^{-1} [4] $S^0_{298} = 412.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 107.94 - 0.42 \cdot 10^{-3} \cdot T - 0.87 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4Rh (g) Rhodium(IV) Chloride **Cl_4Rh (g)**

$RhCl_4$ (g) $RhCl_4$ (g)

$\Delta H^0_{298} = -41.8$ kJ·mol^{-1} [67] $S^0_{298} = [364.0]$ J·mol^{-1}·K^{-1} [68]

$C_p{}^0 = 95.81 - 1.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [67]

Cl_4Ru (g) Ruthenium(IV) Chloride **Cl_4Ru (g)**

$RuCl_4$ (g) $RuCl_4$ (g)

$\Delta H^0_{298} = -79.9$ kJ·mol^{-1} [2] $S^0_{298} = 374.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 63.4$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_4Se (s) Selenium(IV) Chloride **Cl_4Se (s)**

$SeCl_4$ (s) $SeCl_4$ (s)

mp = 578 K (305 °C)

$\Delta H^0_{298} = -188.7$ kJ·mol^{-1} [2] $S^0_{298} = 194.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 133.89$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -4.39 \cdot 10^3 \cdot T^{-1} - 2.65 \cdot \lg(T) + 16.16$ (298 ... 468 K) [4]

{Reaction: evaporation as $SeCl_4$(g)}

Cl_4Si (l) Silicon(IV) Chloride **Cl_4Si (l)**

$SiCl_4$ (l) $SiCl_4$ (l)

mp = 204 K (-69 °C) bp = 330 K (57 °C)

$\Delta H^0_{298} = -693.8$ kJ·mol^{-1} [4] $S^0_{298} = 236.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 154.81$ J·mol^{-1}·K^{-1} (298 K) [4]

Cl_4Si (l) Silicon(IV) Chloride **Cl_4Si (l)**

$SiCl_4$ (l) $SiCl_4$ (l)

$\Delta H^0_{330} = -688.9$ kJ·mol^{-1} [4] $S^0_{330} = 252.3$ J·mol^{-1}·K^{-1} [4]

Cl_4Si (g) Silicon(IV) Chloride **Cl_4Si (g)**

$SiCl_4$ (g) $SiCl_4$ (g)

$\Delta H^0_{330} = -659.8$ kJ·mol^{-1} [4] $S^0_{330} = 340.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 106.53 + 0.75 \cdot 10^{-3} \cdot T - 1.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (330 ... 2000 K) [4]

Cl_4Si (g) Silicon(IV) Chloride **Cl_4Si (g)**

$SiCl_4$ (g) $SiCl_4$ (g)

$\Delta H^0_{298} = -662.7$ kJ·mol^{-1} [2] $S^0_{298} = 330.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 106.53 + 0.75 \cdot 10^{-3} \cdot T - 1.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_4Sn (l) Tin(IV) Chloride **Cl_4Sn (l)**
$SnCl_4$ (l) $SnCl_4$ (l)

mp = 240 K (-33 °C) bp = 385 K (112 °C)
$\Delta H^0_{298} = -511.3$ kJ·mol^{-1} [2] $S^0_{298} = 258.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 91.49 + 247.47 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 382 K) [4]
$\lg(p,K) = -3.26 \cdot 10^3 \cdot T^{-1} - 9.1 \cdot \lg(T) + 32.04$ (298 ... 382 K) [4]
{Reaction: evaporation as $SnCl_4$(g)}

Cl_4Sn (g) Tin(IV) Chloride **Cl_4Sn (g)**
$SnCl_4$ (g) $SnCl_4$ (g)

$\Delta H^0_{298} = -471.5$ kJ·mol^{-1} [2] $S^0_{298} = 365$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 106.63 + 1.41 \cdot 10^{-3} \cdot T - 0.77 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4Ta (s) Tantalum(IV) Chloride **Cl_4Ta (s)**
$TaCl_4$ (s) $TaCl_4$ (s)

$\Delta H^0_{298} = -707.5$ kJ·mol^{-1} [4] $S^0_{298} = 192.5$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 133.47 - 1.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 559 K) [4]

Cl_4Ta (g) Tantalum(IV) Chloride **Cl_4Ta (g)**
$TaCl_4$ (g) $TaCl_4$ (g)

$\Delta H^0_{298} = -574.1$ kJ·mol^{-1} [4] $S^0_{298} = 377.3$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 107.14 + 0.7 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4Te (s) Tellurium(IV) Chloride **Cl_4Te (s)**
$TeCl_4$ (s) $TeCl_4$ (s)

mp = 497 K (224 °C) bp = 687 K (414 °C)
$\Delta H^0_{298} = -323.8$ kJ·mol^{-1} [2] $S^0_{298} = 203$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 138.49$ J·mol^{-1}·K^{-1} (298 K) [4]
$\lg(p,K) = -6.85 \cdot 10^3 \cdot T^{-1} - 5.35 \cdot \lg(T) + 25.92$ (400 ... 497 K) [4]
{Reaction: evaporation}

Cl_4Te (s) Tellurium(IV) Chloride **Cl_4Te (s)**

$TeCl_4$ (s) $TeCl_4$ (s)

$\Delta H^0_{497} = -296.3$ kJ·mol^{-1} [4] $S^0_{497} = 273.8$ J·mol^{-1}·K^{-1} [4]

Cl_4Te (l) Tellurium(IV) Chloride **Cl_4Te (l)**

$TeCl_4$ (l) $TeCl_4$ (l)

$\Delta H^0_{497} = -277.4$ kJ·mol^{-1} [4] $S^0_{497} = 311.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 230.12$ J·mol^{-1}·K^{-1} (497 K) [4]

$\lg(p,K) = -8.21 \cdot 10^3 \cdot T^{-1} - 16.24 \cdot \lg(T) + 58.03$ (497 ... 687 K) [4]

{Reaction: evaporation}

Cl_4Te (g) Tellurium(IV) Chloride **Cl_4Te (g)**

$TeCl_4$ (g) $TeCl_4$ (g)

$\Delta H^0_{298} = -205.8$ kJ·mol^{-1} [4] $S^0_{298} = 401.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 96.73 + 0.16 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4Th (s) Thorium(IV) Chloride **Cl_4Th (s)**

$ThCl_4$ (s) alpha $ThCl_4$ (s)

mp = 1042 K (769 °C) bp = 1224 K (951 °C)

$\Delta H^0_{298} = -1186.8$ kJ·mol^{-1} [2] $S^0_{298} = 190.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 120.32 + 23.26 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 679 K) [4]

Cl_4Th (s) Thorium(IV) Chloride **Cl_4Th (s)**

$ThCl_4$ (s) alpha $ThCl_4$ (s)

$\Delta H^0_{679} = -1137.8$ kJ·mol^{-1} [2] $S^0_{679} = 295.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 134.77$ J·mol^{-1}·K^{-1} (679 K) [4]

Cl_4Th (s) Thorium(IV) Chloride **Cl_4Th (s)**
$ThCl_4$ (s) beta $ThCl_4$ (s)

ΔH^0_{679} = – 1132.8 kJ·mol^{-1} [2] S^0_{679} = 302.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 120.12 + 23.39 ·10^{-3}·T – 0.57 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (679 ... 1042 K) [4]
lg(p,K) = – 11.86 ·10^3·T^{-1} – 3.88 · lg(T) + 22.15 (679 ... 1042 K) [4]
{Reaction: evaporation as $ThCl_4$(g)}

Cl_4Th (s) Thorium(IV) Chloride **Cl_4Th (s)**
$ThCl_4$ (s) beta $ThCl_4$ (s)

ΔH^0_{1042} = – 1082.1 kJ·mol^{-1} [2] S^0_{1042} = 362.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 143.97 J·mol^{-1}·K^{-1} (1042 K) [4]

Cl_4Th (l) Thorium(IV) Chloride **Cl_4Th (l)**
$ThCl_4$ (l) $ThCl_4$ (l)

ΔH^0_{1042} = – 1020.7 kJ·mol^{-1} [2] S^0_{1042} = 421.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 167.36 J·mol^{-1}·K^{-1} (1042 K) [4]
lg(p,K) = – 10.14 ·10^3·T^{-1} – 7.2 · lg(T) + 30.51 (1042 ... 1224 K) [4]
{Reaction: evaporation as $ThCl_4$(g)}

Cl_4Th (g) Thorium(IV) Chloride **Cl_4Th (g)**
$ThCl_4$ (g) $ThCl_4$ (g)

ΔH^0_{298} = – 967.9 kJ·mol^{-1} [4] S^0_{298} = 397.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 107.75 + 0.21 ·10^{-3}·T – 0.56 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4Ti (s) Titanium(IV) Chloride **Cl_4Ti (s)**
$TiCl_4$ (s) $TiCl_4$ (s)

mp = 249 K (-24 °C) bp = 409 K (136 °C)
ΔH^0_{298} = – 815 kJ·mol^{-1} [1] S^0_{298} = 209.1 ± 0.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 129.46 J·mol^{-1}·K^{-1} (298 K) [1]

Cl_4Ti (l) Titanium(IV) Chloride **Cl_4Ti (l)**

$TiCl_4$ (l) $TiCl_4$ (l)

$\Delta H^0_{298} = -804.2 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 252.4 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 142.79 + 8.7 \cdot 10^{-3} \cdot T - 0.02 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 409 K) [4]

$\lg(p,K) = -2.92 \cdot 10^3 \cdot T^{-1} - 5.94 \cdot \lg(T) + 22.64$ (298 ... 409 K) [4]

{Reaction: evaporation as $TiCl_4$(g)}

Cl_4Ti (g) Titanium(IV) Chloride **Cl_4Ti (g)**

$TiCl_4$ (g) $TiCl_4$ (g)

$\Delta H^0_{298} = -763.2 \pm 3.8$ kJ·mol^{-1} [1] $S^0_{298} = 354.9 \pm 2.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 107.17 + 0.49 \cdot 10^{-3} \cdot T - 1.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4U (s) Uranium(IV) Chloride **Cl_4U (s)**

UCl_4 (s) UCl_4 (s)

mp = 863 K (590 °C) bp = 1068 K (795 °C)

$\Delta H^0_{298} = -1018.8$ kJ·mol^{-1} [4] $S^0_{298} = 197.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 113.81 + 35.86 \cdot 10^{-3} \cdot T - 0.33 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 863 K) [4]

$\lg(p,K) = -11.57 \cdot 10^3 \cdot T^{-1} - 4.01 \cdot \lg(T) + 23.64$ (600 ... 863 K) [4]

{Reaction: evaporation as UCl_4(g)}

Cl_4U (s) Uranium(IV) Chloride **Cl_4U (s)**

UCl_4 (s) UCl_4 (s)

$\Delta H^0_{863} = -943.5$ kJ·mol^{-1} [4] $S^0_{863} = 336.8$ J·mol^{-1}·K^{-1} [4]

Cl_4U (l) Uranium(IV) Chloride **Cl_4U (l)**

UCl_4 (l) UCl_4 (l)

$\Delta H^0_{863} = -889.1$ kJ·mol^{-1} [4] $S^0_{863} = 399.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 162.34$ J·mol^{-1}·K^{-1} (863 K) [4]

$\lg(p,K) = -9.72 \cdot 10^3 \cdot T^{-1} - 6.68 \cdot \lg(T) + 29.33$ (863 ... 1068 K) [4]

{Reaction: evaporation as UCl_4(g)}

Cl_4U (g) Uranium(IV) Chloride **Cl_4U (g)**

UCl_4 (g) UCl_4 (g)

$\Delta H^0_{298} = -809.9$ kJ·mol^{-1} [4] $S^0_{298} = 420.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 107.94 - 0.42 \cdot 10^{-3} \cdot T - 0.87 \cdot 10^6 \cdot T^{-2} + 0.28 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4V (l) Vanadium(IV) Chloride **Cl_4V (l)**

VCl_4 (l) VCl_4 (l)

mp = 247 K (-26 °C) bp = 427 K (154 °C)

$\Delta H^0_{298} = -570.1$ kJ·mol^{-1} [4] $S^0_{298} = 258.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 156.9$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -3.26 \cdot 10^3 \cdot T^{-1} - 7.16 \cdot \lg(T) + 26.46$ (298 ... 427 K) [4]

{Reaction: evaporation as VCl_4(g)}

Cl_4V (g) Vanadium(IV) Chloride **Cl_4V (g)**

VCl_4 (g) VCl_4 (g)

$\Delta H^0_{298} = -525.5$ kJ·mol^{-1} [2] $S^0_{298} = 366.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 111.07 - 2.64 \cdot 10^{-3} \cdot T - 1.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4W (s) Tungsten(IV) Chloride **Cl_4W (s)**

WCl_4 (s) WCl_4 (s)

$\Delta H^0_{298} = -443.1 \pm 62.8$ kJ·mol^{-1} [1] $S^0_{298} = 198.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 113.45 + 54.6 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 771 K) [4]

Cl_4W (g) Tungsten(IV) Chloride **Cl_4W (g)**

WCl_4 (g) WCl_4 (g)

$\Delta H^0_{298} = -336 \pm 33$ kJ·mol^{-1} [1] $S^0_{298} = 379.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 107.4 + 0.46 \cdot 10^{-3} \cdot T - 0.78 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_4Zr (s) Zirconium(IV) Chloride **Cl_4Zr (s)**
$ZrCl_4$ (s) $ZrCl_4$ (s)

mp = 710 K (437 °C) bp = 609 K (336 °C)
$\Delta H^0_{298} = -980.5 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 181.4 \pm 0.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 133.55 - 1.22 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 609 K) [4]
$\lg(p,K) = -6.13 \cdot 10^3 \cdot T^{-1} - 2.8 \cdot \lg(T) + 17.87$ (400 ... 609 K) [4]
{Reaction: evaporation as $ZrCl_4$(g)}

Cl_4Zr (g) Zirconium(IV) Chloride **Cl_4Zr (g)**
$ZrCl_4$ (g) $ZrCl_4$ (g)

$\Delta H^0_{298} = -870 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 367.7 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 107.26 + 0.5 \cdot 10^{-3} \cdot T - 0.82 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_5CoGa (g) Cobalt Gallium Chloride **Cl_5CoGa (g)**
$CoGaCl_5$ (g) $CoGaCl_5$ (g)

$\Delta H^0_{298} = -627$ kJ·mol^{-1} [168, 8] $S^0_{298} = 506.8$ J·mol^{-1}·K^{-1} [168, 8]

Cl_5CrGa (g) Chromium Gallium Chloride **Cl_5CrGa (g)**
$CrGaCl_5$ (g) $CrGaCl_5$ (g)

$\Delta H^0_{298} = -710.7$ kJ·mol^{-1} [168, 8] $S^0_{298} = 487.4$ J·mol^{-1}·K^{-1} [168, 8]

Cl_5Cs_3Mg (s) Cesium Magnesium Chloride **Cl_5Cs_3Mg (s)**
3CsCl · $MgCl_2$ (s) 3CsCl · $MgCl_2$ (s)

$\Delta H^0_{298} = -1989$ kJ·mol^{-1} [206] $S^0_{298} = [393.1]$ J·mol^{-1}·K^{-1} [210]
$C_p{}^0 = [228.84]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_5CuGa (g) Copper Gallium Chloride **Cl_5CuGa (g)**
$CuGaCl_5$ (g) $CuGaCl_5$ (g)

$\Delta H^0_{298} = -590.1$ kJ·mol^{-1} [168, 8] $S^0_{298} = 485.3$ J·mol^{-1}·K^{-1} [168, 8]

$Cl_5EuH_8N_2$ (s) Ammonium Europium Chloride **$Cl_5EuH_8N_2$ (s)**

$(NH_4)_2EuCl_5$ (s) $(NH_4)_2EuCl_5$ (s)

$\Delta H^0_{298} = -\ 1578.6 \pm 18.8$ kJ·mol^{-1} [32] $S^0_{298} = 357.3 \pm 31.8$ J·mol^{-1}·K^{-1} [32]

Cl_5FeGa (g) Iron Gallium Chloride **Cl_5FeGa (g)**

$FeGaCl_5$ (g) $FeGaCl_5$ (g)

$\Delta H^0_{298} = -\ 696.1$ kJ·mol^{-1} [168, 8] $S^0_{298} = 482.1$ J·mol^{-1}·K^{-1} [168, 8]

Cl_5GaMn (g) Manganese Gallium Chloride **Cl_5GaMn (g)**

$MnGaCl_5$ (g) $MnGaCl_5$ (g)

$\Delta H^0_{298} = -\ 798.8$ kJ·mol^{-1} [283] $S^0_{298} = 490.3$ J·mol^{-1}·K^{-1} [283]

Cl_5GaNi (g) Nickel Gallium Chloride **Cl_5GaNi (g)**

$NiGaCl_5$ (g) $NiGaCl_5$ (g)

$\Delta H^0_{298} = -\ 617.5$ kJ·mol^{-1} [168, 8] $S^0_{298} = 482.2$ J·mol^{-1}·K^{-1} [168, 8]

$Cl_5H_8LaN_2$ (s) Ammonium Lanthanum Chloride **$Cl_5H_8LaN_2$ (s)**

$(NH_4)_2LaCl_5$ (s) $(NH_4)_2LaCl_5$ (s)

$\Delta H^0_{298} = -\ 1722.6 \pm 9.2$ kJ·mol^{-1} [19] $S^0_{298} = 362.8 \pm 9.6$ J·mol^{-1}·K^{-1} [19]

$Cl_5H_8N_2Nd$ (s) Ammonium Neodymium Chloride **$Cl_5H_8N_2Nd$ (s)**

$(NH_4)_2NdCl_5$ (s) $(NH_4)_2NdCl_5$ (s)

$\Delta H^0_{298} = -\ 1725.9 \pm 15.1$ kJ·mol^{-1} [28] $S^0_{298} = 335.1 \pm 24.3$ J·mol^{-1}·K^{-1} [28]

$Cl_5H_8N_2Sm$ (s) Ammonium Samarium Chloride **$Cl_5H_8N_2Sm$ (s)**

$(NH_4)_2SmCl_5$ (s) $(NH_4)_2SmCl_5$ (s)

$\Delta H^0_{298} = -\ 1705.8 \pm 12.1$ kJ·mol^{-1} [31] $S^0_{298} = 351.5 \pm 18.8$ J·mol^{-1}·K^{-1} [31]

Cl_5InMn (g) Manganese Indium Chloride **Cl_5InMn (g)**

$MnInCl_5$ (g) $MnInCl_5$ (g)

$\Delta H^0_{298} = -764.1$ kJ·mol^{-1} [283] $S^0_{298} = 520.8$ J·mol^{-1}·K^{-1} [283]

Cl_5Mo (s) Molybdenum(V) Chloride **Cl_5Mo (s)**

$MoCl_5$ (s) $MoCl_5$ (s)

mp = 470 K (197 °C) bp = 537 K (264 °C)

$\Delta H^0_{298} = -527.2 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 238.5 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 120.38 + 119.96 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 470 K) [4]

Cl_5Mo (l) Molybdenum(V) Chloride **Cl_5Mo (l)**

$MoCl_5$ (l) $MoCl_5$ (l)

$\Delta H^0_{298} = -510.1$ kJ·mol^{-1} [1] $S^0_{298} = 273.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 175.73$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_5Mo (g) Molybdenum(V) Chloride **Cl_5Mo (g)**

$MoCl_5$ (g) $MoCl_5$ (g)

$\Delta H^0_{298} = -447.7 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 397.8 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 136.31 - 0.75 \cdot 10^{-3} \cdot T - 1.33 \cdot 10^{6} \cdot T^{-2} + 0.49 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_5Nb (s) Niobium(V) Chloride **Cl_5Nb (s)**

$NbCl_5$ (s) $NbCl_5$ (s)

mp = 479 K (206 °C) bp = 519 K (246 °C)

$\Delta H^0_{298} = -797.3$ kJ·mol^{-1} [4] $S^0_{298} = 214.1 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 147.9$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -5.3 \cdot 10^{3} \cdot T^{-1} - 2.99 \cdot \lg(T) + 18.62$ (298 ... 479 K) [4]

{Reaction: evaporation}

Cl_5Nb (s) Niobium(V) Chloride **Cl_5Nb (s)**

$NbCl_5$ (s) $NbCl_5$ (s)

$\Delta H^0_{479} = -770.6$ kJ·mol^{-1} [4] $S^0_{479} = 284.2$ J·mol^{-1}·K^{-1} [4]

Cl_5Nb (l) Niobium(V) Chloride **Cl_5Nb (l)**
$NbCl_5$ (l) $NbCl_5$ (l)

$\Delta H^0_{479} = -736.7$ kJ·mol^{-1} [4] $S^0_{479} = 354.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 262.33$ J·mol^{-1}·K^{-1} (479 K) [4]

Cl_5Nb (l) Niobium(V) Chloride **Cl_5Nb (l)**
$NbCl_5$ (l) $NbCl_5$ (l)

$\Delta H^0_{298} = -773.4$ kJ·mol^{-1} [1] $S^0_{298} = 261 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 147.9$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_5Nb (g) Niobium(V) Chloride **Cl_5Nb (g)**
$NbCl_5$ (g) $NbCl_5$ (g)

$\Delta H^0_{298} = -703.3 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 404.1 \pm 3.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 131.73 + 0.81 \cdot 10^{-3} \cdot T - 1.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Cl_5O_2U_2$ (s) Uranium Chloride Oxide **$Cl_5O_2U_2$ (s)**
$U_2O_2Cl_5$ (s) $U_2O_2Cl_5$ (s)

$\Delta H^0_{298} = -2197.4$ kJ·mol^{-1} [4] $S^0_{298} = 326.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 234.3 + 35.56 \cdot 10^{-3} \cdot T - 2.27 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 700 K) [4]

Cl_5P (s) Phosphorus(V) Chloride **Cl_5P (s)**
PCl_5 (s) PCl_5 (s)

mp = 432 K (159 °C) bp = 432 K (159 °C)
$\Delta H^0_{298} = -445.5$ kJ·mol^{-1} [4] $S^0_{298} = 199.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 142.27 + 0.84 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 432 K) [4]
$\lg(p,K) = -4.08 \cdot 10^3 \cdot T^{-1} - 3.06 \cdot \lg(T) + 17.51$ (298 ... 432 K) [4]
{Reaction: evaporation}

Cl_5P (g) Phosphorus(V) Chloride **Cl_5P (g)**
PCl_5 (g) PCl_5 (g)

$\Delta H^0_{298} = -374.8$ kJ·mol^{-1} [4] $S^0_{298} = 364.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 131.59 + 0.84 \cdot 10^{-3} \cdot T - 1.78 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Cl_5Re (g) Rhenium(V) Chloride **Cl_5Re (g)**

$ReCl_5$ (g) $ReCl_5$ (g)

$\Delta H^0_{298} = -306.7 \pm 11.3$ kJ·mol⁻¹ [50] $S^0_{298} = 405.8 \pm 8.4$ J·mol⁻¹·K⁻¹ [50]

$C_p^0 = 108.78$ J·mol⁻¹·K⁻¹ (298 K) [50]

Cl_5Sb (l) Antimony(V) Chloride **Cl_5Sb (l)**

$SbCl_5$ (l) $SbCl_5$ (l)

mp = 275 K (2 °C) bp = 413 K (140 °C)

$\Delta H^0_{298} = -440.2$ kJ·mol⁻¹ [4] $S^0_{298} = 301$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 158.99$ J·mol⁻¹·K⁻¹ (298 K) [4]

Cl_5Sb (g) Antimony(V) Chloride **Cl_5Sb (g)**

$SbCl_5$ (g) $SbCl_5$ (g)

$\Delta H^0_{298} = -399.4$ kJ·mol⁻¹ [4] $S^0_{298} = 401.8$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 131.75 + 0.67 \cdot 10^{-3} \cdot T - 1.72 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Cl_5Ta (s) Tantalum(V) Chloride **Cl_5Ta (s)**

$TaCl_5$ (s) $TaCl_5$ (s)

mp = 490 K (217 °C) bp = 506 K (233 °C)

$\Delta H^0_{298} = -859 \pm 4.2$ kJ·mol⁻¹ [1] $S^0_{298} = 221.8 \pm 6.3$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 147.9$ J·mol⁻¹·K⁻¹ (298 ... 490 K) [4]

$\lg(p,K) = -5.29 \cdot 10^3 \cdot T^{-1} - 2.88 \cdot \lg(T) + 18.36$ (298 ... 490 K) [4]

{Reaction: evaporation}

Cl_5Ta (s) Tantalum(V) Chloride **Cl_5Ta (s)**

$TaCl_5$ (s) $TaCl_5$ (s)

$\Delta H^0_{490} = -830.6$ kJ·mol⁻¹ [4] $S^0_{490} = 295.2$ J·mol⁻¹·K⁻¹ [4]

Cl_5Ta (l) Tantalum(V) Chloride **Cl_5Ta (l)**

$TaCl_5$ (l) $TaCl_5$ (l)

$\Delta H^0_{490} = -795.4$ kJ·mol⁻¹ [4] $S^0_{490} = 367$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 242.32 - 51.34 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (490 ... 506 K) [4]

Cl_5Ta (l) Tantalum(V) Chloride **Cl_5Ta (l)**

$TaCl_5$ (l) $TaCl_5$ (l)

$\Delta H^0_{298} = -834.3$ kJ·mol^{-1} [1] $S^0_{298} = 268.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 147.9$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_5Ta (g) Tantalum(V) Chloride **Cl_5Ta (g)**

$TaCl_5$ (g) $TaCl_5$ (g)

$\Delta H^0_{298} = -764.8 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 413 \pm 3.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 131.93 + 0.69 \cdot 10^{-3} \cdot T - 1.07 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_5U (s) Uranium(V) Chloride **Cl_5U (s)**

UCl_5 (s) UCl_5 (s)

$\Delta H^0_{298} = -1041.5$ kJ·mol^{-1} [4] $S^0_{298} = 246.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 140.04 + 35.44 \cdot 10^{-3} \cdot T - 0.54 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 600 K) [4]

Cl_5U (g) Uranium(V) Chloride **Cl_5U (g)**

UCl_5 (g) UCl_5 (g)

$\Delta H^0_{298} = -926.7$ kJ·mol^{-1} [2] $S^0_{298} = 435.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 143.1$ J·mol^{-1}·K^{-1} (298 K) [2]

Cl_5W (s) Tungsten(V) Chloride **Cl_5W (s)**

WCl_5 (s) WCl_5 (s)

mp = 526 K (253 °C) bp = 558 K (285 °C)

$\Delta H^0_{298} = -513 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 217.6$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 124.45 + 109.92 \cdot 10^{-3} \cdot T - 0.14 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 526 K) [4]

Cl_5W (l) Tungsten(V) Chloride **Cl_5W (l)**

WCl_5 (l) WCl_5 (l)

$\Delta H^0_{298} = -495.4$ kJ·mol^{-1} [1] $S^0_{298} = 248.5$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 182$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_5W (g) Tungsten(V) Chloride **Cl_5W (g)**

WCl_5 (g) WCl_5 (g)

$\Delta H^0_{298} = -412.5 \pm 33$ kJ·mol^{-1} [1] $S^0_{298} = 405.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 131.38 + 1.41 \cdot 10^{-3} \cdot T - 1.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -5.96 \cdot 10^3 \cdot T^{-1} - 5.34 \cdot \lg(T) + 25.43$ (298 ... 526 K) [4]

{Reaction: evaporation of WCl_5(s)}

Cl_6Cs_2LaNa (s) Cesium Sodium Lanthanum Chloride **Cl_6Cs_2LaNa (s)**

$Cs_2NaLaCl_6$ (s) $Cs_2NaLaCl_6$ (s)

$\Delta H^0_{298} = -2391.6$ kJ·mol^{-1} [96] $S^0_{298} = [411.7]$ J·mol^{-1}·K^{-1} [97]

$C_p^0 = [253.66]$ J·mol^{-1}·K^{-1} (298 K) [271]

$Cl_6EuH_{12}N_3$ (s) Ammonium Europium Chloride **$Cl_6EuH_{12}N_3$ (s)**

$(NH_4)_3EuCl_6$ (s) $(NH_4)_3EuCl_6$ (s)

$\Delta H^0_{298} = -1877.4 \pm 21.3$ kJ·mol^{-1} [32] $S^0_{298} = 497.5 \pm 34.7$ J·mol^{-1}·K^{-1} [32]

Cl_6Fe_2 (g) Iron(III) Chloride **Cl_6Fe_2 (g)**

$(FeCl_3)_2$ (g) $(FeCl_3)_2$ (g)

$\Delta H^0_{298} = -660.5$ kJ·mol^{-1} [4] $S^0_{298} = 537.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 182.54 + 0.24 \cdot 10^{-3} \cdot T - 0.8 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -8.05 \cdot 10^3 \cdot T^{-1} - 5.52 \cdot \lg(T) + 29.03$ (400 ... 577 K) [4]

{Reaction: evaporation of $FeCl_3$(s)}

Cl_6Ga_2 (g) Gallium(III) Chloride **Cl_6Ga_2 (g)**

$(GaCl_3)_2$ (g) $(GaCl_3)_2$ (g)

$\Delta H^0_{298} = -951.6$ kJ·mol^{-1} [4] $S^0_{298} = 500.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 181.46 + 0.9 \cdot 10^{-3} \cdot T - 1.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 351 K) [4]

$\lg(p,K) = -6.19 \cdot 10^3 \cdot T^{-1} - 8.35 \cdot \lg(T) + 36.31$ (298 ... 351 K) [4]

{Reaction: evaporation of $GaCl_3$(s)}

$Cl_6H_{12}N_3Y$ (s) Ammonium Yttrium Chloride **$Cl_6H_{12}N_3Y$ (s)**
$(NH_4)_3YCl_6$ (s) $(NH_4)_3YCl_6$ (s)

$\Delta H^0_{298} = -1977.4 \pm 12.2$ kJ·mol^{-1} [20] $S^0_{298} = 485.3 \pm 25.1$ J·mol^{-1}·K^{-1} [20]

Cl_6In_2 (g) Indium(III) Chloride **Cl_6In_2 (g)**
$(InCl_3)_2$ (g) $(InCl_3)_2$ (g)

$\Delta H^0_{298} = -888.9$ kJ·mol^{-1} [4] $S^0_{298} = 529$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 182.16 + 0.44 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -10.57 \cdot 10^3 \cdot T^{-1} - 5.43 \cdot \lg(T) + 29.19$ (500 ... 779 K) [4]
{Reaction: evaporation of $InCl_3$(s)}

Cl_6K_4Mg (s) Potassium Magnesium Chloride **Cl_6K_4Mg (s)**
$4KCl \cdot MgCl_2$ (s) $4KCl \cdot MgCl_2$ (s)

$\Delta H^0_{298} = -2394$ kJ·mol^{-1} [206] $S^0_{298} = [419.9]$ J·mol^{-1}·K^{-1} [214]
$C_p{}^0 = [277.60]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_6Mo (s) Molybdenum(VI) Chloride **Cl_6Mo (s)**
$MoCl_6$ (s) $MoCl_6$ (s)

$\Delta H^0_{298} = -523 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 255.2 \pm 16.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 175.31$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_6Mo (g) Molybdenum(VI) Chloride **Cl_6Mo (g)**
$MoCl_6$ (g) $MoCl_6$ (g)

$\Delta H^0_{298} = -439.3 \pm 83.7$ kJ·mol^{-1} [1] $S^0_{298} = 419.5 \pm 16.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 144.13$ J·mol^{-1}·K^{-1} (298 K) [1]

Cl_6Sc_2 (g) Scandium(III) Chloride **Cl_6Sc_2 (g)**
$(ScCl_3)_2$ (g) $(ScCl_3)_2$ (g)

$\Delta H^0_{298} = -1510.4$ kJ·mol^{-1} [93] $S^0_{298} = 493.7$ J·mol^{-1}·K^{-1} [93]

Cl_6Ti_2 (g) Titanium(III) Chloride **Cl_6Ti_2 (g)**
$(TiCl_3)_2$ (g) $(TiCl_3)_2$ (g)

$\Delta H^0_{298} = -1247.5$ kJ·mol^{-1} [4] $S^0_{298} = 482.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 182.59 + 0.21 \cdot 10^{-3} \cdot T - 1.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_6U (s) Uranium(VI) Chloride **Cl_6U (s)**
UCl_6 (s) UCl_6 (s)

mp = 451 K (178 °C)
$\Delta H^0_{298} = -1068.2$ kJ·mol^{-1} [4] $S^0_{298} = 285.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 173.4 + 35.06 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 451 K) [4]

Cl_6U (g) Uranium(VI) Chloride **Cl_6U (g)**
UCl_6 (g) UCl_6 (g)

$\Delta H^0_{298} = -987.8$ kJ·mol^{-1} [4] $S^0_{298} = 432.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 157.63 + 0.13 \cdot 10^{-3} \cdot T - 1.33 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cl_6W (s) Tungsten(VI) Chloride **Cl_6W (s)**
WCl_6 (s) alpha 1 WCl_6 (s)

mp = 555 K (282 °C) bp = 613 K (340 °C)
$\Delta H^0_{298} = -593.7 \pm 25.1$ kJ·mol^{-1} [1] $S^0_{298} = 238.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 125.56 + 167.23 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 450 K) [4]
$\lg(p,K) = -5.87 \cdot 10^3 \cdot T^{-1} - 4.87 \cdot \lg(T) + 23.65$ (298 ... 450 K) [4]
{Reaction: evaporation}

Cl_6W (s) Tungsten(VI) Chloride **Cl_6W (s)**
WCl_6 (s) alpha 1 WCl_6 (s)

$\Delta H^0_{450} = -565.1$ kJ·mol^{-1} [4] $S^0_{450} = 315.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 200.8$ J·mol^{-1}·K^{-1} (450 K) [4]

Cl_6W (s) Tungsten(VI) Chloride **Cl_6W (s)**
WCl_6 (s) alpha 2 WCl_6 (s)

$\Delta H^0_{450} = -560.9$ kJ·mol⁻¹ [4] $S^0_{450} = 324.9$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 209.2$ J·mol⁻¹·K⁻¹ (450 K) [4]
$\lg(p,K) = -6.03 \cdot 10^3 \cdot T^{-1} - 6.86 \cdot \lg(T) + 29.29$ (450 ... 503 K) [4]
{Reaction: evaporation}

Cl_6W (s) Tungsten(VI) Chloride **Cl_6W (s)**
WCl_6 (s) alpha 2 WCl_6 (s)

$\Delta H^0_{503} = -549.8$ kJ·mol⁻¹ [4] $S^0_{503} = 348.2$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 209.2$ J·mol⁻¹·K⁻¹ (503 K) [4]

Cl_6W (s) Tungsten(VI) Chloride **Cl_6W (s)**
WCl_6 (s) beta WCl_6 (s)

$\Delta H^0_{503} = -534.1$ kJ·mol⁻¹ [4] $S^0_{503} = 379.5$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 188.28$ J·mol⁻¹·K⁻¹ (503 K) [4]
$\lg(p,K) = -4.63 \cdot 10^3 \cdot T^{-1} - 4.22 \cdot \lg(T) + 19.38$ (503 ... 555 K) [4]
{Reaction: evaporation}

Cl_6W (s) Tungsten(VI) Chloride **Cl_6W (s)**
WCl_6 (s) beta WCl_6 (s)

$\Delta H^0_{555} = -524.3$ kJ·mol⁻¹ [4] $S^0_{555} = 398$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 188.28$ J·mol⁻¹·K⁻¹ (555 K) [4]

Cl_6W (l) Tungsten(VI) Chloride **Cl_6W (l)**
WCl_6 (l) WCl_6 (l)

$\Delta H^0_{555} = -517.6$ kJ·mol⁻¹ [4] $S^0_{555} = 410.1$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 200.83$ J·mol⁻¹·K⁻¹ (555 K) [4]
$\lg(p,K) = -4.62 \cdot 10^3 \cdot T^{-1} - 5.63 \cdot \lg(T) + 23.23$ (555 ... 2000 K) [4]
{Reaction: evaporation}

Cl_6W (g) Tungsten(VI) Chloride **Cl_6W (g)**
WCl_6 (g) WCl_6 (g)

$\Delta H^0_{298} = -493.7 \pm 25.1$ kJ·mol^{-1} [1] $S^0_{298} = 419.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 157.54 + 0.19 \cdot 10^{-3} \cdot T - 1.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Cl_7Eu_2H_4N$ (s) Ammonium Europium Chloride **$Cl_7Eu_2H_4N$ (s)**
$NH_4Eu_2Cl_7$ (s) $NH_4Eu_2Cl_7$ (s)

$\Delta H^0_{298} = -2174.8 \pm 14.6$ kJ·mol^{-1} [32] $S^0_{298} = 394.1 \pm 23$ J·mol^{-1}·K^{-1} [32]

$Cl_7H_4NNd_2$ (s) Ammonium Neodymium Chloride **$Cl_7H_4NNd_2$ (s)**
$NH_4Nd_2Cl_7$ (s) $NH_4Nd_2Cl_7$ (s)

$\Delta H^0_{298} = -2424.6 \pm 14.6$ kJ·mol^{-1} [28] $S^0_{298} = 425.9 \pm 23.4$ J·mol^{-1}·K^{-1} [28]

$Cl_7H_4NSm_2$ (s) Ammonium Samarium Chloride **$Cl_7H_4NSm_2$ (s)**
$NH_4Sm_2Cl_7$ (s) $NH_4Sm_2Cl_7$ (s)

$\Delta H^0_{298} = -2413.3 \pm 14.2$ kJ·mol^{-1} [31] $S^0_{298} = 410.5 \pm 23$ J·mol^{-1}·K^{-1} [31]

$Cl_7H_4NY_2$ (s) Ammonium Yttrium Chloride **$Cl_7H_4NY_2$ (s)**
$NH_4Y_2Cl_7$ (s) $NH_4Y_2Cl_7$ (s)

$\Delta H^0_{298} = -2359.8 \pm 14.6$ kJ·mol^{-1} [20] $S^0_{298} = 365.7 \pm 23$ J·mol^{-1}·K^{-1} [20]

$Cl_7K_3Mg_2$ (s) Potassium Magnesium Chloride **$Cl_7K_3Mg_2$ (s)**
$3KCl \cdot 2MgCl_2$ (s) $3KCl \cdot 2MgCl_2$ (s)

$\Delta H^0_{298} = -2610$ kJ·mol^{-1} [206] $S^0_{298} = [426.8]$ J·mol^{-1}·K^{-1} [212]
$C_p^0 = [297.30]$ J·mol^{-1}·K^{-1} (298 K) [271]

$Cl_7Mg_2Rb_3$ (s) Rubidium Magnesium Chloride **$Cl_7Mg_2Rb_3$ (s)**
$3RbCl \cdot 2MgCl_2$ (s) $3RbCl \cdot 2MgCl_2$ (s)

$\Delta H^0_{298} = -2622$ kJ·mol^{-1} [206] $S^0_{298} = [464.6]$ J·mol^{-1}·K^{-1} [216]
$C_p^0 = [296.64]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_8CoFe_2 (g) Cobalt Iron Chloride **Cl_8CoFe_2 (g)**

$CoFe_2Cl_8$ (g) $CoFe_2Cl_8$ (g)

ΔH^0_{298} = – 918.6 kJ·mol^{-1} [169, 8] S^0_{298} = 688.2 J·mol^{-1}·K^{-1} [169, 8]

Cl_8CoGa_2 (g) Cobalt Gallium Chloride **Cl_8CoGa_2 (g)**

$CoGa_2Cl_8$ (g) $CoGa_2Cl_8$ (g)

ΔH^0_{298} = – 1214.1 kJ·mol^{-1} [168, 8] S^0_{298} = 659.5 J·mol^{-1}·K^{-1} [168, 8]

Cl_8CrGa_2 (g) Chromium Gallium Chloride **Cl_8CrGa_2 (g)**

$CrGa_2Cl_8$ (g) $CrGa_2Cl_8$ (g)

ΔH^0_{298} = – 1309 kJ·mol^{-1} [168, 8] S^0_{298} = 661.8 J·mol^{-1}·K^{-1} [168, 8]

Cl_8CuGa_2 (g) Copper Gallium Chloride **Cl_8CuGa_2 (g)**

$CuGa_2Cl_8$ (g) $CuGa_2Cl_8$ (g)

ΔH^0_{298} = – 1132.7 kJ·mol^{-1} [168, 8] S^0_{298} = 650.6 J·mol^{-1}·K^{-1} [168, 8]

Cl_8FeGa_2 (g) Iron Gallium Chloride **Cl_8FeGa_2 (g)**

$FeGa_2Cl_8$ (g) $FeGa_2Cl_8$ (g)

ΔH^0_{298} = – 1243 kJ·mol^{-1} [168, 8] S^0_{298} = 668.2 J·mol^{-1}·K^{-1} [168, 8]

Cl_8Fe_2Mn (g) Manganese Iron Chloride **Cl_8Fe_2Mn (g)**

$MnFe_2Cl_8$ (g) $MnFe_2Cl_8$ (g)

ΔH^0_{298} = – 1087.4 kJ·mol^{-1} [169, 8] S^0_{298} = 697.1 J·mol^{-1}·K^{-1} [169, 8]

Cl_8Fe_2Ni (g) Nickel Iron Chloride **Cl_8Fe_2Ni (g)**

$NiFe_2Cl_8$ (g) $NiFe_2Cl_8$ (g)

ΔH^0_{298} = – 903 kJ·mol^{-1} [169, 8] S^0_{298} = 676.9 J·mol^{-1}·K^{-1} [169, 8]

Cl_8Ga_2Mn (g) Manganese Gallium Chloride **Cl_8Ga_2Mn (g)**

$MnGa_2Cl_8$ (g) $MnGa_2Cl_8$ (g)

$\Delta H^0_{298} = -1386.7$ kJ·mol^{-1} [283] $S^0_{298} = 673$ J·mol^{-1}·K^{-1} [283]

Cl_8Ga_2Ni (g) Nickel Gallium Chloride **Cl_8Ga_2Ni (g)**

$NiGa_2Cl_8$ (g) $NiGa_2Cl_8$ (g)

$\Delta H^0_{298} = -1202.5$ kJ·mol^{-1} [168, 8] $S^0_{298} = 640.3$ J·mol^{-1}·K^{-1} [168, 8]

Cl_8In_2Mn (g) Manganese Indium Chloride **Cl_8In_2Mn (g)**

$MnIn_2Cl_8$ (g) $MnIn_2Cl_8$ (g)

$\Delta H^0_{298} = -1312.6$ kJ·mol^{-1} [283] $S^0_{298} = 689.6$ J·mol^{-1}·K^{-1} [283]

Cl_8MgNa_6 (s) Sodium Magnesium Chloride **Cl_8MgNa_6 (s)**

$6NaCl \cdot MgCl_2$ (s) $6NaCl \cdot MgCl_2$ (s)

$\Delta H^0_{298} = -3105$ kJ·mol^{-1} [206] $S^0_{298} = [522.1]$ J·mol^{-1}·K^{-1} [221]

$C_p{}^0 = [374.10]$ J·mol^{-1}·K^{-1} (298 K) [271]

$Cl_8Mg_3Na_2$ (s) Sodium Magnesium Chloride **$Cl_8Mg_3Na_2$ (s)**

$2NaCl \cdot 3MgCl_3$ (s) $2NaCl \cdot 3MgCl_3$ (s)

$\Delta H^0_{298} = -2754$ kJ·mol^{-1} [206] $S^0_{298} = [412.7]$ J·mol^{-1}·K^{-1} [218]

$C_p{}^0 = [314.78]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cl_8U_2 (g) Uranium(IV) Chloride **Cl_8U_2 (g)**

$(UCl_4)_2$ (g) $(UCl_4)_2$ (g)

$\Delta H^0_{298} = -1819.6$ kJ·mol^{-1} [4] $S^0_{298} = 581.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 223.51 + 5.31 \cdot 10^{-3} \cdot T - 5.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -12.41 \cdot 10^3 \cdot T^{-1} - 7.5 \cdot \lg(T) + 31.65$ (700 ... 863 K) [4]

{Reaction: evaporation of UCl_4(s)}

Cl_9CsMg_4 (s) Cesium Magnesium Chloride **Cl_9CsMg_4 (s)**

$CsCl \cdot 4MgCl_2$ (s) $CsCl \cdot 4MgCl_2$ (s)

$\Delta H^0_{298} = -3048$ kJ·mol^{-1} [206] $S^0_{298} = [459.2]$ J·mol^{-1}·K^{-1} [207]

$C_p^0 = [337.64]$ J·mol^{-1}·K^{-1} (298 K) [271]

$Cl_{10}U_2$ (g) Uranium(V) Chloride **$Cl_{10}U_2$ (g)**

$(UCl_5)_2$ (g) $(UCl_5)_2$ (g)

$\Delta H^0_{298} = -1960.2$ kJ·mol^{-1} [4] $S^0_{298} = 707.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 281.7 + 0.53 \cdot 10^{-3} \cdot T - 1.64 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -4.59 \cdot 10^3 \cdot T^{-1} - 3.48 \cdot \lg(T) + 15.12$ (298 ... 600 K) [4]

{Reaction: evaporation of UCl_5(s)}

$Cl_{10}W_2$ (g) Tungsten(V) Chloride **$Cl_{10}W_2$ (g)**

$(WCl_5)_2$ (g) $(WCl_5)_2$ (g)

$\Delta H^0_{298} = -868.6 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 713.6$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 281.71 + 0.52 \cdot 10^{-3} \cdot T - 1.65 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -9.3 \cdot 10^3 \cdot T^{-1} - 8.16 \cdot \lg(T) + 38.32$ (400 ... 526 K) [4]

{Reaction: evaporation of WCl_5(s)}

$Cl_{12}Pt_6$ (g) Platinum(II) Chloride **$Cl_{12}Pt_6$ (g)**

$(PtCl_2)_6$ (g) $(PtCl_2)_6$ (g)

$\Delta H^0_{298} = -644.3$ kJ·mol^{-1} [76] $S^0_{298} = 769.9$ J·mol^{-1}·K^{-1} [76]

Co (s) Cobalt alpha **Co (s)**

mp = 1768 K (1495 °C) bp = 3200 K (2927 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 30.1 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 19.13 + 20.47 \cdot 10^{-3} \cdot T - 4.68 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 700 K) [4]

Co (s) Cobalt alpha **Co (s)**

$\Delta H^0_{700} = 11.3$ kJ·mol^{-1} [4] $S^0_{700} = 53.6$ J·mol^{-1}·K^{-1} [4]

Co (s) | Cobalt beta | **Co** (s)

ΔH^0_{700} = 11.7 kJ·mol^{-1} [4] | S^0_{700} = 54.3 J·mol^{-1}·K^{-1} [4]

$C_p^0 = 4.47 + 29.99 \cdot 10^{-3} \cdot T + 2.52 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (700 ... 1000 K) [4]

Co (s) | Cobalt beta | **Co** (s)

ΔH^0_{1768} = 54 kJ·mol^{-1} [4] | S^0_{1768} = 90.1 J·mol^{-1}·K^{-1} [4]

C_p^0 = 38.11 J·mol^{-1}·K^{-1} (1768 K) [4]

Co (l) | Cobalt | **Co** (l)

ΔH^0_{1768} = 70.2 kJ·mol^{-1} [4] | S^0_{1768} = 99.3 J·mol^{-1}·K^{-1} [4]

C_p^0 = 40.5 J·mol^{-1}·K^{-1} (1768 K) [4]

$\lg(p,K) = -22.02 \cdot 10^{3} \cdot T^{-1} - 1.7 \cdot \lg(T) + 12.84$ (1768 ... 3200 K) [4]

{Reaction: evaporation as Co(g)}

Co (l) | Cobalt | **Co** (l)

ΔH^0_{298} = 18 kJ·mol^{-1} [1] | S^0_{298} = 41 J·mol^{-1}·K^{-1} [1]

C_p^0 = 40.5 J·mol^{-1}·K^{-1} (1768 K) [4]

Co (g) | Cobalt | **Co** (g)

ΔH^0_{298} = 426.7 kJ·mol^{-1} [1] | S^0_{298} = 179.5 J·mol^{-1}·K^{-1} [1]

$C_p^0 = 26.69 - 0.33 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 5000 K) [6]

$CoCr_2O_4$ (s) | Cobalt Chromate(III) | **$CoCr_2O_4$** (s)

$CoO \cdot Cr_2O_3$ (s) | $CoO \cdot Cr_2O_3$ (s)

ΔH^0_{298} = – 1438.3 kJ·mol^{-1} [4] | S^0_{298} = 126.8 J·mol^{-1}·K^{-1} [4]

$C_p^0 = 167.65 + 17.74 \cdot 10^{-3} \cdot T - 1.4 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1800 K) [4]

CoF_2 (s) Cobalt(II) Fluoride **CoF_2 (s)**

mp = 1400 K (1127 °C) bp = 2020 K (1747 °C)
$\Delta H^0_{298} = -672.4$ kJ·mol^{-1} [4] $S^0_{298} = 82$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 80.91 + 6.15 \cdot 10^{-3} \cdot T - 1.24 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1400 K) [4]
$\lg(p,K) = -17.09 \cdot 10^3 \cdot T^{-1} - 3.46 \cdot \lg(T) + 20.6$ (900 ... 1400 K) [4]
{Reaction: evaporation as CoF_2(g)}

CoF_2 (s) Cobalt(II) Fluoride **CoF_2 (s)**

$\Delta H^0_{1400} = -580.7$ kJ·mol^{-1} [4] $S^0_{1400} = 207.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 88.89$ J·mol^{-1}·K^{-1} (1400 K) [4]

CoF_2 (l) Cobalt(II) Fluoride **CoF_2 (l)**

$\Delta H^0_{1400} = -523.4$ kJ·mol^{-1} [4] $S^0_{1400} = 248.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 102.51$ J·mol^{-1}·K^{-1} (1400 ... 2020 K) [4]
$\lg(p,K) = -15.09 \cdot 10^3 \cdot T^{-1} - 5.13 \cdot \lg(T) + 24.43$ (1400 ... 2020 K) [4]
{Reaction: evaporation as CoF_2(g)}

CoF_2 (l) Cobalt(II) Fluoride **CoF_2 (l)**

$\Delta H^0_{298} = -637.7$ kJ·mol^{-1} [1] $S^0_{298} = 86.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 104.6$ J·mol^{-1}·K^{-1} (298 K) [1]

CoF_2 (g) Cobalt(II) Fluoride **CoF_2 (g)**

$\Delta H^0_{298} = -356.5 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 278 \pm 12.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 55.41 + 2.68 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2020 K) [4]

CoF_3 (s) Cobalt(III) Fluoride **CoF_3 (s)**

mp = 1200 K (927 °C)
$\Delta H^0_{298} = -790.4 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 94.6 \pm 12.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 100.28 + 4.88 \cdot 10^{-3} \cdot T - 0.88 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1365 K) [4]
$\lg(p,K) = -12.19 \cdot 10^3 \cdot T^{-1} - 0.04 \cdot \lg(T) + 9.06$ (700 ... 1365 K) [4]
{Reaction: decomposition $2CoF_3(s) = 2CoF_2(s) + F_2(g)$}

$CoFe_2O_4$ (s) Cobalt Ferrate(III) **$CoFe_2O_4$ (s)**

$CoO \cdot Fe_2O_3$ (s) $CoO \cdot Fe_2O_3$ (s)

$\Delta H^0_{298} = -1088.7$ kJ·mol^{-1} [4] $S^0_{298} = 142.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 173.22 + 54.39 \cdot 10^{-3} \cdot T - 3.28 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 740 K) [4]

CoH_2O_2 (s) Cobalt(II) Hydroxide **CoH_2O_2 (s)**

$Co(OH)_2$ (s) $Co(OH)_2$ (s)

$\Delta H^0_{298} = -541.3$ kJ·mol^{-1} [4] $S^0_{298} = 93.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 82.84 + 47.7 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 416 K) [4]

$\lg(p,K) = -3.4 \cdot 10^3 \cdot T^{-1} - 1.45 \cdot \lg(T) + 11.98$ (298 ... 416 K) [4]

{Reaction: decomposition $Co(OH)_2(s) = CoO(s) + H_2O(g)$}

$CoH_{12}O_{10}S$ (s) Cobalt(II) Sulfate Hexahydrate **$CoH_{12}O_{10}S$ (s)**

$CoSO_4 \cdot 6H_2O$ (s) $CoSO_4 \cdot 6H_2O$ (s)

$\Delta H^0_{298} = -2684$ kJ·mol^{-1} [7] $S^0_{298} = 368$ J·mol^{-1}·K^{-1} [7]

$C_p^0 = 353$ J·mol^{-1}·K^{-1} (298 K) [7]

$CoH_{14}O_{11}S$ (s) Cobalt(II) Sulfate Heptahydrate **$CoH_{14}O_{11}S$ (s)**

$CoSO_4 \cdot 7H_2O$ (s) $CoSO_4 \cdot 7H_2O$ (s)

$\Delta H^0_{298} = -2980$ kJ·mol^{-1} [7] $S^0_{298} = 406$ J·mol^{-1}·K^{-1} [7]

$C_p^0 = 390$ J·mol^{-1}·K^{-1} (298 K) [7]

CoI_2 (s) Cobalt(II) Iodide **CoI_2 (s)**

mp = 790 K (517 °C) bp = 1100 K (827 °C)

$\Delta H^0_{298} = -85.8$ kJ·mol^{-1} [4] $S^0_{298} = 153.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 72.38 + 25.1 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 790 K) [4]

CoI_2 (l) Cobalt(II) Iodide **CoI_2 (l)**

$\Delta H^0_{298} = -52.3 \pm 12.6$ kJ·mol^{-1} [77] $S^0_{298} = 186.2 \pm 8.4$ J·mol^{-1}·K^{-1} [77]

$C_p^0 = 101.96$ J·mol^{-1}·K^{-1} (298 K) [77]

CoI_2 (g) Cobalt(II) Iodide **CoI_2 (g)**

$\Delta H^0_{298} = 118.4 \pm 12.6$ kJ·mol^{-1} [77] $S^0_{298} = 343$ J·mol^{-1}·K^{-1} [284]
$C_p^0 = 62.3 + 0.03 \cdot 10^{-3} \cdot T - 0.19 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [77]

CoN_2O_6 (s) Cobalt Nitrate **CoN_2O_6 (s)**
$Co(NO_3)_2$ (s) $Co(NO_3)_2$ (s)

$\Delta H^0_{298} = -421.6$ kJ·mol^{-1} [4] $S^0_{298} = 177$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 131.8 + 83.68 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 535 K) [4]

CoO (s) Cobalt(II) Oxide **CoO (s)**

$\Delta H^0_{298} = -237.7 \pm 0.4$ kJ·mol^{-1} [1] $S^0_{298} = 53 \pm 0.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 45.26 + 10.69 \cdot 10^{-3} \cdot T + 0.6 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CoO_3Se (s) Cobalt Selenite **CoO_3Se (s)**
$CoSeO_3$ (s) $CoSeO_3$ (s)

mp = 932 K (659 °C)
$\Delta H^0_{298} = -577.4$ kJ·mol^{-1} [4] $S^0_{298} = 128$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 79.91 + 59.83 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 932 K) [4]

CoO_3Se (s) Cobalt Selenite **CoO_3Se (s)**
$CoSeO_3$ (s) $CoSeO_3$ (s)

$\Delta H^0_{932} = -503.4$ kJ·mol^{-1} [4] $S^0_{932} = 257$ J·mol^{-1}·K^{-1} [4]

CoO_3Se (l) Cobalt Selenite **CoO_3Se (l)**
$CoSeO_3$ (l) $CoSeO_3$ (l)

$\Delta H^0_{932} = -487.1$ kJ·mol^{-1} [4] $S^0_{932} = 274.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 144.35$ J·mol^{-1}·K^{-1} (932 K) [4]

CoO_3Ti (s) Cobalt Titanate **CoO_3Ti (s)**

$CoO \cdot TiO_2$ (s) $CoO \cdot TiO_2$ (s)

mp = 1736 K (1463 °C)

ΔH^0_{298} = – 1207.4 kJ·mol^{-1} [4] S^0_{298} = 96.9 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 123.47 + 9.71 ·10^{-3}·T – 1.65 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1736 K) [4]

CoO_4S (s) Cobalt Sulfate **CoO_4S (s)**

$CoSO_4$ (s) $CoSO_4$ (s)

ΔH^0_{298} = – 888.3 ± 1.3 kJ·mol^{-1} [1] S^0_{298} = 117.4 ± 4.2 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 122.59 + 40.29 ·10^{-3}·T – 2.8 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 964 K) [4]

CoO_4W (s) Cobalt Tungstate **CoO_4W (s)**

$CoO \cdot WO_3$ (s) alpha $CoO \cdot WO_3$ (s)

mp = 1213 K (940 °C)

ΔH^0_{298} = – 1142.7 kJ·mol^{-1} [4] S^0_{298} = 126.4 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 115.48 + 48.49 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 986 K) [4]

CoO_4W (s) Cobalt Tungstate **CoO_4W (s)**

$CoO \cdot WO_3$ (s) alpha $CoO \cdot WO_3$ (s)

ΔH^0_{986} = – 1041.8 kJ·mol^{-1} [4] S^0_{986} = 297.8 J·mol^{-1}·K^{-1} [4]

CoO_4W (s) Cobalt Tungstate **CoO_4W (s)**

$CoO \cdot WO_3$ (s) beta $CoO \cdot WO_3$ (s)

ΔH^0_{986} = – 1040 kJ·mol^{-1} [4] S^0_{986} = 299.7 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 122.38 + 41.92 ·10^{-3}·T J·mol^{-1}·K^{-1} (986 ... 1213 K) [4]

CoP (s) Cobalt Phosphide **CoP (s)**

ΔH^0_{298} = – 146.4 kJ·mol^{-1} [2] S^0_{298} = 50.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 45.3 J·mol^{-1}·K^{-1} (298 K) [2]

CoP_3 (s) Cobalt Phosphide **CoP_3 (s)**

$\Delta H^0_{298} = -280.3$ kJ·mol^{-1} [2] $S^0_{298} = 98.3$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 101.2$ J·mol^{-1}·K^{-1} (298 K) [2]

$CoS_{0.89}$ (s) Cobalt Sulfide **$CoS_{0.89}$ (s)**

$\Delta H^0_{298} = -94.6$ kJ·mol^{-1} [2] $S^0_{298} = 52.3$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 40.25 + 15.52 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1106 K) [4]

CoS_2 (s) Cobalt Sulfide **CoS_2 (s)**

$\Delta H^0_{298} = -153.1$ kJ·mol^{-1} [2] $S^0_{298} = 69$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 60.67 + 25.31 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1100 K) [4]

CoSb (s) Cobalt Antimonide **CoSb (s)**

mp = 1475 K (1202 °C)
$\Delta H^0_{298} = -42$ kJ·mol^{-1} [4] $S^0_{298} = 70.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 42.26 + 25.94 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1475 K) [4]

$CoSb_2$ (s) Cobalt Antimonide **$CoSb_2$ (s)**

mp = 1192 K (919 °C)
$\Delta H^0_{298} = -54$ kJ·mol^{-1} [4] $S^0_{298} = 120.3$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 64.85 + 33.18 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1192 K) [4]

$CoSb_3$ (s) Cobalt Antimonide **$CoSb_3$ (s)**

$\Delta H^0_{298} = -67$ kJ·mol^{-1} [4] $S^0_{298} = 161.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 87.86 + 40.38 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1132 K) [4]

$CoSe_{0.889}$ (s) Cobalt Selenide **$CoSe_{0.889}$ (s)**

$\Delta H^0_{298} = -52.7$ kJ·mol^{-1} [5] $S^0_{298} = [66.9]$ J·mol^{-1}·K^{-1} [5]

$CoSe_{1.11}$ (s) Cobalt Selenide **$CoSe_{1.11}$ (s)**

$\Delta H^0_{298} = -65.3$ kJ·mol^{-1} [5] $S^0_{298} = [72.4]$ J·mol^{-1}·K^{-1} [5]

$CoSe_{1.25}$ (s) Cobalt Selenide **$CoSe_{1.25}$ (s)**

$\Delta H^0_{298} = -72.4$ kJ·mol^{-1} [5] $S^0_{298} = [75.7]$ J·mol^{-1}·K^{-1} [5]

$CoSe_2$ (s) Cobalt Selenide **$CoSe_2$ (s)**

$\Delta H^0_{298} = -93.7$ kJ·mol^{-1} [5] $S^0_{298} = [96.2]$ J·mol^{-1}·K^{-1} [5]

CoSi (s) Cobalt Silicide **CoSi (s)**

mp = 1733 K (1460 °C)
$\Delta H^0_{298} = -95.1$ kJ·mol^{-1} [4] $S^0_{298} = 42.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 49.16 + 12.09 \cdot 10^{-3} \cdot T - 0.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1733 K) [4]

CoSi (s) Cobalt Silicide **CoSi (s)**

$\Delta H^0_{1733} = -9$ kJ·mol^{-1} [4] $S^0_{1733} = 142.4$ J·mol^{-1}·K^{-1} [4]

CoSi (l) Cobalt Silicide **CoSi (l)**

$\Delta H^0_{1733} = 60.2$ kJ·mol^{-1} [4] $S^0_{1733} = 182.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 87.36$ J·mol^{-1}·K^{-1} (1733 K) [4]

$CoSi_2$ (s) Cobalt Silicide **$CoSi_2$ (s)**

mp = 1601 K (1328 °C)
$\Delta H^0_{298} = -98.7$ kJ·mol^{-1} [4] $S^0_{298} = 64$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 70.86 + 18.66 \cdot 10^{-3} \cdot T - 0.99 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1601 K) [4]

$CoSi_2$ (s) Cobalt Silicide **$CoSi_2$ (s)**

$\Delta H^0_{1601} = 14$ kJ·mol^{-1} [4] $S^0_{1601} = 202$ J·mol^{-1}·K^{-1} [4]

$CoSi_2$ (l) Cobalt Silicide **$CoSi_2$ (l)**

ΔH^0_{1601} = 114 kJ·mol^{-1} [4] S^0_{1601} = 264.5 J·mol^{-1}·K^{-1} [4]
C_p^0= 116.11 J·mol^{-1}·K^{-1} (1601 K) [4]

CoSn (s) Cobalt Tin **CoSn (s)**

mp = 1209 K (936 °C)
ΔH^0_{298} = – 29.3 kJ·mol^{-1} [2] S^0_{298} = 71.5 J·mol^{-1}·K^{-1} [2]
C_p^0= 45.61 + 18.83 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1209 K) [4]

$CoTe_2$ (s) Cobalt Telluride **$CoTe_2$ (s)**

mp = 1050 K (777 °C)
ΔH^0_{298} = – 133.9 kJ·mol^{-1} [5] S^0_{298} = [110.9] J·mol^{-1}·K^{-1} [5]

Co_2I_4 (g) Cobalt Iodide **Co_2I_4 (g)**

ΔH^0_{298} = 54.1 kJ·mol^{-1} [284] S^0_{298} = 531 J·mol^{-1}·K^{-1} [284]
C_p^0= 132.94 + 0.04 ·10^{-3}·T – 0.47 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [284]

Co_2O_4Si (s) Cobalt Silicate **Co_2O_4Si (s)**
2CoO · SiO_2 (s) 2CoO · SiO_2 (s)

mp = 1688 K (1415 °C)
ΔH^0_{298} = – 1398.7 kJ·mol^{-1} [4] S^0_{298} = 158.6 J·mol^{-1}·K^{-1} [4]
C_p^0= 157.4 + 22.05 ·10^{-3}·T – 2.67 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1688 K) [4]

Co_2O_4Si (s) Cobalt Silicate **Co_2O_4Si (s)**
2CoO · SiO_2 (s) 2CoO · SiO_2 (s)

ΔH^0_{1688} = – 1156.9 kJ·mol^{-1} [4] S^0_{1688} = 447.6 J·mol^{-1}·K^{-1} [4]

Co_2O_4Si (l) Cobalt Silicate **Co_2O_4Si (l)**
2CoO · SiO_2 (l) 2CoO · SiO_2 (l)

ΔH^0_{1688} = – 1056.5 kJ·mol^{-1} [4] S^0_{1688} = 507.1 J·mol^{-1}·K^{-1} [4]
C_p^0= 242.67 J·mol^{-1}·K^{-1} (1688 K) [4]

Co_2O_4Ti (s) Cobalt Titanate **Co_2O_4Ti (s)**
$2CoO \cdot TiO_2$ (s) $2CoO \cdot TiO_2$ (s)

mp = 1835 K (1562 °C)
$\Delta H^0_{298} = -1447.2$ kJ·mol^{-1} [4] $S^0_{298} = 159$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 171.75 + 18.24 \cdot 10^{-3} \cdot T - 1.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1835 K) [4]

Co_2P (s) Cobalt Phosphide **Co_2P (s)**

mp = 1659 K (1386 °C)
$\Delta H^0_{298} = -188$ kJ·mol^{-1} [2] $S^0_{298} = 77.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 57.95 + 23.01 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1659 K) [4]

Co_2Si (s) Cobalt Silicide **Co_2Si (s)**

$\Delta H^0_{298} = -119.2$ kJ·mol^{-1} [44] $S^0_{298} = 73.3$ J·mol^{-1}·K^{-1} [44]
$C_p{}^0 = 70.75 + 27.11 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 K) [44]

Co_3N (s) Cobalt Nitride **Co_3N (s)**

$\Delta H^0_{298} = 8.4$ kJ·mol^{-1} [4] $S^0_{298} = 98.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 73.22 + 62.76 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 600 K) [4]

Co_3O_4 (s) Cobalt Oxide **Co_3O_4 (s)**

$\Delta H^0_{298} = -910 \pm 4$ kJ·mol^{-1} [1] $S^0_{298} = 114.3 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 131.65 + 66.02 \cdot 10^{-3} \cdot T - 2.48 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1226 K) [4]
$\lg(p,K) = -23.42 \cdot 10^3 \cdot T^{-1} - 2.53 \cdot \lg(T) + 26.91$ (900 ... 1226 K) [4]
{Reaction: decomposition $2Co_3O_4(s) = 6CoO(s) + O_2(g)$}

Co_3S_4 (s) Cobalt Sulfide **Co_3S_4 (s)**

$\Delta H^0_{298} = -359$ kJ·mol^{-1} [4] $S^0_{298} = 184.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 143.3 + 76.57 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 953 K) [4]

Cr (s) Chromium **Cr (s)**

mp = 2130 K (1857 °C) bp = 2952 K (2679 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 23.6 ± 0.2 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 24.51 + 2.05 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2} + 5.95 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2130 K) [4]

$\lg(p,K) = -21.92 \cdot 10^3 \cdot T^{-1} - 2.79 \cdot \lg(T) + 17.22$ (1300 ... 2130 K) [4]

{Reaction: evaporation as Cr(g)}

Cr (s) Chromium **Cr (s)**

ΔH^0_{2130} = 68.1 kJ·mol^{-1} [4] S^0_{2130} = 87.8 J·mol^{-1}·K^{-1} [4]

Cr (l) Chromium **Cr (l)**

ΔH^0_{2130} = 88.6 kJ·mol^{-1} [4] S^0_{2130} = 97.5 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$ = 39.33 J·mol^{-1}·K^{-1} (2130 K) [4]

$\lg(p,K) = -19.46 \cdot 10^3 \cdot T^{-1} - 1.36 \cdot \lg(T) + 11.31$ (2130 ... 2954 K) [4]

{Reaction: evaporation as Cr(g)}

Cr (l) Chromium **Cr (l)**

ΔH^0_{298} = 26.1 kJ·mol^{-1} [1] S^0_{298} = 36.2 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$ = 23.43 J·mol^{-1}·K^{-1} (298 K) [1]

Cr (g) Chromium **Cr (g)**

ΔH^0_{298} = 397.5 ± 4.2 kJ·mol^{-1} [1] S^0_{298} = 174.3 ± 0.4 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 20.98 - 1.99 \cdot 10^{-3} \cdot T + 0.04 \cdot 10^6 \cdot T^{-2} + 1.83 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

$CrCs_2O_4$ (s) Cesium Chromate(VI) **$CrCs_2O_4$ (s)**

$Cs_2O \cdot CrO_3$ (s) $Cs_2O \cdot CrO_3$ (s)

mp = 1248 K (975 °C)

ΔH^0_{298} = – 1429.3 kJ·mol^{-1} [4] S^0_{298} = 228.6 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 146.06 + 55.15 \cdot 10^{-3} \cdot T - 1.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1248 K) [4]

CrF_2 (s) Chromium(II) Fluoride **CrF_2 (s)**

mp = 1167 K (894 °C)
$\Delta H^0_{298} = -778.2$ kJ·mol^{-1} [2] $S^0_{298} = 86.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 66.4 + 17.5 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1167 K) [4]

CrF_3 (s) Chromium(III) Fluoride **CrF_3 (s)**

mp = 1680 K (1407 °C)
$\Delta H^0_{298} = -1173.2$ kJ·mol^{-1} [2] $S^0_{298} = 93.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 93.97 + 10.25 \cdot 10^{-3} \cdot T - 1.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1680 K) [4]

CrF_4 (s) Chromium(IV) Fluoride **CrF_4 (s)**

$\Delta H^0_{298} = -1246.8$ kJ·mol^{-1} [2] $S^0_{298} = 128.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 100.3$ J·mol^{-1}·K^{-1} (298 K) [2]

CrI_2 (s) Chromium(II) Iodide **CrI_2 (s)**

mp = 1066 K (793 °C)
$\Delta H^0_{298} = -158.2$ kJ·mol^{-1} [4] $S^0_{298} = 169$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 66.94 + 22.59 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1066 K) [4]
$\lg(p,K) = -16.08 \cdot 10^3 \cdot T^{-1} - 3.53 \cdot \lg(T) + 23.05$ (800 ... 1066 K) [4]
{Reaction: evaporation as CrI_2(g)}

CrI_2O (g) Chromium Iodide Oxide **CrI_2O (g)**
$CrOI_2$ (g) $CrOI_2$ (g)

$\Delta H^0_{298} = -215.1 \pm 20.9$ kJ·mol^{-1} [64] $S^0_{298} = 357.3$ J·mol^{-1}·K^{-1} [64]
$C_p^0 = 81.48 + 0.86 \cdot 10^{-3} \cdot T - 0.89 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [64]

CrI_2O_2 (g) Chromium Iodide Oxide **CrI_2O_2 (g)**
CrO_2I_2 (g) CrO_2I_2 (g)

$\Delta H^0_{298} = -330.1$ kJ·mol^{-1} [64] $S^0_{298} = 363.2$ J·mol^{-1}·K^{-1} [64]
$C_p^0 = 106.61 - 1.99 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [64]

CrI_3 (s) Chromium(III) Iodide **CrI_3 (s)**

$\Delta H^0_{298} = -205$ kJ·mol^{-1} [2] $S^0_{298} = 199.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 105.44 + 20.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 900 K) [4]

CrK_2O_4 (s) Potassium Chromate(VI) **CrK_2O_4 (s)**

K_2CrO_4 (s) alpha K_2CrO_4 (s)

mp = 1250 K (977 °C)

$\Delta H^0_{298} = -1403.7$ kJ·mol^{-1} [2] $S^0_{298} = 200.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 123.72 + 74.89 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 939 K) [4]

CrK_2O_4 (s) Potassium Chromate(VI) **CrK_2O_4 (s)**

K_2CrO_4 (s) alpha K_2CrO_4 (s)

$\Delta H^0_{939} = -1294.8$ kJ·mol^{-1} [4] $S^0_{939} = 390.1$ J·mol^{-1}·K^{-1} [4]

CrK_2O_4 (s) Potassium Chromate(VI) **CrK_2O_4 (s)**

K_2CrO_4 (s) beta K_2CrO_4 (s)

$\Delta H^0_{939} = -1284.7$ kJ·mol^{-1} [4] $S^0_{939} = 400.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 148.53 + 50.21 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (939 ... 1250 K) [4]

CrK_2O_4 (s) Potassium Chromate(VI) **CrK_2O_4 (s)**

K_2CrO_4 (s) beta K_2CrO_4 (s)

$\Delta H^0_{1250} = -1224.4$ kJ·mol^{-1} [4] $S^0_{1250} = 458.9$ J·mol^{-1}·K^{-1} [4]

CrK_2O_4 (l) Potassium Chromate(VI) **CrK_2O_4 (l)**

K_2CrO_4 (l) K_2CrO_4 (l)

$\Delta H^0_{1250} = -1189.6$ kJ·mol^{-1} [4] $S^0_{1250} = 484.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 209.2$ J·mol^{-1}·K^{-1} (1250 K) [4]

$CrLi_2O_4$ (s) Lithium Chromate(VI) **$CrLi_2O_4$ (s)**
Li_2CrO_4 (s) Li_2CrO_4 (s)

$\Delta H^0_{298} = -1393.7 \pm 0.3$ kJ·mol^{-1} [84] S^0_{298} = [143] J·mol^{-1}·K^{-1} [85]
C_p^0= [130.12] J·mol^{-1}·K^{-1} (298 K) [188]

CrN (s) Chromium Nitride **CrN (s)**

$\Delta H^0_{298} = -117.2 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 37.7 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 44.43 + 8.1 \cdot 10^{-3} \cdot T + 0.37 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1373 K) [4]

CrN (g) Chromium Nitride **CrN (g)**

$\Delta H^0_{298} = 505 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 230.6 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
C_p^0= 30.75 J·mol^{-1}·K^{-1} (298 K) [1]

$CrNaO_2$ (s) Sodium Chromate(III) **$CrNaO_2$ (s)**
$NaCrO_2$ (s) $NaCrO_2$ (s)

$\Delta H^0_{298} = -818.7$ kJ·mol^{-1} [2] S^0_{298} = 77.4 J·mol^{-1}·K^{-1} [2]
C_p^0= 89.4 J·mol^{-1}·K^{-1} (298 K) [2]

$CrNa_2O_4$ (s) Sodium Chromate(VI) **$CrNa_2O_4$ (s)**
Na_2CrO_4 (s) alpha Na_2CrO_4 (s)

mp = 1070 K (797 °C)
$\Delta H^0_{298} = -1334.3$ kJ·mol^{-1} [4] S^0_{298} = 176.6 J·mol^{-1}·K^{-1} [2]
$C_p^0 = 101.04 + 140 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 694 K) [4]

$CrNa_2O_4$ (s) Sodium Chromate(VI) **$CrNa_2O_4$ (s)**
Na_2CrO_4 (s) alpha Na_2CrO_4 (s)

$\Delta H^0_{694} = -1266.8$ kJ·mol^{-1} [4] S^0_{694} = 317.4 J·mol^{-1}·K^{-1} [4]

$CrNa_2O_4$ (s) Sodium Chromate(VI) **$CrNa_2O_4$ (s)**
Na_2CrO_4 (s) beta Na_2CrO_4 (s)

$\Delta H^0_{694} = -1257.2$ kJ·mol^{-1} [4] $S^0_{694} = 331.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 149.96 + 51.59 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (694 ... 1070 K) [4]

$CrNa_2O_4$ (s) Sodium Chromate(VI) **$CrNa_2O_4$ (s)**
Na_2CrO_4 (s) beta Na_2CrO_4 (s)

$\Delta H^0_{1070} = -1183.7$ kJ·mol^{-1} [4] $S^0_{1070} = 415.5$ J·mol^{-1}·K^{-1} [4]

$CrNa_2O_4$ (l) Sodium Chromate(VI) **$CrNa_2O_4$ (l)**
Na_2CrO_4 (l) Na_2CrO_4 (l)

$\Delta H^0_{1070} = -1159.4$ kJ·mol^{-1} [4] $S^0_{1070} = 438.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 204.6$ J·mol^{-1}·K^{-1} (1070 K) [4]

CrO (g) Chromium(II) Oxide **CrO (g)**

$\Delta H^0_{298} = 188.3 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 239.3 \pm 6.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 35.42 + 1.41 \cdot 10^{-3} \cdot T - 0.4 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CrO_2 (s) Chromium(IV) Oxide **CrO_2 (s)**

$\Delta H^0_{298} = -597.9$ kJ·mol^{-1} [2] $S^0_{298} = 51$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 99.7$ J·mol^{-1}·K^{-1} (298 K) [2]

CrO_2 (g) Chromium(IV) Oxide **CrO_2 (g)**

$\Delta H^0_{298} = -75.3 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 269.2 \pm 12.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 52.84 + 2.75 \cdot 10^{-3} \cdot T - 0.91 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CrO_3 (s) Chromium(VI) Oxide **CrO_3 (s)**

mp = 470 K (197 °C)
$\Delta H^0_{298} = -587$ kJ·mol^{-1} [4] $S^0_{298} = 73.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 71.76 + 87.87 \cdot 10^{-3} \cdot T - 1.67 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 470 K) [4]

CrO_3 (g) Chromium(VI) Oxide **CrO_3 (g)**

$\Delta H^0_{298} = -292.9 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 266.2 \pm 16.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 75.71 + 3.84 \cdot 10^{-3} \cdot T - 1.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CrO_4Pb (s) Lead Chromate(VI) **CrO_4Pb (s)**
$PbCrO_4$ (s) $PbCrO_4$ (s)

$\Delta H^0_{298} = -931$ kJ·mol^{-1} [7] $S^0_{298} = [178.9]$ J·mol^{-1}·K^{-1} [138]
$C_p^0 = [117.57]$ J·mol^{-1}·K^{-1} (298 K) [188]

CrO_4Rb_2 (s) Rubidium Chromate(VI) **CrO_4Rb_2 (s)**
Rb_2CrO_4 (s) Rb_2CrO_4 (s)

$\Delta H^0_{298} = -1410.8 \pm 1.9$ kJ·mol^{-1} [118] $S^0_{298} = 215.6 \pm 2.5$ J·mol^{-1}·K^{-1} [118]
$C_p^0 = 146$ J·mol^{-1}·K^{-1} (298 K) [118]

CrS (s) Chromium Sulfide **CrS (s)**

mp = 1838 K (1565 °C)
$\Delta H^0_{298} = -155.6$ kJ·mol^{-1} [2] $S^0_{298} = 64$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 32.84 + 46.72 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1838 K) [4]

CrS (g) Chromium Sulfide **CrS (g)**

$\Delta H^0_{298} = 347.2$ kJ·mol^{-1} [4] $S^0_{298} = 251.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.06 + 0.18 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CrS_{1.17}$ (s) Chromium Sulfide **$CrS_{1.17}$ (s)**

$\Delta H^0_{298} = -165.3$ kJ·mol^{-1} [2] $S^0_{298} = 69.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 60.5$ J·mol^{-1}·K^{-1} (298 K) [2]

$CrS_{1.2}$ (s) Chromium Sulfide **$CrS_{1.2}$ (s)**

$\Delta H^0_{298} = [-148.5]$ kJ·mol^{-1} [5] $S^0_{298} = [70.7]$ J·mol^{-1}·K^{-1} [5]

$CrS_{1.333}$ (s) Chromium Sulfide **$CrS_{1.333}$ (s)**

ΔH^0_{298} = [– 156.1] kJ·mol^{-1} [5] S^0_{298} = [71.5] J·mol^{-1}·K^{-1} [5]

CrSi (s) Chromium Silicide **CrSi (s)**

mp = 1686 K (1413 °C)
ΔH^0_{298} = – 54.8 kJ·mol^{-1} [4] S^0_{298} = 43.7 J·mol^{-1}·K^{-1} [4]
C_p^0= 52.01 + 8.75 ·10^{-3}·T – 0.84 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1686 K) [4]

$CrSi_2$ (s) Chromium Silicide **$CrSi_2$ (s)**

mp = 1763 K (1490 °C)
ΔH^0_{298} = – 79.9 kJ·mol^{-1} [4] S^0_{298} = 58.6 J·mol^{-1}·K^{-1} [4]
C_p^0= 65.61 + 22.51 ·10^{-3}·T – 0.78 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1763 K) [4]

$CrSi_2$ (s) Chromium Silicide **$CrSi_2$ (s)**

ΔH^0_{1763} = 48 kJ·mol^{-1} [4] S^0_{1763} = 203.9 J·mol^{-1}·K^{-1} [4]

$CrSi_2$ (l) Chromium Silicide **$CrSi_2$ (l)**

ΔH^0_{1763} = 175.8 kJ·mol^{-1} [4] S^0_{1763} = 276.4 J·mol^{-1}·K^{-1} [4]
C_p^0= 89.96 J·mol^{-1}·K^{-1} (1763 K) [4]

Cr_2 (g) Chromium **Cr_2 (g)**

ΔH^0_{298} = 653.4 ± 3.7 kJ·mol^{-1} [131] S^0_{298} = 228.9 J·mol^{-1}·K^{-1} [131]
C_p^0= 34.65 J·mol^{-1}·K^{-1} (298 K) [131]

Cr_2CuO_4 (s) Copper Chromate(III) **Cr_2CuO_4 (s)**
CuO · Cr_2O_3 (s) CuO · Cr_2O_3 (s)

ΔH^0_{298} = – 1293.5 kJ·mol^{-1} [4] S^0_{298} = 130.5 J·mol^{-1}·K^{-1} [4]
C_p^0= 166.31 + 20.92 ·10^{-3}·T – 2.18 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1400 K) [4]

Cr_2FeO_4 (s) Iron Chromate(III) **Cr_2FeO_4 (s)**

$FeO \cdot Cr_2O_3$ (s) $FeO \cdot Cr_2O_3$ (s)

mp = 1898 K (1625 °C)

$\Delta H^0_{298} = -1458.6$ kJ·mol^{-1} [4] $S^0_{298} = 146.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 163.01 + 22.34 \cdot 10^{-3} \cdot T - 3.19 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1898 K) [4]

Cr_2I_4 (g) Chromium(II) Iodide **Cr_2I_4 (g)**

$\Delta H^0_{298} = 15.9$ kJ·mol^{-1} [284] $S^0_{298} = 532$ J·mol^{-1}·K^{-1} [284]

$C_p{}^0 = 132.92 + 0.06 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [284]

$Cr_2K_2O_7$ (s) Potassium Dichromate **$Cr_2K_2O_7$ (s)**

$K_2Cr_2O_7$ (s) $K_2Cr_2O_7$ (s)

$\Delta H^0_{298} = -2062$ kJ·mol^{-1} [7] $S^0_{298} = 291$ J·mol^{-1}·K^{-1} [7]

$C_p{}^0 = 219$ J·mol^{-1}·K^{-1} (298 K) [7]

Cr_2MgO_4 (s) Magnesium Chromate(III) **Cr_2MgO_4 (s)**

$MgO \cdot Cr_2O_3$ (s) $MgO \cdot Cr_2O_3$ (s)

mp = 2623 K (2350 °C)

$\Delta H^0_{298} = -1777.8$ kJ·mol^{-1} [4] $S^0_{298} = 105.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 167.44 + 14.9 \cdot 10^{-3} \cdot T - 4.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cr_2N (s) Chromium Nitride **Cr_2N (s)**

$\Delta H^0_{298} = -125.5 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 64.9 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 65.15 + 26.23 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1785 K) [4]

$Cr_2Na_2O_4$ (s) Sodium Chromate(III) **$Cr_2Na_2O_4$ (s)**

$Na_2O \cdot Cr_2O_3$ (s) $Na_2O \cdot Cr_2O_3$ (s)

$\Delta H^0_{298} = -1758.5$ kJ·mol^{-1} [4] $S^0_{298} = 166.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 189.12 + 30.13 \cdot 10^{-3} \cdot T - 1.72 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

$Cr_2Na_2O_7$ (s) Sodium Dichromate **$Cr_2Na_2O_7$ (s)**

$Na_2Cr_2O_7$ (s) $Na_2Cr_2O_7$ (s)

$\Delta H^0_{298} = -1979$ kJ·mol^{-1} [7] $S^0_{298} = [276.8]$ J·mol^{-1}·K^{-1} [186]

Cr_2Nb (s) Niobium Chromium **Cr_2Nb (s)**

$NbCr_2$ (s) $NbCr_2$ (s)

$\Delta H^0_{298} = -20.9$ kJ·mol^{-1} [2] $S^0_{298} = 83.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 74.27 + 23.77 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [3]

Cr_2NiO_4 (s) Nickel Chromate(III) **Cr_2NiO_4 (s)**

$NiO \cdot Cr_2O_3$ (s) $NiO \cdot Cr_2O_3$ (s)

$\Delta H^0_{298} = -1392.4$ kJ·mol^{-1} [4] $S^0_{298} = 129.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 167.15 + 17.87 \cdot 10^{-3} \cdot T - 2.11 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

Cr_2O_3 (s) Chromium(III) Oxide **Cr_2O_3 (s)**

mp = 2603 K (2330 °C)

$\Delta H^0_{298} = -1134.7 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 81.2 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 109.65 + 15.46 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cr_2O_3 (l) Chromium(III) Oxide **Cr_2O_3 (l)**

$\Delta H^0_{298} = -1018.4$ kJ·mol^{-1} [1] $S^0_{298} = 125.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 101.76$ J·mol^{-1}·K^{-1} (298 K) [1]

Cr_2O_4Zn (s) Zinc Chromate(III) **Cr_2O_4Zn (s)**

$ZnO \cdot Cr_2O_3$ (s) $ZnO \cdot Cr_2O_3$ (s)

$\Delta H^0_{298} = -1553.9$ kJ·mol^{-1} [4] $S^0_{298} = 116.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 167.36 + 14.23 \cdot 10^{-3} \cdot T - 2.51 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

$Cr_2O_{12}S_3$ (s) Chromium(III) Sulfate **$Cr_2O_{12}S_3$ (s)**

$Cr_2(SO_4)_3$ (s) $Cr_2(SO_4)_3$ (s)

$\Delta H^0_{298} = -2931.3$ kJ·mol^{-1} [4] $S^0_{298} = 258.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 358.07 + 79.5 \cdot 10^{-3} \cdot T - 8.98 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1010 K) [4]

Cr_2S_3 (s) Chromium(III) Sulfide **Cr_2S_3 (s)**

$\Delta H^0_{298} = [-334.7]$ kJ·mol^{-1} [5] $S^0_{298} = [148.9]$ J·mol^{-1}·K^{-1} [5]

Cr_2Ta (s) Tantalum Chromium **Cr_2Ta (s)**

$TaCr_2$ (s) $TaCr_2$ (s)

mp = 2293 K (2020 °C)

$\Delta H^0_{298} = -27$ kJ·mol^{-1} [2] $S^0_{298} = 88.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 73.85 + 22.8 \cdot 10^{-3} \cdot T - 0.72 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1968 K) [4]

$Cr_3La_2O_{12}$ (s) Lanthanum Chromate(VI) **$Cr_3La_2O_{12}$ (s)**

$La_2(CrO_4)_3$ (s) $La_2(CrO_4)_3$ (s)

$\Delta H^0_{298} = -3962.2$ kJ·mol^{-1} [96] $S^0_{298} = [457.5]$ J·mol^{-1}·K^{-1} [85, 87]

Cr_3Si (s) Chromium Silicide **Cr_3Si (s)**

mp = 2043 K (1770 °C)

$\Delta H^0_{298} = -92.1$ kJ·mol^{-1} [4] $S^0_{298} = 85.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 82.22 + 42.38 \cdot 10^{-3} \cdot T - 0.43 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2043 K) [4]

Cr_5Si_3 (s) Chromium Silicide **Cr_5Si_3 (s)**

mp = 1953 K (1680 °C)

$\Delta H^0_{298} = -211.3$ kJ·mol^{-1} [4] $S^0_{298} = 169$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 198.57 + 49.29 \cdot 10^{-3} \cdot T - 2.56 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1300 K) [4]

Cs (s) Cesium **Cs (s)**

mp = 302 K (29 °C) bp = 930 K (657 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 85.2 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 32.34$ J·mol^{-1}·K^{-1} (298 K) [4]

Cs (s) Cesium **Cs (s)**

$\Delta H^0_{302} = 0.1$ kJ·mol^{-1} [4] $S^0_{302} = 85.6$ J·mol^{-1}·K^{-1} [4]

Cs (l) Cesium **Cs (l)**

$\Delta H^0_{302} = 2.2$ kJ·mol^{-1} [4] $S^0_{302} = 92.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 29.91 + 0.88 \cdot 10^{-3} \cdot T + 0.2 \cdot 10^{6} \cdot T^{-2} + 0.01 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (302 ... 930 K) [4]

Cs (l) Cesium **Cs (l)**

$\Delta H^0_{298} = 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 92.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 29.91 + 0.88 \cdot 10^{-3} \cdot T + 0.2 \cdot 10^{6} \cdot T^{-2} + 0.01 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (302 ... 930 K) [4]

Cs (g) Cesium **Cs (g)**

$\Delta H^0_{298} = 76.5 \pm 1$ kJ·mol^{-1} [1] $S^0_{298} = 175.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 20.79$ J·mol^{-1}·K^{-1} (298 K) [1]
$\lg(p,K) = -4.15 \cdot 10^{3} \cdot T^{-1} - 1.39 \cdot \lg(T) + 8.77$ (298 ... 302 K) [4]
{Reaction: evaporation of Cs(l)}

CsF (s) Cesium Fluoride **CsF (s)**

mp = 976 K (703 °C) bp = 1502 K (1229 °C)
$\Delta H^0_{298} = -553.5$ kJ·mol^{-1} [4] $S^0_{298} = 93$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 10.3 + 96.13 \cdot 10^{-3} \cdot T + 1.08 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 976 K) [4]

CsF (s) Cesium Fluoride **CsF (s)**

$\Delta H^0_{976} = -510.3$ kJ·mol^{-1} [4] $S^0_{976} = 175.9$ J·mol^{-1}·K^{-1} [4]

CsF (l) Cesium Fluoride **CsF (l)**

$\Delta H^0_{976} = -480.8$ kJ·mol^{-1} [4] $S^0_{976} = 198.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 74.89$ J·mol^{-1}·K^{-1} (976 K) [4]

CsF (l) Cesium Fluoride **CsF (l)**

$\Delta H^0_{298} = -543.8$ kJ·mol^{-1} [1] $S^0_{298} = 90.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 74.06$ J·mol^{-1}·K^{-1} (298 K) [1]

CsF (g) Cesium Fluoride **CsF (g)**

$\Delta H^0_{298} = -374.2$ kJ·mol^{-1} [4] $S^0_{298} = 243.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.34 + 0.61 \cdot 10^{-3} \cdot T - 0.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -10.65 \cdot 10^3 \cdot T^{-1} - 6.08 \cdot \lg(T) + 26.68$ (600 ... 976 K) [4]
{Reaction: evaporation of CsF(s)}

CsF_6U (s) Cesium Uranium Fluoride **CsF_6U (s)**
$CsUF_6$ (s) $CsUF_6$ (s)

$\Delta H^0_{298} = -2756 \pm 5$ kJ·mol^{-1} [245] $S^0_{298} = [272.5]$ J·mol^{-1}·K^{-1} [250, 8]
$C_p{}^0 = [183.38]$ J·mol^{-1}·K^{-1} (298 K) [271]

CsH (s) Cesium Hydride **CsH (s)**

$\Delta H^0_{298} = -54.01$ kJ·mol^{-1} [4] $S^0_{298} = 66.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 31.17 + 35.56 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 619 K) [4]

CsH (g) Cesium Hydride **CsH (g)**

$\Delta H^0_{298} = 116.9$ kJ·mol^{-1} [4] $S^0_{298} = 215.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.78 + 0.56 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CsHO (s) Cesium Hydroxide **CsHO (s)**
CsOH (s) CsOH (s)

mp = 588 K (315 °C)
$\Delta H^0_{298} = -416.7 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 98.7 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 54.65 + 52.93 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 410 K) [4]

CsHO (l) Cesium Hydroxide **CsHO (l)**
CsOH (l) CsOH (l)

$\Delta H^0_{298} = -406$ kJ·mol^{-1} [1] $S^0_{298} = 118.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 81.59$ J·mol^{-1}·K^{-1} (298 K) [1]

CsHO (g) Cesium Hydroxide **CsHO (g)**
CsOH (g) CsOH (g)

$\Delta H^0_{298} = -259.4 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 254.8 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 51.05 + 4.06 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -8.03 \cdot 10^{3} \cdot T^{-1} - 3.27 \cdot \lg(T) + 16.5$ (588 ... 1253 K) [4]
{Reaction: evaporation of CsOH(l)}

CsI (s) Cesium Iodide **CsI (s)**

mp = 905 K (632 °C) bp = 1556 K (1283 °C)
$\Delta H^0_{298} = -346.4$ kJ·mol^{-1} [4] $S^0_{298} = 122.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.62 + 30.92 \cdot 10^{-3} \cdot T + 0.51 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 905 K) [4]
$\lg(p,K) = -10.66 \cdot 10^{3} \cdot T^{-1} - 2.95 \cdot \lg(T) + 16.94$ (700 ... 905 K) [4]
{Reaction: evaporation as CsI(g)}

CsI (s) Cesium Iodide **CsI (s)**

$\Delta H^0_{905} = -311.2$ kJ·mol^{-1} [4] $S^0_{905} = 185.3$ J·mol^{-1}·K^{-1} [4]

CsI (l) Cesium Iodide **CsI (l)**

$\Delta H^0_{905} = -285.7$ kJ·mol^{-1} [4] $S^0_{905} = 213.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 71.23$ J·mol^{-1}·K^{-1} (905 K) [4]
$\lg(p,K) = -9.69 \cdot 10^{3} \cdot T^{-1} - 3.9 \cdot \lg(T) + 18.68$ (905 ... 1556 K) [4]
{Reaction: evaporation as CsI(g)}

CsI (g) Cesium Iodide **CsI (g)**

$\Delta H^0_{298} = -152.8$ kJ·mol^{-1} [4] $S^0_{298} = 275.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 38.92 - 0.13 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CsNO_2$ (s) Cesium Nitrite **$CsNO_2$ (s)**

mp = 679 K (406 °C)
ΔH^0_{298} = – 369.5 kJ·mol^{-1} [4] S^0_{298} = 181.2 J·mol^{-1}·K^{-1} [4]
C_p^0= 91.76 J·mol^{-1}·K^{-1} (298 K) [4]

$CsNO_3$ (s) Cesium Nitrate alpha **$CsNO_3$ (s)**

mp = 680 K (407 °C)
ΔH^0_{298} = – 505.8 kJ·mol^{-1} [4] S^0_{298} = 153.7 J·mol^{-1}·K^{-1} [4]
C_p^0= 62.76 + 110.46 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 426 K) [4]

$CsNO_3$ (s) Cesium Nitrate alpha **$CsNO_3$ (s)**

ΔH^0_{426} = – 492.7 kJ·mol^{-1} [4] S^0_{426} = 190.2 J·mol^{-1}·K^{-1} [4]

$CsNO_3$ (s) Cesium Nitrate beta **$CsNO_3$ (s)**

ΔH^0_{426} = – 488.9 kJ·mol^{-1} [4] S^0_{426} = 199.1 J·mol^{-1}·K^{-1} [4]
C_p^0= 126.36 J·mol^{-1}·K^{-1} (426 K) [4]

$CsNO_3$ (s) Cesium Nitrate beta **$CsNO_3$ (s)**

ΔH^0_{680} = – 456.8 kJ·mol^{-1} [4] S^0_{680} = 258.2 J·mol^{-1}·K^{-1} [4]

$CsNO_3$ (l) Cesium Nitrate **$CsNO_3$ (l)**

ΔH^0_{680} = – 442.8 kJ·mol^{-1} [4] S^0_{680} = 278.8 J·mol^{-1}·K^{-1} [4]
C_p^0= 135.98 J·mol^{-1}·K^{-1} (680 K) [4]

CsO (g) Cesium Oxide **CsO (g)**

ΔH^0_{298} = 62.8 ± 41.8 kJ·mol^{-1} [1] S^0_{298} = 225.5 ± 4.2 J·mol^{-1}·K^{-1} [1]
C_p^0= 36.48 J·mol^{-1}·K^{-1} (298 K) [1]

CsO_2 (s) Cesium Superoxide **CsO_2 (s)**

mp = 830 K (557 °C)

$\Delta H^0_{298} = -286.2$ kJ·mol^{-1} [2] $S^0_{298} = 142.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 72.38 + 30.96 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 830 K) [4]

Cs_2 (g) Cesium **Cs_2 (g)**

$\Delta H^0_{298} = 107.4 \pm 0.3$ kJ·mol^{-1} [1] $S^0_{298} = 284.7 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 37.24 + 2.73 \cdot 10^{-3} \cdot T + 0.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -5.7 \cdot 10^3 \cdot T^{-1} - 2.93 \cdot \lg(T) + 13.78$ (400 ... 930 K) [4]

{Reaction: evaporation of Cs(l)}

Cs_2F_2 (g) Cesium Fluoride **Cs_2F_2 (g)**

$(CsF)_2$ (g) $(CsF)_2$ (g)

$\Delta H^0_{298} = -922.2$ kJ·mol^{-1} [4] $S^0_{298} = 352.3 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 83.08 + 0.02 \cdot 10^{-3} \cdot T + 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -12.14 \cdot 10^3 \cdot T^{-1} - 11.14 \cdot \lg(T) + 43.5$ (600 ... 976 K) [4]

{Reaction: evaporation of CsF(s)}

$Cs_2H_2O_2$ (g) Cesium Hydroxide **$Cs_2H_2O_2$ (g)**

$(CsOH)_2$ (g) $(CsOH)_2$ (g)

$\Delta H^0_{298} = -687.8 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 360.7 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 96.43 + 14.95 \cdot 10^{-3} \cdot T - 1.87 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -7.11 \cdot 10^3 \cdot T^{-1} - 6.76 \cdot \lg(T) + 25.51$ (588 ... 1253 K) [4]

{Reaction: evaporation of CsOH(l)}

Cs_2I_2 (g) Cesium Iodide **Cs_2I_2 (g)**

$(CsI)_2$ (g) $(CsI)_2$ (g)

$\Delta H^0_{298} = -466.4 \pm 1.1$ kJ·mol^{-1} [12] $S^0_{298} = [429.8]$ J·mol^{-1}·K^{-1} [13]

Cs_2MnO_4 (s) Cesium Manganate(VI) **Cs_2MnO_4 (s)**

$\Delta H^0_{298} = -1188.3 \pm 3$ kJ·mol^{-1} [139] $S^0_{298} = [228]$ J·mol^{-1}·K^{-1} [140]

Cs_2MoO_4 (s)	Cesium Molybdate	Cs_2MoO_4 (s)
$Cs_2O \cdot MoO_3$ (s)	alpha	$Cs_2O \cdot MoO_3$ (s)

mp = 1230 K (957 °C)
$\Delta H^0_{298} = -\ 1507.1$ kJ·mol^{-1} [4] | $S^0_{298} = 248.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 116.4 + 108.24 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 841 K) [4]

Cs_2MoO_4 (s)	Cesium Molybdate	Cs_2MoO_4 (s)
$Cs_2O \cdot MoO_3$ (s)	alpha	$Cs_2O \cdot MoO_3$ (s)

$\Delta H^0_{841} = -\ 1410.4$ kJ·mol^{-1} [4] | $S^0_{841} = 427.8$ J·mol^{-1}·K^{-1} [4]

Cs_2MoO_4 (s)	Cesium Molybdate	Cs_2MoO_4 (s)
$Cs_2O \cdot MoO_3$ (s)	beta	$Cs_2O \cdot MoO_3$ (s)

$\Delta H^0_{841} = -\ 1405.8$ kJ·mol^{-1} [4] | $S^0_{841} = 433.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 122.17 + 97.07 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (841 ... 1230 K) [4]

Cs_2MoO_4 (s)	Cesium Molybdate	Cs_2MoO_4 (s)
$Cs_2O \cdot MoO_3$ (s)	beta	$Cs_2O \cdot MoO_3$ (s)

$\Delta H^0_{1230} = -\ 1319.2$ kJ·mol^{-1} [4] | $S^0_{1230} = 517.5$ J·mol^{-1}·K^{-1} [4]

Cs_2MoO_4 (l)	Cesium Molybdate	Cs_2MoO_4 (l)
$Cs_2O \cdot MoO_3$ (l)		$Cs_2O \cdot MoO_3$ (l)

$\Delta H^0_{1230} = -\ 1287.4$ kJ·mol^{-1} [4] | $S^0_{1230} = 543.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 210.04$ J·mol^{-1}·K^{-1} (1230 K) [4]

Cs_2NpO_4 (s)	Cesium Neptunium Oxide	Cs_2NpO_4 (s)
$Cs_2O \cdot NpO_3$ (s)		$Cs_2O \cdot NpO_3$ (s)

$\Delta H^0_{298} = -\ 1789.3$ kJ·mol^{-1} [14] | $S^0_{298} = [245.7]$ J·mol^{-1}·K^{-1} [233, 8]
$C_p{}^0 = [157.06]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cs_2O (s) Cesium Oxide **Cs_2O (s)**

mp = 768 K (495 °C)
ΔH^0_{298} = – 346 kJ·mol^{-1} [2] S^0_{298} = 146.9 J·mol^{-1}·K^{-1} [2]
C_p^0= 66.36 + 32.01 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 768 K) [4]

Cs_2O (g) Cesium Oxide **Cs_2O (g)**

ΔH^0_{298} = – 92 ± 41.8 kJ·mol^{-1} [1] S^0_{298} = 318.1 ± 8.4 J·mol^{-1}·K^{-1} [1]
C_p^0= 58.07 + 0.08 ·10^{-3}·T – 0.24 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Cs_2O_3Si (s) Cesium Silicate **Cs_2O_3Si (s)**
$Cs_2O \cdot SiO_2$ (s) $Cs_2O \cdot SiO_2$ (s)

mp = 1100 K (827 °C)
ΔH^0_{298} = – 1558.1 kJ·mol^{-1} [4] S^0_{298} = 175.7 J·mol^{-1}·K^{-1} [4]
C_p^0= 113.72 + 74.64 ·10^{-3}·T – 1.22 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1100 K) [4]

Cs_2O_3Si (s) Cesium Silicate **Cs_2O_3Si (s)**
$Cs_2O \cdot SiO_2$ (s) $Cs_2O \cdot SiO_2$ (s)

ΔH^0_{1100} = – 1428.1 kJ·mol^{-1} [4] S^0_{1100} = 377.7 J·mol^{-1}·K^{-1} [4]

Cs_2O_3Si (l) Cesium Silicate **Cs_2O_3Si (l)**
$Cs_2O \cdot SiO_2$ (l) $Cs_2O \cdot SiO_2$ (l)

ΔH^0_{1100} = – 1388.3 kJ·mol^{-1} [4] S^0_{1100} = 413.8 J·mol^{-1}·K^{-1} [4]
C_p^0= 194.56 J·mol^{-1}·K^{-1} (1100 K) [4]

Cs_2O_3Te (s) Cesium Tellurium Oxide **Cs_2O_3Te (s)**
$Cs_2O \cdot TeO_2$ (s) $Cs_2O \cdot TeO_2$ (s)

ΔH^0_{298} = – 993.2 ± 3.4 kJ·mol^{-1} [144] S^0_{298} = [221.2] J·mol^{-1}·K^{-1} [145]
C_p^0= [139.79] J·mol^{-1}·K^{-1} (298 K) [271]

Cs_2O_3Zr (s) Cesium Zirconium Oxide **Cs_2O_3Zr (s)**

$Cs_2O \cdot ZrO_2$ (s) $Cs_2O \cdot ZrO_2$ (s)

$\Delta H^0_{298} = -1584.8 \pm 1.9$ kJ·mol^{-1} [148] S^0_{298} = [197.3] J·mol^{-1}·K^{-1} [149]

C_p^0= [132.12] J·mol^{-1}·K^{-1} (298 K) [271]

Cs_2O_4Ru (s) Cesium Ruthenium Oxide **Cs_2O_4Ru (s)**

$Cs_2O \cdot RuO_3$ (s) $Cs_2O \cdot RuO_3$ (s)

$\Delta H^0_{298} = -946.6 \pm 5.3$ kJ·mol^{-1} [236] S^0_{298} = [224.7] J·mol^{-1}·K^{-1} [237, 8]

Cs_2O_4S (s) Cesium Sulfate **Cs_2O_4S (s)**

Cs_2SO_4 (s) alpha Cs_2SO_4 (s)

mp = 1278 K (1005 °C)

$\Delta H^0_{298} = -1442.6 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 211.9 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 85.48 + 151.04 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 940 K) [4]

Cs_2O_4S (s) Cesium Sulfate **Cs_2O_4S (s)**

Cs_2SO_4 (s) alpha Cs_2SO_4 (s)

$\Delta H^0_{940} = -1327.8$ kJ·mol^{-1} [4] $S^0_{940} = 407$ J·mol^{-1}·K^{-1} [4]

Cs_2O_4S (s) Cesium Sulfate **Cs_2O_4S (s)**

Cs_2SO_4 (s) beta Cs_2SO_4 (s)

$\Delta H^0_{940} = -1323.4$ kJ·mol^{-1} [4] $S^0_{940} = 411.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 36.4 + 158.16 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (940 ... 1278 K) [4]

Cs_2O_4S (s) Cesium Sulfate **Cs_2O_4S (s)**

Cs_2SO_4 (s) beta Cs_2SO_4 (s)

$\Delta H^0_{1278} = -1251.9$ kJ·mol^{-1} [4] $S^0_{1278} = 476.2$ J·mol^{-1}·K^{-1} [4]

Cs_2O_4S (l) Cesium Sulfate **Cs_2O_4S (l)**

Cs_2SO_4 (l) Cs_2SO_4 (l)

$\Delta H^0_{1278} = -1216.2$ kJ·mol^{-1} [4] $S^0_{1278} = 504.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 207.11$ J·mol^{-1}·K^{-1} (1278 K) [4]

Cs_2O_4S (l) Cesium Sulfate **Cs_2O_4S (l)**

Cs_2SO_4 (l) Cs_2SO_4 (l)

$\Delta H^0_{298} = -1400.1$ kJ·mol^{-1} [1] $S^0_{298} = 246.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 135.1$ J·mol^{-1}·K^{-1} (298 K) [1]

Cs_2O_4S (g) Cesium Sulfate **Cs_2O_4S (g)**

Cs_2SO_4 (g) Cs_2SO_4 (g)

$\Delta H^0_{298} = -1122.6 \pm 17$ kJ·mol^{-1} [1] $S^0_{298} = 406.5 \pm 2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 145.37 + 6.52 \cdot 10^{-3} \cdot T - 3.63 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2292 K) [4]

Cs_2O_4U (s) Cesium Uranate **Cs_2O_4U (s)**

$Cs_2O \cdot UO_3$ (s) $Cs_2O \cdot UO_3$ (s)

$\Delta H^0_{298} = -1926.3$ kJ·mol^{-1} [4] $S^0_{298} = 219.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 164.85 + 17.03 \cdot 10^{-3} \cdot T - 1.53 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 100 K) [4]

$Cs_2O_5Si_2$ (s) Cesium Silicate **$Cs_2O_5Si_2$ (s)**

$Cs_2O \cdot 2SiO_2$ (s) $Cs_2O \cdot 2SiO_2$ (s)

mp = 1343 K (1070 °C)

$\Delta H^0_{298} = -2489.9$ kJ·mol^{-1} [4] $S^0_{298} = 209.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 185.35 + 65.48 \cdot 10^{-3} \cdot T - 2.5 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1343 K) [4]

$Cs_2O_5Si_2$ (s) Cesium Silicate **$Cs_2O_5Si_2$ (s)**

$Cs_2O \cdot 2SiO_2$ (s) $Cs_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{1343} = -2246.6$ kJ·mol^{-1} [4] $S^0_{1343} = 543.3$ J·mol^{-1}·K^{-1} [4]

$Cs_2O_5Si_2$ (l) Cesium Silicate **$Cs_2O_5Si_2$ (l)**

$Cs_2O \cdot 2SiO_2$ (l) $Cs_2O \cdot 2SiO_2$ (l)

$\Delta H^0_{1343} = -2194.3$ kJ·mol^{-1} [4] $S^0_{1343} = 582.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 271.96$ J·mol^{-1}·K^{-1} (1343 K) [4]

$Cs_2O_5Te_2$ (s) Cesium Tellurite **$Cs_2O_5Te_2$ (s)**

$Cs_2Te_2O_5$ (s) $Cs_2Te_2O_5$ (s)

$\Delta H^0_{298} = -1352.4 \pm 6.4$ kJ·mol^{-1} [144] $S^0_{298} = [295.5]$ J·mol^{-1}·K^{-1} [146]

$C_p{}^0 = [203.68]$ J·mol^{-1}·K^{-1} (298 K) [271]

$Cs_2O_9Si_4$ (s) Cesium Silicate **$Cs_2O_9Si_4$ (s)**

$Cs_2O \cdot 4SiO_2$ (s) $Cs_2O \cdot 4SiO_2$ (s)

mp = 1223 K (950 °C)

$\Delta H^0_{298} = -4341.3$ kJ·mol^{-1} [4] $S^0_{298} = 292.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 262.09 + 121.55 \cdot 10^{-3} \cdot T - 2.26 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1223 K) [4]

$Cs_2O_9Si_4$ (s) Cesium Silicate **$Cs_2O_9Si_4$ (s)**

$Cs_2O \cdot 4SiO_2$ (s) $Cs_2O \cdot 4SiO_2$ (s)

$\Delta H^0_{1223} = -4019.1$ kJ·mol^{-1} [4] $S^0_{1223} = 763.4$ J·mol^{-1}·K^{-1} [4]

$Cs_2O_9Si_4$ (l) Cesium Silicate **$Cs_2O_9Si_4$ (l)**

$Cs_2O \cdot 4SiO_2$ (l) $Cs_2O \cdot 4SiO_2$ (l)

$\Delta H^0_{1223} = -3975.2$ kJ·mol^{-1} [4] $S^0_{1223} = 799.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 410.03$ J·mol^{-1}·K^{-1} (1223 K) [4]

$Cs_2O_9Te_4$ (s) Cesium Tellurite **$Cs_2O_9Te_4$ (s)**

$Cs_2Te_4O_9$ (s) $Cs_2Te_4O_9$ (s)

$\Delta H^0_{298} = -2033.3 \pm 12.8$ kJ·mol^{-1} [144] $S^0_{298} = [444.1]$ J·mol^{-1}·K^{-1} [147]

$C_p{}^0 = [331.46]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cs_2S (s) Cesium Sulfide **Cs_2S (s)**

$\Delta H^0_{298} = -342.3$ kJ·mol^{-1} [5] $S^0_{298} = [146.4]$ J·mol^{-1}·K^{-1} [5]

Cs_3O_4P (s) Cesium Phosphate **Cs_3O_4P (s)**
Cs_3PO_4 (s) Cs_3PO_4 (s)

$\Delta H^0_{298} = -1909 \pm 1.7$ kJ·mol^{-1} [139] $S^0_{298} = [267]$ J·mol^{-1}·K^{-1} [141]

Cs_3P_7 (s) Cesium Phosphide **Cs_3P_7 (s)**

$\Delta H^0_{298} = -66 \pm 6$ kJ·mol^{-1} [10] $S^0_{298} = 756$ J·mol^{-1}·K^{-1} [10]

Cu (s) Copper **Cu (s)**

mp = 1358 K (1085 °C) bp = 2833 K (2560 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 33.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 20.53 + 8.61 \cdot 10^{-3} \cdot T + 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1358 K) [4]
$\lg(p,K) = -17.92 \cdot 10^3 \cdot T^{-1} - 1.2 \cdot \lg(T) + 10.74$ (1200 ... 1358 K) [4]
{Reaction: evaporation as Cu(g)}

Cu (s) Copper **Cu (s)**

$\Delta H^0_{1358} = 29.7$ kJ·mol^{-1} [4] $S^0_{1358} = 74.2$ J·mol^{-1}·K^{-1} [4]

Cu (l) Copper **Cu (l)**

$\Delta H^0_{1358} = 42.9$ kJ·mol^{-1} [4] $S^0_{1358} = 83.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 32.84$ J·mol^{-1}·K^{-1} (1358 K) [4]
$\lg(p,K) = -17.35 \cdot 10^3 \cdot T^{-1} - 1.41 \cdot \lg(T) + 10.98$ (1358 ... 2000 K) [4]
{Reaction: evaporation as Cu(g)}

Cu (l) Copper **Cu (l)**

$\Delta H^0_{298} = 11.9$ kJ·mol^{-1} [1] $S^0_{298} = 41.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 24.4$ J·mol^{-1}·K^{-1} (298 K) [1]

Cu (g) Copper **Cu (g)**

$\Delta H^0_{298} = 337.6 \pm 1.2$ kJ·mol^{-1} [1] $S^0_{298} = 166.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 20.79$ J·mol^{-1}·K^{-1} (298 K) [4]

CuF (s) Copper(I) Fluoride **CuF (s)**

$\Delta H^0_{298} = -280.3 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 64.9 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 60.12 + 4.1 \cdot 10^{-3} \cdot T - 1.02 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1344 K) [4]
$\lg(p,K) = -10.69 \cdot 10^{3} \cdot T^{-1} - 3.04 \cdot \lg(T) + 17.47$ (600 ... 1344 K) [4]
{Reaction: evaporation as CuF(g)}

CuF (g) Copper(I) Fluoride **CuF (g)**

$\Delta H^0_{298} = -12.6 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 226.5 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.07 + 0.75 \cdot 10^{-3} \cdot T - 0.4 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CuF_2 (s) Copper(II) Fluoride **CuF_2 (s)**

mp = 1109 K (836 °C) bp = 1943 K (1670 °C)
$\Delta H^0_{298} = -538.9 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 77.5 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 72.01 + 19.96 \cdot 10^{-3} \cdot T - 1.14 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1109 K) [4]
$\lg(p,K) = -14.96 \cdot 10^{3} \cdot T^{-1} - 4.02 \cdot \lg(T) + 22.1$ (800 ... 1109 K) [4]
{Reaction: evaporation as CuF_2(g)}

CuF_2 (s) Copper(II) Fluoride **CuF_2 (s)**

$\Delta H^0_{1109} = -471.9$ kJ·mol^{-1} [4] $S^0_{1109} = 182.3$ J·mol^{-1}·K^{-1} [4]

CuF_2 (l) Copper(II) Fluoride **CuF_2 (l)**

$\Delta H^0_{1109} = -416.7$ kJ·mol^{-1} [4] $S^0_{1109} = 232.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 100.42$ J·mol^{-1}·K^{-1} (1109 K) [4]
$\lg(p,K) = -12.58 \cdot 10^{3} \cdot T^{-1} - 5.1 \cdot \lg(T) + 23.25$ (1109 ... 1943 K) [4]
{Reaction: evaporation as CuF_2(g)}

CuF_2 (l) Copper(II) Fluoride **CuF_2 (l)**

$\Delta H^0_{298} = -487.9$ kJ·mol^{-1} [1] $S^0_{298} = 122.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 65.55$ J·mol^{-1}·K^{-1} (298 K) [1]

CuF_2 (g) Copper(II) Fluoride **CuF_2 (g)**

$\Delta H^0_{298} = -266.9 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 267.1 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 54.88 + 2.28 \cdot 10^{-3} \cdot T - 0.67 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CuFeO_2$ (s) Iron Copper Oxide alpha **$CuFeO_2$ (s)**

$\Delta H^0_{298} = -513$ kJ·mol^{-1} [2] $S^0_{298} = 88.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 97.99 + 7.53 \cdot 10^{-3} \cdot T - 1.8 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1091 K) [3]

$CuFeS_2$ (s) Iron Copper Sulfide **$CuFeS_2$ (s)**
CuS · FeS (s) alpha, Chalcopyrite CuS · FeS (s)

$\Delta H^0_{298} = -307.4$ kJ·mol^{-1} [4] $S^0_{298} = 125$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 298.63 - 542.43 \cdot 10^{-3} \cdot T - 7.24 \cdot 10^{6} \cdot T^{-2} + 445.61 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 830 K) [4]

$CuFeS_2$ (s) Iron Copper Sulfide **$CuFeS_2$ (s)**
CuS · FeS (s) alpha, Chalcopyrite CuS · FeS (s)

$\Delta H^0_{830} = -245.9$ kJ·mol^{-1} [4] $S^0_{830} = 240.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 144.9$ J·mol^{-1}·K^{-1} (830 K) [4]

$CuFeS_2$ (s) Iron Copper Sulfide **$CuFeS_2$ (s)**
CuS · FeS (s) beta, Chalcopyrite CuS · FeS (s)

$\Delta H^0_{830} = -235.8$ kJ·mol^{-1} [4] $S^0_{830} = 252.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = -24.73 + 221.36 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (830 ... 1000 K) [4]

$CuFe_2O_4$ (s) Iron Copper Oxide **$CuFe_2O_4$ (s)**

$CuO \cdot Fe_2O_3$ (s) alpha $CuO \cdot Fe_2O_3$ (s)

$\Delta H^0_{298} = -966.5$ kJ·mol^{-1} [4] $S^0_{298} = 146.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 138.74 + 119 \cdot 10^{-3} \cdot T - 2.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 675 K) [4]

$CuFe_2O_4$ (s) Iron Copper Oxide **$CuFe_2O_4$ (s)**

$CuO \cdot Fe_2O_3$ (s) alpha $CuO \cdot Fe_2O_3$ (s)

$\Delta H^0_{675} = -896.6$ kJ·mol^{-1} [4] $S^0_{675} = 294.7$ J·mol^{-1}·K^{-1} [4]

$CuFe_2O_4$ (s) Iron Copper Oxide **$CuFe_2O_4$ (s)**

$CuO \cdot Fe_2O_3$ (s) beta $CuO \cdot Fe_2O_3$ (s)

$\Delta H^0_{675} = -895.9$ kJ·mol^{-1} [4] $S^0_{675} = 295.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 237.39 - 14 \cdot 10^{-3} \cdot T - 0.07 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (675 ... 795 K) [4]

$CuGa_2O_4$ (s) Gallium Copper Oxide **$CuGa_2O_4$ (s)**

$CuO \cdot Ga_2O_3$ (s) $CuO \cdot Ga_2O_3$ (s)

$\Delta H^0_{298} = -1228.0$ kJ·mol^{-1} [4] $S^0_{298} = 146.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 161.15 + 22.91 \cdot 10^{-3} \cdot T - 2.93 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

CuH (g) Copper Hydride **CuH (g)**

$\Delta H^0_{298} = 274.9$ kJ·mol^{-1} [4] $S^0_{298} = 196.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 30.84 + 3.77 \cdot 10^{-3} \cdot T - 0.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CuH_2O_2 (s) Copper(II) Hydroxide **CuH_2O_2 (s)**

$Cu(OH)_2$ (s) $Cu(OH)_2$ (s)

$\Delta H^0_{298} = -450.4 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 108.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 95.19$ J·mol^{-1}·K^{-1} (298 K) [1]

CuH_2O_5S (s) Copper(II) Sulfate Monohydrate **CuH_2O_5S (s)**

$CuSO_4 \cdot H_2O$ (s) $CuSO_4 \cdot H_2O$ (s)

$\Delta H^0_{298} = -1085.8$ kJ·mol^{-1} [2] $S^0_{298} = 146$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 134$ J·mol^{-1}·K^{-1} (298 K) [2]

CuH_6O_7S (s) Copper(II) Sulfate Trihydrate **CuH_6O_7S (s)**

$CuSO_4 \cdot 3H_2O$ (s) $CuSO_4 \cdot 3H_2O$ (s)

$\Delta H^0_{298} = -1684.3$ kJ·mol^{-1} [2] $S^0_{298} = 221.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 205$ J·mol^{-1}·K^{-1} (298 K) [2]

$CuH_{10}O_9S$ (s) Copper(II) Sulfate Pentahydrate **$CuH_{10}O_9S$ (s)**

$CuSO_4 \cdot 5H_2O$ (s) $CuSO_4 \cdot 5H_2O$ (s)

$\Delta H^0_{298} = -2279.6$ kJ·mol^{-1} [2] $S^0_{298} = 300.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 281.2$ J·mol^{-1}·K^{-1} (298 K) [2]

CuI (s) Copper(I) Iodide alpha **CuI (s)**

mp = 868 K (595 °C) bp = 1675 K (1402 °C)

$\Delta H^0_{298} = -68$ kJ·mol^{-1} [4] $S^0_{298} = 96.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 62.63 - 6.44 \cdot 10^{-3} \cdot T - 0.58 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 642 K) [4]

CuI (s) Copper(I) Iodide alpha **CuI (s)**

$\Delta H^0_{642} = -48.6$ kJ·mol^{-1} [4] $S^0_{642} = 139.9$ J·mol^{-1}·K^{-1} [4]

CuI (s) Copper(I) Iodide beta **CuI (s)**

$\Delta H^0_{642} = -41.5$ kJ·mol^{-1} [4] $S^0_{642} = 151$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 58.58$ J·mol^{-1}·K^{-1} (642 K) [4]

CuI (s) Copper(I) Iodide beta **CuI (s)**

$\Delta H^0_{680} = -39.2$ kJ·mol⁻¹ [4] $S^0_{680} = 154.3$ J·mol⁻¹·K⁻¹ [4]

CuI (s) Copper(I) Iodide gamma **CuI (s)**

$\Delta H^0_{680} = -36$ kJ·mol⁻¹ [4] $S^0_{680} = 159.1$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 59.41$ J·mol⁻¹·K⁻¹ (680 K) [4]

CuI (s) Copper(I) Iodide gamma **CuI (s)**

$\Delta H^0_{868} = -24.8$ kJ·mol⁻¹ [4] $S^0_{868} = 173.6$ J·mol⁻¹·K⁻¹ [4]

CuI (l) Copper(I) Iodide **CuI (l)**

$\Delta H^0_{868} = -15.2$ kJ·mol⁻¹ [4] $S^0_{868} = 184.6$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 64.85$ J·mol⁻¹·K⁻¹ (868 K) [4]

CuI (g) Copper(I) Iodide **CuI (g)**

$\Delta H^0_{298} = 142.3$ kJ·mol⁻¹ [2] $S^0_{298} = 255.7$ J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 37.41 + 0.5 \cdot 10^{-3} \cdot T - 0.1 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]
$\lg(p,K) = -10.83 \cdot 10^{3} \cdot T^{-1} - 2.62 \cdot \lg(T) + 15.21$ (700 ... 868 K) [4]
{Reaction: evaporation of CuI(s)}

$CuMg_2$ (s) Copper Magnesium **$CuMg_2$ (s)**

mp = 841 K (568 °C)
$\Delta H^0_{298} = -29.5$ kJ·mol⁻¹ [4] $S^0_{298} = 92.3$ J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 61.09 + 29.71 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 841 K) [4]

$CuMg_2$ (s) Copper Magnesium **$CuMg_2$ (s)**

$\Delta H^0_{841} = 12.9$ kJ·mol⁻¹ [4] $S^0_{841} = 171.7$ J·mol⁻¹·K⁻¹ [4]

$CuMg_2$ (l) Copper Magnesium **$CuMg_2$ (l)**

ΔH^0_{841} = 48.8 kJ·mol^{-1} [4] S^0_{841} = 214.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 96.65 J·mol^{-1}·K^{-1} (841 K) [4]

$CuMoO_4$ (s) Copper Molybdate **$CuMoO_4$ (s)**
$CuO \cdot MoO_3$ (s) $CuO \cdot MoO_3$ (s)

ΔH^0_{298} = – 911.7 kJ·mol^{-1} [2] S^0_{298} = 131.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 117.3 J·mol^{-1}·K^{-1} (298 K) [2]

CuO (s) Copper(II) Oxide **CuO (s)**

ΔH^0_{298} = – 156.1 ± 2.1 kJ·mol^{-1} [1] S^0_{298} = 42.6 ± 0.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 48.6 + 7.43 $\cdot 10^{-3} \cdot T$ – 0.76 $\cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1364 K) [4]

CuO (g) Copper(II) Oxide **CuO (g)**

ΔH^0_{298} = 306.3 ± 41.8 kJ·mol^{-1} [1] S^0_{298} = 234.6 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 34.73 + 3.52 $\cdot 10^{-3} \cdot T$ + 0.03 $\cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CuO_2Y (s) Yttrium Copper Oxide **CuO_2Y (s)**
$YCuO_2$ (s) $YCuO_2$ (s)

ΔH^0_{298} = – 1036.4 ± 2.6 kJ·mol^{-1} [59] S^0_{298} = 88.05 ± 1.3 J·mol^{-1}·K^{-1} [59]
$C_p{}^0$= 84.56 J·mol^{-1}·K^{-1} (298 K) [59]

CuO_3Se (s) Copper(II) Selenite **CuO_3Se (s)**
$CuSeO_3$ (s) $CuSeO_3$ (s)

ΔH^0_{298} = – 431.5 kJ·mol^{-1} [2] S^0_{298} = 103.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 97.8 J·mol^{-1}·K^{-1} (298 K) [2]

CuO_4S (s) Copper(II) Sulfate **CuO_4S (s)**

$CuSO_4$ (s) $CuSO_4$ (s)

$\Delta H^0_{298} = -770 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 109.3 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 73.43 + 152.84 \cdot 10^{-3} \cdot T - 1.23 \cdot 10^6 \cdot T^{-2} - 71.59 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1075 K) [4]

CuP_2 (s) Copper Phosphide **CuP_2 (s)**

$\Delta H^0_{298} = -121$ kJ·mol^{-1} [2] $S^0_{298} = 81.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 71$ J·mol^{-1}·K^{-1} (298 K) [2]

CuS (s) Copper(II) Sulfide **CuS (s)**

$\Delta H^0_{298} = -53.7$ kJ·mol^{-1} [4] $S^0_{298} = 66.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 44.35 + 11.05 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 774 K) [4]

CuS (g) Copper(II) Sulfide **CuS (g)**

$\Delta H^0_{298} = 320.5$ kJ·mol^{-1} [2] $S^0_{298} = 252.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 37.27 + 0.08 \cdot 10^{-3} \cdot T - 0.19 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

CuSe (s) Copper(II) Selenide alpha **CuSe (s)**

$\Delta H^0_{298} = -41.8$ kJ·mol^{-1} [2] $S^0_{298} = 78.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 54.81$ J·mol^{-1}·K^{-1} (298 K) [4]

CuSe (s) Copper(II) Selenide alpha **CuSe (s)**

$\Delta H^0_{326} = -40.3$ kJ·mol^{-1} [4] $S^0_{326} = 83.1$ J·mol^{-1}·K^{-1} [4]

CuSe (s) Copper(II) Selenide beta **CuSe (s)**

$\Delta H^0_{326} = -38.9$ kJ·mol^{-1} [4] $S^0_{326} = 87.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 62.76$ J·mol^{-1}·K^{-1} (326 K) [4]

CuSe (g) Copper(II) Selenide **CuSe (g)**

ΔH^0_{298} = 309.6 kJ·mol^{-1} [4] S^0_{298} = 264.7 J·mol^{-1}·K^{-1} [4]
C_p^0= 37.36 + 0.03 ·10^{-3}·T − 0.11 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$CuSe_2$ (s) Copper Selenide **$CuSe_2$ (s)**

ΔH^0_{298} = − 48.1 kJ·mol^{-1} [5] S^0_{298} = [107.5] J·mol^{-1}·K^{-1} [5]

CuTe (s) Copper(II) Telluride **CuTe (s)**

ΔH^0_{298} = − 25.1 kJ·mol^{-1} [2] S^0_{298} = 86.6 J·mol^{-1}·K^{-1} [2]
C_p^0= 41.34 + 40.38 ·10^{-3}·T + 0.1 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 613 K) [4]

CuTe (g) Copper(II) Telluride **CuTe (g)**

ΔH^0_{298} = 307.5 kJ·mol^{-1} [4] S^0_{298} = 272.6 J·mol^{-1}·K^{-1} [4]
C_p^0= 37.39 + 0.01 ·10^{-3}·T − 0.08 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Cu_{1.31}Te$ (s) Copper Telluride **$Cu_{1.31}Te$ (s)**

ΔH^0_{298} = [− 29.7] kJ·mol^{-1} [5] S^0_{298} = [102.5] J·mol^{-1}·K^{-1} [5]

$Cu_{1.41}Te$ (s) Copper Telluride **$Cu_{1.41}Te$ (s)**

ΔH^0_{298} = [− 31.8] kJ·mol^{-1} [5] S^0_{298} = [106.7] J·mol^{-1}·K^{-1} [5]

Cu_2 (g) Copper **Cu_2 (g)**

ΔH^0_{298} = 485.3 ± 12.6 kJ·mol^{-1} [1] S^0_{298} = 241.7 J·mol^{-1}·K^{-1} [1]
C_p^0= 37.39 + 0.74 ·10^{-3}·T − 0.1 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Cu_2Fe_2O_4$ (s) Iron Copper Oxide **$Cu_2Fe_2O_4$ (s)**
$Cu_2O \cdot Fe_2O_3$ (s) alpha $Cu_2O \cdot Fe_2O_3$ (s)

mp = 1470 K (1197 °C)
ΔH^0_{298} = − 1025.1 kJ·mol^{-1} [4] S^0_{298} = 177.7 J·mol^{-1}·K^{-1} [4]
C_p^0= 200.08 + 20.25 ·10^{-3}·T − 3.36 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1091 K) [4]

$Cu_2Fe_2O_4$ (s) Iron Copper Oxide **$Cu_2Fe_2O_4$ (s)**
$Cu_2O \cdot Fe_2O_3$ (s) alpha $Cu_2O \cdot Fe_2O_3$ (s)

$\Delta H^0_{1091} = -863.5$ kJ·mol^{-1} [4] $S^0_{1091} = 435.9$ J·mol^{-1}·K^{-1} [4]

$Cu_2Fe_2O_4$ (s) Iron Copper Oxide **$Cu_2Fe_2O_4$ (s)**
$Cu_2O \cdot Fe_2O_3$ (s) beta $Cu_2O \cdot Fe_2O_3$ (s)

$\Delta H^0_{1091} = -862.7$ kJ·mol^{-1} [4] $S^0_{1091} = 436.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 182.84 + 30.29 \cdot 10^{-3} \cdot T + 0.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1091 K) [4]

$Cu_2Fe_2O_4$ (s) Iron Copper Oxide **$Cu_2Fe_2O_4$ (s)**
$Cu_2O \cdot Fe_2O_3$ (s) beta $Cu_2O \cdot Fe_2O_3$ (s)

$\Delta H^0_{1470} = -778.7$ kJ·mol^{-1} [4] $S^0_{1470} = 502.6$ J·mol^{-1}·K^{-1} [4]

$Cu_2Fe_2O_4$ (l) Iron Copper Oxide **$Cu_2Fe_2O_4$ (l)**
$Cu_2O \cdot Fe_2O_3$ (l) $Cu_2O \cdot Fe_2O_3$ (l)

$\Delta H^0_{1470} = -650$ kJ·mol^{-1} [4] $S^0_{1470} = 590.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 253.38$ J·mol^{-1}·K^{-1} (1470 K) [4]

$Cu_2Ga_2O_4$ (s) Gallium Copper Oxide **$Cu_2Ga_2O_4$ (s)**
$Cu_2O \cdot Ga_2O_3$ (s) $Cu_2O \cdot Ga_2O_3$ (s)

$\Delta H^0_{298} = -1274.0$ kJ·mol^{-1} [4] $S^0_{298} = 166.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 170.75 + 38.8 \cdot 10^{-3} \cdot T - 3.76 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Cu_2Mg (s) Copper Magnesium **Cu_2Mg (s)**

mp = 1070 K (797 °C)
$\Delta H^0_{298} = -35.1$ kJ·mol^{-1} [4] $S^0_{298} = 98.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 66.61 + 24.02 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1070 K) [4]

Cu_2Mg (s) Copper Magnesium **Cu_2Mg (s)**

$\Delta H^0_{1070} = 28.9$ kJ·mol^{-1} [4] $S^0_{1070} = 201.8$ J·mol^{-1}·K^{-1} [4]

Cu_2Mg (l) Copper Magnesium **Cu_2Mg (l)**

$\Delta H^0_{1070} = 70.8$ kJ·mol^{-1} [4] $S^0_{1070} = 240.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 95.4$ J·mol^{-1}·K^{-1} (1070 K) [4]

Cu_2O (s) Copper(I) Oxide **Cu_2O (s)**

mp = 1517 K (1244 °C)
$\Delta H^0_{298} = -170.7 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 92.4 \pm 0.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 58.2 + 23.97 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1517 K) [4]
$\lg(p,K) = -18.34 \cdot 10^{3} \cdot T^{-1} - 1.78 \cdot \lg(T) + 13.72$ (1100 ... 1358 K) [4]
{Reaction: decomposition $2Cu_2O(s) = 4Cu(s) + O_2(g)$}

Cu_2O (s) Copper(I) Oxide **Cu_2O (s)**

$\Delta H^0_{1517} = -73.7$ kJ·mol^{-1} [4] $S^0_{1517} = 215.4$ J·mol^{-1}·K^{-1} [4]

Cu_2O (l) Copper(I) Oxide **Cu_2O (l)**

$\Delta H^0_{1517} = -8.9$ kJ·mol^{-1} [4] $S^0_{1517} = 258.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 100.42$ J·mol^{-1}·K^{-1} (1517 K) [4]

Cu_2O (l) Copper(I) Oxide **Cu_2O (l)**

$\Delta H^0_{298} = -112$ kJ·mol^{-1} [1] $S^0_{298} = 130$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 62.54$ J·mol^{-1}·K^{-1} (298 K) [1]

Cu_2O_4S (s) Copper(I) Sulfate **Cu_2O_4S (s)**
Cu_2SO_4 (s) Cu_2SO_4 (s)

$\Delta H^0_{298} = -751.4$ kJ·mol^{-1} [2] $S^0_{298} = 182.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 120.3$ J·mol^{-1}·K^{-1} (298 K) [2]

Cu_2O_5S (s) Copper Sulfate Oxide **Cu_2O_5S (s)**
$CuO \cdot CuSO_4$ (s) $CuO \cdot CuSO_4$ (s)

$\Delta H^0_{298} = -927.6 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 157.3 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 170.83 + 45.36 \cdot 10^{-3} \cdot T - 3.93 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1140 K) [4]

$Cu_2O_5Y_2$ (s) Yttrium Copper Oxide **$Cu_2O_5Y_2$ (s)**
$Y_2Cu_2O_5$ (s) $Y_2Cu_2O_5$ (s)

$\Delta H^0_{298} = -2216.9 \pm 4.6$ kJ·mol^{-1} [59] $S^0_{298} = 188.4 \pm 1.5$ J·mol^{-1}·K^{-1} [59]
$C_p{}^0 = [188.36]$ J·mol^{-1}·K^{-1} (298 K) [271]

Cu_2S (s) Copper(I) Sulfide alpha **Cu_2S (s)**

mp = 1402 K (1129 °C)
$\Delta H^0_{298} = -79.5$ kJ·mol^{-1} [4] $S^0_{298} = 120.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 52.84 + 78.74 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 376 K) [4]

Cu_2S (s) Copper(I) Sulfide alpha **Cu_2S (s)**

$\Delta H^0_{376} = -73.3$ kJ·mol^{-1} [4] $S^0_{376} = 149.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 82.45$ J·mol^{-1}·K^{-1} (376 K) [4]

Cu_2S (s) Copper(I) Sulfide beta **Cu_2S (s)**

$\Delta H^0_{376} = -69.5$ kJ·mol^{-1} [4] $S^0_{376} = 149.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 112.05 - 30.75 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (376 ... 717 K) [4]

Cu_2S (s) Copper(I) Sulfide beta **Cu_2S (s)**

$\Delta H^0_{717} = -37$ kJ·mol^{-1} [4] $S^0_{717} = 211.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 90$ J·mol^{-1}·K^{-1} (717 K) [4]

Cu_2S (s) Copper(I) Sulfide gamma **Cu_2S (s)**

$\Delta H^0_{717} = -35.8$ kJ·mol⁻¹ [4] $S^0_{717} = 213.1$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 84.64$ J·mol⁻¹·K⁻¹ (717 K) [4]

Cu_2S (s) Copper(I) Sulfide gamma **Cu_2S (s)**

$\Delta H^0_{1402} = 22.2$ kJ·mol⁻¹ [4] $S^0_{1402} = 269.8$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 84.64$ J·mol⁻¹·K⁻¹ (1402 K) [4]

Cu_2S (l) Copper(I) Sulfide **Cu_2S (l)**

$\Delta H^0_{1402} = 31.8$ kJ·mol⁻¹ [4] $S^0_{1402} = 276.7$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 89.12$ J·mol⁻¹·K⁻¹ (1402 K) [4]

Cu_2Sb (s) Copper Antimonide **Cu_2Sb (s)**

mp = 859 K (586 °C)
$\Delta H^0_{298} = -11.5$ kJ·mol⁻¹ [4] $S^0_{298} = 126.5$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 68.53 + 27.61 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 859 K) [4]

Cu_2Se (s) Copper(I) Selenide alpha **Cu_2Se (s)**

mp = 1390 K (1117 °C)
$\Delta H^0_{298} = -65.3$ kJ·mol⁻¹ [2] $S^0_{298} = 129.7$ J·mol⁻¹·K⁻¹ [2]
$C_p{}^0 = 58.58 + 77.4 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 395 K) [4]

Cu_2Se (s) Copper(I) Selenide alpha **Cu_2Se (s)**

$\Delta H^0_{395} = -57$ kJ·mol⁻¹ [4] $S^0_{395} = 153.7$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 89.15$ J·mol⁻¹·K⁻¹ (395 K) [4]

Cu_2Se (s) | Copper(I) Selenide beta | **Cu_2Se (s)**

$\Delta H^0_{395} = -50.2$ kJ·mol^{-1} [4] $S^0_{395} = 170.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 84.1$ J·mol^{-1}·K^{-1} (395 K) [4]

Cu_2Te (s) | Copper(I) Telluride alpha | **Cu_2Te (s)**

mp = 1398 K (1125 °C)

$\Delta H^0_{298} = -41.8$ kJ·mol^{-1} [2] $S^0_{298} = 134.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 59.83 + 53.56 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 433 K) [4]

Cu_3I_3 (g) | Copper(I) Iodide | **Cu_3I_3 (g)**

$(CuI)_3$ (g) | $(CuI)_3$ (g)

$\Delta H^0_{298} = -16.7$ kJ·mol^{-1} [2] $S^0_{298} = 464.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 133.18 - 0.08 \cdot 10^{-3} \cdot T - 0.36 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -9.01 \cdot 10^{3} \cdot T^{-1} - 5.5 \cdot \lg(T) + 22.96$ (680 ... 868 K) [4]

{Reaction: evaporation of CuI(s)}

$Cu_3Mo_2O_9$ (s) | Copper Molybdate | **$Cu_3Mo_2O_9$ (s)**

$3CuO \cdot 2MoO_3$ (s) | $3CuO \cdot 2MoO_3$ (s)

$\Delta H^0_{298} = -2055$ kJ·mol^{-1} [33] $S^0_{298} = 289$ J·mol^{-1}·K^{-1} [33]

Cu_3P (s) | Copper Phosphide | **Cu_3P (s)**

mp = 1296 K (1023 °C)

$\Delta H^0_{298} = -151.5$ kJ·mol^{-1} [2] $S^0_{298} = 119.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 77.82 + 33.47 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1296 K) [4]

Cu_3Se_2 (s) | Copper Selenide | **Cu_3Se_2 (s)**

$\Delta H^0_{298} = -104.6$ kJ·mol^{-1} [5] $S^0_{298} = [207.1]$ J·mol^{-1}·K^{-1} [5]

Cu_5FeS_4 (s) | Iron Copper Sulfide alpha, Bornite | **Cu_5FeS_4 (s)**

$\Delta H^0_{298} = -380.3$ kJ·mol^{-1} [2] $S^0_{298} = 362.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 208.2 + 146.78 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 485 K) [4]

Cu_5FeS_4 (s) | Iron Copper Sulfide alpha, Bornite | **Cu_5FeS_4 (s)**

$\Delta H^0_{298} = -331.4$ kJ·mol^{-1} [4] $S^0_{298} = 489.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 277$ J·mol^{-1}·K^{-1} (485 K) [4]

Cu_5FeS_4 (s) | Iron Copper Sulfide beta, Bornite | **Cu_5FeS_4 (s)**

$\Delta H^0_{298} = -325.4$ kJ·mol^{-1} [4] $S^0_{298} = 501.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = -143.55 + 1033.45 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (485 ... 540 K) [4]

$Cu_6Mo_5O_{18}$ (s) | Copper Molybdate | **$Cu_6Mo_5O_{18}$ (s)**

$3Cu_2O \cdot 5MoO_3$ (s) $3Cu_2O \cdot 5MoO_3$ (s)

$\Delta H^0_{298} = -4310$ kJ·mol^{-1} [33] $S^0_{298} = 690$ J·mol^{-1}·K^{-1} [33]

D (g) | Deuterium | **D (g)**

$\Delta H^0_{298} = 221.7$ kJ·mol^{-1} [1] $S^0_{298} = 123.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 20.79$ J·mol^{-1}·K^{-1} (298 K) [1]

DF (g) | Hydrofluoric Acid-D | **DF (g)**

$\Delta H^0_{298} = -275.5 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 179.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 29.14$ J·mol^{-1}·K^{-1} (298 K) [1]

DH (g) | Hydrogen-D1 | **DH (g)**

HD (g) HD (g)

$\Delta H^0_{298} = 0.3$ kJ·mol^{-1} [1] $S^0_{298} = 143.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 29.2$ J·mol^{-1}·K^{-1} (298 K) [1]

Cu_5FeS_4 (s) | Iron Copper Sulfide alpha, Bornite | **Cu_5FeS_4 (s)**

$\Delta H^0_{298} = -380.3$ kJ·mol^{-1} [2] | $S^0_{298} = 362.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 208.2 + 146.78 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 485 K) [4]

Cu_5FeS_4 (s) | Iron Copper Sulfide alpha, Bornite | **Cu_5FeS_4 (s)**

$\Delta H^0_{298} = -331.4$ kJ·mol^{-1} [4] | $S^0_{298} = 489.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 277$ J·mol^{-1}·K^{-1} (485 K) [4]

Cu_5FeS_4 (s) | Iron Copper Sulfide beta, Bornite | **Cu_5FeS_4 (s)**

$\Delta H^0_{298} = -325.4$ kJ·mol^{-1} [4] | $S^0_{298} = 501.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = -143.55 + 1033.45 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (485 ... 540 K) [4]

$Cu_6Mo_5O_{18}$ (s) | Copper Molybdate | **$Cu_6Mo_5O_{18}$ (s)**

$3Cu_2O \cdot 5MoO_3$ (s) | $3Cu_2O \cdot 5MoO_3$ (s)

$\Delta H^0_{298} = -4310$ kJ·mol^{-1} [33] | $S^0_{298} = 690$ J·mol^{-1}·K^{-1} [33]

D (g) | Deuterium | **D (g)**

$\Delta H^0_{298} = 221.7$ kJ·mol^{-1} [1] | $S^0_{298} = 123.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 20.79$ J·mol^{-1}·K^{-1} (298 K) [1]

DF (g) | Hydrofluoric Acid-D | **DF (g)**

$\Delta H^0_{298} = -275.5 \pm 0.8$ kJ·mol^{-1} [1] | $S^0_{298} = 179.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 29.14$ J·mol^{-1}·K^{-1} (298 K) [1]

DH (g) | Hydrogen-D1 | **DH (g)**

HD (g) | HD (g)

$\Delta H^0_{298} = 0.3$ kJ·mol^{-1} [1] | $S^0_{298} = 143.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 29.2$ J·mol^{-1}·K^{-1} (298 K) [1]

DHO (g) Water-D1 **DHO (g)**
HDO (g) HDO (g)

$\Delta H^0_{298} = -245.4 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 199.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 33.79$ J·mol^{-1}·K^{-1} (298 K) [1]

DN (g) Imidogen-D **DN (g)**
ND (g) ND (g)

$\Delta H^0_{298} = 375.3 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 187.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 29.16$ J·mol^{-1}·K^{-1} (298 K) [1]

DO (g) Hydroxyl-D **DO (g)**
OD (g) OD (g)

$\Delta H^0_{298} = 36.6 \pm 1.2$ kJ·mol^{-1} [1] $S^0_{298} = 189.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 29.99$ J·mol^{-1}·K^{-1} (298 K) [1]

DS (g) Mercapto-D1 **DS (g)**
SD (g) SD (g)

$\Delta H^0_{298} = 138.5 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 201.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 32.52$ J·mol^{-1}·K^{-1} (298 K) [1]

D_2 (g) Deuterium **D_2 (g)**

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 145$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 29.19$ J·mol^{-1}·K^{-1} (298 K) [1]

D_2N (g) Amidogen-D2 **D_2N (g)**
ND_2 (g) ND_2 (g)

$\Delta H^0_{298} = 185.4 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 204.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 34.42$ J·mol^{-1}·K^{-1} (298 K) [1]

D_2N_2 (g) Diazene-D2 **D_2N_2 (g)**
DNND (g) cis DNND (g)

$\Delta H^0_{298} = 207.1 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 224.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 39.02$ J·mol^{-1}·K^{-1} (298 K) [1]

D_2O (g) Water-D2 **D_2O (g)**

$\Delta H^0_{298} = -249.2 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 198.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 34.26$ J·mol^{-1}·K^{-1} (298 K) [1]

D_2S (g) Hydrogen Sulfide-D2 **D_2S (g)**

$\Delta H^0_{298} = -23.9 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 215.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 35.76$ J·mol^{-1}·K^{-1} (298 K) [1]

D_3N (g) Ammonia-D3 **D_3N (g)**
ND_3 (g) ND_3 (g)

$\Delta H^0_{298} = -58.6 \pm 0.4$ kJ·mol^{-1} [1] $S^0_{298} = 203.9$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 38.23$ J·mol^{-1}·K^{-1} (298 K) [1]

Dy (s) Dysprosium **Dy (s)**
alpha

mp = 1682 K (1409 °C) bp = 2831 K (2558 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 74.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 35.34 - 21.9 \cdot 10^{-3} \cdot T - 0.21 \cdot 10^{6} \cdot T^{-2} + 18.7 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 1657 K) [4]
$\lg(p,K) = -15.96 \cdot 10^{3} \cdot T^{-1} - 2.3 \cdot \lg(T) + 13.8$ (1100 ... 1657 K) [4]
{Reaction: evaporation as Dy(g)}

Dy (s) Dysprosium **Dy (s)**
alpha

$\Delta H^0_{1657} = 46.5$ kJ·mol^{-1} [2] $S^0_{1657} = 129.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 50.31$ J·mol^{-1}·K^{-1} (1657 K) [4]

Dy (s) Dysprosium beta **Dy** (s)

$\Delta H^0_{1657} = 50.7$ kJ·mol^{-1} [2] $S^0_{1657} = 131.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 28.03$ J·mol^{-1}·K^{-1} (1657 K) [4]
$\lg(p,K) = -14.44 \cdot 10^3 \cdot T^{-1} - 0.52 \cdot \lg(T) + 7.16$ (1657 ... 1682 K) [4]
{Reaction: evaporation as Dy(g)}

Dy (s) Dysprosium beta **Dy** (s)

$\Delta H^0_{1682} = 51.4$ kJ·mol^{-1} [2] $S^0_{1682} = 132.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 28.03$ J·mol^{-1}·K^{-1} (1682 K) [4]

Dy (l) Dysprosium **Dy** (l)

$\Delta H^0_{1682} = 62.4$ kJ·mol^{-1} [2] $S^0_{1682} = 138.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 49.92$ J·mol^{-1}·K^{-1} (1682 K) [4]
$\lg(p,K) = -15.78 \cdot 10^3 \cdot T^{-1} - 3.09 \cdot \lg(T) + 16.24$ (1682 ... 2000 K) [4]
{Reaction: evaporation as Dy(g)}

Dy (g) Dysprosium **Dy** (g)

$\Delta H^0_{298} = 290.4$ kJ·mol^{-1} [2] $S^0_{298} = 196$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 18.6 + 3.04 \cdot 10^{-3} \cdot T + 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

DyF_3 (s) Dysprosium(III) Fluoride **DyF_3** (s)

mp = 1430 K (1157 °C) bp = 2739 K (2466 °C)
$\Delta H^0_{298} = -1692$ kJ·mol^{-1} [2] $S^0_{298} = 118.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 92.91 + 21.92 \cdot 10^{-3} \cdot T - 0.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1430 K) [4]
$\lg(p,K) = -24.35 \cdot 10^3 \cdot T^{-1} - 4.48 \cdot \lg(T) + 25.43$ (1200 ... 1430 K) [4]
{Reaction: evaporation as DyF_3(g)}

DyF_3 (s) Dysprosium(III) Fluoride **DyF_3** (s)

$\Delta H^0_{1430} = -1566.7$ kJ·mol^{-1} [4] $S^0_{1430} = 286.9$ J·mol^{-1}·K^{-1} [4]

DyF_3 (l) Dysprosium(III) Fluoride **DyF_3 (l)**

$\Delta H^0_{1430} = -1518.8$ kJ·mol^{-1} [4] $S^0_{1430} = 320.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 156.9$ J·mol^{-1}·K^{-1} (1430 K) [4]
$\lg(p,K) = -24.35 \cdot 10^3 \cdot T^{-1} - 8.53 \cdot \lg(T) + 38.22$ (1430 ... 2000 K) [4]
{Reaction: evaporation as DyF_3(g)}

DyF_3 (g) Dysprosium(III) Fluoride **DyF_3 (g)**

$\Delta H^0_{298} = -1245.6$ kJ·mol^{-1} [2] $S^0_{298} = 341.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 79.68 + 3.83 \cdot 10^{-3} \cdot T - 0.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

DyI_3 (s) Dysprosium(III) Iodide **DyI_3 (s)**

$\Delta H^0_{298} = -616.7 \pm 3$ kJ·mol^{-1} [266] $S^0_{298} = [217.2]$ J·mol^{-1}·K^{-1} [267]

DyI_3 (g) Dysprosium(III) Iodide **DyI_3 (g)**

$\Delta H^0_{298} = -332.2$ kJ·mol^{-1} [2] $S^0_{298} = 432.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 81.66 + 2.59 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

DyS (s) Dysprosium(II) Sulfide **DyS (s)**

$\Delta H^0_{298} = [-460.2]$ kJ·mol^{-1} [5] $S^0_{298} = [77.4]$ J·mol^{-1}·K^{-1} [5]

DyS (g) Dysprosium(II) Sulfide **DyS (g)**

$\Delta H^0_{298} = [163.2]$ kJ·mol^{-1} [5] $S^0_{298} = [265.8]$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.10] + [0.15] \cdot 10^{-3} \cdot T + [-0.25] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

DySe (s) Dysprosium(II) Selenide **DySe (s)**

$\Delta H^0_{298} = [-368.2]$ kJ·mol^{-1} [5] $S^0_{298} = [90]$ J·mol^{-1}·K^{-1} [5]

DySe (g) Dysprosium(II) Selenide **DySe (g)**

$\Delta H^0_{298} = [210]$ kJ·mol^{-1} [5] $S^0_{298} = [276.3]$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.29] + [0.07] \cdot 10^{-3} \cdot T + [-0.18] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

DyTe (s) Dysprosium(II) Telluride **DyTe (s)**

mp = 2123 K (1850 °C)
ΔH^0_{298} = [– 313.8] kJ·mol^{-1} [5] S^0_{298} = [97.1] J·mol^{-1}·K^{-1} [5]

DyTe (g) Dysprosium(II) Telluride **DyTe (g)**

ΔH^0_{298} = [274.1] kJ·mol^{-1} [5] S^0_{298} = [285] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.38] + [0.02] ·10^{-3}·T + [– 0.10] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

Dy_2O_3 (s) Dysprosium(III) Oxide alpha **Dy_2O_3 (s)**

ΔH^0_{298} = – 1862.7 kJ·mol^{-1} [4] S^0_{298} = 149.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 124.81 + 11.59 ·10^{-3}·T – 1.07 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1590 K) [4]

Dy_2O_3 (s) Dysprosium(III) Oxide alpha **Dy_2O_3 (s)**

ΔH^0_{1590} = – 1690.3 kJ·mol^{-1} [4] S^0_{1590} = 367.9 J·mol^{-1}·K^{-1} [4]

Dy_2O_3 (s) Dysprosium(III) Oxide beta **Dy_2O_3 (s)**

ΔH^0_{1590} = – 1689.3 kJ·mol^{-1} [4] S^0_{1590} = 368.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 143.93 J·mol^{-1}·K^{-1} (1590 K) [4]

Dy_2S_3 (s) Dysprosium(III) Sulfide **Dy_2S_3 (s)**

ΔH^0_{298} = [– 1221.7] kJ·mol^{-1} [5] S^0_{298} = [200.8] J·mol^{-1}·K^{-1} [5]

Dy_2Se_3 (s) Dysprosium(III) Selenide **Dy_2Se_3 (s)**

ΔH^0_{298} = [– 962.3] kJ·mol^{-1} [5] S^0_{298} = [238.5] J·mol^{-1}·K^{-1} [5]

Dy_2Te_3 (s) Dysprosium(III) Telluride **Dy_2Te_3 (s)**

mp = 1783 K (1510 °C)
ΔH^0_{298} = [– 815.9] kJ·mol⁻¹ [5] S^0_{298} = [259.4] J·mol⁻¹·K⁻¹ [5]

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e (g) Electron **e (g)**

ΔH^0_{298} = 0 kJ·mol⁻¹ [2] S^0_{298} = 21 J·mol⁻¹·K⁻¹ [2]
C_p^0= 20.8 J·mol⁻¹·K⁻¹ (298 K) [2]

Er (s) Erbium **Er (s)**

mp = 1795 K (1522 °C) bp = 3133 K (2860 °C)
ΔH^0_{298} = 0 kJ·mol⁻¹ [2] S^0_{298} = 73.2 J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 28.38 - 1.99 \cdot 10^{-3} \cdot T - 0.2 \cdot 10^{6} \cdot T^{-2} + 5.72 \cdot 10^{-6} \cdot T^2$ J·mol⁻¹·K⁻¹ (298 ... 1795 K) [4]
$\lg(p,K) = -17.13 \cdot 10^3 \cdot T^{-1} - 1.91 \cdot \lg(T) + 12.38$ (1100 ... 1795 K) [4]
{Reaction: evaporation as Er(g)}

Er (s) Erbium **Er (s)**

ΔH^0_{1795} = 50.3 kJ·mol⁻¹ [2] S^0_{1795} = 130 J·mol⁻¹·K⁻¹ [2]
C_p^0= 43.22 J·mol⁻¹·K⁻¹ (1795 K) [2]

Er (l) Erbium **Er (l)**

ΔH^0_{1795} = 70.2 kJ·mol⁻¹ [2] S^0_{1795} = 141.1 J·mol⁻¹·K⁻¹ [2]
C_p^0= 38.7 J·mol⁻¹·K⁻¹ (1795 K) [2]
$\lg(p,K) = -16.01 \cdot 10^3 \cdot T^{-1} - 1.8 \cdot \lg(T) + 11.41$ (1795 ... 2000 K) [4]
{Reaction: evaporation as Er(g)}

Er (g) Erbium **Er (g)**

ΔH^0_{298} = 317.1 kJ·mol⁻¹ [2] S^0_{298} = 194 J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 21.24 - 1.75 \cdot 10^{-3} \cdot T + 1.6 \cdot 10^{-6} \cdot T^2$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Dy_2Te_3 (s) Dysprosium(III) Telluride **Dy_2Te_3 (s)**

mp = 1783 K (1510 °C)
ΔH^0_{298} = [– 815.9] kJ·mol^{-1} [5] S^0_{298} = [259.4] J·mol^{-1}·K^{-1} [5]

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e (g) Electron **e (g)**

ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 21 J·mol^{-1}·K^{-1} [2]
C_p^0= 20.8 J·mol^{-1}·K^{-1} (298 K) [2]

Er (s) Erbium **Er (s)**

mp = 1795 K (1522 °C) bp = 3133 K (2860 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 73.2 J·mol^{-1}·K^{-1} [2]
$C_p^0 = 28.38 - 1.99 \cdot 10^{-3} \cdot T - 0.2 \cdot 10^{6} \cdot T^{-2} + 5.72 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 1795 K) [4]
$\lg(p,K) = -17.13 \cdot 10^{3} \cdot T^{-1} - 1.91 \cdot \lg(T) + 12.38$ (1100 ... 1795 K) [4]
{Reaction: evaporation as Er(g)}

Er (s) Erbium **Er (s)**

ΔH^0_{1795} = 50.3 kJ·mol^{-1} [2] S^0_{1795} = 130 J·mol^{-1}·K^{-1} [2]
C_p^0= 43.22 J·mol^{-1}·K^{-1} (1795 K) [2]

Er (l) Erbium **Er (l)**

ΔH^0_{1795} = 70.2 kJ·mol^{-1} [2] S^0_{1795} = 141.1 J·mol^{-1}·K^{-1} [2]
C_p^0= 38.7 J·mol^{-1}·K^{-1} (1795 K) [2]
$\lg(p,K) = -16.01 \cdot 10^{3} \cdot T^{-1} - 1.8 \cdot \lg(T) + 11.41$ (1795 ... 2000 K) [4]
{Reaction: evaporation as Er(g)}

Er (g) Erbium **Er (g)**

ΔH^0_{298} = 317.1 kJ·mol^{-1} [2] S^0_{298} = 194 J·mol^{-1}·K^{-1} [2]
$C_p^0 = 21.24 - 1.75 \cdot 10^{-3} \cdot T + 1.6 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ErF_3 (s) Erbium(III) Fluoride alpha **ErF_3 (s)**

mp = 1419 K (1146 °C) bp = 2700 K (2427 °C)
ΔH^0_{298} = – 1692.4 kJ·mol^{-1} [4] S^0_{298} = 110 J·mol^{-1}·K^{-1} [4]
C_p^0= 86.11 + 24.85 ·10^{-3}·T + 1.6 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1390 K) [4]
lg(p,K) = – 24.32 ·10^3·T^{-1} – 4.47 · lg(T) + 25.56 (1200 ... 1390 K) [4]
{Reaction: evaporation as ErF_3(g)}

ErF_3 (s) Erbium(III) Fluoride alpha **ErF_3 (s)**

ΔH^0_{1390} = – 1571.3 kJ·mol^{-1} [4] S^0_{1390} = 278.3 J·mol^{-1}·K^{-1} [4]

ErF_3 (s) Erbium(III) Fluoride beta **ErF_3 (s)**

ΔH^0_{1390} = – 1541.7 kJ·mol^{-1} [4] S^0_{1390} = 299.6 J·mol^{-1}·K^{-1} [4]
C_p^0= 135.02 J·mol^{-1}·K^{-1} (1390 K) [4]
lg(p,K) = – 23.9 ·10^3·T^{-1} – 6.34 · lg(T) + 31.13 (1390 ... 1419 K) [4]
{Reaction: evaporation as ErF_3(g)}

ErF_3 (s) Erbium(III) Fluoride beta **ErF_3 (s)**

ΔH^0_{1419} = – 1537.8 kJ·mol^{-1} [4] S^0_{1419} = 302.4 J·mol^{-1}·K^{-1} [4]

ErF_3 (l) Erbium(III) Fluoride **ErF_3 (l)**

ΔH^0_{1419} = – 1509.6 kJ·mol^{-1} [4] S^0_{1419} = 322.3 J·mol^{-1}·K^{-1} [4]
C_p^0= 139.12 J·mol^{-1}·K^{-1} (1419 K) [4]
lg(p,K) = – 22.69 ·10^3·T^{-1} – 6.77 · lg(T) + 31.63 (1419 ... 2000 K) [4]
{Reaction: evaporation as ErF_3(g)}

ErF_3 (g) Erbium(III) Fluoride **ErF_3 (g)**

ΔH^0_{298} = – 1244.7 kJ·mol^{-1} [2] S^0_{298} = 340.1 J·mol^{-1}·K^{-1} [2]
C_p^0= 81.29 + 1.09 ·10^{-3}·T – 0.94 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ErI_3 (g) Erbium(III) Iodide **ErI_3 (g)**

mp = 1293 K (1020 °C) bp = 1550 K (1277 °C)
ΔH^0_{298} = – 339.7 kJ·mol^{-1} [2] S^0_{298} = 431.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 83.08 + 0.05 ·10^{-3}·T – 0.15 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ErS (s) Erbium(II) Sulfide **ErS (s)**

ΔH^0_{298} = [– 460.2] kJ·mol^{-1} [5] S^0_{298} = [77.4] J·mol^{-1}·K^{-1} [5]

ErS (g) Erbium(II) Sulfide **ErS (g)**

ΔH^0_{298} = [205] kJ·mol^{-1} [5] S^0_{298} = [261.8] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.13] + [0.15] ·10^{-3}·T + [– 0.25] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

ErSe (s) Erbium(II) Selenide **ErSe (s)**

ΔH^0_{298} = [– 368.2] kJ·mol^{-1} [5] S^0_{298} = [90] J·mol^{-1}·K^{-1} [5]

ErSe (g) Erbium(II) Selenide **ErSe (g)**

ΔH^0_{298} = [251.5] kJ·mol^{-1} [5] S^0_{298} = [272.4] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.29] + [0.07] ·10^{-3}·T + [– 0.25] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

ErTe (s) Erbium(II) Telluride **ErTe (s)**

ΔH^0_{298} = [– 313.8] kJ·mol^{-1} [5] S^0_{298} = [97.1] J·mol^{-1}·K^{-1} [5]

ErTe (g) Erbium(II) Telluride **ErTe (g)**

ΔH^0_{298} = [315.9] kJ·mol^{-1} [5] S^0_{298} = [281] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.38] + [0.02] ·10^{-3}·T + [– 0.10] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

Er_2O_3 (s) Erbium(III) Oxide **Er_2O_3 (s)**

ΔH^0_{298} = – 1897.9 kJ·mol^{-1} [2] S^0_{298} = 155.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 108.5 J·mol^{-1}·K^{-1} (298 K) [2]

Er_2S_3 (s) Erbium(III) Sulfide **Er_2S_3 (s)**

$\Delta H^0_{298} = [-1234.3]$ kJ·mol^{-1} [5] $S^0_{298} = [202.9]$ J·mol^{-1}·K^{-1} [5]

Er_2Se_3 (s) Erbium(III) Selenide **Er_2Se_3 (s)**

$\Delta H^0_{298} = [-962.3]$ kJ·mol^{-1} [5] $S^0_{298} = [240.6]$ J·mol^{-1}·K^{-1} [5]

Er_2Te_3 (s) Erbium(III) Telluride **Er_2Te_3 (s)**

$\Delta H^0_{298} = [-815.9]$ kJ·mol^{-1} [5] $S^0_{298} = [261.5]$ J·mol^{-1}·K^{-1} [5]

Eu (s) Europium **Eu (s)**

mp = 1090 K (817 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 77.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 17.97 + 19.08 \cdot 10^{-3} \cdot T + 0.36 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1090 K) [4]
$\lg(p,K) = -9.54 \cdot 10^{3} \cdot T^{-1} - 1.78 \cdot \lg(T) + 11.29$ (700 ... 1090 K) [4]
{Reaction: evaporation as Eu(g)}

Eu (s) Europium **Eu (s)**

$\Delta H^0_{1090} = 25.6$ kJ·mol^{-1} [2] $S^0_{1090} = 118$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 39.07$ J·mol^{-1}·K^{-1} (1090 K) [4]

Eu (l) Europium **Eu (l)**

$\Delta H^0_{1090} = 34.8$ kJ·mol^{-1} [2] $S^0_{1090} = 126.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 38.12$ J·mol^{-1}·K^{-1} (1090 K) [4]
$\lg(p,K) = -9.19 \cdot 10^{3} \cdot T^{-1} - 2.08 \cdot \lg(T) + 11.88$ (1090 ... 1797 K) [4]
{Reaction: evaporation as Eu(g)}

Eu (g) Europium **Eu (g)**

$\Delta H^0_{298} = 175.3$ kJ·mol^{-1} [2] $S^0_{298} = 188.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 20.72 + 0.09 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

EuF_3 (s) Europium(III) Fluoride alpha **EuF_3 (s)**

mp = 1650 K (1377 °C) bp = 2662 K (2389 °C)
$\Delta H^0_{298} = -1584.1$ kJ·mol^{-1} [2] $S^0_{298} = 107.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 93.08 + 32.47 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 920 K) [4]

EuF_3 (s) Europium(III) Fluoride alpha **EuF_3 (s)**

$\Delta H^0_{920} = -1514.5$ kJ·mol^{-1} [4] $S^0_{920} = 230.7$ J·mol^{-1}·K^{-1} [4]

EuF_3 (s) Europium(III) Fluoride beta **EuF_3 (s)**

$\Delta H^0_{920} = -1508.1$ kJ·mol^{-1} [4] $S^0_{920} = 237.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 150.62$ J·mol^{-1}·K^{-1} (920 K) [4]
$\lg(p,K) = -24.56 \cdot 10^3 \cdot T^{-1} - 7.09 \cdot \lg(T) + 34.03$ (1200 ... 1650 K) [4]
{Reaction: evaporation as EuF_3(g)}

EuF_3 (s) Europium(III) Fluoride beta **EuF_3 (s)**

$\Delta H^0_{1650} = -1398.2$ kJ·mol^{-1} [4] $S^0_{1650} = 325.7$ J·mol^{-1}·K^{-1} [4]

EuF_3 (l) Europium(III) Fluoride **EuF_3 (l)**

$\Delta H^0_{1650} = -1356.3$ kJ·mol^{-1} [4] $S^0_{1650} = 351.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 152.72$ J·mol^{-1}·K^{-1} (1650 K) [4]
$\lg(p,K) = -22.54 \cdot 10^3 \cdot T^{-1} - 7.37 \cdot \lg(T) + 33.73$ (1650 ... 2000 K) [4]
{Reaction: evaporation as EuF_3(g)}

EuF_3 (g) Europium(III) Fluoride **EuF_3 (g)**

$\Delta H^0_{298} = -1147.7$ kJ·mol^{-1} [2] $S^0_{298} = 328.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 93.28 - 0.74 \cdot 10^{-3} \cdot T - 1.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

EuN (s) Europium Nitride **EuN** (s)

$\Delta H^0_{298} = -217.6$ kJ·mol^{-1} [4] $S^0_{298} = 63.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 51.88 + 5.44 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1872 K) [4]

EuO (s) Europium(II) Oxide **EuO** (s)

mp = 2253 K (1980 °C)
$\Delta H^0_{298} = -589.9$ kJ·mol^{-1} [4] $S^0_{298} = 81.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 48.85 + 5.31 \cdot 10^{-3} \cdot T - 0.15 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2253 K) [4]

EuS (s) Europium(II) Sulfide **EuS** (s)

$\Delta H^0_{298} = -418.4$ kJ·mol^{-1} [2] $S^0_{298} = 77.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 48.74 + 4.81 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

EuS (g) Europium(II) Sulfide **EuS** (g)

$\Delta H^0_{298} = 88.3$ kJ·mol^{-1} [2] $S^0_{298} = 272.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 37.24 + 0.07 \cdot 10^{-3} \cdot T - 0.19 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

EuSe (s) Europium(II) Selenide **EuSe** (s)

$\Delta H^0_{298} = [-326.4]$ kJ·mol^{-1} [5] $S^0_{298} = [90]$ J·mol^{-1}·K^{-1} [5]

EuSe (g) Europium(II) Selenide **EuSe** (g)

$\Delta H^0_{298} = 109.2$ kJ·mol^{-1} [5] $S^0_{298} = [282.2]$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.33] + [0.04] \cdot 10^{-3} \cdot T + [-0.15] \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

EuTe (s) Europium(II) Telluride **EuTe** (s)

$\Delta H^0_{298} = [-272]$ kJ·mol^{-1} [5] $S^0_{298} = [97]$ J·mol^{-1}·K^{-1} [5]

EuTe (g) Europium(II) Telluride **EuTe** (g)

$\Delta H^0_{298} = 146$ kJ·mol^{-1} [5] $S^0_{298} = [290.7]$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.39] + [0.11] \cdot 10^{-3} \cdot T + [-0.08] \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

Eu_2O_3 (s) Europium(III) Oxide **Eu_2O_3 (s)**
cubic

mp = 2373 K (2100 °C)
$\Delta H^0_{298} = -1662.7$ kJ·mol^{-1} [2] $S^0_{298} = 140.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 133.31 + 18.56 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1350 K) [4]

Eu_2O_3 (s) Europium(III) Oxide **Eu_2O_3 (s)**
alpha

mp = 2373 K (2100 °C)
$\Delta H^0_{298} = -1657.1$ kJ·mol^{-1} [4] $S^0_{298} = 146.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 125.47 + 25.2 \cdot 10^{-3} \cdot T - 1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 895 K) [4]

Eu_3S_4 (s) Europium Sulfide **Eu_3S_4 (s)**

$\Delta H^0_{298} = [-1485.3]$ kJ·mol^{-1} [5] $S^0_{298} = [279.5]$ J·mol^{-1}·K^{-1} [5]

F (g) Fluorine **F (g)**

$\Delta H^0_{298} = 79.4 \pm 0.3$ kJ·mol^{-1} [1] $S^0_{298} = 158.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 21.82 - 0.55 \cdot 10^{-3} \cdot T + 0.11 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FFe (g) Iron(I) Fluoride **FFe (g)**
FeF (g) FeF (g)

$\Delta H^0_{298} = 47.7 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 240.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36.51 + 0.9 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FGa (g) Gallium(I) Fluoride **FGa (g)**
GaF (g) GaF (g)

$\Delta H^0_{298} = -232.6$ kJ·mol^{-1} [2] $S^0_{298} = 227.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 36.5 + 1.06 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Eu_2O_3 (s) Europium(III) Oxide **Eu_2O_3 (s)**
cubic

mp = 2373 K (2100 °C)
$\Delta H^0_{298} = -1662.7$ kJ·mol^{-1} [2] $S^0_{298} = 140.2$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 133.31 + 18.56 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1350 K) [4]

Eu_2O_3 (s) Europium(III) Oxide **Eu_2O_3 (s)**
alpha

mp = 2373 K (2100 °C)
$\Delta H^0_{298} = -1657.1$ kJ·mol^{-1} [4] $S^0_{298} = 146.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 125.47 + 25.2 \cdot 10^{-3} \cdot T - 1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 895 K) [4]

Eu_3S_4 (s) Europium Sulfide **Eu_3S_4 (s)**

$\Delta H^0_{298} = [-1485.3]$ kJ·mol^{-1} [5] $S^0_{298} = [279.5]$ J·mol^{-1}·K^{-1} [5]

F (g) Fluorine **F (g)**

$\Delta H^0_{298} = 79.4 \pm 0.3$ kJ·mol^{-1} [1] $S^0_{298} = 158.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 21.82 - 0.55 \cdot 10^{-3} \cdot T + 0.11 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FFe (g) Iron(I) Fluoride **FFe (g)**
FeF (g) FeF (g)

$\Delta H^0_{298} = 47.7 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 240.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 36.51 + 0.9 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FGa (g) Gallium(I) Fluoride **FGa (g)**
GaF (g) GaF (g)

$\Delta H^0_{298} = -232.6$ kJ·mol^{-1} [2] $S^0_{298} = 227.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 36.5 + 1.06 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FGe (g) Germanium(I) Fluoride **FGe** (g)
GeF (g) GeF (g)

$\Delta H^0_{298} = -66.6$ kJ·mol^{-1} [4] $S^0_{298} = 234$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 42.28 - 1.85 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FH (g) Hydrogen Fluoride **FH** (g)
HF (g) HF (g)

$\Delta H^0_{298} = -272.6 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 173.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 26.36 + 3.83 \cdot 10^{-3} \cdot T + 0.17 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -12.29 \cdot 10^3 \cdot T^{-1} + 0.37 \cdot \lg(T) + 0.81$ (1200 ... 2000 K) [4]
{Reaction: decomposition 2/3HF(g) = 1/3H_2(g) + 2/3F(g)}

FHO (g) Hypofluorous Acid **FHO** (g)
HOF (g) HOF (g)

$\Delta H^0_{298} = -98.3 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 226.8 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 35.93$ J·mol^{-1}·K^{-1} (298 K) [1]

FHO_3S (g) Fluorosulfuric Acid **FHO_3S** (g)
HSO_3F (g) HSO_3F (g)

$\Delta H^0_{298} = -753.1 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 297.3 \pm 3.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 75.24$ J·mol^{-1}·K^{-1} (298 K) [1]

FH_3Si (g) Fluorosilane **FH_3Si** (g)
SiH_3F (g) SiH_3F (g)

$\Delta H^0_{298} = -376.6 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 238.4 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 47.2$ J·mol^{-1}·K^{-1} (298 K) [1]

FH_4N (s) Ammonium Fluoride **FH_4N (s)**

NH_4F (s) NH_4F (s)

$\Delta H^0_{298} = -463.6$ kJ·mol^{-1} [4] $S^0_{298} = 72$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 46.16 + 64.09 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 478 K) [4]

$\lg(p,K) = -3.65 \cdot 10^3 \cdot T^{-1} + 0.89 \cdot \lg(T) + 4.95$ (298 ... 478 K) [4]

{Reaction: decomposition $1/2NH_4F(s) = 1/2NH_3(g) + 1/2HF(g)$}

FHg (g) Mercury(I) Fluoride **FHg (g)**

HgF (g) HgF (g)

$\Delta H^0_{298} = 2.9 \pm 50.2$ kJ·mol^{-1} [1] $S^0_{298} = 248.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 37.15 + 0.87 \cdot 10^{-3} \cdot T - 0.25 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FI (g) Iodine Fluoride **FI (g)**

IF (g) IF (g)

$\Delta H^0_{298} = -94.8 \pm 3.8$ kJ·mol^{-1} [1] $S^0_{298} = 236.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 33.56$ J·mol^{-1}·K^{-1} (298 K) [1]

FIn (g) Indium(I) Fluoride **FIn (g)**

InF (g) InF (g)

$\Delta H^0_{298} = -193.7$ kJ·mol^{-1} [2] $S^0_{298} = 236.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 36.84 + 0.88 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FK (s) Potassium Fluoride **FK (s)**

KF (s) KF (s)

mp = 1119 K (846 °C) bp = 1788 K (1515 °C)

$\Delta H^0_{298} = -568.6 \pm 0.4$ kJ·mol^{-1} [1] $S^0_{298} = 66.5 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 47.36 + 13.26 \cdot 10^{-3} \cdot T - 0.2 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1131 K) [4]

FK (l) Potassium Fluoride **FK (l)**

KF (l) KF (l)

$\Delta H^0_{298} = -554.5$ kJ·mol^{-1} [1] $S^0_{298} = 67.6$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 71.97$ J·mol^{-1}·K^{-1} (298 K) [1]

FK (g) Potassium Fluoride **FK** (g)
KF (g) KF (g)

$\Delta H^0_{298} = -326.8 \pm 2.1$ kJ·mol⁻¹ [1] $S^0_{298} = 226.6$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 37.24 + 0.75 \cdot 10^{-3} \cdot T - 0.21 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]
$\lg(p,K) = -13.1 \cdot 10^3 \cdot T^{-1} - 2.67 \cdot \lg(T) + 16.43$ (800 ... 1131 K) [4]
{Reaction: evaporation of KF(s)}

FLi (s) Lithium Fluoride **FLi** (s)
LiF (s) LiF (s)

mp = 1121 K (848 °C) bp = 1975 K (1702 °C)
$\Delta H^0_{298} = -616.9 \pm 0.8$ kJ·mol⁻¹ [1] $S^0_{298} = 35.7$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 43.28 + 16.73 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1121 K) [4]

FLi (s) Lithium Fluoride **FLi** (s)
LiF (s) LiF (s)

$\Delta H^0_{1121} = -572$ kJ·mol⁻¹ [4] $S^0_{1121} = 103.7$ J·mol⁻¹·K⁻¹ [4]

FLi (l) Lithium Fluoride **FLi** (l)
LiF (l) LiF (l)

$\Delta H^0_{1121} = -545$ kJ·mol⁻¹ [4] $S^0_{1121} = 127.9$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 64.35$ J·mol⁻¹·K⁻¹ (1121 K) [4]

FLi (l) Lithium Fluoride **FLi** (l)
LiF (l) LiF (l)

$\Delta H^0_{298} = -598.7$ kJ·mol⁻¹ [1] $S^0_{298} = 43$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 64.18$ J·mol⁻¹·K⁻¹ (298 K) [1]

FLi (g) Lithium Fluoride **FLi** (g)
LiF (g) LiF (g)

$\Delta H^0_{298} = -340.8 \pm 8.4$ kJ·mol⁻¹ [1] $S^0_{298} = 200.3$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 34.8 + 2.16 \cdot 10^{-3} \cdot T - 0.37 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1975 K) [4]
$\lg(p,K) = -14.95 \cdot 10^3 \cdot T^{-1} - 2.77 \cdot \lg(T) + 17.1$ (900 ... 1121 K) [4]
{Reaction: evaporation of LiF(s)}

FLiO (g) Lithium Hypofluorite **FLiO (g)**
LiOF (g) LiOF (g)

$\Delta H^0_{298} = -92.1 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 246$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 43.03$ J·mol^{-1}·K^{-1} (298 K) [1]

FMg (g) Magnesium(I) Fluoride **FMg (g)**
MgF (g) MgF (g)

$\Delta H^0_{298} = -236.8 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 221.1 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36.1 + 1.26 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FMo (g) Molybdenum(I) Fluoride **FMo (g)**
MoF (g) MoF (g)

$\Delta H^0_{298} = 282.8 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 246.4 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36 + 1.23 \cdot 10^{-3} \cdot T - 0.33 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2896 K) [4]

FN (g) Nitrogen(I) Fluoride **FN (g)**
NF (g) NF (g)

$\Delta H^0_{298} = 248.9 \pm 33$ kJ·mol^{-1} [1] $S^0_{298} = 215.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 30.35$ J·mol^{-1}·K^{-1} (298 K) [1]

FNO (g) Nitrosyl Fluoride **FNO (g)**
ONF (g) ONF (g)

mp = 139 K (-134 °C) bp = 217 K (-56 °C)
$\Delta H^0_{298} = -65.7 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 248.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 47.95 + 5.81 \cdot 10^{-3} \cdot T - 0.76 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FNO_2 (g) Nitryl Fluoride **FNO_2 (g)**
NO_2F (g) NO_2F (g)

mp = 134 K (-139 °C) bp = 210 K (-63 °C)
$\Delta H^0_{298} = -108.8 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 260.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 68.06 + 7.54 \cdot 10^{-3} \cdot T - 2.02 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FNO_3 (g) Fluorine Nitrate **FNO_3 (g)**

$FONO_2$ (g) $FONO_2$ (g)

$\Delta H^0_{298} = 10.5 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 292.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 65.22$ J·mol^{-1}·K^{-1} (298 K) [1]

FNa (s) Sodium Fluoride **FNa (s)**

NaF (s) NaF (s)

mp = 1269 K (996 °C) bp = 2075 K (1802 °C)

$\Delta H^0_{298} = -573.6$ kJ·mol^{-1} [4] $S^0_{298} = 51.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 45.05 + 16.04 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1269 K) [4]

FNa (s) Sodium Fluoride **FNa (s)**

NaF (s) NaF (s)

$\Delta H^0_{1269} = -518.4$ kJ·mol^{-1} [4] $S^0_{1269} = 130.7$ J·mol^{-1}·K^{-1} [4]

FNa (l) Sodium Fluoride **FNa (l)**

NaF (l) NaF (l)

$\Delta H^0_{1269} = -484.8$ kJ·mol^{-1} [4] $S^0_{1269} = 157.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 69.75$ J·mol^{-1}·K^{-1} (1269 K) [4]

FNa (l) Sodium Fluoride **FNa (l)**

NaF (l) NaF (l)

$\Delta H^0_{298} = -546.2$ kJ·mol^{-1} [1] $S^0_{298} = 73.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 46.85$ J·mol^{-1}·K^{-1} (298 K) [1]

FNa (g) Sodium Fluoride **FNa (g)**

NaF (g) NaF (g)

$\Delta H^0_{298} = -291.1$ kJ·mol^{-1} [4] $S^0_{298} = 217.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 36.87 + 1.02 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2075 K) [4]

$\lg(p,K) = -15.38 \cdot 10^3 \cdot T^{-1} - 2.94 \cdot \lg(T) + 17.72$ (900 ... 1269 K) [4]

{Reaction: evaporation of NaF(s)}

FNi (g) Nickel(I) Fluoride **FNi (g)**
NiF (g) NiF (g)

ΔH^0_{298} = 104.6 kJ·mol^{-1} [4] S^0_{298} = 239.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 38.1 + 1.68 ·10^{-3}·T – 0.53 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FO (g) Oxygen Fluoride **FO (g)**
OF (g) OF (g)

ΔH^0_{298} = 109 ± 10 kJ·mol^{-1} [1] S^0_{298} = 216.4 ± 0.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 32 J·mol^{-1}·K^{-1} (298 K) [1]

FOSm (s) Samarium Oxide Fluoride **FOSm (s)**
SmOF (s) alpha SmOF (s)

ΔH^0_{298} = – 1148.9 kJ·mol^{-1} [2] S^0_{298} = 94.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 76.8 + 9.71 ·10^{-3}·T – 0.9 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 797 K) [4]

FOSm (s) Samarium Oxide Fluoride **FOSm (s)**
SmOF (s) alpha SmOF (s)

ΔH^0_{797} = – 1109.9 kJ·mol^{-1} [4] S^0_{797} = 170.1 J·mol^{-1}·K^{-1} [4]

FOSm (s) Samarium Oxide Fluoride **FOSm (s)**
SmOF (s) beta SmOF (s)

ΔH^0_{797} = – 1104.6 kJ·mol^{-1} [4] S^0_{797} = 176.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 76.8 + 9.71 ·10^{-3}·T – 0.9 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (797 ... 1195 K) [4]

FOSm (s) Samarium Oxide Fluoride **FOSm (s)**
SmOF (s) beta SmOF (s)

ΔH^0_{1195} = – 1070.6 kJ·mol^{-1} [4] S^0_{1195} = 211.3 J·mol^{-1}·K^{-1} [4]

FOSm (s) Samarium Oxide Fluoride **FOSm (s)**
SmOF (s) gamma SmOF (s)

ΔH^0_{1195} = – 1070.2 kJ·mol^{-1} [4] S^0_{1195} = 211.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 89.66 J·mol^{-1}·K^{-1} (1195 K) [4]

FOTi (g) Titanium Oxide Fluoride **FOTi (g)**
OTiF (g) OTiF (g)

$\Delta H^0_{298} = -433.2$ kJ·mol^{-1} [1] $S^0_{298} = 250.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 48.47$ J·mol^{-1}·K^{-1} (298 K) [1]

FO_2 (g) Oxygen Fluoride **FO_2 (g)**
OFO (g) OFO (g)

$\Delta H^0_{298} = 378.6 \pm 20$ kJ·mol^{-1} [1] $S^0_{298} = 251 \pm 1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 41.13$ J·mol^{-1}·K^{-1} (298 K) [1]

FO_2 (g) Oxygen Fluoride **FO_2 (g)**
FOO (g) FOO (g)

$\Delta H^0_{298} = 25.4 \pm 2$ kJ·mol^{-1} [1] $S^0_{298} = 259.5 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 44.45$ J·mol^{-1}·K^{-1} (298 K) [1]

FP (g) Phosphorus(I) Fluoride **FP (g)**
PF (g) PF (g)

$\Delta H^0_{298} = -52.3 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 225$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 31.62$ J·mol^{-1}·K^{-1} (298 K) [1]

FPS (g) Thiophosphoryl Fluoride **FPS (g)**
PSF (g) PSF (g)

$\Delta H^0_{298} = -172.3 \pm 62.8$ kJ·mol^{-1} [1] $S^0_{298} = 277.7 \pm 12.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 44.44$ J·mol^{-1}·K^{-1} (298 K) [1]

FPb (g) Lead(I) Fluoride **FPb (g)**
PbF (g) PbF (g)

$\Delta H^0_{298} = -80.3 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 250 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 36.56 + 1.18 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FRb (s) Rubidium Fluoride **FRb (s)**
RbF (s) RbF (s)

mp = 1050 K (777 °C)
$\Delta H^0_{298} = -555.8$ kJ·mol⁻¹ [4] $S^0_{298} = 77.8$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 33.33 + 38.54 \cdot 10^{-3} \cdot T + 0.5 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1050 K) [4]
$\lg(p,K) = -12.3 \cdot 10^3 \cdot T^{-1} - 3.63 \cdot \lg(T) + 19.35$ (700 ... 1050 K) [4]
{Reaction: evaporation as RbF(g)}

FRb (s) Rubidium Fluoride **FRb (s)**
RbF (s) RbF (s)

$\Delta H^0_{1050} = -510$ kJ·mol⁻¹ [4] $S^0_{1050} = 151.4$ J·mol⁻¹·K⁻¹ [4]

FRb (l) Rubidium Fluoride **FRb (l)**
RbF (l) RbF (l)

$\Delta H^0_{1050} = -484.3$ kJ·mol⁻¹ [4] $S^0_{1050} = 175.8$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 59.41$ J·mol⁻¹·K⁻¹ (1050 K) [4]
$\lg(p,K) = -10.46 \cdot 10^3 \cdot T^{-1} - 2.57 \cdot \lg(T) + 14.39$ (1050 ... 1721 K) [4]
{Reaction: evaporation as RbF(g)}

FRb (g) Rubidium Fluoride **FRb (g)**
RbF (g) RbF (g)

$\Delta H^0_{298} = -334.6$ kJ·mol⁻¹ [4] $S^0_{298} = 234.6$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 37.34 + 0.61 \cdot 10^{-3} \cdot T - 0.15 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

FRu (g) Ruthenium(I) Fluoride **FRu (g)**
RuF (g) RuF (g)

$\Delta H^0_{298} = 328.4 \pm 18$ kJ·mol⁻¹ [278] $S^0_{298} = [243.1]$ J·mol⁻¹·K⁻¹ [15]

FS (g) Sulfur(I) Fluoride **FS (g)**
SF (g) SF (g)

$\Delta H^0_{298} = 13 \pm 6.3$ kJ·mol⁻¹ [1] $S^0_{298} = 225.3 \pm 0.8$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 35.15$ J·mol⁻¹·K⁻¹ (298 K) [1]

FSb (g) Antimony(I) Fluoride **FSb (g)**
SbF (g) SbF (g)

$\Delta H^0_{298} = -74.1\ \mathrm{kJ{\cdot}mol^{-1}}$ [2] $S^0_{298} = 234.8\ \mathrm{J{\cdot}mol^{-1}{\cdot}K^{-1}}$ [2]
$C_p{}^0 = 36.61 + 0.5 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^6 \cdot T^{-2}\ \mathrm{J{\cdot}mol^{-1}{\cdot}K^{-1}}$ (298 ... 2000 K) [6]

FSc (g) Scandium(I) Fluoride **FSc (g)**
ScF (g) ScF (g)

$\Delta H^0_{298} = -133.9\ \mathrm{kJ{\cdot}mol^{-1}}$ [93] $S^0_{298} = 214.6\ \mathrm{J{\cdot}mol^{-1}{\cdot}K^{-1}}$ [93]

FSe (g) Selenium(I) Fluoride **FSe (g)**
SeF (g) SeF (g)

$\Delta H^0_{298} = -41.8\ \mathrm{kJ{\cdot}mol^{-1}}$ [4] $S^0_{298} = 233.4\ \mathrm{J{\cdot}mol^{-1}{\cdot}K^{-1}}$ [4]
$C_p{}^0 = 36.42 + 0.52 \cdot 10^{-3} \cdot T - 0.39 \cdot 10^6 \cdot T^{-2}\ \mathrm{J{\cdot}mol^{-1}{\cdot}K^{-1}}$ (298 ... 2000 K) [4]

FSi (g) Silicon(I) Fluoride **FSi (g)**
SiF (g) SiF (g)

$\Delta H^0_{298} = -20.1 \pm 12.6\ \mathrm{kJ{\cdot}mol^{-1}}$ [1] $S^0_{298} = 225.8 \pm 0.2\ \mathrm{J{\cdot}mol^{-1}{\cdot}K^{-1}}$ [1]
$C_p{}^0 = 32.65\ \mathrm{J{\cdot}mol^{-1}{\cdot}K^{-1}}$ (298 K) [1]

FSn (g) Tin(I) Fluoride **FSn (g)**
SnF (g) SnF (g)

$\Delta H^0_{298} = -95\ \mathrm{kJ{\cdot}mol^{-1}}$ [4] $S^0_{298} = 241.6\ \mathrm{J{\cdot}mol^{-1}{\cdot}K^{-1}}$ [4]
$C_p{}^0 = 36.73 + 3.26 \cdot 10^{-3} \cdot T - 0.36 \cdot 10^6 \cdot T^{-2}\ \mathrm{J{\cdot}mol^{-1}{\cdot}K^{-1}}$ (298 ... 2000 K) [4]

FSr (g) Strontium(I) Fluoride **FSr (g)**
SrF (g) SrF (g)

$\Delta H^0_{298} = -294.6 \pm 8.4\ \mathrm{kJ{\cdot}mol^{-1}}$ [1] $S^0_{298} = 239.9 \pm 0.2\ \mathrm{J{\cdot}mol^{-1}{\cdot}K^{-1}}$ [1]
$C_p{}^0 = 36.99 + 0.7 \cdot 10^{-3} \cdot T - 0.24 \cdot 10^6 \cdot T^{-2}\ \mathrm{J{\cdot}mol^{-1}{\cdot}K^{-1}}$ (298 ... 2000 K) [4]

FTe (g) Tellurium(I) Fluoride **FTe** (g)
TeF (g) TeF (g)

$\Delta H^0_{298} = -87$ kJ·mol^{-1} [4] $S^0_{298} = 241.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 36.72 + 0.38 \cdot 10^{-3} \cdot T - 3.25 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FTi (g) Titanium(I) Fluoride **FTi** (g)
TiF (g) TiF (g)

$\Delta H^0_{298} = -66.9 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 237.3 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 43.48 + 0.34 \cdot 10^{-3} \cdot T - 0.76 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1939 K) [4]

FTl (s) Thallium(I) Fluoride **FTl** (s)
TlF (s) alpha TlF (s)

mp = 595 K (322 °C) bp = 1049 K (776 °C)
$\Delta H^0_{298} = -324.7$ kJ·mol^{-1} [2] $S^0_{298} = 95.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 38.63 + 49.49 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 356 K) [4]

FTl (s) Thallium(I) Fluoride **FTl** (s)
TlF (s) alpha TlF (s)

$\Delta H^0_{356} = -321.5$ kJ·mol^{-1} [4] $S^0_{356} = 105.4$ J·mol^{-1}·K^{-1} [4]

FTl (s) Thallium(I) Fluoride **FTl** (s)
TlF (s) beta TlF (s)

$\Delta H^0_{356} = -321.2$ kJ·mol^{-1} [4] $S^0_{356} = 106.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 41.45 + 34.14 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (356 ... 595 K) [4]

FTl (s) Thallium(I) Fluoride **FTl** (s)
TlF (s) beta TlF (s)

$\Delta H^0_{595} = -307.4$ kJ·mol^{-1} [4] $S^0_{595} = 135.8$ J·mol^{-1}·K^{-1} [4]

FTl (l) Thallium(I) Fluoride **FTl** (l)
TlF (l) TlF (l)

$\Delta H^0_{595} = -293.5$ kJ·mol^{-1} [4] $S^0_{595} = 159.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 67.28$ J·mol^{-1}·K^{-1} (595 K) [4]

FTl (g) Thallium(I) Fluoride **FTl (g)**
TlF (g) TlF (g)

$\Delta H^0_{298} = -185.9$ kJ·mol^{-1} [2] $S^0_{298} = 244.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 37.02 + 0.8 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -7.05 \cdot 10^{3} \cdot T^{-1} - 3.57 \cdot \lg(T) + 17.15$ (595 ... 1049 K) [4]
{Reaction: evaporation of TlF(l)}

FU (g) Uranium(I) Fluoride **FU (g)**
UF (g) UF (g)

$\Delta H^0_{298} = -42$ kJ·mol^{-1} [4] $S^0_{298} = 251$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.41$ J·mol^{-1}·K^{-1} (298 K) [4]

FW (g) Tungsten(I) Fluoride **FW (g)**
WF (g) WF (g)

$\Delta H^0_{298} = 386.2 \pm 62.8$ kJ·mol^{-1} [1] $S^0_{298} = 251.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.81 + 2.9 \cdot 10^{-3} \cdot T - 0.52 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FY (g) Yttrium(I) Fluoride **FY (g)**
YF (g) YF (g)

$\Delta H^0_{298} = -138$ kJ·mol^{-1} [4] $S^0_{298} = 231.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.28 + 0.44 \cdot 10^{-3} \cdot T - 0.77 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FZr (g) Zirconium(I) Fluoride **FZr (g)**
ZrF (g) ZrF (g)

$\Delta H^0_{298} = 82.8 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 243.7 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 33.83 + 6.02 \cdot 10^{-3} \cdot T - 0.2 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2 (g) Fluorine **F_2 (g)**

mp = 54 K (-219 °C) bp = 80 K (-193 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 202.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 35.1 + 2.14 \cdot 10^{-3} \cdot T - 0.43 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -4.2 \cdot 10^{3} \cdot T^{-1} + 0.25 \cdot \lg(T) + 2.44$ (400 ... 2000 K) [4]
{Reaction: decomposition $1/2F_2$(g) = F(g)}

F_2Fe (s) Iron(II) Fluoride **F_2Fe (s)**

FeF_2 (s) FeF_2 (s)

mp = 1213 K (940 °C)

$\Delta H^0_{298} = -705.8 \pm 41.8$ kJ·mol⁻¹ [1] $S^0_{298} = 87 \pm 0.2$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 73.08 + 9.61 \cdot 10^{-3} \cdot T - 0.7 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1213 K) [4]

$\lg(p,K) = -16.96 \cdot 10^{3} \cdot T^{-1} - 2.08 \cdot \lg(T) + 15.68$ (1000 ... 1213 K) [4]

{Reaction: evaporation as FeF_2(g)}

F_2Fe (s) Iron(II) Fluoride **F_2Fe (s)**

FeF_2 (s) FeF_2 (s)

$\Delta H^0_{1213} = -634.1$ kJ·mol⁻¹ [4] $S^0_{1213} = 194.7$ J·mol⁻¹·K⁻¹ [4]

F_2Fe (l) Iron(II) Fluoride **F_2Fe (l)**

FeF_2 (l) FeF_2 (l)

$\Delta H^0_{1213} = -588.5$ kJ·mol⁻¹ [4] $S^0_{1213} = 232.2$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 98.32$ J·mol⁻¹·K⁻¹ (1213 K) [4]

$\lg(p,K) = -15.65 \cdot 10^{3} \cdot T^{-1} - 4.09 \cdot \lg(T) + 20.8$ (1213 ... 2000 K) [4]

{Reaction: evaporation as FeF_2(g)}

F_2Fe (l) Iron(II) Fluoride **F_2Fe (l)**

FeF_2 (l) FeF_2 (l)

$\Delta H^0_{298} = -674.6$ kJ·mol⁻¹ [1] $S^0_{298} = 92.5$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 98.32$ J·mol⁻¹·K⁻¹ (298 K) [1]

F_2Fe (g) Iron(II) Fluoride **F_2Fe (g)**

FeF_2 (g) FeF_2 (g)

$\Delta H^0_{298} = -389.5 \pm 14.2$ kJ·mol⁻¹ [1] $S^0_{298} = 265.2$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 70.54 - 3.32 \cdot 10^{-3} \cdot T - 1.23 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

F_2Ga (g) Gallium(II) Fluoride **F_2Ga (g)**

GaF_2 (g) GaF_2 (g)

$\Delta H^0_{298} = -536.8$ kJ·mol^{-1} [4] $S^0_{298} = 279.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 55.22 + 1.84 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2Ge (g) Germanium(II) Fluoride **F_2Ge (g)**

GeF_2 (g) GeF_2 (g)

$\Delta H^0_{298} = -574$ kJ·mol^{-1} [2] $S^0_{298} = 270.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 56.12 + 1.21 \cdot 10^{-3} \cdot T - 0.77 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2HK (s) Potassium Hydrogen Fluoride **F_2HK (s)**

KF · HF (s) alpha KF · HF (s)

mp = 512 K (239 °C)

$\Delta H^0_{298} = -931.7$ kJ·mol^{-1} [4] $S^0_{298} = 104.3 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 50.21 + 89.54 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 470 K) [4]

F_2HK (s) Potassium Hydrogen Fluoride **F_2HK (s)**

KF · HF (s) alpha KF · HF (s)

$\Delta H^0_{470} = -917.1$ kJ·mol^{-1} [4] $S^0_{470} = 142.5$ J·mol^{-1}·K^{-1} [4]

F_2HK (s) Potassium Hydrogen Fluoride **F_2HK (s)**

KF · HF (s) beta KF · HF (s)

$\Delta H^0_{470} = -905.9$ kJ·mol^{-1} [4] $S^0_{470} = 166.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 100.25$ J·mol^{-1}·K^{-1} (470 K) [4]

F_2HK (s) Potassium Hydrogen Fluoride **F_2HK (s)**

KF · HF (s) beta KF · HF (s)

$\Delta H^0_{512} = -901.7$ kJ·mol^{-1} [4] $S^0_{512} = 175$ J·mol^{-1}·K^{-1} [4]

F_2HK (l) Potassium Hydrogen Fluoride **F_2HK (l)**
KF · HF (l) KF · HF (l)

$\Delta H^0_{512} = -894.9$ kJ·mol^{-1} [4] $S^0_{512} = 188.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 104.6$ J·mol^{-1}·K^{-1} (512 K) [4]

F_2HK (l) Potassium Hydrogen Fluoride **F_2HK (l)**
KF · HF (l) KF · HF (l)

$\Delta H^0_{298} = -916.6$ kJ·mol^{-1} [1] $S^0_{298} = 132.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 76.94$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2H_2 (g) Hydrogen Fluoride **F_2H_2 (g)**
H_2F_2 (g) H_2F_2 (g)

$\Delta H^0_{298} = -572.7 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 238.8 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 47.57 + 17.97 \cdot 10^{-3} \cdot T - 0.75 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]
$\lg(p,K) = -0.69 \cdot 10^{3} \cdot T^{-1} + 0.31 \cdot \lg(T) + 1.96$ (298 ... 1000 K) [4]
{Reaction: decomposition $1/2H_2F_2(g) = HF(g)$}

F_2H_2Si (g) Difluorosilane **F_2H_2Si (g)**
SiH_2F_2 (g) SiH_2F_2 (g)

$\Delta H^0_{298} = -790.8 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 262.1 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 54.27$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2Hg (s) Mercury(II) Fluoride **F_2Hg (s)**
HgF_2 (s) HgF_2 (s)

mp = 918 K (645 °C) bp = 919 K (646 °C)
$\Delta H^0_{298} = -422.6 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 116.3 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 68.62 + 20.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 918 K) [4]
$\lg(p,K) = -7.43 \cdot 10^{3} \cdot T^{-1} - 2.83 \cdot \lg(T) + 16.47$ (500 ... 918 K) [4]
{Reaction: evaporation as $HgF_2(g)$}

F_2Hg (s) Mercury(II) Fluoride **F_2Hg (s)**
HgF_2 (s) HgF_2 (s)

$\Delta H^0_{918} = -372.2$ kJ·mol^{-1} [4] $S^0_{918} = 206.5$ J·mol^{-1}·K^{-1} [4]

F_2Hg (l) Mercury(II) Fluoride **F_2Hg (l)**
HgF_2 (l) HgF_2 (l)

$\Delta H^0_{918} = -349.2$ kJ·mol^{-1} [4] $S^0_{918} = 231.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 102.09$ J·mol^{-1}·K^{-1} (918 K) [4]

F_2Hg (l) Mercury(II) Fluoride **F_2Hg (l)**
HgF_2 (l) HgF_2 (l)

$\Delta H^0_{298} = -404.9$ kJ·mol^{-1} [1] $S^0_{298} = 134.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 74.86$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2Hg (g) Mercury(II) Fluoride **F_2Hg (g)**
HgF_2 (g) HgF_2 (g)

$\Delta H^0_{298} = -293.7 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 271.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 61.46 + 0.47 \cdot 10^{-3} \cdot T - 0.71 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2Hg_2 (s) Mercury(I) Fluoride **F_2Hg_2 (s)**
Hg_2F_2 (s) Hg_2F_2 (s)

$\Delta H^0_{298} = -485.3 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 160.7 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 100 + 21.84 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 949 K) [4]

F_2In (g) Indium(II) Fluoride **F_2In (g)**
InF_2 (g) InF_2 (g)

$\Delta H^0_{298} = -477.5$ kJ·mol^{-1} [4] $S^0_{298} = 291.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 56.64 + 0.89 \cdot 10^{-3} \cdot T - 0.67 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2K_2 (g) Potassium Fluoride **F_2K_2 (g)**
$(KF)_2$ (g) $(KF)_2$ (g)

$\Delta H^0_{298} = -862.7 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 320 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 83.05 + 0.05 \cdot 10^{-3} \cdot T - 0.41 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -15.19 \cdot 10^3 \cdot T^{-1} - 4.48 \cdot \lg(T) + 23.43$ (800 ... 1131 K) [4]
{Reaction: evaporation of KF(s)}

F_2Li_2 (g) Lithium Fluoride **F_2Li_2 (g)**
$(LiF)_2$ (g) $(LiF)_2$ (g)

$\Delta H^0_{298} = -942.8 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 258.6 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 79.67 + 2.15 \cdot 10^{-3} \cdot T - 1.53 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1975 K) [4]
$\lg(p,K) = -16.1 \cdot 10^3 \cdot T^{-1} - 4.68 \cdot \lg(T) + 24.17$ (900 ... 1121 K) [4]
{Reaction: evaporation of LiF(s)}

F_2Mg (s) Magnesium(II) Fluoride **F_2Mg (s)**
MgF_2 (s) MgF_2 (s)

mp = 1536 K (1263 °C) bp = 2537 K (2264 °C)
$\Delta H^0_{298} = -1124.2 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 57.3 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 76.32 + 5.37 \cdot 10^{-3} \cdot T - 1.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1536 K) [4]
$\lg(p,K) = -21.36 \cdot 10^3 \cdot T^{-1} - 3.07 \cdot \lg(T) + 19.72$ (1200 ... 1536 K) [4]
{Reaction: evaporation as MgF_2(g)}

F_2Mg (s) Magnesium(II) Fluoride **F_2Mg (s)**
MgF_2 (s) MgF_2 (s)

$\Delta H^0_{1536} = -1027.7$ kJ·mol^{-1} [4] $S^0_{1536} = 181$ J·mol^{-1}·K^{-1} [4]

F_2Mg (l) Magnesium(II) Fluoride **F_2Mg (l)**
MgF_2 (l) MgF_2 (l)

$\Delta H^0_{1536} = -969$ kJ·mol^{-1} [4] $S^0_{1536} = 219.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 94.94$ J·mol^{-1}·K^{-1} (1536 K) [4]
$\lg(p,K) = -19.19 \cdot 10^3 \cdot T^{-1} - 4.43 \cdot \lg(T) + 22.65$ (1536 ... 2000 K) [4]
{Reaction: evaporation as MgF_2(g)}

F_2Mg (l) Magnesium(II) Fluoride **F_2Mg (l)**

MgF_2 (l) MgF_2 (l)

$\Delta H^0_{298} = -1072.4$ kJ·mol^{-1} [1] $S^0_{298} = 90$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 61.55$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2Mg (g) Magnesium(II) Fluoride **F_2Mg (g)**

MgF_2 (g) MgF_2 (g)

$\Delta H^0_{298} = -726.8 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 256.5 \pm 2.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 55.45 + 1.63 \cdot 10^{-3} \cdot T - 0.68 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2Mn (s) Manganese(II) Fluoride **F_2Mn (s)**

MnF_2 (s) alpha MnF_2 (s)

mp = 1173 K (900 °C) bp = 2015 K (1742 °C)

$\Delta H^0_{298} = -846.8$ kJ·mol^{-1} [4] $S^0_{298} = 93.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 70.33 + 17.05 \cdot 10^{-3} \cdot T - 0.68 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1023 K) [4]

F_2Mn (s) Manganese(II) Fluoride **F_2Mn (s)**

MnF_2 (s) alpha MnF_2 (s)

$\Delta H^0_{1023} = -789.3$ kJ·mol^{-1} [4] $S^0_{1023} = 188.9$ J·mol^{-1}·K^{-1} [4]

F_2Mn (s) Manganese(II) Fluoride **F_2Mn (s)**

MnF_2 (s) beta MnF_2 (s)

$\Delta H^0_{1023} = -787.2$ kJ·mol^{-1} [4] $S^0_{1023} = 190.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 65.51 + 21.37 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1023 ... 1173 K) [4]

$\lg(p,K) = -17.3 \cdot 10^{3} \cdot T^{-1} - 3.26 \cdot \lg(T) + 19.84$ (1023 ... 1173 K) [4]

{Reaction: evaporation as MnF_2(g)}

F_2Mn (s) Manganese(II) Fluoride **F_2Mn (s)**

MnF_2 (s) beta MnF_2 (s)

$\Delta H^0_{1173} = -773.9$ kJ·mol^{-1} [4] $S^0_{1173} = 203.1$ J·mol^{-1}·K^{-1} [4]

F_2Mn (l) Manganese(II) Fluoride **F_2Mn (l)**
MnF_2 (l) MnF_2 (l)

$\Delta H^0_{1173} = -748.8$ kJ·mol^{-1} [4] $S^0_{1173} = 224.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 92.05$ J·mol^{-1}·K^{-1} (1173 K) [4]
$\lg(p,K) = -16.16 \cdot 10^3 \cdot T^{-1} - 3.6 \cdot \lg(T) + 19.92$ (1173 ... 2015 K) [4]
{Reaction: evaporation as MnF_2(g)}

F_2Mn (g) Manganese(II) Fluoride **F_2Mn (g)**
MnF_2 (g) MnF_2 (g)

$\Delta H^0_{298} = -527.9$ kJ·mol^{-1} [4] $S^0_{298} = 281.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 62.21 + 0.06 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2015 K) [4]

F_2Mo (g) Molybdenum(II) Fluoride **F_2Mo (g)**
MoF_2 (g) MoF_2 (g)

$\Delta H^0_{298} = -162.8 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 271.9 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 62.21 + 0.06 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2896 K) [4]

F_2N (g) Difluoroamidogen **F_2N (g)**
NF_2 (g) NF_2 (g)

$\Delta H^0_{298} = 42.3 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 250$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 41$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2N_2 (g) Nitrogen(I) Fluoride **F_2N_2 (g)**
FNNF (g) cis FNNF (g)

$\Delta H^0_{298} = 68.6 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 259.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 49.96$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2N_2 (g) Nitrogen(I) Fluoride **F_2N_2 (g)**
FNNF (g) trans FNNF (g)

$\Delta H^0_{298} = 81.2 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 262.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 53.47$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2Na_2 (g) Sodium Fluoride **F_2Na_2 (g)**

$(NaF)_2$ (g) $(NaF)_2$ (g)

$\Delta H^0_{298} = -846.4 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 287.4 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 81.92 + 0.76 \cdot 10^{-3} \cdot T - 1.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2075 K) [4]

$\lg(p,K) = -17.82 \cdot 10^3 \cdot T^{-1} - 5.31 \cdot \lg(T) + 26.1$ (1000 ... 1269 K) [4]

{Reaction: evaporation of NaF(s)}

F_2Ni (s) Nickel(II) Fluoride **F_2Ni (s)**

NiF_2 (s) NiF_2 (s)

mp = 1723 K (1450 °C) bp = 1714 K (1441 °C)

$\Delta H^0_{298} = -657.7$ kJ·mol^{-1} [2] $S^0_{298} = 73.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 66.6 + 13.94 \cdot 10^{-3} \cdot T - 0.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1714 K) [4]

$\lg(p,K) = -17.41 \cdot 10^3 \cdot T^{-1} - 2.35 \cdot \lg(T) + 17.76$ (900 ... 1714 K) [4]

{Reaction: evaporation as NiF_2(g)}

F_2Ni (g) Nickel(II) Fluoride **F_2Ni (g)**

NiF_2 (g) NiF_2 (g)

$\Delta H^0_{298} = -335.6$ kJ·mol^{-1} [2] $S^0_{298} = 273.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 64.31 + 1.04 \cdot 10^{-3} \cdot T - 1.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2NpO_2 (s) Neptunium Oxide Fluoride **F_2NpO_2 (s)**

NpO_2F_2 (s) NpO_2F_2 (s)

$\Delta H^0_{298} = -1608 \pm 10$ kJ·mol^{-1} [227] $S^0_{298} = 147 \pm 9$ J·mol^{-1}·K^{-1} [227]

F_2O (g) Oxygen Fluoride **F_2O (g)**

FOF (g) FOF (g)

$\Delta H^0_{298} = 24.5 \pm 2$ kJ·mol^{-1} [1] $S^0_{298} = 247.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 52.22 + 4.1 \cdot 10^{-3} \cdot T - 0.9 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [6]

F_2OS (g) Thionyl Fluoride **F_2OS (g)**
OSF_2 (g) OSF_2 (g)

mp = 163 K (-110 °C) bp = 243 K (-30 °C)
$\Delta H^0_{298} = -543.9 \pm 105$ kJ·mol^{-1} [1] $S^0_{298} = 279.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 69.98 + 13.38 \cdot 10^{-3} \cdot T - 1.44 \cdot 10^6 \cdot T^{-2} - 3.58 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2OSi (g) Difluorooxosilane **F_2OSi (g)**
$OSiF_2$ (g) $OSiF_2$ (g)

$\Delta H^0_{298} = -966.5 \pm 25.1$ kJ·mol^{-1} [1] $S^0_{298} = 271.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 53.69$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2OTh (s) Thorium Oxide Fluoride **F_2OTh (s)**
$ThOF_2$ (s) $ThOF_2$ (s)

$\Delta H^0_{298} = -1665.2$ kJ·mol^{-1} [2] $S^0_{298} = 104.6$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 90.63 + 16.9 \cdot 10^{-3} \cdot T - 0.84 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1926 K) [4]

F_2OTi (g) Titanium Oxyde Fluoride **F_2OTi (g)**
$TiOF_2$ (g) $TiOF_2$ (g)

$\Delta H^0_{298} = -924.9$ kJ·mol^{-1} [1] $S^0_{298} = 284.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 62.78$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2OU (s) Uranium Oxide Difluoride **F_2OU (s)**
UOF_2 (s) UOF_2 (s)

$\Delta H^0_{298} = -1499.1$ kJ·mol^{-1} [4] $S^0_{298} = 119.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 88.49 + 14.64 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

F_2O_2 (g) Oxygen Fluoride **F_2O_2 (g)**
FOOF (g) FOOF (g)

$\Delta H^0_{298} = 19.2 \pm 2$ kJ·mol^{-1} [1] $S^0_{298} = 277.2 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 62.07$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2O_2S (g) Sulfuryl Fluoride **F_2O_2S (g)**

SO_2F_2 (g) SO_2F_2 (g)

mp = 153 K (-120 °C) bp = 221 K (-52 °C)

$\Delta H^0_{298} = -758.6 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 283.6 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 92.77 + 8.12 \cdot 10^{-3} \cdot T - 2.84 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2O_2U (s) Uranyl Difluoride **F_2O_2U (s)**

UO_2F_2 (s) UO_2F_2 (s)

$\Delta H^0_{298} = -1651.4$ kJ·mol^{-1} [4] $S^0_{298} = 135.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 122.88 + 8.62 \cdot 10^{-3} \cdot T - 1.99 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

F_2P (g) Phosphorus Fluoride **F_2P (g)**

PF_2 (g) PF_2 (g)

$\Delta H^0_{298} = -488.3 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 263 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 44.72$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2Pb (s) Lead(II) Fluoride **F_2Pb (s)**

PbF_2 (s) alpha PbF_2 (s)

mp = 1103 K (830 °C) bp = 1577 K (1304 °C)

$\Delta H^0_{298} = -677 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 113 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 61.38 + 36.61 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 583 K) [4]

F_2Pb (s) Lead(II) Fluoride **F_2Pb (s)**

PbF_2 (s) alpha PbF_2 (s)

$\Delta H^0_{583} = -654.9$ kJ·mol^{-1} [4] $S^0_{583} = 164.6$ J·mol^{-1}·K^{-1} [4]

F_2Pb (s) Lead(II) Fluoride **F_2Pb (s)**

PbF_2 (s) beta PbF_2 (s)

$\Delta H^0_{583} = -653.4$ kJ·mol^{-1} [4] $S^0_{583} = 167.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 146.07 - 48.97 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (583 ... 1103 K) [4]

$\lg(p,K) = -12.87 \cdot 10^3 \cdot T^{-1} - 5.78 \cdot \lg(T) + 26.85$ (700 ... 1103 K) [4]

{Reaction: evaporation as PbF_2(g)}

F_2Pb (s) Lead(II) Fluoride **F_2Pb (s)**
PbF_2 (s) beta PbF_2 (s)

$\Delta H^0_{1103} = -598.9$ kJ·mol^{-1} [4] $S^0_{1103} = 234.7$ J·mol^{-1}·K^{-1} [4]

F_2Pb (l) Lead(II) Fluoride **F_2Pb (l)**
PbF_2 (l) PbF_2 (l)

$\Delta H^0_{1103} = -584.2$ kJ·mol^{-1} [4] $S^0_{1103} = 248.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 109.2$ J·mol^{-1}·K^{-1} (1103 K) [4]
$\lg(p,K) = -12.36 \cdot 10^3 \cdot T^{-1} - 6.19 \cdot \lg(T) + 27.63$ (1103 ... 1577 K) [4]
{Reaction: evaporation as PbF_2(g)}

F_2Pb (l) Lead(II) Fluoride **F_2Pb (l)**
PbF_2 (l) PbF_2 (l)

$\Delta H^0_{298} = -660.3$ kJ·mol^{-1} [1] $S^0_{298} = 130.9$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 74.27$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2Pb (g) Lead(II) Fluoride **F_2Pb (g)**
PbF_2 (g) PbF_2 (g)

$\Delta H^0_{298} = -449.4$ kJ·mol^{-1} [4] $S^0_{298} = 292.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 57.4 + 0.54 \cdot 10^{-3} \cdot T - 0.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2Pd (s) Palladium(II) Fluoride **F_2Pd (s)**
PdF_2 (s) PdF_2 (s)

$\Delta H^0_{298} = -468.6$ kJ·mol^{-1} [2] $S^0_{298} = 88.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 65.9$ J·mol^{-1}·K^{-1} (298 K) [2]

F_2Rb_2 (g) Rubidium Fluoride **F_2Rb_2 (g)**
$(RbF)_2$ (g) $(RbF)_2$ (g)

$\Delta H^0_{298} = -854$ kJ·mol^{-1} [2] $S^0_{298} = 344$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 79.9$ J·mol^{-1}·K^{-1} (298 K) [2]

F_2Ru (g) Ruthenium(II) Fluoride **F_2Ru (g)**

RuF_2 (g) RuF_2 (g)

$\Delta H^0_{298} = -55.2 \pm 15$ kJ·mol^{-1} [278] $S^0_{298} = [277.1]$ J·mol^{-1}·K^{-1} [15]

F_2S (g) Sulfur(II) Fluoride **F_2S (g)**

SF_2 (g) SF_2 (g)

bp = 238 K (-35 °C)

$\Delta H^0_{298} = -296.6 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 257.7 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 54.99 + 1.76 \cdot 10^{-3} \cdot T - 1.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2S_2 (g) Thiothionyl Fluoride **F_2S_2 (g)**

SSF_2 (g) SSF_2 (g)

mp = 153 K (-120 °C) bp = 335 K (62 °C)

$\Delta H^0_{298} = -297$ kJ·mol^{-1} [91] $S^0_{298} = 292.8 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 77.28 + 5.79 \cdot 10^{-3} \cdot T - 1.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2S_2 (g) Difluorodisulfane **F_2S_2 (g)**

FSSF (g) FSSF (g)

mp = 108 K (-165 °C) bp = 263 K (-10 °C)

$\Delta H^0_{298} = -286$ kJ·mol^{-1} [91] $S^0_{298} = 294.1 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 78.91 + 2.71 \cdot 10^{-3} \cdot T - 1.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2Sc (g) Scandium(II) Fluoride **F_2Sc (g)**

ScF_2 (g) ScF_2 (g)

$\Delta H^0_{298} = -648.5$ kJ·mol^{-1} [93] $S^0_{298} = 276.1$ J·mol^{-1}·K^{-1} [93]

F_2Se (g) Selenium(II) Fluoride **F_2Se (g)**

SeF_2 (g) SeF_2 (g)

$\Delta H^0_{298} = -312.5$ kJ·mol^{-1} [4] $S^0_{298} = 269.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 56.71 + 0.78 \cdot 10^{-3} \cdot T - 0.82 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2Si (g) Difluorosilylene **F_2Si (g)**

SiF_2 (g) SiF_2 (g)

$\Delta H^0_{298} = -587.9 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 256.6 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 53.63 + 2.72 \cdot 10^{-3} \cdot T - 0.88 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2Sn (s) Tin(II) Fluoride **F_2Sn (s)**

SnF_2 (s) SnF_2 (s)

mp = 488 K (215 °C) bp = 1054 K (781 °C)

$\Delta H^0_{298} = -648.5$ kJ·mol^{-1} [2] $S^0_{298} = 96.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 54.68 + 59.43 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 488 K) [4]

F_2Sn (s) Tin(II) Fluoride **F_2Sn (s)**

SnF_2 (s) SnF_2 (s)

$\Delta H^0_{488} = -633.7$ kJ·mol^{-1} [4] $S^0_{488} = 134.4$ J·mol^{-1}·K^{-1} [4]

F_2Sn (l) Tin(II) Fluoride **F_2Sn (l)**

SnF_2 (l) SnF_2 (l)

$\Delta H^0_{488} = -623.2$ kJ·mol^{-1} [4] $S^0_{488} = 155.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 100$ J·mol^{-1}·K^{-1} (488 K) [4]

$\lg(p,K) = -8.93 \cdot 10^3 \cdot T^{-1} - 5.32 \cdot \lg(T) + 24.55$ (488 ... 1054 K) [4]

{Reaction: evaporation as SnF_2(g)}

F_2Sn (g) Tin(II) Fluoride **F_2Sn (g)**

SnF_2 (g) SnF_2 (g)

$\Delta H^0_{298} = -484$ kJ·mol^{-1} [2] $S^0_{298} = 282.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 56.84 + 0.8 \cdot 10^{-3} \cdot T - 0.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2Sr (s) Strontium(II) Fluoride **F_2Sr (s)**

SrF_2 (s) SrF_2 (s)

mp = 1750 K (1477 °C) bp = 2730 K (2457 °C)

$\Delta H^0_{298} = -1216.3$ kJ·mol^{-1} [4] $S^0_{298} = 82.1 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 35.31 + 60.61 \cdot 10^{-3} \cdot T + 1.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1480 K) [4]

$\lg(p,K) = -26.16 \cdot 10^3 \cdot T^{-1} - 7.51 \cdot \lg(T) + 35.64$ (1300 ... 1480 K) [4]

{Reaction: evaporation as SrF_2(g)}

F_2Sr (s) Strontium(II) Fluoride **F_2Sr (s)**

SrF_2 (s) SrF_2 (s)

$\Delta H^0_{1750} = -1072.6$ kJ·mol^{-1} [4] $S^0_{1750} = 239.7$ J·mol^{-1}·K^{-1} [4]

F_2Sr (l) Strontium(II) Fluoride **F_2Sr (l)**

SrF_2 (l) SrF_2 (l)

$\Delta H^0_{1750} = -1043$ kJ·mol^{-1} [4] $S^0_{1750} = 256.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 98.32$ J·mol^{-1}·K^{-1} (1750 K) [4]

$\lg(p,K) = -22.48 \cdot 10^3 \cdot T^{-1} - 4.83 \cdot \lg(T) + 24.83$ (1750 ... 2000 K) [4]

{Reaction: evaporation as SrF_2(g)}

F_2Sr (l) Strontium(II) Fluoride **F_2Sr (l)**

SrF_2 (l) SrF_2 (l)

$\Delta H^0_{298} = -1172$ kJ·mol^{-1} [1] $S^0_{298} = 109.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 69.98$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2Sr (g) Strontium(II) Fluoride **F_2Sr (g)**

SrF_2 (g) SrF_2 (g)

$\Delta H^0_{298} = -766.1 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 291.7 \pm 2.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 57.64 + 0.35 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_2Te (g) Tellurium(II) Fluoride **F_2Te (g)**

TeF_2 (g) TeF_2 (g)

$\Delta H^0_{298} = -384.9$ kJ·mol⁻¹ [2] $S^0_{298} = 275.2$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 56.17 + 1.07 \cdot 10^{-3} \cdot T - 0.94 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

F_2Th (g) Thorium(II) Fluoride **F_2Th (g)**

ThF_2 (g) ThF_2 (g)

$\Delta H^0_{298} = -654.3$ kJ·mol⁻¹ [2] $S^0_{298} = 295.2$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 57.53 + 0.42 \cdot 10^{-3} \cdot T - 0.46 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1943 K) [4]

F_2Ti (g) Titanium(II) Fluoride **F_2Ti (g)**

TiF_2 (g) TiF_2 (g)

$\Delta H^0_{298} = -688.3 \pm 41.8$ kJ·mol⁻¹ [1] $S^0_{298} = 255.7 \pm 6.3$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 59.47 + 2.56 \cdot 10^{-3} \cdot T - 0.65 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1939 K) [4]

F_2Tl_2 (g) Thallium(I) Fluoride **F_2Tl_2 (g)**

$(TlF)_2$ (g) $(TlF)_2$ (g)

$\Delta H^0_{298} = -513.8$ kJ·mol⁻¹ [2] $S^0_{298} = 358$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 82.95 + 0.12 \cdot 10^{-3} \cdot T - 0.41 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

$\lg(p,K) = -6.69 \cdot 10^3 \cdot T^{-1} - 6.24 \cdot \lg(T) + 24.98$ (595 ... 1049 K) [4]

{Reaction: evaporation of TlF(s)}

F_2U (g) Uranium(II) Fluoride **F_2U (g)**

UF_2 (g) UF_2 (g)

$\Delta H^0_{298} = -539.4$ kJ·mol⁻¹ [4] $S^0_{298} = 296.8$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 58.2$ J·mol⁻¹·K⁻¹ (298 K) [4]

F_2Xe (g) Xenon Fluoride **F_2Xe (g)**

XeF_2 (g) XeF_2 (g)

$\Delta H^0_{298} = -130$ kJ·mol⁻¹ [7] $S^0_{298} = 260$ J·mol⁻¹·K⁻¹ [7]

F_2Zn (s) Zinc(II) Fluoride **F_2Zn (s)**

ZnF_2 (s) alpha ZnF_2 (s)

mp = 1223 K (950 °C) bp = 1776 K (1503 °C)

$\Delta H^0_{298} = -764.4$ kJ·mol^{-1} [2] $S^0_{298} = 73.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 65.52 + 23.41 \cdot 10^{-3} \cdot T - 0.61 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1080 K) [4]

$\lg(p,K) = -15.19 \cdot 10^3 \cdot T^{-1} - 3.44 \cdot \lg(T) + 20.39$ (800 ... 1080 K) [4]

{Reaction: evaporation as ZnF_2(g)}

F_2Zn (s) Zinc(II) Fluoride **F_2Zn (s)**

ZnF_2 (s) alpha ZnF_2 (s)

$\Delta H^0_{1080} = -702.1$ kJ·mol^{-1} [4] $S^0_{1080} = 173.1$ J·mol^{-1}·K^{-1} [4]

F_2Zn (s) Zinc(II) Fluoride **F_2Zn (s)**

ZnF_2 (s) beta ZnF_2 (s)

$\Delta H^0_{1080} = -698.9$ kJ·mol^{-1} [4] $S^0_{1080} = 176$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 61.63 + 26.75 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1080 ... 1223 K) [4]

$\lg(p,K) = -15.34 \cdot 10^3 \cdot T^{-1} - 4.12 \cdot \lg(T) + 22.59$ (1080 ... 1223 K) [4]

{Reaction: evaporation as ZnF_2(g)}

F_2Zn (s) Zinc(II) Fluoride **F_2Zn (s)**

ZnF_2 (s) beta ZnF_2 (s)

$\Delta H^0_{1223} = -685.7$ kJ·mol^{-1} [4] $S^0_{1223} = 187.5$ J·mol^{-1}·K^{-1} [4]

F_2Zn (l) Zinc(II) Fluoride **F_2Zn (l)**

ZnF_2 (l) ZnF_2 (l)

$\Delta H^0_{1223} = -645.8$ kJ·mol^{-1} [4] $S^0_{1223} = 220.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 103.76$ J·mol^{-1}·K^{-1} (1223 K) [4]

$\lg(p,K) = -13.98 \cdot 10^3 \cdot T^{-1} - 5.49 \cdot \lg(T) + 25.71$ (1223 ... 1776 K) [4]

{Reaction: evaporation as ZnF_2(g)}

F_2Zn (g) Zinc(II) Fluoride **F_2Zn (g)**

ZnF_2 (g) ZnF_2 (g)

$\Delta H^0_{298} = -487.8$ kJ·mol^{-1} [4] $S^0_{298} = 260.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 58.16$ J·mol^{-1}·K^{-1} (298 K) [4]

F_2Zr (s) Zirconium(II) Fluoride **F_2Zr (s)**

ZrF_2 (s) ZrF_2 (s)

mp = 1175 K (902 °C) bp = 2537 K (2264 °C)

$\Delta H^0_{298} = -962.3 \pm 63$ kJ·mol^{-1} [1] $S^0_{298} = 75.3 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 66.05 + 18.54 \cdot 10^{-3} \cdot T - 0.5 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1175 K) [4]

F_2Zr (s) Zirconium(II) Fluoride **F_2Zr (s)**

ZrF_2 (s) ZrF_2 (s)

$\Delta H^0_{1175} = -893.7$ kJ·mol^{-1} [4] $S^0_{1175} = 179.5$ J·mol^{-1}·K^{-1} [4]

F_2Zr (l) Zirconium(II) Fluoride **F_2Zr (l)**

ZrF_2 (l) ZrF_2 (l)

$\Delta H^0_{1175} = -855.7$ kJ·mol^{-1} [4] $S^0_{1175} = 211.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 100.42$ J·mol^{-1}·K^{-1} (1175 K) [4]

F_2Zr (l) Zirconium(II) Fluoride **F_2Zr (l)**

ZrF_2 (l) ZrF_2 (l)

$\Delta H^0_{298} = -937$ kJ·mol^{-1} [1] $S^0_{298} = 100.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 65.94$ J·mol^{-1}·K^{-1} (298 K) [1]

F_2Zr (g) Zirconium(II) Fluoride **F_2Zr (g)**

ZrF_2 (g) ZrF_2 (g)

$\Delta H^0_{298} = -558.1 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 283.4 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 55.61 + 2.19 \cdot 10^{-3} \cdot T - 0.68 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Fe (s) Iron(III) Fluoride **F_3Fe (s)**

FeF_3 (s) FeF_3 (s)

bp = 1132 K (859 °C)

$\Delta H^0_{298} = -1039.3$ kJ·mol^{-1} [4] $S^0_{298} = 98.3 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 90.75 + 11.31 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1132 K) [4]

$\lg(p,K) = -11.75 \cdot 10^{3} \cdot T^{-1} - 2.57 \cdot \lg(T) + 18.23$ (600 ... 1132 K) [4]

{Reaction: evaporation as FeF_3(g)}

F_3Fe (s) Iron(III) Fluoride **F_3Fe (s)**

FeF_3 (s) FeF_3 (s)

$\Delta H^0_{1132} = -957.4$ kJ·mol^{-1} [4] $S^0_{1132} = 227.7$ J·mol^{-1}·K^{-1} [4]

F_3Fe (g) Iron(III) Fluoride **F_3Fe (g)**

FeF_3 (g) FeF_3 (g)

$\Delta H^0_{1132} = -756.7$ kJ·mol^{-1} [4] $S^0_{1132} = 405$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 80.8$ J·mol^{-1}·K^{-1} (1132 K) [4]

F_3Fe (g) Iron(III) Fluoride **F_3Fe (g)**

FeF_3 (g) FeF_3 (g)

$\Delta H^0_{298} = -820.9 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 304.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 78.59 + 2.8 \cdot 10^{-3} \cdot T - 1.23 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Ga (s) Gallium(III) Fluoride **F_3Ga (s)**

GaF_3 (s) GaF_3 (s)

bp = 1350 K (1077 °C)

$\Delta H^0_{298} = -1174.9$ kJ·mol^{-1} [2] $S^0_{298} = 96$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 77.85 + 37.43 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1350 K) [4]

$\lg(p,K) = -13.57 \cdot 10^{3} \cdot T^{-1} - 4.37 \cdot \lg(T) + 23.73$ (700 ... 1350 K) [4]

{Reaction: evaporation as GaF_3(g)}

F_3Ga (g) Gallium(III) Fluoride **F_3Ga (g)**

GaF_3 (g) GaF_3 (g)

$\Delta H^0_{298} = -\ 932.8$ kJ·mol^{-1} [4] $S^0_{298} = 292.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 79.09 + 2.36 \cdot 10^{-3} \cdot T - 1.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Gd (s) Gadolinium(III) Fluoride **F_3Gd (s)**

GdF_3 (s) alpha GdF_3 (s)

mp = 1505 K (1232 °C) bp = 2664 K (2391 °C)

$\Delta H^0_{298} = -\ 1699.1$ kJ·mol^{-1} [2] $S^0_{298} = 114.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 101.99 + 6.5 \cdot 10^{-3} \cdot T - 1.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1348 K) [4]

$\lg(p,K) = -\ 24.24 \cdot 10^3 \cdot T^{-1} - 3.28 \cdot \lg(T) + 21.42$ (1200 ... 1348 K) [4]

{Reaction: evaporation as GdF_3(g)}

F_3Gd (s) Gadolinium(III) Fluoride **F_3Gd (s)**

GdF_3 (s) alpha GdF_3 (s)

$\Delta H^0_{1348} = -\ 1590$ kJ·mol^{-1} [4] $S^0_{1348} = 268.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 110$ J·mol^{-1}·K^{-1} (1348 K) [4]

F_3Gd (s) Gadolinium(III) Fluoride **F_3Gd (s)**

GdF_3 (s) beta GdF_3 (s)

$\Delta H^0_{1348} = -\ 1584$ kJ·mol^{-1} [4] $S^0_{1348} = 272.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 130.86$ J·mol^{-1}·K^{-1} (1348 K) [4]

$\lg(p,K) = -\ 25.42 \cdot 10^3 \cdot T^{-1} - 5.83 \cdot \lg(T) + 30.28$ (1348 ... 1505 K) [4]

{Reaction: evaporation as GdF_3(g)}

F_3Gd (s) Gadolinium(III) Fluoride **F_3Gd (s)**

GdF_3 (s) beta GdF_3 (s)

$\Delta H^0_{1505} = -\ 1563.5$ kJ·mol^{-1} [4] $S^0_{1505} = 287$ J·mol^{-1}·K^{-1} [4]

F_3Gd (l) Gadolinium(III) Fluoride **F_3Gd (l)**

GdF_3 (l) GdF_3 (l)

$\Delta H^0_{1505} = -1511.1$ kJ·mol^{-1} [4] $S^0_{1505} = 321.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 127.82$ J·mol^{-1}·K^{-1} (1505 K) [4]

$\lg(p,K) = -22.36 \cdot 10^3 \cdot T^{-1} - 5.36 \cdot \lg(T) + 26.76$ (1505 ... 2000 K) [4]

{Reaction: evaporation as GdF_3(g)}

F_3Gd (g) Gadolinium(III) Fluoride **F_3Gd (g)**

GdF_3 (g) GdF_3 (g)

$\Delta H^0_{298} = -1246.8$ kJ·mol^{-1} [2] $S^0_{298} = 335.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 81.49 + 0.96 \cdot 10^{-3} \cdot T - 0.91 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Ge (g) Germanium(III) Fluoride **F_3Ge (g)**

GeF_3 (g) GeF_3 (g)

$\Delta H^0_{298} = -753$ kJ·mol^{-1} [4] $S^0_{298} = 297.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 79.58 + 2.21 \cdot 10^{-3} \cdot T - 1.25 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3HSi (g) Trifluorosilane **F_3HSi (g)**

$SiHF_3$ (g) $SiHF_3$ (g)

$\Delta H^0_{298} = -1200.8 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 277.3 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 63.49$ J·mol^{-1}·K^{-1} (298 K) [1]

F_3H_3 (g) Hydrogen Fluoride **F_3H_3 (g)**

H_3F_3 (g) H_3F_3 (g)

$\Delta H^0_{298} = -879.1 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 288.5 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 75.85$ J·mol^{-1}·K^{-1} (298 K) [1]

F_3Ho (s) | Holmium(III) Fluoride | **F_3Ho (s)**

HoF_3 (s) | alpha | HoF_3 (s)

mp = 1416 K (1143 °C) | bp = 2542 K (2269 °C)

$\Delta H^0_{298} = -1697.9$ kJ·mol^{-1} [2] | $S^0_{298} = 118.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 99.76 + 6.09 \cdot 10^{-3} \cdot T - 0.92 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1343 K) [4]

$\lg(p,K) = -24.24 \cdot 10^3 \cdot T^{-1} - 2.88 \cdot \lg(T) + 20.22$ (1200 ... 1343 K) [4]

{Reaction: evaporation as HoF_3(g)}

F_3Ho (s) | Holmium(III) Fluoride | **F_3Ho (s)**

HoF_3 (s) | alpha | HoF_3 (s)

$\Delta H^0_{1343} = -1590.8$ kJ·mol^{-1} [4] | $S^0_{1343} = 270.4$ J·mol^{-1}·K^{-1} [4]

F_3Ho (s) | Holmium(III) Fluoride | **F_3Ho (s)**

HoF_3 (s) | beta | HoF_3 (s)

$\Delta H^0_{1343} = -1590$ kJ·mol^{-1} [4] | $S^0_{1343} = 271$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 126.19$ J·mol^{-1}·K^{-1} (1343 K) [4]

$\lg(p,K) = -25.52 \cdot 10^3 \cdot T^{-1} - 5.15 \cdot \lg(T) + 28.27$ (1343 ... 1416 K) [4]

{Reaction: evaporation as HoF_3(g)}

F_3Ho (s) | Holmium(III) Fluoride | **F_3Ho (s)**

HoF_3 (s) | beta | HoF_3 (s)

$\Delta H^0_{1416} = -1580.8$ kJ·mol^{-1} [4] | $S^0_{1416} = 277.7$ J·mol^{-1}·K^{-1} [4]

F_3Ho (l) | Holmium(III) Fluoride | **F_3Ho (l)**

HoF_3 (l) | | HoF_3 (l)

$\Delta H^0_{1416} = -1524.5$ kJ·mol^{-1} [4] | $S^0_{1416} = 317.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 95.98$ J·mol^{-1}·K^{-1} (1416 K) [4]

$\lg(p,K) = -20.26 \cdot 10^3 \cdot T^{-1} - 1.39 \cdot \lg(T) + 12.71$ (1416 ... 2000 K) [4]

{Reaction: evaporation as HoF_3(g)}

F_3Ho (g) Holmium(III) Fluoride **F_3Ho (g)**

HoF_3 (g) HoF_3 (g)

$\Delta H^0_{298} = -1242.6$ kJ·mol^{-1} [2] $S^0_{298} = 342.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 79.99 + 2.78 \cdot 10^{-3} \cdot T - 0.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3In (s) Indium(III) Fluoride **F_3In (s)**

InF_3 (s) InF_3 (s)

mp = 1445 K (1172 °C) bp = 2177 K (1904 °C)

$\Delta H^0_{298} = -1189.9$ kJ·mol^{-1} [2] $S^0_{298} = 110$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 81.12 + 36.57 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1445 K) [4]

$\lg(p,K) = -18.71 \cdot 10^3 \cdot T^{-1} - 5.3 \cdot \lg(T) + 27.1$ (1000 ... 1445 K) [4]

{Reaction: evaporation as InF_3(g)}

F_3In (s) Indium(III) Fluoride **F_3In (s)**

InF_3 (s) InF_3 (s)

$\Delta H^0_{1445} = -1060.4$ kJ·mol^{-1} [4] $S^0_{1445} = 280$ J·mol^{-1}·K^{-1} [4]

F_3In (l) Indium(III) Fluoride **F_3In (l)**

InF_3 (l) InF_3 (l)

$\Delta H^0_{1445} = -996.3$ kJ·mol^{-1} [4] $S^0_{1445} = 324.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 134$ J·mol^{-1}·K^{-1} (1445 K) [4]

$\lg(p,K) = -15.87 \cdot 10^3 \cdot T^{-1} - 6.15 \cdot \lg(T) + 27.82$ (1445 ... 2177 K) [4]

{Reaction: evaporation as InF_3(g)}

F_3In (g) Indium(III) Fluoride **F_3In (g)**

InF_3 (g) InF_3 (g)

$\Delta H^0_{298} = -857.7$ kJ·mol^{-1} [2] $S^0_{298} = 310$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 81.02 + 1.21 \cdot 10^{-3} \cdot T - 1.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2300 K) [4]

F_3La (s) Lanthanum(III) Fluoride **F_3La (s)**

LaF_3 (s) LaF_3 (s)

mp = 1766 K (1493 °C) bp = 2569 K (2296 °C)

ΔH^0_{298} = – 1699.5 kJ·mol^{-1} [2] S^0_{298} = 107 J·mol^{-1}·K^{-1} [2]

C_p^0= 71.84 + 43.63 ·10^{-3}·T + 0.49 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1766 K) [4]

lg(p,K) = – 24.97 ·10^3·T^{-1} – 6.52 · lg(T) + 32.52 (1200 ... 1766 K) [4]

{Reaction: evaporation as LaF_3(g)}

F_3La (s) Lanthanum(III) Fluoride **F_3La (s)**

LaF_3 (s) LaF_3 (s)

ΔH^0_{1766} = – 1526.6 kJ·mol^{-1} [4] S^0_{1766} = 301.5 J·mol^{-1}·K^{-1} [4]

F_3La (l) Lanthanum(III) Fluoride **F_3La (l)**

LaF_3 (l) LaF_3 (l)

ΔH^0_{1766} = – 1476.4 kJ·mol^{-1} [4] S^0_{1766} = 329.9 J·mol^{-1}·K^{-1} [4]

C_p^0= 167.36 J·mol^{-1}·K^{-1} (1766 K) [4]

lg(p,K) = – 25.04 ·10^3·T^{-1} – 10.11 · lg(T) + 44.22 (1766 ... 2000 K) [4]

{Reaction: evaporation as LaF_3(g)}

F_3La (g) Lanthanum(III) Fluoride **F_3La (g)**

LaF_3 (g) LaF_3 (g)

ΔH^0_{298} = – 1264.4 kJ·mol^{-1} [2] S^0_{298} = 321.9 J·mol^{-1}·K^{-1} [2]

C_p^0= 81.82 + 0.78 ·10^{-3}·T – 0.83 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Li_3 (g) Lithium Fluoride **F_3Li_3 (g)**

$(LiF)_3$ (g) $(LiF)_3$ (g)

ΔH^0_{298} = – 1517.2 ± 25.1 kJ·mol^{-1} [1] S^0_{298} = 318.1 ± 8.4 J·mol^{-1}·K^{-1} [1]

C_p^0= 127.14 + 3.65 ·10^{-3}·T – 2.29 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1975 K) [4]

lg(p,K) = – 18.62 ·10^3·T^{-1} – 6.05 · lg(T) + 29.77 (900 ... 1121 K) [4]

{Reaction: evaporation of LiF(s)}

F_3Lu (s) Lutetium(III) Fluoride **F_3Lu (s)**
LuF_3 (s) alpha LuF_3 (s)

mp = 1457 K (1184 °C) bp = 2503 K (2230 °C)
ΔH^0_{298} = – 1681.1 kJ·mol^{-1} [4] S^0_{298} = 94.8 J·mol^{-1}·K^{-1} [4]
C_p^0= 89.14 + 19.21 ·10^{-3}·T – 0.7 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1230 K) [4]

F_3Lu (s) Lutetium(III) Fluoride **F_3Lu (s)**
LuF_3 (s) alpha LuF_3 (s)

ΔH^0_{1230} = – 1586.2 kJ·mol^{-1} [4] S^0_{1230} = 235.4 J·mol^{-1}·K^{-1} [4]

F_3Lu (s) Lutetium(III) Fluoride **F_3Lu (s)**
LuF_3 (s) beta LuF_3 (s)

ΔH^0_{1230} = – 1561.1 kJ·mol^{-1} [4] S^0_{1230} = 255.7 J·mol^{-1}·K^{-1} [4]
C_p^0= 106.44 J·mol^{-1}·K^{-1} (1230 K) [4]
lg(p,K) = – 21.86 ·10^3·T^{-1} – 2.92 · lg(T) + 19.2 (1230 ... 1457 K) [4]
{Reaction: evaporation as LuF_3(g)}

F_3Lu (s) Lutetium(III) Fluoride **F_3Lu (s)**
LuF_3 (s) beta LuF_3 (s)

ΔH^0_{1457} = – 1537 kJ·mol^{-1} [4] S^0_{1457} = 273.8 J·mol^{-1}·K^{-1} [4]

F_3Lu (l) Lutetium(III) Fluoride **F_3Lu (l)**
LuF_3 (l) LuF_3 (l)

ΔH^0_{1457} = – 1506.7 kJ·mol^{-1} [4] S^0_{1457} = 294.5 J·mol^{-1}·K^{-1} [4]
C_p^0= 214.85 – 0.54 ·10^{-3}·T – 234.74 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (1457 ... 1800 K) [4]
lg(p,K) = – 21.51 ·10^3·T^{-1} – 4.79 · lg(T) + 24.87 (1457 ... 1800 K) [4]
{Reaction: evaporation as LuF_3(g)}

F_3Lu (g) Lutetium(III) Fluoride **F_3Lu (g)**
LuF_3 (g) LuF_3 (g)

ΔH^0_{298} = – 1246.4 kJ·mol^{-1} [4] S^0_{298} = 315.4 J·mol^{-1}·K^{-1} [4]
C_p^0= 81.16 + 1.16 ·10^{-3}·T – 0.97 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Mn (s) Manganese(III) Fluoride **F_3Mn (s)**
MnF_3 (s) MnF_3 (s)

$\Delta H^0_{298} = -1071.1$ kJ·mol^{-1} [2] $S^0_{298} = 97.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 82.01 + 30.96 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [3]

F_3Mo (s) Molybdenum(III) Fluoride **F_3Mo (s)**
MoF_3 (s) MoF_3 (s)

$\Delta H^0_{298} = -893.7$ kJ·mol^{-1} [4] $S^0_{298} = 91.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 99.41 + 7.45 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1237 K) [4]

F_3Mo (g) Molybdenum(III) Fluoride **F_3Mo (g)**
MoF_3 (g) MoF_3 (g)

$\Delta H^0_{298} = -607.1 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 296 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 77.96 + 5.36 \cdot 10^{-3} \cdot T - 1.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2896 K) [4]

F_3N (g) Nitrogen(III) Fluoride **F_3N (g)**
NF_3 (g) NF_3 (g)

$\Delta H^0_{298} = -132.1 \pm 1.1$ kJ·mol^{-1} [1] $S^0_{298} = 260.8 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 53.37$ J·mol^{-1}·K^{-1} (298 K) [1]

F_3NO (g) Nitrogen Oxide Fluoride **F_3NO (g)**
NF_3O (g) NF_3O (g)

$\Delta H^0_{298} = -163.2 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 278.5 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 67.86$ J·mol^{-1}·K^{-1} (298 K) [1]

F_3Nd (s) Neodymium(III) Fluoride **F_3Nd (s)**
NdF_3 (s) NdF_3 (s)

mp = 1650 K (1377 °C) bp = 2577 K (2304 °C)
$\Delta H^0_{298} = -1679.5$ kJ·mol^{-1} [2] $S^0_{298} = 120.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 92.7 + 23.43 \cdot 10^{-3} \cdot T - 0.64 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1650 K) [4]
$\lg(p,K) = -24.24 \cdot 10^3 \cdot T^{-1} - 4.61 \cdot \lg(T) + 25.96$ (1200 ... 1650 K) [4]
{Reaction: evaporation as NdF_3(g)}

F_3Nd (s) Neodymium(III) Fluoride **F_3Nd (s)**

NdF_3 (s) NdF_3 (s)

$\Delta H^0_{1650} = -1525.1$ kJ·mol^{-1} [4] $S^0_{1650} = 307.7$ J·mol^{-1}·K^{-1} [4]

F_3Nd (l) Neodymium(III) Fluoride **F_3Nd (l)**

NdF_3 (l) NdF_3 (l)

$\Delta H^0_{1650} = -1470.3$ kJ·mol^{-1} [4] $S^0_{1650} = 340.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 172.8$ J·mol^{-1}·K^{-1} (1650 K) [4]

$\lg(p,K) = -25.17 \cdot 10^3 \cdot T^{-1} - 9.91 \cdot \lg(T) + 43.57$ (1650 ... 2000 K) [4]

{Reaction: evaporation as NdF_3(g)}

F_3Nd (g) Neodymium(III) Fluoride **F_3Nd (g)**

NdF_3 (g) NdF_3 (g)

$\Delta H^0_{298} = -1238.9$ kJ·mol^{-1} [2] $S^0_{298} = 340.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 82.21 + 4.66 \cdot 10^{-3} \cdot T - 1.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Np (s) Neptunium(III) Fluoride **F_3Np (s)**

NpF_3 (s) NpF_3 (s)

$\Delta H^0_{298} = -1506.2$ kJ·mol^{-1} [2] $S^0_{298} = 118.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 108.5$ J·mol^{-1}·K^{-1} (298 K) [2]

F_3OP (g) Phosphoryl Fluoride **F_3OP (g)**

POF_3 (g) POF_3 (g)

$\Delta H^0_{298} = -1254.3 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 285.4 \pm 0.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 68.82$ J·mol^{-1}·K^{-1} (298 K) [1]

F_3P (g) Phosphorus(III) Fluoride **F_3P (g)**

PF_3 (g) PF_3 (g)

mp = 113 K (-160 °C) bp = 178 K (-95 °C)

$\Delta H^0_{298} = -958.4 \pm 3.8$ kJ·mol^{-1} [1] $S^0_{298} = 273.1 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 78.1 + 2.7 \cdot 10^{-3} \cdot T - 1.83 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3PS (g) Thiophosphoryl Fluoride **F_3PS (g)**

PSF_3 (g) PSF_3 (g)

$\Delta H^0_{298} = -1009.1 \pm 62.8$ kJ·mol^{-1} [1] $S^0_{298} = 298.1 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 74.55$ J·mol^{-1}·K^{-1} (298 K) [1]

F_3Pr (s) Praseodymium(III) Fluoride **F_3Pr (s)**

PrF_3 (s) PrF_3 (s)

mp = 1672 K (1399 °C) bp = 2569 K (2296 °C)

$\Delta H^0_{298} = -1689.1$ kJ·mol^{-1} [2] $S^0_{298} = 121.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 103.93 + 12.59 \cdot 10^{-3} \cdot T - 1.35 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1672 K) [4]

$\lg(p,K) = -23.28 \cdot 10^{3} \cdot T^{-1} - 3.89 \cdot \lg(T) + 23.2$ (1200 ... 1672 K) [4]

{Reaction: evaporation as PrF_3(g)}

F_3Pr (s) Praseodymium(III) Fluoride **F_3Pr (s)**

PrF_3 (s) PrF_3 (s)

$\Delta H^0_{1672} = -1533$ kJ·mol^{-1} [4] $S^0_{1672} = 310.3$ J·mol^{-1}·K^{-1} [4]

F_3Pr (l) Praseodymium(III) Fluoride **F_3Pr (l)**

PrF_3 (l) PrF_3 (l)

$\Delta H^0_{1672} = -1456$ kJ·mol^{-1} [4] $S^0_{1672} = 356.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 130.75$ J·mol^{-1}·K^{-1} (1672 K) [4]

$\lg(p,K) = -19.85 \cdot 10^{3} \cdot T^{-1} - 4.72 \cdot \lg(T) + 23.82$ (1672 ... 2000 K) [4]

{Reaction: evaporation as PrF_3(g)}

F_3Pr (g) Praseodymium(III) Fluoride **F_3Pr (g)**

PrF_3 (g) PrF_3 (g)

$\Delta H^0_{298} = -1258.1$ kJ·mol^{-1} [2] $S^0_{298} = 339.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 80.72 + 6.04 \cdot 10^{-3} \cdot T - 0.9 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Pu (s) Plutonium(III) Fluoride **F_3Pu (s)**
PuF_3 (s) PuF_3 (s)

mp = 1699 K (1426 °C) bp = 2460 K (2187 °C)
ΔH^0_{298} = – 1552.3 kJ·mol^{-1} [4] S^0_{298} = 126.1 J·mol^{-1}·K^{-1} [4]
C_p^0= 94.8 + 24.66 ·10^{-3}·T – 0.85 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1699 K) [4]
lg(p,K) = – 24.95 ·10^3·T^{-1} – 7.05 · lg(T) + 34.22 (1200 ... 1699 K) [4]
{Reaction: evaporation as PuF_3(g)}

F_3Pu (s) Plutonium(III) Fluoride **F_3Pu (s)**
PuF_3 (s) PuF_3 (s)

ΔH^0_{1699} = – 1387.3 kJ·mol^{-1} [4] S^0_{1699} = 321 J·mol^{-1}·K^{-1} [4]

F_3Pu (l) Plutonium(III) Fluoride **F_3Pu (l)**
PuF_3 (l) PuF_3 (l)

ΔH^0_{1699} = – 1332.9 kJ·mol^{-1} [4] S^0_{1699} = 353 J·mol^{-1}·K^{-1} [4]
C_p^0= 146.44 J·mol^{-1}·K^{-1} (1699 K) [4]
lg(p,K) = – 23.5 ·10^3·T^{-1} – 6.45 · lg(T) + 31.43 (1699 ... 2000 K) [4]
{Reaction: evaporation as PuF_3(g)}

F_3Ru (g) Ruthenium(III) Fluoride **F_3Ru (g)**
RuF_3 (g) RuF_3 (g)

ΔH^0_{298} = – 314.2 ± 15 kJ·mol^{-1} [278] S^0_{298} = [314.5] J·mol^{-1}·K^{-1} [15]

F_3S (g) Sulfur(III) Fluoride **F_3S (g)**
SF_3 (g) SF_3 (g)

ΔH^0_{298} = – 503 ± 33.5 kJ·mol^{-1} [1] S^0_{298} = 286.2 ± 4.2 J·mol^{-1}·K^{-1} [1]
C_p^0= 62.98 J·mol^{-1}·K^{-1} (298 K) [1]

F_3Sb (s) Antimony(III) Fluoride **F_3Sb (s)**

SbF_3 (s) SbF_3 (s)

mp = 560 K (287 °C) bp = 618 K (345 °C)

$\Delta H^0_{298} = -915.5$ kJ·mol^{-1} [2] $S^0_{298} = 127.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 64.33 + 87.1 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 560 K) [4]

$\lg(p,K) = -5.89 \cdot 10^3 \cdot T^{-1} - 3.62 \cdot \lg(T) + 19.84$ (298 ... 560 K) [4]

{Reaction: evaporation as SbF_3(g)}

F_3Sb (s) Antimony(III) Fluoride **F_3Sb (s)**

SbF_3 (s) SbF_3 (s)

$\Delta H^0_{560} = -888.8$ kJ·mol^{-1} [4] $S^0_{560} = 190.6$ J·mol^{-1}·K^{-1} [4]

F_3Sb (l) Antimony(III) Fluoride **F_3Sb (l)**

SbF_3 (l) SbF_3 (l)

$\Delta H^0_{560} = -866.1$ kJ·mol^{-1} [4] $S^0_{560} = 231.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 147.28$ J·mol^{-1}·K^{-1} (560 K) [4]

F_3Sb (g) Antimony(III) Fluoride **F_3Sb (g)**

SbF_3 (g) SbF_3 (g)

$\Delta H^0_{298} = -812.5$ kJ·mol^{-1} [2] $S^0_{298} = 303$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 79.94 + 2.82 \cdot 10^{-3} \cdot T - 1.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Sc (s) Scandium(III) Fluoride **F_3Sc (s)**

ScF_3 (s) ScF_3 (s)

mp = 1825 K (1552 °C) bp = 2064 K (1791 °C)

$\Delta H^0_{298} = -1611.7$ kJ·mol^{-1} [2] $S^0_{298} = 97.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 98.54 + 3.25 \cdot 10^{-3} \cdot T - 1.32 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1825 K) [4]

$\lg(p,K) = -20.01 \cdot 10^3 \cdot T^{-1} - 2.43 \cdot \lg(T) + 17.96$ (1100 ... 1825 K) [4]

{Reaction: evaporation as ScF_3(g)}

F_3Sc (s) | Scandium(III) Fluoride | **F_3Sc (s)**

ScF_3 (s) | ScF_3 (s)

$\Delta H^0_{1825} = -1459.6$ kJ·mol^{-1} [4] | $S^0_{1825} = 274.2$ J·mol^{-1}·K^{-1} [4]

F_3Sc (l) | Scandium(III) Fluoride | **F_3Sc (l)**

ScF_3 (l) | ScF_3 (l)

$\Delta H^0_{1825} = -1395.7$ kJ·mol^{-1} [4] | $S^0_{1825} = 309.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 88.87$ J·mol^{-1}·K^{-1} (1825 K) [4]

F_3Sc (g) | Scandium(III) Fluoride | **F_3Sc (g)**

ScF_3 (g) | ScF_3 (g)

$\Delta H^0_{298} = -1235.5$ kJ·mol^{-1} [2] | $S^0_{298} = 304.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 79.21 + 2.54 \cdot 10^{-3} \cdot T - 1.09 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Si (g) | Trifluorosilyl | **F_3Si (g)**

SiF_3 (g) | SiF_3 (g)

$\Delta H^0_{298} = -1085.3 \pm 16.7$ kJ·mol^{-1} [1] | $S^0_{298} = 282.4 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 77.73 + 2.85 \cdot 10^{-3} \cdot T - 1.84 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Sm (s) | Samarium(III) Fluoride | **F_3Sm (s)**

SmF_3 (s) | alpha | SmF_3 (s)

mp = 1572 K (1299 °C) | bp = 2604 K (2331 °C)

$\Delta H^0_{298} = -1669$ kJ·mol^{-1} [4] | $S^0_{298} = 113.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 106.09 + 2.21 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 763 K) [4]

F_3Sm (s) | Samarium(III) Fluoride | **F_3Sm (s)**

SmF_3 (s) | alpha | SmF_3 (s)

$\Delta H^0_{763} = -1619.1$ kJ·mol^{-1} [4] | $S^0_{763} = 214.5$ J·mol^{-1}·K^{-1} [4]

F_3Sm (s) Samarium(III) Fluoride **F_3Sm (s)**
SmF_3 (s) beta SmF_3 (s)

$\Delta H^0_{763} = -1617.2$ kJ·mol^{-1} [4] $S^0_{763} = 217.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = -200.68 + 214.39 \cdot 10^{-3} \cdot T + 100.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (763 ... 1572 K) [4]
$\lg(p,K) = -25.06 \cdot 10^3 \cdot T^{-1} - 7.33 \cdot \lg(T) + 35.35$ (1200 ... 1572 K) [4]
{Reaction: evaporation as SmF_3(g)}

F_3Sm (s) Samarium(III) Fluoride **F_3Sm (s)**
SmF_3 (s) beta SmF_3 (s)

$\Delta H^0_{1572} = -1509.6$ kJ·mol^{-1} [4] $S^0_{1572} = 311.1$ J·mol^{-1}·K^{-1} [4]

F_3Sm (l) Samarium(III) Fluoride **F_3Sm (l)**
SmF_3 (l) SmF_3 (l)

$\Delta H^0_{1572} = -1457.1$ kJ·mol^{-1} [4] $S^0_{1572} = 344.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 148.95$ J·mol^{-1}·K^{-1} (1572 K) [4]
$\lg(p,K) = -21.97 \cdot 10^3 \cdot T^{-1} - 6.92 \cdot \lg(T) + 32.08$ (1572 ... 2000 K) [4]
{Reaction: evaporation as SmF_3(g)}

F_3Sm (g) Samarium(III) Fluoride **F_3Sm (g)**
SmF_3 (g) SmF_3 (g)

$\Delta H^0_{298} = -1238.5$ kJ·mol^{-1} [4] $S^0_{298} = 335.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 89.32 + 1.44 \cdot 10^{-3} \cdot T - 1.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Tb (s) Terbium(III) Fluoride **F_3Tb (s)**
TbF_3 (s) TbF_3 (s)

mp = 1450 K (1177 °C) bp = 2701 K (2428 °C)
$\Delta H^0_{298} = -1707.1$ kJ·mol^{-1} [4] $S^0_{298} = 118$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 96.61 + 20.64 \cdot 10^{-3} \cdot T - 1.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1450 K) [4]
$\lg(p,K) = -24.26 \cdot 10^3 \cdot T^{-1} - 4.34 \cdot \lg(T) + 24.98$ (1200 ... 1450 K) [4]
{Reaction: evaporation as TbF_3(g)}

F_3Tb (s) Terbium(III) Fluoride **F_3Tb (s)**

TbF_3 (s) TbF_3 (s)

$\Delta H^0_{1450} = -\ 1577.7$ kJ·mol^{-1} [4] $S^0_{1450} = 289$ J·mol^{-1}·K^{-1} [4]

F_3Tb (l) Terbium(III) Fluoride **F_3Tb (l)**

TbF_3 (l) TbF_3 (l)

$\Delta H^0_{1450} = -\ 1525$ kJ·mol^{-1} [4] $S^0_{1450} = 325.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 151.88$ J·mol^{-1}·K^{-1} (1450 K) [4]

$\lg(p,K) = -\ 23.47 \cdot 10^3 \cdot T^{-1} -\ 7.47 \cdot \lg(T) + 34.32$ (1450 ... 2000 K) [4]

{Reaction: evaporation as TbF_3(g)}

F_3Tb (g) Terbium(III) Fluoride **F_3Tb (g)**

TbF_3 (g) TbF_3 (g)

$\Delta H^0_{298} = -\ 1261.5$ kJ·mol^{-1} [4] $S^0_{298} = 339.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 80.53 + 5.54 \cdot 10^{-3} \cdot T -\ 0.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Th (g) Thorium(III) Fluoride **F_3Th (g)**

ThF_3 (g) ThF_3 (g)

mp = 1500 K (1227 °C) bp = 2550 K (2277 °C)

$\Delta H^0_{298} = -\ 1184.7$ kJ·mol^{-1} [2] $S^0_{298} = 339.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 82 + 0.72 \cdot 10^{-3} \cdot T -\ 0.79 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1943 K) [4]

F_3Ti (s) Titanium(III) Fluoride **F_3Ti (s)**

TiF_3 (s) TiF_3 (s)

bp = 1310 K (1037 °C)

$\Delta H^0_{298} = -\ 1435.5 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 87.9 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 79.08 + 29.29 \cdot 10^{-3} \cdot T + 0.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1310 K) [4]

$\lg(p,K) = -\ 13.88 \cdot 10^3 \cdot T^{-1} -\ 3.88 \cdot \lg(T) + 22.69$ (700 ... 1310 K) [4]

{Reaction: evaporation as TiF_3(g)}

F_3Ti (g) Titanium(III) Fluoride **F_3Ti (g)**

TiF_3 (g) TiF_3 (g)

$\Delta H^0_{298} = -1188.7 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 291.4 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 86.28 - 0.26 \cdot 10^{-3} \cdot T - 2.07 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Tm (s) Thulium(III) Fluoride **F_3Tm (s)**

TmF_3 (s) alpha TmF_3 (s)

mp = 1431 K (1158 °C) bp = 2585 K (2312 °C)

$\Delta H^0_{298} = -1656$ kJ·mol^{-1} [4] $S^0_{298} = 115.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 98.95 + 11.48 \cdot 10^{-3} \cdot T - 0.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1326 K) [4]

$\lg(p,K) = -23.24 \cdot 10^3 \cdot T^{-1} - 3.73 \cdot \lg(T) + 22.94$ (1200 ... 1326 K) [4]

{Reaction: evaporation as TmF_3(g)}

F_3Tm (s) Thulium(III) Fluoride **F_3Tm (s)**

TmF_3 (s) alpha TmF_3 (s)

$\Delta H^0_{1326} = -1546.4$ kJ·mol^{-1} [4] $S^0_{1326} = 271.4$ J·mol^{-1}·K^{-1} [4]

F_3Tm (s) Thulium(III) Fluoride **F_3Tm (s)**

TmF_3 (s) beta TmF_3 (s)

$\Delta H^0_{1326} = -1516.2$ kJ·mol^{-1} [4] $S^0_{1326} = 294.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 97.84$ J·mol^{-1}·K^{-1} (1326 K) [4]

$\lg(p,K) = -20.59 \cdot 10^3 \cdot T^{-1} - 1.87 \cdot \lg(T) + 15.13$ (1326 ... 1431 K) [4]

{Reaction: evaporation as TmF_3(g)}

F_3Tm (s) Thulium(III) Fluoride **F_3Tm (s)**

TmF_3 (s) beta TmF_3 (s)

$\Delta H^0_{1431} = -1505.9$ kJ·mol^{-1} [4] $S^0_{1431} = 301.7$ J·mol^{-1}·K^{-1} [4]

F_3Tm (l) Thulium(III) Fluoride **F_3Tm (l)**

TmF_3 (l) TmF_3 (l)

$\Delta H^0_{1431} = -1477$ kJ·mol^{-1} [4] $S^0_{1431} = 321.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 140.34$ J·mol^{-1}·K^{-1} (1431 K) [4]

$\lg(p,K) = -22.21 \cdot 10^3 \cdot T^{-1} - 6.92 \cdot \lg(T) + 32.21$ (1431 ... 2000 K) [4]

{Reaction: evaporation as TmF_3(g)}

F_3Tm (g) Thulium(III) Fluoride **F_3Tm (g)**

TmF_3 (g) TmF_3 (g)

$\Delta H^0_{298} = -1224.7$ kJ·mol^{-1} [4] $S^0_{298} = 339.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 81.25 + 1.11 \cdot 10^{-3} \cdot T - 0.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3U (s) Uranium(III) Fluoride **F_3U (s)**

UF_3 (s) UF_3 (s)

mp = 1700 K (1427 °C)

$\Delta H^0_{298} = -1502.1$ kJ·mol^{-1} [4] $S^0_{298} = 123.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 85.98 + 30.54 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1165 K) [4]

F_3U (g) Uranium(III) Fluoride **F_3U (g)**

UF_3 (g) UF_3 (g)

$\Delta H^0_{298} = -1059$ kJ·mol^{-1} [4] $S^0_{298} = 331.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 83.68 - 0.87 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3V (s) Vanadium(III) Fluoride **F_3V (s)**

VF_3 (s) VF_3 (s)

mp = 1400 K (1127 °C) bp = 1700 K (1427 °C)

$\Delta H^0_{298} = -1297$ kJ·mol^{-1} [2] $S^0_{298} = 97.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 106.85 - 1.11 \cdot 10^{-3} \cdot T - 1.48 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

F_3Y (s) Yttrium(III) Fluoride **F_3Y (s)**
YF_3 (s) alpha YF_3 (s)

mp = 1428 K (1155 °C) bp = 2739 K (2466 °C)
ΔH^0_{298} = – 1718.4 kJ·mol^{-1} [2] S^0_{298} = 99.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 99.41 + 7.45 ·10^{-3}·T – 0.57 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1350 K) [4]
lg(p,K) = – 22.92 ·10^3·T^{-1} – 2.87 · lg(T) + 19.6 (1200 ... 1350 K) [4]
{Reaction: evaporation as YF_3(g)}

F_3Y (s) Yttrium(III) Fluoride **F_3Y (s)**
YF_3 (s) alpha YF_3 (s)

ΔH^0_{1350} = – 1608.8 kJ·mol^{-1} [4] S^0_{1350} = 254.4 J·mol^{-1}·K^{-1} [4]

F_3Y (s) Yttrium(III) Fluoride **F_3Y (s)**
YF_3 (s) beta YF_3 (s)

ΔH^0_{1350} = – 1576.4 kJ·mol^{-1} [4] S^0_{1350} = 278.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 122.38 J·mol^{-1}·K^{-1} (1350 K) [4]
lg(p,K) = – 22.19 ·10^3·T^{-1} – 4.52 · lg(T) + 24.23 (1350 ... 1428 K) [4]
{Reaction: evaporation as YF_3(g)}

F_3Y (s) Yttrium(III) Fluoride **F_3Y (s)**
YF_3 (s) beta YF_3 (s)

ΔH^0_{1428} = – 1566.9 kJ·mol^{-1} [4] S^0_{1428} = 285.3 J·mol^{-1}·K^{-1} [4]

F_3Y (l) Yttrium(III) Fluoride **F_3Y (l)**
YF_3 (l) YF_3 (l)

ΔH^0_{1428} = – 1538.9 kJ·mol^{-1} [4] S^0_{1428} = 304.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 133.68 J·mol^{-1}·K^{-1} (1428 K) [4]
lg(p,K) = – 21.56 ·10^3·T^{-1} – 5.85 · lg(T) + 27.98 (1428 ... 2000 K) [4]
{Reaction: evaporation as YF_3(g)}

F_3Y (g) Yttrium(III) Fluoride **F_3Y (g)**
YF_3 (g) YF_3 (g)

$\Delta H^0_{298} = -1288.7$ kJ·mol^{-1} [4] $S^0_{298} = 311.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 85.52 - 1.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Yb (s) Ytterbium(III) Fluoride **F_3Yb (s)**
YbF_3 (s) alpha YbF_3 (s)

mp = 1435 K (1162 °C) bp = 2580 K (2307 °C)
$\Delta H^0_{298} = -1569.8$ kJ·mol^{-1} [4] $S^0_{298} = 117.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 95.2 + 16.38 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1259 K) [4]

F_3Yb (s) Ytterbium(III) Fluoride **F_3Yb (s)**
YbF_3 (s) alpha YbF_3 (s)

$\Delta H^0_{1259} = -1467.4$ kJ·mol^{-1} [4] $S^0_{1259} = 267.4$ J·mol^{-1}·K^{-1} [4]

F_3Yb (s) Ytterbium(III) Fluoride **F_3Yb (s)**
YbF_3 (s) beta YbF_3 (s)

$\Delta H^0_{1259} = -1442.7$ kJ·mol^{-1} [4] $S^0_{1259} = 287$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 119.58$ J·mol^{-1}·K^{-1} (1259 K) [4]
$\lg(p,K) = -20.54 \cdot 10^3 \cdot T^{-1} - 4.5 \cdot \lg(T) + 23.88$ (1259 ... 1435 K) [4]
{Reaction: evaporation as YbF_3(g)}

F_3Yb (s) Ytterbium(III) Fluoride **F_3Yb (s)**
YbF_3 (s) beta YbF_3 (s)

$\Delta H^0_{1435} = -1421.7$ kJ·mol^{-1} [4] $S^0_{1435} = 302.6$ J·mol^{-1}·K^{-1} [4]

F_3Yb (l) Ytterbium(III) Fluoride **F_3Yb (l)**
YbF_3 (l) YbF_3 (l)

$\Delta H^0_{1435} = -1387.1$ kJ·mol^{-1} [4] $S^0_{1435} = 326.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 121.67$ J·mol^{-1}·K^{-1} (1435 K) [4]
$\lg(p,K) = -18.84 \cdot 10^3 \cdot T^{-1} - 4.68 \cdot \lg(T) + 23.27$ (1435 ... 2000 K) [4]
{Reaction: evaporation as YbF_3(g)}

F_3Yb (g) Ytterbium(III) Fluoride **F_3Yb (g)**

YbF_3 (g) YbF_3 (g)

$\Delta H^0_{298} = -1173.1$ kJ·mol^{-1} [4] $S^0_{298} = 326.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 81.2 + 1.14 \cdot 10^{-3} \cdot T - 0.96 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_3Zr (s) Zirconium(III) Fluoride **F_3Zr (s)**

ZrF_3 (s) ZrF_3 (s)

$\Delta H^0_{298} = -1441.6$ kJ·mol^{-1} [4] $S^0_{298} = 87.9 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 98.76 + 9.72 \cdot 10^{-3} \cdot T - 1.6 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1463 K) [4]

F_3Zr (g) Zirconium(III) Fluoride **F_3Zr (g)**

ZrF_3 (g) ZrF_3 (g)

$\Delta H^0_{298} = -1145.4$ kJ·mol^{-1} [4] $S^0_{298} = 305.7 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 80.99 + 4.62 \cdot 10^{-3} \cdot T - 1.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_4Ge (g) Germanium(IV) Fluoride **F_4Ge (g)**

GeF_4 (g) GeF_4 (g)

$\Delta H^0_{298} = -1190.1$ kJ·mol^{-1} [2] $S^0_{298} = 301.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 101.13 + 4.15 \cdot 10^{-3} \cdot T - 1.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_4H_4 (g) Hydrogen Fluoride **F_4H_4 (g)**

H_4F_4 (g) H_4F_4 (g)

$\Delta H^0_{298} = -1183.8 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 349.2 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 106.59$ J·mol^{-1}·K^{-1} (298 K) [1]

F_4Hf (s) Hafnium(IV) Fluoride **F_4Hf (s)**

HfF_4 (s) HfF_4 (s)

bp = 1235 K (962 °C)

$\Delta H^0_{298} = -1930.5$ kJ·mol^{-1} [2] $S^0_{298} = 113$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 120.72 + 15.79 \cdot 10^{-3} \cdot T - 2.22 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1235 K) [4]

$\lg(p,K) = -14.27 \cdot 10^3 \cdot T^{-1} - 3.33 \cdot \lg(T) + 21.85$ (700 ... 1235 K) [4]

{Reaction: evaporation as HfF_4(g)}

F_4Hf (g) Hafnium(IV) Fluoride **F_4Hf (g)**
HfF_4 (g) HfF_4 (g)

$\Delta H^0_{298} = -1669.8$ kJ·mol^{-1} [2] $S^0_{298} = 336.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 104.83 + 2.33 \cdot 10^{-3} \cdot T - 1.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_4Mg_2 (g) Magnesium(II) Fluoride **F_4Mg_2 (g)**
$(MgF_2)_2$ (g) $(MgF_2)_2$ (g)

$\Delta H^0_{298} = -1718.4 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 337 \pm 20.9$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 129.24 + 2.35 \cdot 10^{-3} \cdot T - 2 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -24.26 \cdot 10^3 \cdot T^{-1} - 6.87 \cdot \lg(T) + 30.23$ (1536 ... 2000 K) [4]
{Reaction: evaporation of MgF_2(l)}

F_4Mo (s) Molybdenum(IV) Fluoride **F_4Mo (s)**
MoF_4 (s) MoF_4 (s)

$\Delta H^0_{298} = -1151.1$ kJ·mol^{-1} [4] $S^0_{298} = 116.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 129.7 + 12.97 \cdot 10^{-3} \cdot T - 0.76 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 600 K) [4]

F_4Mo (g) Molybdenum(IV) Fluoride **F_4Mo (g)**
MoF_4 (g) MoF_4 (g)

$\Delta H^0_{298} = -947.7 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 328.9 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 102.14 + 3.67 \cdot 10^{-3} \cdot T - 1.6 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2896 K) [4]

F_4MoO (g) Molybdenum Oxide Fluoride **F_4MoO (g)**
MoF_4O (g) MoF_4O (g)

$\Delta H^0_{298} = -1255.2 \pm 126$ kJ·mol^{-1} [1] $S^0_{298} = 330.6 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 96.74$ J·mol^{-1}·K^{-1} (298 K) [1]

F_4N_2 (g) Tetrafluorohydrazine **F_4N_2 (g)**
N_2F_4 (g) N_2F_4 (g)

$\Delta H^0_{298} = -8.4 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 301.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 79.17$ J·mol^{-1}·K^{-1} (298 K) [1]

F_4Np (s) Neptunium(IV) Fluoride **F_4Np (s)**

NpF_4 (s) NpF_4 (s)

ΔH^0_{298} = [– 1874] kJ·mol^{-1} [226] S^0_{298} = [152.7] J·mol^{-1}·K^{-1} [226]

F_4Np (g) Neptunium(IV) Fluoride **F_4Np (g)**

NpF_4 (g) NpF_4 (g)

ΔH^0_{298} = – 1585.9 ± 17 kJ·mol^{-1} [226] S^0_{298} = 351.8 ± 12 J·mol^{-1}·K^{-1} [226]

F_4OW (s) Tungsten Oxide Fluoride **F_4OW (s)**

WOF_4 (s) WOF_4 (s)

mp = 379 K (106 °C) bp = 459 K (186 °C)

ΔH^0_{298} = – 1406.9 ± 62.8 kJ·mol^{-1} [1] S^0_{298} = 175.7 ± 4.2 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 83.65 + 167.42 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 379 K) [4]

$\lg(p,K) = -4.27 \cdot 10^3 \cdot T^{-1} - 4.62 \cdot \lg(T) + 21.75$ (298 ... 379 K) [4]

{Reaction: evaporation}

F_4OW (l) Tungsten Oxide Fluoride **F_4OW (l)**

WOF_4 (l) WOF_4 (l)

ΔH^0_{298} = – 1405.3 ± 62.8 kJ·mol^{-1} [1] S^0_{298} = 178.9 ± 4.2 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$ = 182 J·mol^{-1}·K^{-1} (298 K) [1]

F_4OW (g) Tungsten Oxide Fluoride **F_4OW (g)**

WOF_4 (g) WOF_4 (g)

ΔH^0_{298} = – 1336.6 ± 62.8 kJ·mol^{-1} [1] S^0_{298} = 334.7 ± 4.2 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 125.69 + 4.14 \cdot 10^{-3} \cdot T - 2.77 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_4Pb (g) Lead(IV) Fluoride **F_4Pb (g)**

PbF_4 (g) PbF_4 (g)

ΔH^0_{298} = – 1133.4 ± 20.9 kJ·mol^{-1} [1] S^0_{298} = 333.6 ± 12.6 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 106.41 + 0.87 \cdot 10^{-3} \cdot T - 1.43 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_4Pu (s) Plutonium(IV) Fluoride **F_4Pu (s)**

PuF_4 (s) PuF_4 (s)

mp = 1310 K (1037 °C) bp = 1561 K (1288 °C)

$\Delta H^0_{298} = -1834.7$ kJ·mol^{-1} [4] $S^0_{298} = 147.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 125.57 + 10.69 \cdot 10^{-3} \cdot T - 1.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1310 K) [4]

F_4Pu (s) Plutonium(IV) Fluoride **F_4Pu (s)**

PuF_4 (s) PuF_4 (s)

$\Delta H^0_{1310} = -1701.8$ kJ·mol^{-1} [4] $S^0_{1310} = 338$ J·mol^{-1}·K^{-1} [4]

F_4Pu (l) Plutonium(IV) Fluoride **F_4Pu (l)**

PuF_4 (l) PuF_4 (l)

$\Delta H^0_{1310} = -1659.1$ kJ·mol^{-1} [4] $S^0_{1310} = 370.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 171.54$ J·mol^{-1}·K^{-1} (1310 K) [4]

F_4Ru (g) Ruthenium Fluoride **F_4Ru (g)**

RuF_4 (g) RuF_4 (g)

$\Delta H^0_{298} = -595 \pm 15$ kJ·mol^{-1} [278] $S^0_{298} = [333.8]$ J·mol^{-1}·K^{-1} [15]

F_4S (g) Sulfur(IV) Fluoride **F_4S (g)**

SF_4 (g) SF_4 (g)

mp = 149 K (-124 °C) bp = 233 K (-40 °C)

$\Delta H^0_{298} = -763.2 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 299.6 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 102.03 + 3.33 \cdot 10^{-3} \cdot T - 2.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_4Se (l) Selenium(IV) Fluoride **F_4Se (l)**

SeF_4 (l) SeF_4 (l)

mp = 264 K (-9 °C) bp = 381 K (108 °C)

$\Delta H^0_{298} = -856.8$ kJ·mol^{-1} [4] $S^0_{298} = 176$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 156.9$ J·mol^{-1}·K^{-1} (298 K) [4]

F_4Se (l) Selenium(IV) Fluoride **F_4Se (l)**

SeF_4 (l) SeF_4 (l)

$\Delta H^0_{381} = -843.8$ kJ·mol^{-1} [4] $S^0_{381} = 214.4$ J·mol^{-1}·K^{-1} [4]

F_4Se (g) Selenium(IV) Fluoride **F_4Se (g)**

SeF_4 (g) SeF_4 (g)

$\Delta H^0_{381} = -805.2$ kJ·mol^{-1} [4] $S^0_{381} = 315.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 101.04 + 3.69 \cdot 10^{-3} \cdot T - 2.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (381 ... 2000 K) [4]

F_4Se (g) Selenium(IV) Fluoride **F_4Se (g)**

SeF_4 (g) SeF_4 (g)

$\Delta H^0_{298} = -811.7$ kJ·mol^{-1} [2] $S^0_{298} = 296.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 101.04 + 3.69 \cdot 10^{-3} \cdot T - 2.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_4Si (g) Tetrafluorosilane **F_4Si (g)**

SiF_4 (g) SiF_4 (g)

bp = 178 K (-95 °C)

$\Delta H^0_{298} = -1614.9 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 282.8 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 99.39 + 4.51 \cdot 10^{-3} \cdot T - 2.64 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_4Te (s) Tellurium(IV) Fluoride **F_4Te (s)**

TeF_4 (s) TeF_4 (s)

mp = 403 K (130 °C) bp = 646 K (373 °C)

$\Delta H^0_{298} = -1011.7$ kJ·mol^{-1} [5] $S^0_{298} = 197.5$ J·mol^{-1}·K^{-1} [5]

F_4Te (g) Tellurium(IV) Fluoride **F_4Te (g)**

TeF_4 (g) TeF_4 (g)

$\Delta H^0_{298} = -948.1$ kJ·mol^{-1} [2] $S^0_{298} = 324.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 104.14 + 2.08 \cdot 10^{-3} \cdot T - 2.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_4Th (s) Thorium(IV) Fluoride **F_4Th (s)**

ThF_4 (s) ThF_4 (s)

mp = 1383 K (1110 °C) bp = 1943 K (1670 °C)

ΔH^0_{298} = – 2098 kJ·mol^{-1} [2] S^0_{298} = 142 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 122.17 + 8.37 ·10^{-3}·T – 1.26 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1383 K) [4]

lg(p,K) = – 17.77 ·10^3·T^{-1} – 2.95 · lg(T) + 19.31 (1000 ... 1383 K) [4]

{Reaction: evaporation as ThF_4(g)}

F_4Th (s) Thorium(IV) Fluoride **F_4Th (s)**

ThF_4 (s) ThF_4 (s)

ΔH^0_{1383} = – 1961.2 kJ·mol^{-1} [4] S^0_{1383} = 331.9 J·mol^{-1}·K^{-1} [4]

F_4Th (l) Thorium(IV) Fluoride **F_4Th (l)**

ThF_4 (l) ThF_4 (l)

ΔH^0_{1383} = – 1919.3 kJ·mol^{-1} [4] S^0_{1383} = 362.1 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 133.89 J·mol^{-1}·K^{-1} (1383 K) [4]

lg(p,K) = – 15.7 ·10^3·T^{-1} – 3.15 · lg(T) + 18.44 (1383 ... 1943 K) [4]

{Reaction: evaporation as ThF_4(g)}

F_4Th (g) Thorium(IV) Fluoride **F_4Th (g)**

ThF_4 (g) ThF_4 (g)

ΔH^0_{298} = – 1768 kJ·mol^{-1} [2] S^0_{298} = 341.8 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 106.06 + 1.26 ·10^{-3}·T – 1.19 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1943 K) [4]

F_4Ti (s) Titanium(IV) Fluoride **F_4Ti (s)**

TiF_4 (s) TiF_4 (s)

bp = 558 K (285 °C)

ΔH^0_{298} = – 1649.3 ± 3.8 kJ·mol^{-1} [1] S^0_{298} = 134 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 123.31 + 36.24 ·10^{-3}·T – 1.77 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 558 K) [4]

lg(p,K) = – 5.56 ·10^3·T^{-1} – 3.6 · lg(T) + 19.86 (298 ... 558 K) [4]

{Reaction: evaporation as TiF_4(g)}

F_4Ti (g) Titanium(IV) Fluoride **F_4Ti (g)**

TiF_4 (g) TiF_4 (g)

$\Delta H^0_{298} = -1551.4 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 314.9 \pm 2.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 104.25 + 1.98 \cdot 10^{-3} \cdot T - 1.8 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_4U (s) Uranium(IV) Fluoride **F_4U (s)**

UF_4 (s) UF_4 (s)

mp = 1309 K (1036 °C) bp = 1737 K (1464 °C)

$\Delta H^0_{298} = -1914.2$ kJ·mol^{-1} [4] $S^0_{298} = 151.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 123.56 + 9.62 \cdot 10^{-3} \cdot T - 0.93 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1309 K) [4]

$\lg(p,K) = -16.99 \cdot 10^3 \cdot T^{-1} - 3.24 \cdot \lg(T) + 20.98$ (900 ... 1309 K) [4]

{Reaction: evaporation as UF_4(g)}

F_4U (s) Uranium(IV) Fluoride **F_4U (s)**

UF_4 (s) UF_4 (s)

$\Delta H^0_{1309} = -1783.9$ kJ·mol^{-1} [4] $S^0_{1309} = 339.3$ J·mol^{-1}·K^{-1} [4]

F_4U (l) Uranium(IV) Fluoride **F_4U (l)**

UF_4 (l) UF_4 (l)

$\Delta H^0_{1309} = -1718.2$ kJ·mol^{-1} [4] $S^0_{1309} = 389.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 165.56$ J·mol^{-1}·K^{-1} (1309 K) [4]

$\lg(p,K) = -15.63 \cdot 10^3 \cdot T^{-1} - 6.91 \cdot \lg(T) + 31.39$ (1309 ... 1737 K) [4]

{Reaction: evaporation as UF_4(g)}

F_4U (g) Uranium(IV) Fluoride **F_4U (g)**

UF_4 (g) UF_4 (g)

$\Delta H^0_{298} = -1598.7$ kJ·mol^{-1} [4] $S^0_{298} = 369.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 104.53 + 2.71 \cdot 10^{-3} \cdot T - 1.25 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_4V (s) Vanadium(IV) Fluoride **F_4V (s)**

VF_4 (s) VF_4 (s)

$\Delta H^0_{298} = -1403.3$ kJ·mol^{-1} [2] $S^0_{298} = 121.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 95.19 + 39.75 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 600 K) [4]

F_4Xe (g) Xenon(IV) Fluoride **F_4Xe (g)**

XeF_4 (g) XeF_4 (g)

$\Delta H^0_{298} = -215$ kJ·mol^{-1} [7] $S^0_{298} = 316$ J·mol^{-1}·K^{-1} [7]

$C_p{}^0 = 90$ J·mol^{-1}·K^{-1} (298 K) [7]

F_4Zr (s) Zirconium(IV) Fluoride **F_4Zr (s)**

ZrF_4 (s) ZrF_4 (s)

bp = 1178 K (905 °C)

$\Delta H^0_{298} = -1911.3 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 104.7 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 117.4 + 16.74 \cdot 10^{-3} \cdot T - 1.72 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1178 K) [4]

$\lg(p,K) = -12.98 \cdot 10^{3} \cdot T^{-1} - 3.1 \cdot \lg(T) + 20.54$ (700 ... 1178 K) [4]

{Reaction: evaporation as ZrF_4(g)}

F_4Zr (g) Zirconium(IV) Fluoride **F_4Zr (g)**

ZrF_4 (g) ZrF_4 (g)

$\Delta H^0_{298} = -1673.6 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 319.5 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 104.27 + 2.23 \cdot 10^{-3} \cdot T - 1.56 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$F_{4.25}U$ (s) Uranium Fluoride **$F_{4.25}U$ (s)**

$UF_{4.25}$ (s) $UF_{4.25}$ (s)

$\Delta H^0_{298} = -1962.6$ kJ·mol^{-1} [4] $S^0_{298} = 157.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 113.39 + 29.62 \cdot 10^{-3} \cdot T - 0.07 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 703 K) [4]

$F_{4.5}U$ (s) Uranium Fluoride **$F_{4.5}U$ (s)**

$UF_{4.5}$ (s) $UF_{4.5}$ (s)

$\Delta H^0_{298} = -2079$ kJ·mol^{-1} [4] $S^0_{298} = 164.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 117.99 + 29.96 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 663 K) [4]

F_5H_5 (g) Hydrogen Fluoride **F_5H_5 (g)**

H_5F_5 (g) H_5F_5 (g)

$\Delta H^0_{298} = -\ 1489.7 \pm 25.1$ kJ·mol^{-1} [1] $S^0_{298} = 408.4 \pm 20.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 137.32$ J·mol^{-1}·K^{-1} (298 K) [1]

F_5I (g) Iodine(V) Fluoride **F_5I (g)**

IF_5 (g) IF_5 (g)

$\Delta H^0_{298} = -\ 840.3 \pm 1.5$ kJ·mol^{-1} [1] $S^0_{298} = 334.7 \pm 2.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 102.88$ J·mol^{-1}·K^{-1} (298 K) [1]

F_5Mo (s) Molybdenum(V) Fluoride **F_5Mo (s)**

MoF_5 (s) MoF_5 (s)

mp = 319 K (46 °C) bp = 548 K (275 °C)

$\Delta H^0_{298} = -\ 1388.3$ kJ·mol^{-1} [4] $S^0_{298} = 178.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 25.77 + 415.68 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 319 K) [4]

F_5Mo (s) Molybdenum(V) Fluoride **F_5Mo (s)**

MoF_5 (s) MoF_5 (s)

$\Delta H^0_{319} = -\ 1385$ kJ·mol^{-1} [4] $S^0_{319} = 189.1$ J·mol^{-1}·K^{-1} [4]

F_5Mo (l) Molybdenum(V) Fluoride **F_5Mo (l)**

MoF_5 (l) MoF_5 (l)

$\Delta H^0_{319} = -\ 1379$ kJ·mol^{-1} [4] $S^0_{319} = 208.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 155.65$ J·mol^{-1}·K^{-1} (319 K) [4]

F_5Mo (g) Molybdenum(V) Fluoride **F_5Mo (g)**

MoF_5 (g) MoF_5 (g)

$\Delta H^0_{298} = -\ 1241.4 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 347.7 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 131.86 + 1.54 \cdot 10^{-3} \cdot T - 2.63 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -\ 7.78 \cdot 10^{3} \cdot T^{-1} - 3.92 \cdot \lg(T) + 19$ (319 ... 548 K) [4]

{Reaction: evaporation of MoF_5(l)}

F_5Nb (s) Niobium(V) Fluoride **F_5Nb (s)**

NbF_5 (s) NbF_5 (s)

mp = 351 K (78 °C) bp = 511 K (238 °C)

$\Delta H^0_{298} = -1813.8$ kJ·mol^{-1} [2] $S^0_{298} = 160.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 149.4 + 0.89 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 351 K) [4]

$\lg(p,K) = -4.41 \cdot 10^3 \cdot T^{-1} - 5.67 \cdot \lg(T) + 24.51$ (298 ... 351 K) [4]

{Reaction: evaporation as NbF_5(g)}

F_5Nb (s) Niobium(V) Fluoride **F_5Nb (s)**

NbF_5 (s) NbF_5 (s)

$\Delta H^0_{351} = -1805.8$ kJ·mol^{-1} [4] $S^0_{351} = 184.7$ J·mol^{-1}·K^{-1} [4]

F_5Nb (l) Niobium(V) Fluoride **F_5Nb (l)**

NbF_5 (l) NbF_5 (l)

$\Delta H^0_{351} = -1793.6$ kJ·mol^{-1} [4] $S^0_{351} = 219.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 100.44 + 113.68 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (351 ... 511 K) [4]

F_5Nb (g) Niobium(V) Fluoride **F_5Nb (g)**

NbF_5 (g) NbF_5 (g)

$\Delta H^0_{298} = -1743.4$ kJ·mol^{-1} [4] $S^0_{298} = 313.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 124.96 + 4.82 \cdot 10^{-3} \cdot T - 2.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_5P (g) Phosphorus(V) Fluoride **F_5P (g)**

PF_5 (g) PF_5 (g)

mp = 190 K (-83 °C) bp = 198 K (-75 °C)

$\Delta H^0_{298} = -1594.4 \pm 2.9$ kJ·mol^{-1} [1] $S^0_{298} = 300.8 \pm 2.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 122.51 + 5.52 \cdot 10^{-3} \cdot T - 3.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_5Ru (s) Ruthenium(V) Fluoride **F_5Ru (s)**

RuF_5 (s) RuF_5 (s)

mp = 358 K (85 °C) bp = 545 K (272 °C)

$\Delta H^0_{298} = -892.9$ kJ·mol^{-1} [2] $S^0_{298} = 161.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 163.18$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -5.38 \cdot 10^3 \cdot T^{-1} - 7.28 \cdot \lg(T) + 30.77$ (298 ... 358 K) [4]

{Reaction: evaporation as RuF_5(g)}

F_5Ru (s) Ruthenium(V) Fluoride **F_5Ru (s)**

RuF_5 (s) RuF_5 (s)

$\Delta H^0_{358} = -883.1$ kJ·mol^{-1} [4] $S^0_{358} = 190.9$ J·mol^{-1}·K^{-1} [4]

F_5Ru (l) Ruthenium(V) Fluoride **F_5Ru (l)**

RuF_5 (l) RuF_5 (l)

$\Delta H^0_{358} = -864.3$ kJ·mol^{-1} [4] $S^0_{358} = 243.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 182$ J·mol^{-1}·K^{-1} (358 K) [4]

F_5Ru (g) Ruthenium(V) Fluoride **F_5Ru (g)**

RuF_5 (g) RuF_5 (g)

$\Delta H^0_{298} = -807.8$ kJ·mol^{-1} [4] $S^0_{298} = 344.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 130.96 - 2.97 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

F_5S (g) Sulfur(V) Fluoride **F_5S (g)**

SF_5 (g) SF_5 (g)

$\Delta H^0_{298} = -908.5 \pm 15.1$ kJ·mol^{-1} [1] $S^0_{298} = 304.8 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 126.19 + 3.18 \cdot 10^{-3} \cdot T - 3.35 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

F_5Se (g) Selenium(V) Fluoride **F_5Se (g)**

SeF_5 (g) SeF_5 (g)

$\Delta H^0_{298} = -940.6$ kJ·mol^{-1} [2] $S^0_{298} = 322.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 127.67 + 2.81 \cdot 10^{-3} \cdot T - 2.94 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_5Ta (s) Tantalum(V) Fluoride **F_5Ta (s)**

TaF_5 (s) TaF_5 (s)

mp = 369 K (96 °C) bp = 501 K (228 °C)

ΔH^0_{298} = – 1903.7 kJ·mol^{-1} [4] S^0_{298} = 169.9 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 133.89 J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -4.31 \cdot 10^3 \cdot T^{-1} - 3.1 \cdot \lg(T) + 17.57$ (298 ... 369 K) [4]

{Reaction: evaporation as TaF_5(g)}

F_5Ta (s) Tantalum(V) Fluoride **F_5Ta (s)**

TaF_5 (s) TaF_5 (s)

ΔH^0_{369} = – 1894.2 kJ·mol^{-1} [4] S^0_{369} = 198.4 J·mol^{-1}·K^{-1} [4]

F_5Ta (l) Tantalum(V) Fluoride **F_5Ta (l)**

TaF_5 (l) TaF_5 (l)

ΔH^0_{369} = – 1880.4 kJ·mol^{-1} [4] S^0_{369} = 235.8 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 177.82 J·mol^{-1}·K^{-1} (369 K) [4]

$\lg(p,K) = -4.26 \cdot 10^3 \cdot T^{-1} - 7.3 \cdot \lg(T) + 28.22$ (369 ... 501 K) [4]

{Reaction: evaporation as TaF_5(g)}

F_5Ta (g) Tantalum(V) Fluoride **F_5Ta (g)**

TaF_5 (g) TaF_5 (g)

ΔH^0_{298} = – 1828.8 kJ·mol^{-1} [4] S^0_{298} = 333.7 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 130.67 + 1.09 \cdot 10^{-3} \cdot T - 2.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_5Te (g) Tellurium(V) Fluoride **F_5Te (g)**

TeF_5 (g) TeF_5 (g)

ΔH^0_{298} = – 1159.8 kJ·mol^{-1} [2] S^0_{298} = 340.9 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 128.32 + 2.47 \cdot 10^{-3} \cdot T - 2.53 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_5U (s) Uranium(V) Fluoride **F_5U (s)**

UF_5 (s) UF_5 (s)

mp = 621 K (348 °C) bp = 846 K (573 °C)

$\Delta H^0_{298} = -2083.2$ kJ·mol^{-1} [2] $S^0_{298} = 179.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 125.52 + 30.21 \cdot 10^{-3} \cdot T - 0.2 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 621 K) [4]

$\lg(p,K) = -8.1 \cdot 10^3 \cdot T^{-1} - 2.15 \cdot \lg(T) + 16.96$ (400 ... 621 K) [4]

{Reaction: evaporation as UF_5(g)}

F_5U (s) Uranium(V) Fluoride **F_5U (s)**

UF_5 (s) UF_5 (s)

$\Delta H^0_{621} = -2038.5$ kJ·mol^{-1} [4] $S^0_{621} = 280.5$ J·mol^{-1}·K^{-1} [4]

F_5U (l) Uranium(V) Fluoride **F_5U (l)**

UF_5 (l) UF_5 (l)

$\Delta H^0_{621} = -1991.7$ kJ·mol^{-1} [4] $S^0_{621} = 356$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 166.61$ J·mol^{-1}·K^{-1} (621 K) [4]

$\lg(p,K) = -6.35 \cdot 10^3 \cdot T^{-1} - 4.74 \cdot \lg(T) + 21.38$ (621 ... 846 K) [4]

{Reaction: evaporation as UF_5(g)}

F_5U (g) Uranium(V) Fluoride **F_5U (g)**

UF_5 (g) UF_5 (g)

$\Delta H^0_{298} = -1933.5$ kJ·mol^{-1} [4] $S^0_{298} = 384.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 127.87 + 3.77 \cdot 10^{-3} \cdot T - 1.72 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_5V (g) Vanadium(V) Fluoride **F_5V (g)**

VF_5 (g) VF_5 (g)

bp = 321 K (48 °C)

$\Delta H^0_{298} = -1433.9$ kJ·mol^{-1} [4] $S^0_{298} = 320.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 124.96 + 4.84 \cdot 10^{-3} \cdot T - 2.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_6H_6 (g) Hydrogen Fluoride **F_6H_6 (g)**

H_6F_6 (g) H_6F_6 (g)

$\Delta H^0_{298} = -1807.7 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 466.4 \pm 25.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 168.06$ J·mol^{-1}·K^{-1} (298 K) [1]

F_6Ir (g) Iridium(VI) Fluoride **F_6Ir (g)**

IrF_6 (g) IrF_6 (g)

bp = 326 K (53 °C)

$\Delta H^0_{298} = -543.9$ kJ·mol^{-1} [2] $S^0_{298} = 345.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 149.93 + 5.1 \cdot 10^{-3} \cdot T - 2.72 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_6KU (s) Potassium Uranium Fluoride **F_6KU (s)**

KUF_6 (s) KUF_6 (s)

$\Delta H^0_{298} = -2730.9 \pm 3$ kJ·mol^{-1} [245] $S^0_{298} = [246]$ J·mol^{-1}·K^{-1} [248, 8]

$C_p{}^0 = [181.33]$ J·mol^{-1}·K^{-1} (298 K) [271]

F_6K_2Si (s) Potassium Silicon Fluoride **F_6K_2Si (s)**

K_2SiF_6 (s) K_2SiF_6 (s)

$\Delta H^0_{298} = -2956$ kJ·mol^{-1} [7] $S^0_{298} = 226$ J·mol^{-1}·K^{-1} [7]

F_6Mo (l) Molybdenum(VI) Fluoride **F_6Mo (l)**

MoF_6 (l) MoF_6 (l)

mp = 291 K (18 °C) bp = 307 K (34 °C)

$\Delta H^0_{298} = -1585.7 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 259.7 \pm 0.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 117.93 + 173.97 \cdot 10^{-3} \cdot T - 5.09 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 307 K) [4]

F_6Mo (g) Molybdenum(VI) Fluoride **F_6Mo (g)**

MoF_6 (g) MoF_6 (g)

$\Delta H^0_{298} = -1557.7 \pm 0.9$ kJ·mol^{-1} [1] $S^0_{298} = 350.7 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 149.57 + 5.19 \cdot 10^{-3} \cdot T - 2.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_6NaU (s) Sodium Uranium Fluoride **F_6NaU (s)**

$NaUF_6$ (s) $NaUF_6$ (s)

$\Delta H^0_{298} = -2708 \pm 4$ kJ·mol^{-1} [245] S^0_{298} = [230.8] J·mol^{-1}·K^{-1} [247, 8]

$C_p{}^0$= [179.18] J·mol^{-1}·K^{-1} (298 K) [271]

F_6Np (s) Neptunium(VI) Fluoride **F_6Np (s)**

NpF_6 (s) NpF_6 (s)

$\Delta H^0_{298} = -1985.3$ kJ·mol^{-1} [2] $S^0_{298} = 229.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 167.4 J·mol^{-1}·K^{-1} (298 K) [2]

F_6Np (g) Neptunium(VI) Fluoride **F_6Np (g)**

NpF_6 (g) NpF_6 (g)

$\Delta H^0_{298} = -1937.2$ kJ·mol^{-1} [2] $S^0_{298} = 376.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 129.1 J·mol^{-1}·K^{-1} (298 K) [2]

F_6OSi_2 (g) Silicon Oxide Fluoride **F_6OSi_2 (g)**

Si_2OF_6 (g) Si_2OF_6 (g)

$\Delta H^0_{298} = -2892$ kJ·mol^{-1} [117] $S^0_{298} = 397.6$ J·mol^{-1}·K^{-1} [117]

F_6Pt (s) Platinum(VI) Fluoride **F_6Pt (s)**

PtF_6 (s) PtF_6 (s)

$\Delta H^0_{298} = -714 \pm 28$ kJ·mol^{-1} [115]

F_6Pt (g) Platinum(VI) Fluoride **F_6Pt (g)**

PtF_6 (g) PtF_6 (g)

$\Delta H^0_{298} = -676 \pm 28$ kJ·mol^{-1} [115] S^0_{298} = [341.1] J·mol^{-1}·K^{-1} [116]

F_6Pu (s) Plutonium(VI) Fluoride **F_6Pu (s)**

PuF_6 (s) PuF_6 (s)

mp = 325 K (52 °C) bp = 335 K (62 °C)

ΔH^0_{298} = – 1799.1 kJ·mol^{-1} [4] S^0_{298} = 221.8 J·mol^{-1}·K^{-1} [4]

C_p^0= 88.32 + 265.12 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 325 K) [4]

F_6Pu (s) Plutonium(VI) Fluoride **F_6Pu (s)**

PuF_6 (s) PuF_6 (s)

ΔH^0_{325} = – 1794.5 kJ·mol^{-1} [4] S^0_{325} = 236.5 J·mol^{-1}·K^{-1} [4]

F_6Pu (l) Plutonium(VI) Fluoride **F_6Pu (l)**

PuF_6 (l) PuF_6 (l)

ΔH^0_{325} = – 1775.9 kJ·mol^{-1} [4] S^0_{325} = 293.8 J·mol^{-1}·K^{-1} [4]

C_p^0= 188.28 J·mol^{-1}·K^{-1} (325 K) [4]

F_6Pu (g) Plutonium(VI) Fluoride **F_6Pu (g)**

PuF_6 (g) PuF_6 (g)

ΔH^0_{298} = – 1750.3 kJ·mol^{-1} [4] S^0_{298} = 369.5 J·mol^{-1}·K^{-1} [4]

C_p^0= 153.44 + 2.81 ·10^{-3}·T – 2.21 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_6RbU (s) Rubidium Uranium Fluoride **F_6RbU (s)**

$RbUF_6$ (s) $RbUF_6$ (s)

ΔH^0_{298} = – 2740.5 ± 6 kJ·mol^{-1} [245] S^0_{298} = [257.3] J·mol^{-1}·K^{-1} [249, 8]

C_p^0= [182.71] J·mol^{-1}·K^{-1} (298 K) [271]

F_6Re (l) Rhenium(VI) Fluoride **F_6Re (l)**

ReF_6 (l) ReF_6 (l)

mp = 292 K (19 °C) bp = 307 K (34 °C)

ΔH^0_{298} = – 1163.2 kJ·mol^{-1} [4] S^0_{298} = 269.2 J·mol^{-1}·K^{-1} [4]

C_p^0= 175.73 J·mol^{-1}·K^{-1} (298 K) [4]

F_6Re (l) Rhenium(VI) Fluoride **F_6Re (l)**

ReF_6 (l) ReF_6 (l)

$\Delta H^0_{307} = -1161.6$ kJ·mol^{-1} [4] $S^0_{307} = 274.3$ J·mol^{-1}·K^{-1} [4]

F_6Re (g) Rhenium(VI) Fluoride **F_6Re (g)**

ReF_6 (g) ReF_6 (g)

$\Delta H^0_{307} = -1133.1$ kJ·mol^{-1} [4] $S^0_{307} = 367.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 155.65 + 1.3 \cdot 10^{-3} \cdot T - 3.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (307 ... 2000 K) [4]

F_6S (l) Sulfur(VI) Fluoride **F_6S (l)**

SF_6 (l) SF_6 (l)

mp = 223 K (-50 °C) bp = 209 K (-64 °C)

$\Delta H^0_{298} = -1237.6$ kJ·mol^{-1} [5] $S^0_{298} = 206.7$ J·mol^{-1}·K^{-1} [5]

F_6S (g) Sulfur(VI) Fluoride **F_6S (g)**

SF_6 (g) SF_6 (g)

$\Delta H^0_{298} = -1220.5 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 291.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 146.69 + 5.89 \cdot 10^{-3} \cdot T - 4.6 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_6Se (g) Selenium(VI) Fluoride **F_6Se (g)**

SeF_6 (g) SeF_6 (g)

mp = 238 K (-35 °C) bp = 227 K (-46 °C)

$\Delta H^0_{298} = -1116.9$ kJ·mol^{-1} [2] $S^0_{298} = 313.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 151.14 + 3.59 \cdot 10^{-3} \cdot T - 3.74 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_6Te (g) Tellurium(VI) Fluoride **F_6Te (g)**

TeF_6 (g) TeF_6 (g)

mp = 235 K (-38 °C) bp = 234 K (-39 °C)

$\Delta H^0_{298} = -1369$ kJ·mol^{-1} [2] $S^0_{298} = 336$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 152.08 + 3.1 \cdot 10^{-3} \cdot T - 3.17 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_6U (s) Uranium(VI) Fluoride **F_6U (s)**

UF_6 (s) UF_6 (s)

mp = 337 K (64 °C) bp = 329 K (56 °C)

$\Delta H^0_{298} = -2197$ kJ·mol^{-1} [2] $S^0_{298} = 227.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 52.72 + 384.93 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 329 K) [4]

F_6U (g) Uranium(VI) Fluoride **F_6U (g)**

UF_6 (g) UF_6 (g)

$\Delta H^0_{298} = -2147.4$ kJ·mol^{-1} [4] $S^0_{298} = 377.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 153.11 + 3.01 \cdot 10^{-3} \cdot T - 2.17 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_6W (l) Tungsten(VI) Fluoride **F_6W (l)**

WF_6 (l) WF_6 (l)

mp = 275 K (2 °C) bp = 290 K (17 °C)

$\Delta H^0_{298} = -1748.4 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 249.2 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 169.45$ J·mol^{-1}·K^{-1} (298 K) [1]

F_6W (g) Tungsten(VI) Fluoride **F_6W (g)**

WF_6 (g) WF_6 (g)

$\Delta H^0_{298} = -1721.7 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 341.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 152.65 + 2.75 \cdot 10^{-3} \cdot T - 3.14 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

F_7H_7 (g) Hydrogen Fluoride **F_7H_7 (g)**

H_7F_7 (g) H_7F_7 (g)

$\Delta H^0_{298} = -2102.5 \pm 37.7$ kJ·mol^{-1} [1] $S^0_{298} = 523.4 \pm 29.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 198.79$ J·mol^{-1}·K^{-1} (298 K) [1]

F_7I (g) Iodine(VII) Fluoride **F_7I (g)**

IF_7 (g) IF_7 (g)

$\Delta H^0_{298} = -961.1 \pm 2.5$ kJ·mol^{-1} [1] $S^0_{298} = 347.7 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 134.45$ J·mol^{-1}·K^{-1} (298 K) [1]

$F_{10}Mo_2$ (g) Molybdenum(V) Fluoride **$F_{10}Mo_2$ (g)**

$(MoF_5)_2$ (g) $(MoF_5)_2$ (g)

$\Delta H^0_{298} = -2697.8 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 531.6 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 272.81 + 5.22 \cdot 10^{-3} \cdot T - 5.82 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -4.68 \cdot 10^3 \cdot T^{-1} - 8.97 \cdot \lg(T) + 33.1$ (319 ... 548 K) [4]

{Reaction: evaporation of MoF_5(l)}

$F_{10}S_2$ (g) Sulfur(V) Fluoride **$F_{10}S_2$ (g)**

S_2F_{10} (g) S_2F_{10} (g)

mp = 181 K (-92 °C) bp = 302 K (29 °C)

$\Delta H^0_{298} = -2064.4 \pm 29.3$ kJ·mol^{-1} [1] $S^0_{298} = 396.9 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 267.06 + 7.74 \cdot 10^{-3} \cdot T + 8.62 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$F_{10}Te_2$ (l) Tellurium(V) Fluoride **$F_{10}Te_2$ (l)**

Te_2F_{10} (l) Te_2F_{10} (l)

mp = 240 K (-33 °C) bp = 326 K (53 °C)

$\Delta H^0_{298} = -2499.5$ kJ·mol^{-1} [4] $S^0_{298} = 323.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 267.78$ J·mol^{-1}·K^{-1} (298 K) [4]

$F_{10}Te_2$ (g) Tellurium(V) Fluoride **$F_{10}Te_2$ (g)**

Te_2F_{10} (g) Te_2F_{10} (g)

$\Delta H^0_{298} = -2460.1$ kJ·mol^{-1} [4] $S^0_{298} = 443.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 272.44 + 5.35 \cdot 10^{-3} \cdot T - 6.89 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$F_{15}Mo_3$ (g) Molybdenum(V) Fluoride **$F_{15}Mo_3$ (g)**

$(MoF_5)_3$ (g) $(MoF_5)_3$ (g)

$\Delta H^0_{298} = -4065.6 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 706.8 \pm 29.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 417.53 + 7.82 \cdot 10^{-3} \cdot T - 8.79 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -5.79 \cdot 10^3 \cdot T^{-1} - 12.49 \cdot \lg(T) + 42.11$ (319 ... 548 K) [4]

{Reaction: evaporation of MoF_5(l)}

$Fe_{0.877}S$ (s) Iron Sulfide alpha **$Fe_{0.877}S$ (s)**

$\Delta H^0_{298} = -105.4 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 60.8 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 21.71 + 110.46 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 411 K) [3]

$Fe_{0.947}O$ (s) Iron Oxide **$Fe_{0.947}O$ (s)**

$\Delta H^0_{298} = -266.3 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 57.6 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 48.79 + 8.37 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... mp K) [3]

Fe (s) Iron alpha **Fe (s)**

mp = 1809 K (1536 °C) bp = 3158 K (2885 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [4] $S^0_{298} = 27.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 14.95 + 28.08 \cdot 10^{-3} \cdot T + 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 800 K) [4]

Fe (s) Iron alpha **Fe (s)**

$\Delta H^0_{1184} = 33.6$ kJ·mol^{-1} [4] $S^0_{1184} = 75.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 50.92$ J·mol^{-1}·K^{-1} (1184 K) [4]

Fe (s) Iron gamma **Fe (s)**

$\Delta H^0_{1184} = 34.5$ kJ·mol^{-1} [4] $S^0_{1184} = 75.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 23.99 + 8.36 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1184 ... 1665 K) [4]
$\lg(p,K) = -21.78 \cdot 10^3 \cdot T^{-1} - 1.72 \cdot \lg(T) + 13.18$ (1300 ... 1665 K) [4]
{Reaction: evaporation as Fe(g)}

Fe (s) Iron gamma **Fe (s)**

$\Delta H^0_{1665} = 51.8$ kJ·mol^{-1} [4] $S^0_{1665} = 88.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.91$ J·mol^{-1}·K^{-1} (1665 K) [4]

Fe (s) Iron delta **Fe (s)**

$\Delta H^0_{1665} = 52.6$ kJ·mol^{-1} [4] $S^0_{1665} = 88.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 24.64 + 9.9 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1665 ... 1809 K) [4]

$\lg(p,K) = -22.24 \cdot 10^3 \cdot T^{-1} - 2.43 \cdot \lg(T) + 15.75$ (1665 ... 1809 K) [4]

{Reaction: evaporation as Fe(g)}

Fe (s) Iron delta **Fe (s)**

$\Delta H^0_{1809} = 58.6$ kJ·mol^{-1} [4] $S^0_{1809} = 92.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 42.55$ J·mol^{-1}·K^{-1} (1809 K) [4]

Fe (l) Iron **Fe (l)**

$\Delta H^0_{1809} = 72.4$ kJ·mol^{-1} [4] $S^0_{1809} = 99.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 46.02$ J·mol^{-1}·K^{-1} (1809 K) [4]

$\lg(p,K) = -21.91 \cdot 10^3 \cdot T^{-1} - 2.94 \cdot \lg(T) + 17.23$ (1809 ... 3158 K) [4]

{Reaction: evaporation as Fe(g)}

Fe (g) Iron **Fe (g)**

$\Delta H^0_{298} = 413.3$ kJ·mol^{-1} [4] $S^0_{298} = 180.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 28.27 - 5.78 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^6 \cdot T^{-2} + 1.18 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3158 K) [4]

$FeHO_2$ (s) Iron Oxide Hydroxide **$FeHO_2$ (s)**

FeO(OH) (s) Goethite FeO(OH) (s)

$\Delta H^0_{298} = -558.1$ kJ·mol^{-1} [4] $S^0_{298} = 60.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 49.37 + 83.68 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 400 K) [4]

FeH_2O_2 (s) Iron(II) Hydroxide **FeH_2O_2 (s)**

$Fe(OH)_2$ (s) $Fe(OH)_2$ (s)

bp = 1358 K (1085 °C)

$\Delta H^0_{298} = -574 \pm 2.9$ kJ·mol^{-1} [1] $S^0_{298} = 87.9 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 116.06 + 8.65 \cdot 10^{-3} \cdot T - 2.87 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1358 K) [4]

FeH_2O_2 (g) Iron(II) Hydroxide **FeH_2O_2 (g)**

$Fe(OH)_2$ (g) $Fe(OH)_2$ (g)

$\Delta H^0_{298} = -330.5 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 283.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 91.04 + 8.7 \cdot 10^{-3} \cdot T - 2.08 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

FeH_3O_3 (s) Iron(III) Hydroxide **FeH_3O_3 (s)**

$Fe(OH)_3$ (s) $Fe(OH)_3$ (s)

$\Delta H^0_{298} = -832.6 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 104.6 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 127.61 + 41.64 \cdot 10^{-3} \cdot T - 4.22 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

FeI_2 (s) Iron(II) Iodide **FeI_2 (s)**

alpha

mp = 860 K (587 °C) bp = 1334 K (1061 °C)

$\Delta H^0_{298} = -104.6 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 167.4 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 82.25 + 3.63 \cdot 10^{-3} \cdot T + 0.03 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 650 K) [4]

FeI_2 (s) Iron(II) Iodide **FeI_2 (s)**

alpha

$\Delta H^0_{650} = -75$ kJ·mol^{-1} [4] $S^0_{650} = 232.9$ J·mol^{-1}·K^{-1} [4]

FeI_2 (s) Iron(II) Iodide **FeI_2 (s)**

beta

$\Delta H^0_{650} = -74.2$ kJ·mol^{-1} [4] $S^0_{650} = 234.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = -17.5 + 160.09 \cdot 10^{-3} \cdot T + 0.41 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (650 ... 860 K) [4]

FeI_2 (s) Iron(II) Iodide **FeI_2 (s)**

beta

$\Delta H^0_{860} = -52.3$ kJ·mol^{-1} [4] $S^0_{860} = 263.1$ J·mol^{-1}·K^{-1} [4]

FeI_2 (l) Iron(II) Iodide **FeI_2 (l)**

$\Delta H^0_{860} = -7.5$ kJ·mol^{-1} [4] $S^0_{860} = 315.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 112.97$ J·mol^{-1}·K^{-1} (860 K) [4]

FeI_2 (l) Iron(II) Iodide **FeI_2 (l)**

$\Delta H^0_{298} = -71$ kJ·mol^{-1} [1] $S^0_{298} = 195.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 112.97$ J·mol^{-1}·K^{-1} (298 K) [1]

FeI_2 (g) Iron(II) Iodide **FeI_2 (g)**

$\Delta H^0_{298} = 85.7$ kJ·mol^{-1} [4] $S^0_{298} = 349.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 60.24 + 3 \cdot 10^{-3} \cdot T - 0.03 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -10.93 \cdot 10^{3} \cdot T^{-1} - 5.01 \cdot \lg(T) + 24.85$ (650 ... 860 K) [4]
{Reaction: evaporation of FeI_2(s)}

FeI_3Na (g) Sodium Iron Iodide **FeI_3Na (g)**
$NaFeI_3$ (g) $NaFeI_3$ (g)

$\Delta H^0_{298} = -183.1$ kJ·mol^{-1} [159, 8] $S^0_{298} = 455.6$ J·mol^{-1}·K^{-1} [159, 8]

FeI_4Na_2 (g) Sodium Iron Iodide **FeI_4Na_2 (g)**
Na_2FeI_4 (g) Na_2FeI_4 (g)

$\Delta H^0_{298} = -416.9$ kJ·mol^{-1} [159, 8] $S^0_{298} = 573.6$ J·mol^{-1}·K^{-1} [159, 8]

$FeLiO_2$ (s) Lithium Ferrate(III) **$FeLiO_2$ (s)**
$LiFeO_2$ (s) $LiFeO_2$ (s)

$\Delta H^0_{298} = -750.2$ kJ·mol^{-1} [2] $S^0_{298} = 75.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 79.5$ J·mol^{-1}·K^{-1} (298 K) [2]

$FeMoO_4$ (s) Iron(II) Molybdate(VI) **$FeMoO_4$ (s)**

$FeO \cdot MoO_3$ (s) $FeO \cdot MoO_3$ (s)

$\Delta H^0_{298} = -1065.3$ kJ·mol^{-1} [4] $S^0_{298} = 129.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 125.52 + 33.47 \cdot 10^{-3} \cdot T - 1.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1341 K) [4]

$FeNaO_2$ (s) Sodium Ferrate(III) **$FeNaO_2$ (s)**

$NaFeO_2$ (s) $NaFeO_2$ (s)

$\Delta H^0_{298} = -698.8$ kJ·mol^{-1} [2] $S^0_{298} = 88.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 84.52$ J·mol^{-1}·K^{-1} (298 K) [2]

FeO (s) Iron(II) Oxide **FeO (s)**

Wüstite

$\Delta H^0_{298} = -266$ kJ·mol^{-1} [4] $S^0_{298} = 59.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 48.79 + 8.37 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1645 K) [4]

FeO (l) Iron(II) Oxide **FeO (l)**

$\Delta H^0_{298} = -249.5$ kJ·mol^{-1} [1] $S^0_{298} = 75.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 48.12$ J·mol^{-1}·K^{-1} (298 K) [1]

FeO (g) Iron(II) Oxide **FeO (g)**

$\Delta H^0_{298} = 251 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 241.9$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 31.41$ J·mol^{-1}·K^{-1} (298 K) [1]

FeO_3Si (s) Iron Silicate **FeO_3Si (s)**

$FeO \cdot SiO_2$ (s) $FeO \cdot SiO_2$ (s)

$\Delta H^0_{298} = -1195$ kJ·mol^{-1} [2] $S^0_{298} = 93.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 89.45$ J·mol^{-1}·K^{-1} (298 K) [2]

FeO_3Ti (s) Iron Titanate **FeO_3Ti (s)**

$FeO \cdot TiO_2$ (s) Ilmenite $FeO \cdot TiO_2$ (s)

mp = 1673 K (1400 °C)

$\Delta H^0_{298} = -1239.2$ kJ·mol^{-1} [4] $S^0_{298} = 105.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 116.61 + 18.24 \cdot 10^{-3} \cdot T - 2 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1673 K) [4]

FeO_3Ti (s) Iron Titanate **FeO_3Ti (s)**

$FeO \cdot TiO_2$ (s) $FeO \cdot TiO_2$ (s)

$\Delta H^0_{1673} = -1059.7$ kJ·mol^{-1} [4] $S^0_{1673} = 321.1$ J·mol^{-1}·K^{-1} [4]

FeO_3Ti (l) Iron Titanate **FeO_3Ti (l)**

$FeO \cdot TiO_2$ (l) $FeO \cdot TiO_2$ (l)

$\Delta H^0_{1673} = -968.9$ kJ·mol^{-1} [4] $S^0_{1673} = 375.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 199.16$ J·mol^{-1}·K^{-1} (1673 K) [4]

FeO_4S (s) Iron(II) Sulfate **FeO_4S (s)**

$FeSO_4$ (s) $FeSO_4$ (s)

$\Delta H^0_{298} = -928.9 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 121 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 122 + 37.82 \cdot 10^{-3} \cdot T - 2.93 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 944 K) [4]

FeO_4V_2 (s) Iron(II) Vanadate(III) **FeO_4V_2 (s)**

$FeO \cdot V_2O_3$ (s) $FeO \cdot V_2O_3$ (s)

$\Delta H^0_{298} = -1506$ kJ·mol^{-1} [2] $S^0_{298} = 156.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 152.96$ J·mol^{-1}·K^{-1} (298 K) [2]

FeO_4W (s) Iron(II) Tungstate(VI) **FeO_4W (s)**

$FeO \cdot WO_3$ (s) $FeO \cdot WO_3$ (s)

mp = 1262 K (989 °C)

$\Delta H^0_{298} = -1184.2$ kJ·mol^{-1} [4] $S^0_{298} = 131.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 132.42 + 29.75 \cdot 10^{-3} \cdot T - 2.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1262 K) [4]

FeO_6V_2 (s) | Iron(II) Vanadate(V) | **FeO_6V_2 (s)**

$FeO \cdot V_2O_5$ (s) | | $FeO \cdot V_2O_5$ (s)

$\Delta H^0_{298} = -1900.4$ kJ·mol^{-1} [2] | $S^0_{298} = 188.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 196.66$ J·mol^{-1}·K^{-1} (298 K) [2]

FeS (s) | Iron(II) Sulfide alpha | **FeS (s)**

mp = 1461 K (1188 °C)

$\Delta H^0_{298} = -101.7 \pm 0.8$ kJ·mol^{-1} [1] | $S^0_{298} = 60.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = -0.5 + 170.71 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 411 K) [4]

FeS (s) | Iron(II) Sulfide alpha | **FeS (s)**

$\Delta H^0_{411} = -94.9$ kJ·mol^{-1} [4] | $S^0_{411} = 79.4$ J·mol^{-1}·K^{-1} [4]

FeS (s) | Iron(II) Sulfide beta | **FeS (s)**

$\Delta H^0_{411} = -92.5$ kJ·mol^{-1} [4] | $S^0_{411} = 85.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 72.8$ J·mol^{-1}·K^{-1} (411 K) [4]

FeS (s) | Iron(II) Sulfide beta | **FeS (s)**

$\Delta H^0_{598} = -78.9$ kJ·mol^{-1} [4] | $S^0_{598} = 112.5$ J·mol^{-1}·K^{-1} [4]

FeS (s) | Iron(II) Sulfide gamma | **FeS (s)**

$\Delta H^0_{598} = -78.4$ kJ·mol^{-1} [4] | $S^0_{598} = 113.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 51.05 + 9.96 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (598 K) [4]

FeS (s) | Iron(II) Sulfide gamma | **FeS (s)**

$\Delta H^0_{1461} = -25.5$ kJ·mol^{-1} [4] | $S^0_{1461} = 167.5$ J·mol^{-1}·K^{-1} [4]

FeS (l) Iron(II) Sulfide **FeS (l)**

ΔH^0_{1461} = 6.8 kJ·mol^{-1} [4] S^0_{1461} = 189.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 71.13 J·mol^{-1}·K^{-1} (1461 K) [4]

FeS (l) Iron(II) Sulfide **FeS (l)**

ΔH^0_{298} = – 68.8 kJ·mol^{-1} [1] S^0_{298} = 82.8 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 50.52 J·mol^{-1}·K^{-1} (298 K) [1]

FeS (g) Iron(II) Sulfide **FeS (g)**

ΔH^0_{298} = 370.8 ± 16.3 kJ·mol^{-1} [1] S^0_{298} = 252.3 ± 12.6 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 34 J·mol^{-1}·K^{-1} (298 K) [1]

FeS_2 (s) Iron Sulfide Pyrite **FeS_2 (s)**

ΔH^0_{298} = – 171.5 ± 2.1 kJ·mol^{-1} [1] S^0_{298} = 52.9 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 68.95 + 14.1 ·10^{-3}·T – 0.99 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1016 K) [4]
lg(p,K) = – 14.93 ·10^3·T^{-1} – 0.39 · lg(T) + 15.74 (700 ... 1016 K) [4]
{Reaction: decomposition $2FeS_2$(s) = 2FeS(s) + S_2(g)}

FeS_2 (s) Iron Sulfide Marcasite **FeS_2 (s)**

ΔH^0_{298} = – 167.4 ± 2.1 kJ·mol^{-1} [1] S^0_{298} = 53.9 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 74.81 + 5.52 ·10^{-3}·T – 1.28 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1000 K) [3]

$FeSe_{0.961}$ (s) Iron Selenide **$FeSe_{0.961}$ (s)**

ΔH^0_{298} = – 66.9 kJ·mol^{-1} [4] S^0_{298} = 69.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 54.31 + 21.14 ·10^{-3}·T – 0.52 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 730 K) [4]

$FeSe_{1.143}$ (s) Iron Selenide **$FeSe_{1.143}$ (s)**

ΔH^0_{298} = – 66.1 kJ·mol^{-1} [5] S^0_{298} = 87.7 J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= 63.18 J·mol^{-1}·K^{-1} (298 K) [5]

$FeSe_{1.333}$ (s) Iron Selenide **$FeSe_{1.333}$ (s)**

$\Delta H^0_{298} = -73.2$ kJ·mol^{-1} [5] $S^0_{298} = 93.3$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = 73.39$ J·mol^{-1}·K^{-1} (298 K) [5]

$FeSe_2$ (s) Iron Selenide **$FeSe_2$ (s)**

$\Delta H^0_{298} = -104.6$ kJ·mol^{-1} [5] $S^0_{298} = 86.8$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [56.23] + [55.90] \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 622 K) [5]

FeSi (s) Iron Silicide **FeSi (s)**

mp = 1683 K (1410 °C)
$\Delta H^0_{298} = -79.4$ kJ·mol^{-1} [4] $S^0_{298} = 40.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 44.6 + 14.72 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1683 K) [4]

$FeSi_2$ (s) Iron Silicide **$FeSi_2$ (s)**

$\Delta H^0_{298} = -81.2$ kJ·mol^{-1} [2] $S^0_{298} = 55.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 64.2$ J·mol^{-1}·K^{-1} (298 K) [2]

$FeSi_{2.33}$ (s) Iron Silicide **$FeSi_{2.33}$ (s)**

$\Delta H^0_{298} = -59$ kJ·mol^{-1} [2] $S^0_{298} = 69.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 71.5$ J·mol^{-1}·K^{-1} (298 K) [2]

$FeTe_{0.9}$ (s) Iron Telluride **$FeTe_{0.9}$ (s)**

mp = 1200 K (927 °C)
$\Delta H^0_{298} = -23.2$ kJ·mol^{-1} [2] $S^0_{298} = 80.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 49.7$ J·mol^{-1}·K^{-1} (298 K) [3]

$FeTe_2$ (s) Iron Telluride **$FeTe_2$ (s)**

mp = 933 K (660 °C)
$\Delta H^0_{298} = -72.4$ kJ·mol^{-1} [2] $S^0_{298} = 100.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 73.7$ J·mol^{-1}·K^{-1} (298 K) [2]

FeTi (s) Iron Titanium **FeTi (s)**

$\Delta H^0_{298} = -40.6$ kJ·mol^{-1} [2] $S^0_{298} = 52.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 46.7$ J·mol^{-1}·K^{-1} (298 K) [2]

Fe_2I_4 (g) Iron(II) Iodide **Fe_2I_4 (g)**
$(FeI_2)_2$ (g) $(FeI_2)_2$ (g)

$\Delta H^0_{298} = 8.4 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 525$ J·mol^{-1}·K^{-1} [284]
$C_p{}^0 = 130.73 + 3.27 \cdot 10^{-3} \cdot T - 0.04 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -13.23 \cdot 10^3 \cdot T^{-1} - 9.04 \cdot \lg(T) + 38.75$ (650 ... 860 K) [4]
{Reaction: evaporation of FeI_2(s)}

$Fe_2K_2O_4$ (s) Potassium Ferrate(III) **$Fe_2K_2O_4$ (s)**
$K_2O \cdot Fe_2O_3$ (s) $K_2O \cdot Fe_2O_3$ (s)

$\Delta H^0_{298} = -2476.9$ kJ·mol^{-1} [4] $S^0_{298} = 175.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 200 + 47.7 \cdot 10^{-3} \cdot T - 2.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1300 K) [4]

$Fe_2Li_2O_4$ (s) Lithium Ferrate(III) **$Fe_2Li_2O_4$ (s)**
$Li_2O \cdot Fe_2O_3$ (s) $Li_2O \cdot Fe_2O_3$ (s)

mp = 1891 K (1618 °C)
$\Delta H^0_{298} = -1538$ kJ·mol^{-1} [4] $S^0_{298} = 150.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 162.34 + 103.35 \cdot 10^{-3} \cdot T - 2.51 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Fe_2MgO_4 (s) Magnesium Ferrate(III) **Fe_2MgO_4 (s)**
$MgO \cdot Fe_2O_3$ (s) $MgO \cdot Fe_2O_3$ (s)

$\Delta H^0_{298} = -1440.1$ kJ·mol^{-1} [4] $S^0_{298} = 123.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 167.19 + 14.23 \cdot 10^{-3} \cdot T - 2.99 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Fe_2MnO_4 (s) Manganese Ferrate(III) **Fe_2MnO_4 (s)**
$MnO \cdot Fe_2O_3$ (s) $MnO \cdot Fe_2O_3$ (s)

$\Delta H^0_{298} = -1228.8$ kJ·mol^{-1} [4] $S^0_{298} = 154$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 145.6 + 45.27 \cdot 10^{-3} \cdot T - 0.88 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1600 K) [4]

$Fe_2Na_2O_4$ (s) Sodium Ferrate(III) **$Fe_2Na_2O_4$ (s)**
$Na_2O \cdot Fe_2O_3$ (s) $Na_2O \cdot Fe_2O_3$ (s)

mp = 1620 K (1347 °C)
ΔH^0_{298} = – 1396.6 kJ·mol^{-1} [4] S^0_{298} = 176.6 J·mol^{-1}·K^{-1} [4]
C_p^0= 197.65 + 28.45 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1620 K) [4]

$Fe_2Na_2O_4$ (s) Sodium Ferrate(III) **$Fe_2Na_2O_4$ (s)**
$Na_2O \cdot Fe_2O_3$ (s) $Na_2O \cdot Fe_2O_3$ (s)

ΔH^0_{1620} = – 1099.2 kJ·mol^{-1} [4] S^0_{1620} = 548.7 J·mol^{-1}·K^{-1} [4]

$Fe_2Na_2O_4$ (l) Sodium Ferrate(III) **$Fe_2Na_2O_4$ (l)**
$Na_2O \cdot Fe_2O_3$ (l) $Na_2O \cdot Fe_2O_3$ (l)

ΔH^0_{1620} = – 1000.5 kJ·mol^{-1} [4] S^0_{1620} = 609.7 J·mol^{-1}·K^{-1} [4]
C_p^0= 251.04 J·mol^{-1}·K^{-1} (1620 K) [4]

Fe_2Nb (s) Niobium Iron **Fe_2Nb (s)**
$NbFe_2$ (s) $NbFe_2$ (s)

mp = 1900 K (1627 °C)
ΔH^0_{298} = – 46.4 kJ·mol^{-1} [2] S^0_{298} = 100 J·mol^{-1}·K^{-1} [2]
C_p^0= 54.4 J·mol^{-1}·K^{-1} (298 K) [2]

Fe_2NiO_4 (s) Nickel Ferrate(III) **Fe_2NiO_4 (s)**
$NiO \cdot Fe_2O_3$ (s) $NiO \cdot Fe_2O_3$ (s)

ΔH^0_{298} = – 1084.5 kJ·mol^{-1} [4] S^0_{298} = 125.9 J·mol^{-1}·K^{-1} [4]
C_p^0= 152.67 + 77.82 ·10^{-3}·T – 1.49 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 853 K) [4]

Fe_2O_3 (s) Iron(III) Oxide Hematite **Fe_2O_3 (s)**

ΔH^0_{298} = – 823.4 kJ·mol^{-1} [4] S^0_{298} = 87.4 J·mol^{-1}·K^{-1} [1]
C_p^0= 98.28 + 77.82 ·10^{-3}·T – 1.49 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 950 K) [4]

Fe_2O_4Si (s) Iron Silicate **Fe_2O_4Si (s)**

$2FeO \cdot SiO_2$ (s) Fayalite $2FeO \cdot SiO_2$ (s)

mp = 1493 K (1220 °C)

$\Delta H^0_{298} = -1477.1$ kJ·mol^{-1} [4] $S^0_{298} = 145.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 152.76 + 39.16 \cdot 10^{-3} \cdot T - 2.8 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1493 K) [4]

Fe_2O_4Ti (s) Iron Titanate **Fe_2O_4Ti (s)**

$2FeO \cdot TiO_2$ (s) $2FeO \cdot TiO_2$ (s)

$\Delta H^0_{298} = -1515.2$ kJ·mol^{-1} [2] $S^0_{298} = 169$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 142.3$ J·mol^{-1}·K^{-1} (298 K) [2]

Fe_2O_4Zn (s) Zinc Ferrate(III) **Fe_2O_4Zn (s)**

$ZnO \cdot Fe_2O_3$ (s) $ZnO \cdot Fe_2O_3$ (s)

mp = 1863 K (1590 °C)

$\Delta H^0_{298} = -1179.1$ kJ·mol^{-1} [4] $S^0_{298} = 153.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 189.74 + 7.32 \cdot 10^{-3} \cdot T - 4.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1863 K) [4]

$Fe_2O_{12}S_3$ (s) Iron(III) Sulfate **$Fe_2O_{12}S_3$ (s)**

$Fe_2(SO_4)_3$ (s) $Fe_2(SO_4)_3$ (s)

$\Delta H^0_{298} = -2583 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 307.5 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 361.3 + 54.76 \cdot 10^{-3} \cdot T - 10.64 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1005 K) [4]

Fe_2P (s) Iron Phosphide **Fe_2P (s)**

mp = 1643 K (1370 °C)

$\Delta H^0_{298} = -160.2$ kJ·mol^{-1} [4] $S^0_{298} = 72.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 76.78 + 17.03 \cdot 10^{-3} \cdot T - 0.61 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1643 K) [4]

Fe_2Ta (s) Iron Tantalum **Fe_2Ta (s)**

$\Delta H^0_{298} = -57.7$ kJ·mol^{-1} [2] $S^0_{298} = 106.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 66.94 + 26.36 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1300 K) [3]

Fe_2U (s) Iron Uranium **Fe_2U (s)**

mp = 1501 K (1228 °C)
$\Delta H^0_{298} = -32.2$ kJ·mol^{-1} [2] $S^0_{298} = 104.6$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 78.61$ J·mol^{-1}·K^{-1} (298 K) [2]

Fe_3Mo_2 (s) Iron Molybdenum **Fe_3Mo_2 (s)**

$\Delta H^0_{298} = -4.2$ kJ·mol^{-1} [2] $S^0_{298} = 146.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 123.23$ J·mol^{-1}·K^{-1} (298 K) [2]

Fe_3O_4 (s) Iron(II,III) Oxide Magnetite **Fe_3O_4 (s)**

mp = 1870 K (1597 °C)
$\Delta H^0_{298} = -1115.5$ kJ·mol^{-1} [4] $S^0_{298} = 146.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 91.56 + 201.97 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 900 K) [4]

Fe_3P (s) Iron Phosphide **Fe_3P (s)**

mp = 1439 K (1166 °C)
$\Delta H^0_{298} = -164$ kJ·mol^{-1} [4] $S^0_{298} = 101.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 117.15 + 12.97 \cdot 10^{-3} \cdot T - 1.78 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1439 K) [4]

Fe_4N (s) Iron Nitride **Fe_4N (s)**

$\Delta H^0_{298} = -11.1$ kJ·mol^{-1} [4] $S^0_{298} = 155.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 112.3 + 34.14 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 923 K) [4]

Ga (s) Gallium **Ga (s)**

mp = 303 K (30 °C) bp = 2478 K (2205 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 40.8 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 26.2$ J·mol^{-1}·K^{-1} (298 K) [4]

Ga (s) Gallium **Ga (s)**

$\Delta H^0_{303} = 0.1$ kJ·mol^{-1} [4] $S^0_{303} = 41.3$ J·mol^{-1}·K^{-1} [4]

Fe_2U (s) Iron Uranium **Fe_2U (s)**

mp = 1501 K (1228 °C)
$\Delta H^0_{298} = -32.2$ kJ·mol^{-1} [2] $S^0_{298} = 104.6$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 78.61$ J·mol^{-1}·K^{-1} (298 K) [2]

Fe_3Mo_2 (s) Iron Molybdenum **Fe_3Mo_2 (s)**

$\Delta H^0_{298} = -4.2$ kJ·mol^{-1} [2] $S^0_{298} = 146.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 123.23$ J·mol^{-1}·K^{-1} (298 K) [2]

Fe_3O_4 (s) Iron(II,III) Oxide Magnetite **Fe_3O_4 (s)**

mp = 1870 K (1597 °C)
$\Delta H^0_{298} = -1115.5$ kJ·mol^{-1} [4] $S^0_{298} = 146.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 91.56 + 201.97 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 900 K) [4]

Fe_3P (s) Iron Phosphide **Fe_3P (s)**

mp = 1439 K (1166 °C)
$\Delta H^0_{298} = -164$ kJ·mol^{-1} [4] $S^0_{298} = 101.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 117.15 + 12.97 \cdot 10^{-3} \cdot T - 1.78 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1439 K) [4]

Fe_4N (s) Iron Nitride **Fe_4N (s)**

$\Delta H^0_{298} = -11.1$ kJ·mol^{-1} [4] $S^0_{298} = 155.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 112.3 + 34.14 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 923 K) [4]

Ga (s) Gallium **Ga (s)**

mp = 303 K (30 °C) bp = 2478 K (2205 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 40.8 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 26.2$ J·mol^{-1}·K^{-1} (298 K) [4]

Ga (s) Gallium **Ga (s)**

$\Delta H^0_{303} = 0.1$ kJ·mol^{-1} [4] $S^0_{303} = 41.3$ J·mol^{-1}·K^{-1} [4]

Ga (l) Gallium **Ga (l)**

ΔH^0_{303} = 5.7 kJ·mol^{-1} [4] S^0_{303} = 59.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 24.38 + 2.29 ·10^{-3}·T + 0.31 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (303 ... 700 K) [4]
lg(p,K) = – 13.99 ·10^3·T^{-1} – 0.48 · lg(T) + 7.28 (1000 ... 2478 K) [4]
{Reaction: evaporation as Ga(g)}

Ga (l) Gallium **Ga (l)**

ΔH^0_{298} = 5.6 kJ·mol^{-1} [1] S^0_{298} = 59.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 28.6 J·mol^{-1}·K^{-1} (298 K) [1]

Ga (g) Gallium **Ga (g)**

ΔH^0_{298} = 272 ± 2.1 kJ·mol^{-1} [1] S^0_{298} = 169 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 24.87 – 1.38 ·10^{-3}·T + 0.25 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

GaH (g) Gallium Hydride **GaH (g)**

ΔH^0_{298} = 220 kJ·mol^{-1} [7] S^0_{298} = 195 J·mol^{-1}·K^{-1} [7]
$C_p{}^0$= 29 J·mol^{-1}·K^{-1} (298 K) [7]

GaH_3O_3 (s) Gallium(III) Hydroxide **GaH_3O_3 (s)**
$Ga(OH)_3$ (s) $Ga(OH)_3$ (s)

ΔH^0_{298} = – 964 kJ·mol^{-1} [7] S^0_{298} = 100 J·mol^{-1}·K^{-1} [7]

GaI (g) Gallium(I) Iodide **GaI (g)**

ΔH^0_{298} = 17.2 kJ·mol^{-1} [4] S^0_{298} = 259.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 37.99 + 0.66 ·10^{-3}·T – 0.15 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

GaI_3 (s) Gallium(III) Iodide **GaI_3 (s)**

mp = 486 K (213 °C)
ΔH^0_{298} = – 239.3 kJ·mol^{-1} [2] S^0_{298} = 203.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 117.15 J·mol^{-1}·K^{-1} (298 K) [4]

GaI_3 (s) Gallium(III) Iodide **GaI_3 (s)**

$\Delta H^0_{486} = -217.3$ kJ·mol^{-1} [4] $S^0_{486} = 261$ J·mol^{-1}·K^{-1} [4]

GaI_3 (l) Gallium(III) Iodide **GaI_3 (l)**

$\Delta H^0_{486} = -195.1$ kJ·mol^{-1} [4] $S^0_{486} = 306.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 128.45$ J·mol^{-1}·K^{-1} (486 K) [4]

GaI_3 (g) Gallium(III) Iodide **GaI_3 (g)**

$\Delta H^0_{298} = -137.6$ kJ·mol^{-1} [4] $S^0_{298} = 386$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 82.76 + 0.21 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -5.92 \cdot 10^3 \cdot T^{-1} - 4.65 \cdot \lg(T) + 23.04$ (298 ... 486 K) [4]
{Reaction: evaporation of GaI_3(l)}

GaN (s) Gallium Nitride **GaN (s)**

mp = 1770 K (1497 °C)
$\Delta H^0_{298} = -109.6$ kJ·mol^{-1} [2] $S^0_{298} = 29.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 38.07 + 9 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 919 K) [4]

GaO (g) Gallium Oxide **GaO (g)**

$\Delta H^0_{298} = 141.2$ kJ·mol^{-1} [2] $S^0_{298} = 230.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 36.8$ J·mol^{-1}·K^{-1} (298 K) [2]

GaP (s) Gallium Phosphide **GaP (s)**

mp = 1740 K (1467 °C)
$\Delta H^0_{298} = -102.5$ kJ·mol^{-1} [4] $S^0_{298} = 52.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 41.84 + 6.82 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1740 K) [4]

GaS (s) Gallium Sulfide **GaS (s)**

mp = 1288 K (1015 °C)
$\Delta H^0_{298} = -209.2$ kJ·mol^{-1} [2] $S^0_{298} = 57.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 41.34 + 15.69 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1288 K) [4]

GaSb (s) Gallium Antimonide **GaSb (s)**

mp = 985 K (712 °C)

$\Delta H^0_{298} = -43.9$ kJ·mol^{-1} [4] $S^0_{298} = 76.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 44.35 + 14.23 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 985 K) [4]

GaSe (s) Gallium Selenide **GaSe (s)**

mp = 1211 K (938 °C)

$\Delta H^0_{298} = -159$ kJ·mol^{-1} [2] $S^0_{298} = 70.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 44.64 + 12.97 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1211 K) [4]

GaTe (s) Gallium Telluride **GaTe (s)**

mp = 1108 K (835 °C)

$\Delta H^0_{298} = -125.5$ kJ·mol^{-1} [4] $S^0_{298} = 85.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 45.27 + 13.98 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1108 K) [4]

GaTe (g) Gallium Telluride **GaTe (g)**

$\Delta H^0_{298} = 169.5$ kJ·mol^{-1} [4] $S^0_{298} = 266.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 37.39 + 0.01 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$GaTe_2$ (g) Gallium Telluride **$GaTe_2$ (g)**

$\Delta H^0_{298} = 158.6$ kJ·mol^{-1} [5] $S^0_{298} = [318.3]$ J·mol^{-1}·K^{-1} [15]

$C_p{}^0 = [53.95] + [0.06] \cdot 10^{-3} \cdot T + [0.08] \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

Ga_2I_6 (g) Gallium(III) Iodide **Ga_2I_6 (g)**
$(GaI_3)_2$ (g) $(GaI_3)_2$ (g)

$\Delta H^0_{298} = -324.1$ kJ·mol^{-1} [4] $S^0_{298} = 667.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 182.42 + 0.26 \cdot 10^{-3} \cdot T - 1.02 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -7.16 \cdot 10^{3} \cdot T^{-1} - 9.36 \cdot \lg(T) + 36.53$ (486 ... 618 K) [4]

{Reaction: evaporation of GaI_3(l)}

Ga_2MnS_4 (s) Manganese Gallium Sulfide **Ga_2MnS_4 (s)**
$MnGa_2S_4$ (s) $MnGa_2S_4$ (s)

$\Delta H^0_{298} = -768.7$ kJ·mol^{-1} [190, 8] $S^0_{298} = [222.6]$ J·mol^{-1}·K^{-1} [199]
$C_p^0 = [154.53]$ J·mol^{-1}·K^{-1} (298 K) [271]

$Ga_2Mn_3S_6$ (s) Manganese Gallium Sulfide **$Ga_2Mn_3S_6$ (s)**
$Mn_3Ga_2S_6$ (s) $Mn_3Ga_2S_6$ (s)

$\Delta H^0_{298} = -1204.5$ kJ·mol^{-1} [190, 8] $S^0_{298} = [383.2]$ J·mol^{-1}·K^{-1} [200]
$C_p^0 = [254.41]$ J·mol^{-1}·K^{-1} (298 K) [271]

Ga_2O (g) Gallium(I) Oxide **Ga_2O (g)**

$\Delta H^0_{298} = -98.7$ kJ·mol^{-1} [2] $S^0_{298} = 283.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 48.1$ J·mol^{-1}·K^{-1} (298 K) [2]

Ga_2O_3 (s) Gallium(III) Oxide **Ga_2O_3 (s)**

mp = 1998 K (1725 °C)
$\Delta H^0_{298} = -1089.1$ kJ·mol^{-1} [2] $S^0_{298} = 85$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 112.88 + 15.44 \cdot 10^{-3} \cdot T - 2.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1998 K) [4]

$Ga_2O_{12}Se_3$ (s) Gallium Selenate **$Ga_2O_{12}Se_3$ (s)**
$Ga_2(SeO_4)_3$ (s) $Ga_2(SeO_4)_3$ (s)

$\Delta H^0_{298} = -1978.2$ kJ·mol^{-1} [2] $S^0_{298} = 303.3$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 261.1$ J·mol^{-1}·K^{-1} (298 K) [2]

Ga_2PbS_4 (s) Lead Gallium Sulfide **Ga_2PbS_4 (s)**
$PbGa_2S_4$ (s) $PbGa_2S_4$ (s)

$\Delta H^0_{298} = -649.6$ kJ·mol^{-1} [190, 8] $S^0_{298} = [233.6]$ J·mol^{-1}·K^{-1} [194]
$C_p^0 = [154.13]$ J·mol^{-1}·K^{-1} (298 K) [271]

$Ga_2Pb_2S_5$ (s) Lead Gallium Sulfide **$Ga_2Pb_2S_5$ (s)**
$Pb_2Ga_2S_5$ (s) $Pb_2Ga_2S_5$ (s)

$\Delta H^0_{298} = -731.9$ kJ·mol^{-1} [190, 8] $S^0_{298} = [324.9]$ J·mol^{-1}·K^{-1} [197]
$C_p{}^0 = [203.67]$ J·mol^{-1}·K^{-1} (298 K) [271]

Ga_2S (s) Gallium(I) Sulfide **Ga_2S (s)**

mp = 1233 K (960 °C)
$\Delta H^0_{298} = -252.7$ kJ·mol^{-1} [4] $S^0_{298} = 100.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 66.94 + 15.69 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1233 K) [4]

Ga_2S (g) Gallium(I) Sulfide **Ga_2S (g)**

$\Delta H^0_{298} = 20.9$ kJ·mol^{-1} [2] $S^0_{298} = 290.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 56 + 1.15 \cdot 10^{-3} \cdot T - 0.93 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Ga_2S_3 (s) Gallium(III) Sulfide **Ga_2S_3 (s)**

mp = 1393 K (1120 °C)
$\Delta H^0_{298} = -516.3$ kJ·mol^{-1} [2] $S^0_{298} = 142.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 90.5 + 47.28 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1393 K) [4]

Ga_2S_4Zn (s) Zinc Gallium Sulfide **Ga_2S_4Zn (s)**
$ZnGa_2S_4$ (s) $ZnGa_2S_4$ (s)

$\Delta H^0_{298} = -759.3$ kJ·mol^{-1} [190, 8] $S^0_{298} = [200]$ J·mol^{-1}·K^{-1} [202]
$C_p{}^0 = [149.89]$ J·mol^{-1}·K^{-1} (298 K) [271]

Ga_2Se (s) Gallium(I) Selenide **Ga_2Se (s)**

$\Delta H^0_{298} = -183.3$ kJ·mol^{-1} [5] $S^0_{298} = [113]$ J·mol^{-1}·K^{-1} [5]

Ga_2Se (g) Gallium(I) Selenide **Ga_2Se (g)**

$\Delta H^0_{298} = 96.2$ kJ·mol^{-1} [4] $S^0_{298} = 315.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 58.09 + 0.05 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Ga_2Se_3 (s) Gallium(III) Selenide **Ga_2Se_3 (s)**

mp = 1278 K (1005 °C)
$\Delta H^0_{298} = -408.8$ kJ·mol^{-1} [2] $S^0_{298} = 179.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 105.73 + 35.31 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1278 K) [4]

Ga_2Te (g) Gallium(I) Telluride **Ga_2Te (g)**

$\Delta H^0_{298} = 151.5$ kJ·mol^{-1} [4] $S^0_{298} = 327.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 58.08 + 0.05 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Ga_2Te_3 (s) Gallium(III) Telluride **Ga_2Te_3 (s)**

mp = 1063 K (790 °C)
$\Delta H^0_{298} = -274.9$ kJ·mol^{-1} [2] $S^0_{298} = 213.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 105.73 + 35.31 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1063 K) [4]

Ga_4S_5 (s) Gallium Sulfide **Ga_4S_5 (s)**

mp = 1213 K (940 °C)
$\Delta H^0_{298} = -985.8$ kJ·mol^{-1} [4] $S^0_{298} = 259.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 173.18 + 78.66 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1213 K) [4]

$Ga_6Pb_2S_{11}$ (s) Lead Gallium Sulfide **$Ga_6Pb_2S_{11}$ (s)**
$Pb_2Ga_6S_{11}$ (s) $Pb_2Ga_6S_{11}$ (s)

$\Delta H^0_{298} = -1784.9$ kJ·mol^{-1} [190, 8] $S^0_{298} = [609.5]$ J·mol^{-1}·K^{-1} [195]
$C_p^0 = [412.85]$ J·mol^{-1}·K^{-1} (298 K) [271]

$Ga_6Pb_4S_{13}$ (s) Lead Gallium Sulfide **$Ga_6Pb_4S_{13}$ (s)**
$Pb_4Ga_6S_{13}$ (s) $Pb_4Ga_6S_{13}$ (s)

$\Delta H^0_{298} = -1970.1$ kJ·mol^{-1} [190, 8] $S^0_{298} = [792.1]$ J·mol^{-1}·K^{-1} [196]
$C_p^0 = [511.93]$ J·mol^{-1}·K^{-1} (298 K) [271]

$Ga_8S_{13}Zn$ (s) Zinc Gallium Sulfide **$Ga_8S_{13}Zn$ (s)**

$ZnGa_8S_{13}$ (s) $ZnGa_8S_{13}$ (s)

$\Delta H^0{}_{298} = -2329.2$ kJ·mol⁻¹ [190, 8] $S^0{}_{298} = [626.9]$ J·mol⁻¹·K⁻¹ [203]

$C_p{}^0 = [463.66]$ J·mol⁻¹·K⁻¹ (298 K) [271]

Gd (s) Gadolinium alpha **Gd (s)**

mp = 1585 K (1312 °C) bp = 3535 K (3262 °C)

$\Delta H^0{}_{298} = 0$ kJ·mol⁻¹ [2] $S^0{}_{298} = 67.9$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 6.69 + 32.65 \cdot 10^{-3} \cdot T + 1.84 \cdot 10^{6} \cdot T^{-2} - 8.39 \cdot 10^{-6} \cdot T^2$ J·mol⁻¹·K⁻¹ (298 ... 1533 K) [4]

$\lg(p,K) = -21.31 \cdot 10^3 \cdot T^{-1} - 1.51 \cdot \lg(T) + 11.58$ (1400 ... 1533 K) [4]

{Reaction: evaporation as Gd(g)}

Gd (s) Gadolinium alpha **Gd (s)**

$\Delta H^0{}_{1533} = 40.1$ kJ·mol⁻¹ [4] $S^0{}_{1533} = 119.7$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 37.8$ J·mol⁻¹·K⁻¹ (1533 K) [4]

Gd (s) Gadolinium beta **Gd (s)**

$\Delta H^0{}_{1533} = 44.1$ kJ·mol⁻¹ [4] $S^0{}_{1533} = 122.3$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 28.28$ J·mol⁻¹·K⁻¹ (1533 K) [4]

$\lg(p,K) = -20.39 \cdot 10^3 \cdot T^{-1} - 0.44 \cdot \lg(T) + 7.58$ (1533 ... 1585 K) [4]

{Reaction: evaporation as Gd(g)}

Gd (s) Gadolinium beta **Gd (s)**

$\Delta H^0{}_{1585} = 45.5$ kJ·mol⁻¹ [4] $S^0{}_{1585} = 123.2$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 28.28$ J·mol⁻¹·K⁻¹ (1585 K) [4]

Gd (l) Gadolinium **Gd (l)**

ΔH^0_{1585} = 55.6 kJ·mol^{-1} [4] S^0_{1585} = 129.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 37.15 J·mol^{-1}·K^{-1} (1585 K) [4]
$\lg(p,K) = -20.63 \cdot 10^3 \cdot T^{-1} - 1.38 \cdot \lg(T) + 10.73$ (1585 ... 2000 K) [4]
{Reaction: evaporation as Gd(g)}

Gd (g) Gadolinium **Gd (g)**

ΔH^0_{298} = 397.5 kJ·mol^{-1} [2] S^0_{298} = 194.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 32.71 - 12.72 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2} + 4.85 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

GdI_3 (s) Gadolinium(III) Iodide alpha **GdI_3 (s)**

mp = 1204 K (931 °C) bp = 1683 K (1410 °C)
ΔH^0_{298} = – 594.1 kJ·mol^{-1} [2] S^0_{298} = 226.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 106.62 + 0.87 \cdot 10^{-3} \cdot T - 0.73 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1013 K) [4]
$\lg(p,K) = -14.91 \cdot 10^3 \cdot T^{-1} - 2.83 \cdot \lg(T) + 18.87$ (800 ... 1013 K) [4]
{Reaction: evaporation as GdI_3(g)}

GdI_3 (s) Gadolinium(III) Iodide alpha **GdI_3 (s)**

ΔH^0_{1013} = – 519.2 kJ·mol^{-1} [4] S^0_{1013} = 353.6 J·mol^{-1}·K^{-1} [4]

GdI_3 (s) Gadolinium(III) Iodide beta **GdI_3 (s)**

ΔH^0_{1013} = – 518.3 kJ·mol^{-1} [4] S^0_{1013} = 354.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 127.82 J·mol^{-1}·K^{-1} (1013 K) [4]
$\lg(p,K) = -15.99 \cdot 10^3 \cdot T^{-1} - 5.39 \cdot \lg(T) + 27.63$ (1013 ... 1204 K) [4]
{Reaction: evaporation as GdI_3(g)}

GdI_3 (s) Gadolinium(III) Iodide beta **GdI_3 (s)**

ΔH^0_{1204} = – 493.9 kJ·mol^{-1} [4] S^0_{1204} = 376.6 J·mol^{-1}·K^{-1} [4]

GdI_3 (l) Gadolinium(III) Iodide **GdI_3 (l)**

$\Delta H^0_{1204} = -439.9$ kJ·mol^{-1} [4] $S^0_{1204} = 421.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 155.85$ J·mol^{-1}·K^{-1} (1204 K) [4]
$\lg(p,K) = -14.93 \cdot 10^3 \cdot T^{-1} - 8.76 \cdot \lg(T) + 37.13$ (1204 ... 1683 K) [4]
{Reaction: evaporation as GdI_3(g)}

GdI_3 (g) Gadolinium(III) Iodide **GdI_3 (g)**

$\Delta H^0_{298} = -316.7$ kJ·mol^{-1} [2] $S^0_{298} = 427.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 83.12 + 0.02 \cdot 10^{-3} \cdot T - 0.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

GdS (s) Gadolinium Sulfide **GdS (s)**

mp = 2300 K (2027 °C)
$\Delta H^0_{298} = [-460.2]$ kJ·mol^{-1} [5] $S^0_{298} = [77.4]$ J·mol^{-1}·K^{-1} [5]

GdS (g) Gadolinium Sulfide **GdS (g)**

$\Delta H^0_{298} = 155.6$ kJ·mol^{-1} [5] $S^0_{298} = [264.5]$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.13] + [0.15] \cdot 10^{-3} \cdot T + [-0.25] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

GdSe (s) Gadolinium Selenide **GdSe (s)**

mp = 2133 K (1860 °C)
$\Delta H^0_{298} = [-368.2]$ kJ·mol^{-1} [5] $S^0_{298} = [89.9]$ J·mol^{-1}·K^{-1} [5]

GdSe (g) Gadolinium Selenide **GdSe (g)**

$\Delta H^0_{298} = 206.3$ kJ·mol^{-1} [5] $S^0_{298} = [275.4]$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.29] + [0.07] \cdot 10^{-3} \cdot T + [-0.18] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

GdTe (s) Gadolinium Telluride **GdTe (s)**

mp = 2140 K (1867 °C)
$\Delta H^0_{298} = [-313.8]$ kJ·mol^{-1} [5] $S^0_{298} = [97.1]$ J·mol^{-1}·K^{-1} [5]

GdTe (g) Gadolinium Telluride **GdTe** (g)

ΔH^0_{298} = 271.1 kJ·mol^{-1} [5] S^0_{298} = [284.1] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.38] + [0.02] ·10^{-3}·T + [– 0.10] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

Gd_2O_3 (s) Gadolinium(III) Oxide cubic **Gd_2O_3** (s)

ΔH^0_{298} = – 1826.9 kJ·mol^{-1} [2] S^0_{298} = 150.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 119.21 + 12.95 ·10^{-3}·T – 1.56 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1550 K) [4]

Gd_2O_3 (s) Gadolinium(III) Oxide monoclinic **Gd_2O_3** (s)

ΔH^0_{298} = – 1819.6 kJ·mol^{-1} [2] S^0_{298} = 156.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 114.5 + 14.47 ·10^{-3}·T – 1.08 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Gd_2S_3 (s) Gadolinium(III) Sulfide **Gd_2S_3** (s)

mp = 2160 K (1887 °C)
ΔH^0_{298} = [– 1205] kJ·mol^{-1} [5] S^0_{298} = [198.7] J·mol^{-1}·K^{-1} [5]

Gd_2Se_3 (s) Gadolinium(III) Selenide **Gd_2Se_3** (s)

ΔH^0_{298} = [– 941.4] kJ·mol^{-1} [5] S^0_{298} = [236.4] J·mol^{-1}·K^{-1} [5]

Gd_2Te_3 (s) Gadolinium(III) Telluride **Gd_2Te_3** (s)

ΔH^0_{298} = [– 795] kJ·mol^{-1} [5] S^0_{298} = [257.3] J·mol^{-1}·K^{-1} [5]

Ge (s) Germanium **Ge** (s)

mp = 1210 K (937 °C) bp = 3104 K (2831 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 31.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 23.35 + 3.9 ·10^{-3}·T – 0.11 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1210 K) [4]

Ge (s) Germanium **Ge (s)**

$\Delta H^0_{1210} = 23.7$ kJ·mol^{-1} [2] $S^0_{1210} = 66.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 28$ J·mol^{-1}·K^{-1} (1210 K) [4]

Ge (l) Germanium **Ge (l)**

$\Delta H^0_{1210} = 60.7$ kJ·mol^{-1} [2] $S^0_{1210} = 97.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 27.61$ J·mol^{-1}·K^{-1} (1210 ... 2000 K) [4]
$\lg(p,K) = -17.94 \cdot 10^3 \cdot T^{-1} - 0.47 \cdot \lg(T) + 7.42$ (1210 ... 2000 K) [4]
{Reaction: evaporation as Ge(g)}

Ge (g) Germanium **Ge (g)**

$\Delta H^0_{298} = 374.5$ kJ·mol^{-1} [2] $S^0_{298} = 167.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 29.47 - 3.66 \cdot 10^{-3} \cdot T + 0.32 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

GeH_4 (g) Germanium(IV) Hydride **GeH_4 (g)**

mp = 108 K (-165 °C) bp = 183 K (-90 °C)
$\Delta H^0_{298} = 90.8$ kJ·mol^{-1} [2] $S^0_{298} = 217.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 62.55 + 22.09 \cdot 10^{-3} \cdot T - 2.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

GeI_2 (s) Germanium(II) Iodide **GeI_2 (s)**

$\Delta H^0_{298} = -88$ kJ·mol^{-1} [4] $S^0_{298} = 134$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 77.82 + 12.76 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 900 K) [4]
$\lg(p,K) = -8.61 \cdot 10^3 \cdot T^{-1} - 3.68 \cdot \lg(T) + 20.44$ (500 ... 900 K) [4]
{Reaction: evaporation as GeI_2(g)}

GeI_2 (g) Germanium(II) Iodide **GeI_2 (g)**

$\Delta H^0_{298} = 66.7$ kJ·mol^{-1} [4] $S^0_{298} = 318$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 57.85 + 0.22 \cdot 10^{-3} \cdot T - 0.37 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

GeI_4 (s) Germanium(IV) Iodide **GeI_4 (s)**

mp = 419 K (146 °C)
$\Delta H^0_{298} = -141.8$ kJ·mol^{-1} [4] $S^0_{298} = 271.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 81.17 + 150.62 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 419 K) [4]
$\lg(p,K) = -5.03 \cdot 10^3 \cdot T^{-1} - 3.61 \cdot \lg(T) + 18.78$ (298 ... 419 K) [4]
{Reaction: evaporation as GeI_4(g)}

GeI_4 (s) Germanium(IV) Iodide **GeI_4 (s)**

$\Delta H^0_{419} = -125.5$ kJ·mol^{-1} [4] $S^0_{419} = 316.9$ J·mol^{-1}·K^{-1} [4]

GeI_4 (l) Germanium(IV) Iodide **GeI_4 (l)**

$\Delta H^0_{419} = -108.8$ kJ·mol^{-1} [4] $S^0_{419} = 356.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 156.9$ J·mol^{-1}·K^{-1} (419 K) [4]
$\lg(p,K) = -4.84 \cdot 10^3 \cdot T^{-1} - 7.36 \cdot \lg(T) + 28.14$ (419 ... 650 K) [4]
{Reaction: evaporation as GeI_4(g)}

GeI_4 (g) Germanium(IV) Iodide **GeI_4 (g)**

$\Delta H^0_{298} = -54.6$ kJ·mol^{-1} [4] $S^0_{298} = 428.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 106.84 + 0.65 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$GeMg_2$ (s) Magnesium Germanium **$GeMg_2$ (s)**
Mg_2Ge (s) Mg_2Ge (s)

mp = 1391 K (1118 °C)
$\Delta H^0_{298} = -115.2$ kJ·mol^{-1} [4] $S^0_{298} = 72.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 73.43 + 17.99 \cdot 10^{-3} \cdot T - 0.32 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1391 K) [4]

$GeNi_2$ (s) Germanium Nickel **$GeNi_2$ (s)**

$\Delta H^0_{298} = -110.1$ kJ·mol^{-1} [2] $S^0_{298} = 90.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 69.9$ J·mol^{-1}·K^{-1} (298 K) [2]

GeO (s) Germanium(II) Oxide **GeO (s)**

bp = 982 K (709 °C)

$\Delta H^0_{298} = -210.6$ kJ·mol^{-1} [4] $S^0_{298} = 50$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 39.96 + 14.64 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 982 K) [4]

$\lg(p,K) = -8.87 \cdot 10^3 \cdot T^{-1} - 1.86 \cdot \lg(T) + 14.6$ (500 ... 982 K) [4]

{Reaction: evaporation as GeO(g)}

GeO (g) Germanium(II) Oxide **GeO (g)**

$\Delta H^0_{298} = -46$ kJ·mol^{-1} [4] $S^0_{298} = 224$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 37.36 + 0.1 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

GeO_2 (s) Germanium(IV) Oxide hexagonale **GeO_2 (s)**

mp = 1409 K (1136 °C)

$\Delta H^0_{298} = -557.7$ kJ·mol^{-1} [4] $S^0_{298} = 55.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 68.92 + 9.86 \cdot 10^{-3} \cdot T - 1.77 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1409 K) [4]

GeO_2 (s) Germanium(IV) Oxide **GeO_2 (s)**

$\Delta H^0_{1409} = -476.5$ kJ·mol^{-1} [4] $S^0_{1409} = 163.7$ J·mol^{-1}·K^{-1} [4]

GeO_2 (l) Germanium(IV) Oxide **GeO_2 (l)**

$\Delta H^0_{1409} = -459.3$ kJ·mol^{-1} [4] $S^0_{1409} = 175.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 90.79$ J·mol^{-1}·K^{-1} (1409 K) [4]

GeP (s) Germanium Phosphide **GeP (s)**

$\Delta H^0_{298} = -27.2$ kJ·mol^{-1} [4] $S^0_{298} = 61.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 45.4 + 11.3 \cdot 10^{-3} \cdot T - 0.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1700 K) [4]

GeS (s) Germanium(II) Sulfide **GeS (s)**

mp = 938 K (665 °C)
$\Delta H^0_{298} = -61.2 \pm 1.2$ kJ·mol^{-1} [79] $S^0_{298} = 66.9$ J·mol^{-1}·K^{-1} [79]
$C_p^0 = 41.8 + 20.13 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 938 K) [4]
$\lg(p,K) = -9.18 \cdot 10^3 \cdot T^{-1} - 2.6 \cdot \lg(T) + 16.68$ (500 ... 938 K) [4]
{Reaction: evaporation as GeS(g)}

GeS (l) Germanium(II) Sulfide **GeS (l)**

$\Delta H^0_{298} = -38.6$ kJ·mol^{-1} [188, 8] $S^0_{298} = 91$ J·mol^{-1}·K^{-1} [188, 8]

GeS (g) Germanium(II) Sulfide **GeS (g)**

$\Delta H^0_{298} = 106.1$ kJ·mol^{-1} [79] $S^0_{298} = 235.5$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 36.74 + 0.42 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

GeS_2 (s) Germanium(IV) Sulfide **GeS_2 (s)**

mp = 1113 K (840 °C)
$\Delta H^0_{298} = -156.9$ kJ·mol^{-1} [2] $S^0_{298} = 87.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 56.44 + 31.05 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1113 K) [4]

GeSe (s) Germanium(II) Selenide **GeSe (s)**

mp = 948 K (675 °C) bp = 1143 K (870 °C)
$\Delta H^0_{298} = -69$ kJ·mol^{-1} [2] $S^0_{298} = 78.2$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 45.1 + 16.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 948 K) [4]
$\lg(p,K) = -9.58 \cdot 10^3 \cdot T^{-1} - 2.62 \cdot \lg(T) + 16.63$ (600 ... 948 K) [4]
{Reaction: evaporation as GeSe(g)}

GeSe (s) Germanium(II) Selenide **GeSe (s)**

$\Delta H^0_{948} = -33.1$ kJ·mol^{-1} [4] $S^0_{948} = 141.1$ J·mol^{-1}·K^{-1} [4]

GeSe (l) Germanium(II) Selenide **GeSe (l)**

$\Delta H^0_{948} = -8.4$ kJ·mol^{-1} [4] $S^0_{948} = 167.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 63.6$ J·mol^{-1}·K^{-1} (948 K) [4]

GeSe (l) Germanium(II) Selenide **GeSe (l)**

$\Delta H^0_{298} = -36.4$ kJ·mol^{-1} [188, 8] $S^0_{298} = 112.8$ J·mol^{-1}·K^{-1} [188, 8]

GeSe (g) Germanium(II) Selenide **GeSe (g)**

$\Delta H^0_{298} = 105.4$ kJ·mol^{-1} [2] $S^0_{298} = 247.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 36.99 + 0.17 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

GeSe$_2$ (s) Germanium(IV) Selenide **GeSe$_2$ (s)**

mp = 1013 K (740 °C)
$\Delta H^0_{298} = -113$ kJ·mol^{-1} [2] $S^0_{298} = 112.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 62.89 + 27.74 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1013 K) [4]

GeTe (s) Germanium(II) Telluride **GeTe (s)**

mp = 997 K (724 °C)
$\Delta H^0_{298} = -15.9$ kJ·mol^{-1} [78] $S^0_{298} = 88.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 48.12 + 12.55 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 -997 K) [4]
$\lg(p,K) = -10.58 \cdot 10^3 \cdot T^{-1} - 2.59 \cdot \lg(T) + 16.47$ (600 ... 997 K) [4]
{Reaction: evaporation as GeTe(g)}

GeTe (l) Germanium(II) Telluride **GeTe (l)**

$\Delta H^0_{298} = 24.3$ kJ·mol^{-1} [188, 8] $S^0_{298} = 129.5$ J·mol^{-1}·K^{-1} [188, 8]

GeTe (g) Germanium(II) Telluride **GeTe (g)**

$\Delta H^0_{298} = 183.7$ kJ·mol^{-1} [78] $S^0_{298} = 255.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.36 - 0.13 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

GeTe$_2$ (g) Germanium(IV) Telluride **GeTe$_2$ (g)**

$\Delta H^0_{298} = 207.1$ kJ·mol^{-1} [78] $S^0_{298} = 305.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 58.58$ J·mol^{-1}·K^{-1} (298 K) [4]

GeU (s) Germanium Uranium **GeU (s)**

$\Delta H^0_{298} = -61.5$ kJ·mol^{-1} [2] $S^0_{298} = 90.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 51.4$ J·mol^{-1}·K^{-1} (298 K) [2]

Ge_2U (s) Germanium Uranium **Ge_2U (s)**

mp = 1723 K (1450 °C)
$\Delta H^0_{298} = -87.4$ kJ·mol^{-1} [2] $S^0_{298} = 130.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 75.8$ J·mol^{-1}·K^{-1} (298 K) [2]

Ge_3N_4 (s) Germanium Nitride **Ge_3N_4 (s)**

$\Delta H^0_{298} = -63$ kJ·mol^{-1} [7] $S^0_{298} = 155$ J·mol^{-1}·K^{-1} [7]

Ge_3Ti_5 (s) Titanium Germanium **Ge_3Ti_5 (s)**
Ti_5Ge_3 (s) Ti_5Ge_3 (s)

$\Delta H^0_{298} = -558.4 \pm 40$ kJ·mol^{-1} [83] $S^0_{298} = [247]$ J·mol^{-1}·K^{-1} [83]

Ge_3U (s) Germanium Uranium **Ge_3U (s)**

mp = 1748 K (1475 °C)
$\Delta H^0_{298} = -106.7$ kJ·mol^{-1} [2] $S^0_{298} = 170.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 100.3$ J·mol^{-1}·K^{-1} (298 K) [2]

Ge_3U_5 (s) Germanium Uranium **Ge_3U_5 (s)**

mp = 1943 K (1670 °C)
$\Delta H^0_{298} = -235.1$ kJ·mol^{-1} [2] $S^0_{298} = 374.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 208.2$ J·mol^{-1}·K^{-1} (298 K) [2]

Ge_5Ti_6 (s) Titanium Germanium **Ge_5Ti_6 (s)**
Ti_6Ge_5 (s) Ti_6Ge_5 (s)

$\Delta H^0_{298} = -771.1 \pm 40$ kJ·mol^{-1} [83] $S^0_{298} = [340]$ J·mol^{-1}·K^{-1} [83]

Ge_5U_3 (s) Germanium Uranium **Ge_5U_3 (s)**

$\Delta H^0_{298} = -239.7$ kJ·mol⁻¹ [2] $S^0_{298} = 351.9$ J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 203.1$ J·mol⁻¹·K⁻¹ (298 K) [2]

H (g) Hydrogen **H (g)**

$\Delta H^0_{298} = 218$ kJ·mol⁻¹ [1] $S^0_{298} = 114.7$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 20.79$ J·mol⁻¹·K⁻¹ (298 K) [4]

HHg (g) Mercury(I) Hydride **HHg (g)**
HgH (g) HgH (g)

$\Delta H^0_{298} = 238.5 \pm 16.7$ kJ·mol⁻¹ [1] $S^0_{298} = 219.7$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 29.02 + 10.69 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^{6} \cdot T^{-2} - 2.45 \cdot 10^{-6} \cdot T^{2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

HI (g) Hydrogen Iodide **HI (g)**

mp = 223 K (-50 °C) bp = 238 K (-35 °C)
$\Delta H^0_{298} = 26.4 \pm 0.2$ kJ·mol⁻¹ [1] $S^0_{298} = 206.6$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 26.36 + 3.83 \cdot 10^{-3} \cdot T + 0.17 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]
$\lg(p,K) = -0.2 \cdot 10^{3} \cdot T^{-1} + 0.39 \cdot \lg(T) - 1.68$ (298 ... 2000 K) [4]
{Reaction: decomposition $HI(g) = 1/2H_2(g) + 1/2I_2(g)$}

HI_3Si (g) Triiodosilane **HI_3Si (g)**
$SiHI_3$ (g) $SiHI_3$ (g)

$\Delta H^0_{298} = -74.5 \pm 20.9$ kJ·mol⁻¹ [1] $S^0_{298} = 375 \pm 2.1$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 83.9$ J·mol⁻¹·K⁻¹ (298 K) [1]

HIn (g) Indium(I) Hydride **HIn (g)**
InH (g) InH (g)

$\Delta H^0_{298} = 215$ kJ·mol⁻¹ [7] $S^0_{298} = 208$ J·mol⁻¹·K⁻¹ [7]
$C_p^0 = 30$ J·mol⁻¹·K⁻¹ (298 K) [7]

Ge_5U_3 (s) Germanium Uranium **Ge_5U_3 (s)**

$\Delta H^0_{298} = -239.7$ kJ·mol^{-1} [2] $S^0_{298} = 351.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 203.1$ J·mol^{-1}·K^{-1} (298 K) [2]

H (g) Hydrogen **H (g)**

$\Delta H^0_{298} = 218$ kJ·mol^{-1} [1] $S^0_{298} = 114.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 20.79$ J·mol^{-1}·K^{-1} (298 K) [4]

HHg (g) Mercury(I) Hydride **HHg (g)**
HgH (g) HgH (g)

$\Delta H^0_{298} = 238.5 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 219.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 29.02 + 10.69 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2} - 2.45 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HI (g) Hydrogen Iodide **HI (g)**

mp = 223 K (-50 °C) bp = 238 K (-35 °C)
$\Delta H^0_{298} = 26.4 \pm 0.2$ kJ·mol^{-1} [1] $S^0_{298} = 206.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 26.36 + 3.83 \cdot 10^{-3} \cdot T + 0.17 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -0.2 \cdot 10^3 \cdot T^{-1} + 0.39 \cdot \lg(T) - 1.68$ (298 ... 2000 K) [4]
{Reaction: decomposition HI(g) = 1/2H_2(g) + 1/2I_2(g)}

HI_3Si (g) Triiodosilane **HI_3Si (g)**
$SiHI_3$ (g) $SiHI_3$ (g)

$\Delta H^0_{298} = -74.5 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 375 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 83.9$ J·mol^{-1}·K^{-1} (298 K) [1]

HIn (g) Indium(I) Hydride **HIn (g)**
InH (g) InH (g)

$\Delta H^0_{298} = 215$ kJ·mol^{-1} [7] $S^0_{298} = 208$ J·mol^{-1}·K^{-1} [7]
$C_p^0 = 30$ J·mol^{-1}·K^{-1} (298 K) [7]

HK (s) Potassium Hydride **HK** (s)
KH (s) KH (s)

$\Delta H^0_{298} = -57.8 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 50.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.8 + 26.78 \cdot 10^{-3} \cdot T - 0.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 690 K) [4]
$\lg(p,K) = -6.41 \cdot 10^3 \cdot T^{-1} - 0.5 \cdot \lg(T) + 10.71$ (400 ... 690 K) [4]
{Reaction: evaporation as KH(g)}

HK (g) Potassium Hydride **HK** (g)
KH (g) KH (g)

$\Delta H^0_{298} = 123 \pm 14.6$ kJ·mol^{-1} [1] $S^0_{298} = 198$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 35.33 + 2 \cdot 10^{-3} \cdot T - 0.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HKO (s) Potassium Hydroxide **HKO** (s)
KOH (s) alpha KOH (s)

mp = 679 K (406 °C) bp = 1589 K (1316 °C)
$\Delta H^0_{298} = -424.7 \pm 0.4$ kJ·mol^{-1} [1] $S^0_{298} = 78.9 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 43.3 + 72.59 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 516 K) [4]

HKO (s) Potassium Hydroxide **HKO** (s)
KOH (s) alpha KOH (s)

$\Delta H^0_{516} = -408.8$ kJ·mol^{-1} [4] $S^0_{516} = 118.5$ J·mol^{-1}·K^{-1} [4]

HKO (s) Potassium Hydroxide **HKO** (s)
KOH (s) beta KOH (s)

$\Delta H^0_{516} = -402.4$ kJ·mol^{-1} [4] $S^0_{516} = 131$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 78.66$ J·mol^{-1}·K^{-1} (516 K) [4]

HKO (s) Potassium Hydroxide **HKO** (s)
KOH (s) beta KOH (s)

$\Delta H^0_{679} = -389.5$ kJ·mol^{-1} [4] $S^0_{679} = 152.6$ J·mol^{-1}·K^{-1} [4]

HKO (l) Potassium Hydroxide **HKO (l)**
KOH (l) KOH (l)

$\Delta H^0_{679} = -380.9$ kJ·mol^{-1} [4] $S^0_{679} = 165.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 83.09$ J·mol^{-1}·K^{-1} (679 K) [4]

HKO (l) Potassium Hydroxide **HKO (l)**
KOH (l) KOH (l)

$\Delta H^0_{298} = -412.7$ kJ·mol^{-1} [1] $S^0_{298} = 96.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 83.1$ J·mol^{-1}·K^{-1} (298 K) [1]

HKO (g) Potassium Hydroxide **HKO (g)**
KOH (g) KOH (g)

$\Delta H^0_{298} = -232.6 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 236.4 \pm 1.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 51.24 + 3.92 \cdot 10^{-3} \cdot T - 0.39 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -9.72 \cdot 10^{3} \cdot T^{-1} - 3.36 \cdot \lg(T) + 16.86$ (679 ... 1589 K) [4]
{Reaction: evaporation of KOH(l)}

HKO_4S (s) Potassium Hydrogen Sulfate **HKO_4S (s)**
$KHSO_4$ (s) $KHSO_4$ (s)

$\Delta H^0_{298} = -1161$ kJ·mol^{-1} [7] $S^0_{298} = 138$ J·mol^{-1}·K^{-1} [7]

HK_2O_4P (s) Dipotassium Hydrogen Phosphate **HK_2O_4P (s)**
K_2HPO_4 (s) K_2HPO_4 (s)

$\Delta H^0_{298} = -1775.8$ kJ·mol^{-1} [2] $S^0_{298} = 179.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 164.56 + 41.46 \cdot 10^{-3} \cdot T - 2.97 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$HLaO_2$ (s) Lanthanum Oxide Hydroxide **$HLaO_2$ (s)**
LaOOH (s) LaOOH (s)

$\Delta H^0_{298} = -1078.6 \pm 1.4$ kJ·mol^{-1} [95] $S^0_{298} = [72.4]$ J·mol^{-1}·K^{-1} [87]

HLi (s) Lithium Hydride **HLi** (s)
LiH (s) LiH (s)

mp = 961 K (688 °C)
$\Delta H^0_{298} = -90.6 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 20 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 16.99 + 50.83 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 961 K) [4]

HLi (s) Lithium Hydride **HLi** (s)
LiH (s) LiH (s)

$\Delta H^0_{961} = -59$ kJ·mol^{-1} [4] $S^0_{961} = 71.7$ J·mol^{-1}·K^{-1} [4]

HLi (l) Lithium Hydride **HLi** (l)
LiH (l) LiH (l)

$\Delta H^0_{961} = -36.4$ kJ·mol^{-1} [4] $S^0_{961} = 95.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 62.34$ J·mol^{-1}·K^{-1} (961 K) [4]

HLi (l) Lithium Hydride **HLi** (l)
LiH (l) LiH (l)

$\Delta H^0_{298} = -77.7$ kJ·mol^{-1} [1] $S^0_{298} = 22.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 62.3$ J·mol^{-1}·K^{-1} (298 K) [1]

HLi (g) Lithium Hydride **HLi** (g)
LiH (g) LiH (g)

$\Delta H^0_{298} = 140.6$ kJ·mol^{-1} [1] $S^0_{298} = 170.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36.4 + 1.27 \cdot 10^{-3} \cdot T - 1.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HLiO (s) Lithium Hydroxide **HLiO** (s)
LiOH (s) LiOH (s)

mp = 744 K (471 °C) bp = 1312 K (1039 °C)
$\Delta H^0_{298} = -484.9 \pm 0.4$ kJ·mol^{-1} [1] $S^0_{298} = 42.8 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 50.17 + 34.48 \cdot 10^{-3} \cdot T - 0.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 744 K) [4]

HLiO (s) Lithium Hydroxide **HLiO (s)**
LiOH (s) LiOH (s)

$\Delta H^0_{744} = -456.5$ kJ·mol^{-1} [4] $S^0_{744} = 99.6$ J·mol^{-1}·K^{-1} [4]

HLiO (l) Lithium Hydroxide **HLiO (l)**
LiOH (l) LiOH (l)

$\Delta H^0_{744} = -435.6$ kJ·mol^{-1} [4] $S^0_{744} = 127.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 87.11$ J·mol^{-1}·K^{-1} (744 K) [4]

HLiO (l) Lithium Hydroxide **HLiO (l)**
LiOH (l) LiOH (l)

$\Delta H^0_{298} = -474.4$ kJ·mol^{-1} [1] $S^0_{298} = 48$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 87.11$ J·mol^{-1}·K^{-1} (744 K) [4]

HLiO (g) Lithium Hydroxide **HLiO (g)**
LiOH (g) LiOH (g)

$\Delta H^0_{298} = -234.3 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 210.7 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 52.43 + 3.27 \cdot 10^{-3} \cdot T - 1.26 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HMg (g) Magnesium Hydride **HMg (g)**
MgH (g) MgH (g)

$\Delta H^0_{298} = 169 \pm 48.1$ kJ·mol^{-1} [1] $S^0_{298} = 193.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 29.58$ J·mol^{-1}·K^{-1} (298 K) [1]

HMgO (g) Magnesium Hydroxide **HMgO (g)**
MgOH (g) MgOH (g)

$\Delta H^0_{298} = -164.8 \pm 37.7$ kJ·mol^{-1} [1] $S^0_{298} = 226.5 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 43.04$ J·mol^{-1}·K^{-1} (298 K) [1]

HN (g) Imidogen **HN (g)**
NH (g) NH (g)

$\Delta H^0_{298} = 376.6 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 181.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 29.1$ J·mol^{-1}·K^{-1} (298 K) [1]

HNO (g) Nitrosyl Hydride **HNO (g)**

$\Delta H^0_{298} = 99.6$ kJ·mol^{-1} [1] $S^0_{298} = 220.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 34.6$ J·mol^{-1}·K^{-1} (298 K) [1]

HNO_2 (g) Nitrous Acid **HNO_2 (g)**
HONO (g) trans HONO (g)

$\Delta H^0_{298} = -78.8 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 249.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 55.44 + 13.64 \cdot 10^{-3} \cdot T - 1.2 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

HNO_2 (g) Nitrous Acid **HNO_2 (g)**
HONO (g) cis HONO (g)

$\Delta H^0_{298} = -76.7 \pm 1.3$ kJ·mol^{-1} [1] $S^0_{298} = 249.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 54.68 + 14.31 \cdot 10^{-3} \cdot T - 1.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

HNO_3 (l) Nitric Acid **HNO_3 (l)**

mp = 232 K (-41 °C) bp = 357 K (84 °C)
$\Delta H^0_{298} = -174.1$ kJ·mol^{-1} [4] $S^0_{298} = 155.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 109.87$ J·mol^{-1}·K^{-1} (298 K) [4]

HNO_3 (g) Nitric Acid **HNO_3 (g)**

$\Delta H^0_{298} = -134.3 \pm 0.4$ kJ·mol^{-1} [1] $S^0_{298} = 266.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 33.51 + 80.25 \cdot 10^{-3} \cdot T - 0.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 500 K) [6]

HNa (s) Sodium Hydride **HNa (s)**
NaH (s) NaH (s)

mp = 911 K (638 °C)
$\Delta H^0_{298} = -56.4 \pm 0.1$ kJ·mol⁻¹ [1] $S^0_{298} = 40$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 36.36 + 27.06 \cdot 10^{-3} \cdot T - 0.72 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 700 K) [4]

HNa (g) Sodium Hydride **HNa (g)**
NaH (g) NaH (g)

$\Delta H^0_{298} = 124.3 \pm 19.2$ kJ·mol⁻¹ [1] $S^0_{298} = 188.4$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 36.43 + 1.39 \cdot 10^{-3} \cdot T - 1.12 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]
$\lg(p,K) = -9.79 \cdot 10^{3} \cdot T^{-1} - 2.18 \cdot \lg(T) + 14.27$ (600 ... 700 K) [4]
{Reaction: evaporation of NaH(s)}

HNaO (s) Sodium Hydroxide alpha **HNaO (s)**
NaOH (s) NaOH (s)

mp = 596 K (323 °C) bp = 1828 K (1555 °C)
$\Delta H^0_{298} = -425.9 \pm 0.4$ kJ·mol⁻¹ [1] $S^0_{298} = 64.4 \pm 0.8$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 71.76 - 110.88 \cdot 10^{-3} \cdot T + 235.77 \cdot 10^{-6} \cdot T^{2}$ J·mol⁻¹·K⁻¹ (298 ... 572 K) [4]

HNaO (s) Sodium Hydroxide alpha **HNaO (s)**
NaOH (s) NaOH (s)

$\Delta H^0_{572} = -406.9$ kJ·mol⁻¹ [4] $S^0_{572} = 108.9$ J·mol⁻¹·K⁻¹ [4]

HNaO (s) Sodium Hydroxide beta **HNaO (s)**
NaOH (s) NaOH (s)

$\Delta H^0_{572} = -399.7$ kJ·mol⁻¹ [4] $S^0_{572} = 121.5$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 85.98$ J·mol⁻¹·K⁻¹ (572 K) [4]

HNaO (s) Sodium Hydroxide beta **HNaO (s)**
NaOH (s) NaOH (s)

$\Delta H^0_{596} = -397.6$ kJ·mol⁻¹ [4] $S^0_{596} = 125$ J·mol⁻¹·K⁻¹ [4]

HNaO (l) Sodium Hydroxide **HNaO (l)**
NaOH (l) NaOH (l)

$\Delta H^0_{596} = -391$ kJ·mol^{-1} [4] $S^0_{596} = 136.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 89.45 - 5.86 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (596 ... 1828 K) [4]
$\lg(p,K) = -11.73 \cdot 10^3 \cdot T^{-1} - 3.22 \cdot \lg(T) + 16.92$ (700 ... 1828 K) [4]
{Reaction: evaporation as NaOH(g)}

HNaO (l) Sodium Hydroxide **HNaO (l)**
NaOH (l) NaOH (l)

$\Delta H^0_{298} = -416.9$ kJ·mol^{-1} [1] $S^0_{298} = 75.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 89.45 - 5.86 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (596 ... 1828 K) [4]

HNaO (g) Sodium Hydroxide **HNaO (g)**
NaOH (g) NaOH (g)

$\Delta H^0_{298} = -197.8 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 228.4 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 51.21 + 3.9 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$HNaO_4S$ (s) Sodium Hydrogen Sulfate **$HNaO_4S$ (s)**
$NaHSO_4$ (s) $NaHSO_4$ (s)

$\Delta H^0_{298} = -1126$ kJ·mol^{-1} [7] $S^0_{298} = 113$ J·mol^{-1}·K^{-1} [7]

HNa_2O_4P (s) Sodium Hydrogen Phosphate **HNa_2O_4P (s)**
Na_2HPO_4 (s) Na_2HPO_4 (s)

$\Delta H^0_{298} = -1748$ kJ·mol^{-1} [7] $S^0_{298} = 150$ J·mol^{-1}·K^{-1} [7]
$C_p{}^0 = 135$ J·mol^{-1}·K^{-1} (298 K) [7]

HNi (g) Nickel(I) Hydride **HNi (g)**
NiH (g) NiH (g)

$\Delta H^0_{298} = 393.3$ kJ·mol^{-1} [4] $S^0_{298} = 210.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 31.3 + 3.05 \cdot 10^{-3} \cdot T - 0.27 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HO (g) Hydroxyl **HO (g)**
OH (g) OH (g)

$\Delta H^0_{298} = 39 \pm 1.2$ kJ·mol^{-1} [1] $S^0_{298} = 183.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 30$ J·mol^{-1}·K^{-1} (298 K) [1]

HORb (s) Rubidium Hydroxide alpha **HORb (s)**
RbOH (s) RbOH (s)

mp = 658 K (385 °C)
$\Delta H^0_{298} = -418.8$ kJ·mol^{-1} [4] $S^0_{298} = 92$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 64.85 + 71.13 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 508 K) [4]

HORb (s) Rubidium Hydroxide alpha **HORb (s)**
RbOH (s) RbOH (s)

$\Delta H^0_{508} = -399.2$ kJ·mol^{-1} [4] $S^0_{508} = 141.5$ J·mol^{-1}·K^{-1} [4]

HORb (s) Rubidium Hydroxide beta **HORb (s)**
RbOH (s) RbOH (s)

$\Delta H^0_{508} = -393.8$ kJ·mol^{-1} [4] $S^0_{508} = 152.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 79.5$ J·mol^{-1}·K^{-1} (508 K) [4]

HORb (s) Rubidium Hydroxide beta **HORb (s)**
RbOH (s) RbOH (s)

$\Delta H^0_{658} = -381.8$ kJ·mol^{-1} [4] $S^0_{658} = 172.8$ J·mol^{-1}·K^{-1} [4]

HORb (l) Rubidium Hydroxide **HORb (l)**
RbOH (l) RbOH (l)

$\Delta H^0_{658} = -373$ kJ·mol^{-1} [4] $S^0_{658} = 186.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 83.68$ J·mol^{-1}·K^{-1} (658 K) [4]

HOSr (g) Strontium Hydroxide **HOSr (g)**
SrOH (g) SrOH (g)

$\Delta H^0_{298} = -205.5 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 246.5 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 45.96$ J·mol^{-1}·K^{-1} (298 K) [1]

HOTl (s) Thallium(I) Hydroxide **HOTl (s)**
TlOH (s) TlOH (s)

$\Delta H^0_{298} = -239$ kJ·mol^{-1} [7] $S^0_{298} = 88$ J·mol^{-1}·K^{-1} [7]

HO_2 (g) Hydroperoxo **HO_2 (g)**
HOO (g) HOO (g)

$\Delta H^0_{298} = 2.1 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 229.1 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 34.9$ J·mol^{-1}·K^{-1} (298 K) [1]

HO_2Si (g) Silicon Oxide Hydroxide **HO_2Si (g)**
SiOOH (g) SiOOH (g)

$\Delta H^0_{298} = -493.7 \pm 16.7$ kJ·mol^{-1} [252] $S^0_{298} = [254]$ J·mol^{-1}·K^{-1} [15]

HP (g) Phosphinidene **HP (g)**
PH (g) PH (g)

$\Delta H^0_{298} = 233.6 \pm 33.5$ kJ·mol^{-1} [1] $S^0_{298} = 196.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 29.2$ J·mol^{-1}·K^{-1} (298 K) [1]

HPb (g) Lead(I) Hydride **HPb (g)**
PbH (g) PbH (g)

$\Delta H^0_{298} = 236.2 \pm 19.2$ kJ·mol^{-1} [1] $S^0_{298} = 220.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 27.54 + 9.91 \cdot 10^{-3} \cdot T - 0.09 \cdot 10^{6} \cdot T^{-2} - 2.16 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HRb (s) Rubidium Hydride **HRb (s)**
RbH (s) RbH (s)

$\Delta H^0_{298} = -52.3$ kJ·mol^{-1} [4] $S^0_{298} = 58.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 27.7 + 40.67 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 598 K) [4]

HS (g) Mercapto **HS (g)**

$\Delta H^0_{298} = 139.3 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 195.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 28.3 + 3.6 \cdot 10^{-3} \cdot T + 0.2 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HSe (g) Selenium(I) Hydride **HSe (g)**

SeH (g) SeH (g)

ΔH^0_{298} = 143.5 kJ·mol^{-1} [5] S^0_{298} = [231.1] J·mol^{-1}·K^{-1} [15]

HSi (g) Silylidyne **HSi (g)**

SiH (g) SiH (g)

ΔH^0_{298} = 376.7 ± 8.4 kJ·mol^{-1} [1] S^0_{298} = 198 ± 0.2 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 29.51 + 4.21 \cdot 10^{-3} \cdot T - 0.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HZr (g) Zirconium Hydride **HZr (g)**

ZrH (g) ZrH (g)

ΔH^0_{298} = 516.3 kJ·mol^{-1} [1] S^0_{298} = 216.2 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$ = 29.69 J·mol^{-1}·K^{-1} (298 K) [1]

H_2 (g) Hydrogen **H_2 (g)**

mp = 16 K (-257 °C) bp = 20 K (-253 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 130.7 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 26.88 + 3.59 \cdot 10^{-3} \cdot T + 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

$\lg(p,K) = -11.49 \cdot 10^3 \cdot T^{-1} + 0.4 \cdot \lg(T) + 1.64$ (1000 ... 3000 K) [4]

{Reaction: decomposition $1/2H_2(g) = H(g)$}

H_2I_2Si (g) Diiodosilane **H_2I_2Si (g)**

SiH_2I_2 (g) SiH_2I_2 (g)

ΔH^0_{298} = – 38.1 ± 20.9 kJ·mol^{-1} [1] S^0_{298} = 326.8 ± 3.3 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$ = 68 J·mol^{-1}·K^{-1} (298 K) [1]

H_2KO_4P (s) Potassium Dihydrogen Phosphate **H_2KO_4P (s)**

KH_2PO_4 (s) KH_2PO_4 (s)

mp = 526 K (253 °C)

ΔH^0_{298} = – 1568.3 kJ·mol^{-1} [2] S^0_{298} = 134.9 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 144.52 + 38.95 \cdot 10^{-3} \cdot T - 3.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 526 K) [4]

$H_2K_2O_2$ (g) Potassium Hydroxide **$H_2K_2O_2$ (g)**

$(KOH)_2$ (g) $(KOH)_2$ (g)

$\Delta H^0_{298} = -654.8 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 328 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 97.61 + 14.28 \cdot 10^{-3} \cdot T - 1.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -9.1 \cdot 10^3 \cdot T^{-1} - 6.6 \cdot \lg(T) + 25.37$ (679 ... 1589 K) [4]

{Reaction: evaporation of KOH(l)}

H_2La (s) Lanthanum Hydride **H_2La (s)**

LaH_2 (s) LaH_2 (s)

$\Delta H^0_{298} = -201.3$ kJ·mol^{-1} [4] $S^0_{298} = 51.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 39.25 + 15.15 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1150 K) [4]

$H_2Li_2O_2$ (g) Lithium Hydroxide **$H_2Li_2O_2$ (g)**

$(LiOH)_2$ (g) $(LiOH)_2$ (g)

$\Delta H^0_{298} = -711.3 \pm 33.5$ kJ·mol^{-1} [1] $S^0_{298} = 269.8 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 95.47 + 15.47 \cdot 10^{-3} \cdot T + 2.86 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -7.35 \cdot 10^3 \cdot T^{-1} - 1.57 \cdot \lg(T) + 8.05$ (600 ... 1843 K) [4]

{Reaction: evaporation of LiOH(l)}

H_2Mg (s) Magnesium(II) Hydride **H_2Mg (s)**

MgH_2 (s) MgH_2 (s)

$\Delta H^0_{298} = -76.2 \pm 9.2$ kJ·mol^{-1} [1] $S^0_{298} = 31.1 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 27.2 + 49.37 \cdot 10^{-3} \cdot T - 0.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 566 K) [4]

$\lg(p,K) = -3.82 \cdot 10^3 \cdot T^{-1} + 1.35 \cdot \lg(T) + 3.03$ (298 ... 566 K) [4]

{Reaction: decomposition MgH_2(s) = Mg(s) + H_2(g)}

H_2MgO_2 (s) Magnesium Hydroxide **H_2MgO_2 (s)**

$Mg(OH)_2$ (s) $Mg(OH)_2$ (s)

$\Delta H^0_{298} = -924.7 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 63.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 46.82 + 102.93 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 700 K) [4]

H_2MgO_2 (g) Magnesium Hydroxide **H_2MgO_2 (g)**
$Mg(OH)_2$ (g) $Mg(OH)_2$ (g)

$\Delta H^0_{298} = -572.4 \pm 33.5$ kJ·mol⁻¹ [1] $S^0_{298} = 267.3 \pm 12.6$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 69.5$ J·mol⁻¹·K⁻¹ (298 K) [1]

$H_2Mg_3O_{12}Si_4$ (s) Talc **$H_2Mg_3O_{12}Si_4$ (s)**
$Mg_3Si_4O_{10}(OH)_2$ (s) $Mg_3Si_4O_{10}(OH)_2$ (s)

$\Delta H^0_{298} = -5922.5$ kJ·mol⁻¹ [2] $S^0_{298} = 260.7$ J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 321.7$ J·mol⁻¹·K⁻¹ (298 K) [2]

H_2MoO_4 (g) Molybdic Acid **H_2MoO_4 (g)**

$\Delta H^0_{298} = -851 \pm 4.2$ kJ·mol⁻¹ [1] $S^0_{298} = 355.6 \pm 8.4$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 131.29 + 11.62 \cdot 10^{-3} \cdot T - 2.99 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

H_2N (g) Amidogen **H_2N (g)**
NH_2 (g) NH_2 (g)

$\Delta H^0_{298} = 190.4 \pm 6.3$ kJ·mol⁻¹ [1] $S^0_{298} = 194.7$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 33.6$ J·mol⁻¹·K⁻¹ (298 K) [1]

H_2N_2 (g) Diazene **H_2N_2 (g)**
HNNH (g) cis HNNH (g)

$\Delta H^0_{298} = 213 \pm 10.9$ kJ·mol⁻¹ [1] $S^0_{298} = 218.6$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 36.55$ J·mol⁻¹·K⁻¹ (298 K) [1]

H_2NaO_4P (s) Sodium Dihydrogen Phosphate **H_2NaO_4P (s)**
NaH_2PO_4 (s) NaH_2PO_4 (s)

$\Delta H^0_{298} = -1537$ kJ·mol⁻¹ [7] $S^0_{298} = 127$ J·mol⁻¹·K⁻¹ [7]
$C_p^0 = 117$ J·mol⁻¹·K⁻¹ (298 K) [7]

$H_2Na_2O_2$ (g) Sodium Hydroxide **$H_2Na_2O_2$ (g)**
$(NaOH)_2$ (g) $(NaOH)_2$ (g)

$\Delta H^0_{298} = -607.5 \pm 25.1$ kJ·mol^{-1} [1] $S^0_{298} = 307.4 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 96.28 + 15.04 \cdot 10^{-3} \cdot T - 2.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -11.75 \cdot 10^3 \cdot T^{-1} - 5.95 \cdot \lg(T) + 23.73$ (800 ... 1828 K) [4]
{Reaction: evaporation of NaOH(l)}

H_2Nd (s) Neodymium(II) Hydride **H_2Nd (s)**
NdH_2 (s) NdH_2 (s)

$\Delta H^0_{298} = -192.5$ kJ·mol^{-1} [4] $S^0_{298} = 58.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 38.24 + 16.11 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1128 K) [4]

H_2NiO_2 (g) Nickel Hydroxide **H_2NiO_2 (g)**
$Ni(OH)_2$ (g) $Ni(OH)_2$ (g)

$\Delta H^0_{298} = -255.2$ kJ·mol^{-1} [4] $S^0_{298} = 291.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 87.07 + 7.66 \cdot 10^{-3} \cdot T - 2.65 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2228 K) [4]

H_2O (l) Water **H_2O (l)**

$\Delta H^0_{298} = -285.8$ kJ·mol^{-1} [1] $S^0_{298} = 70 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 20.36 + 109.2 \cdot 10^{-3} \cdot T + 2.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 500 K) [4]
$\lg(p,K) = -2.96 \cdot 10^3 \cdot T^{-1} - 5.13 \cdot \lg(T) + 21.13$ (298 ... 373 K) [4]
{Reaction: evaporation}

H_2O (g) Water **H_2O (g)**

$\Delta H^0_{298} = -241.8$ kJ·mol^{-1} [1] $S^0_{298} = 188.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 34.38 + 7.84 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 -3000 K) [4]
$\lg(p,K) = -8.63 \cdot 10^3 \cdot T^{-1} + 0.16 \cdot \lg(T) + 1.4$ (800 ... 3000 K) [4]
{Reaction: decomposition $2/3H_2O(g) = 2/3H_2(g) + 1/3O_2(g)$}

H_2O_2 (l) Hydrogen Peroxide **H_2O_2 (l)**

mp = 273 K (0 °C) bp = 425 K (152 °C)

$\Delta H^0_{298} = -187.8$ kJ·mol^{-1} [4] $S^0_{298} = 109.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 89.1$ J·mol^{-1}·K^{-1} (298 K) [4]

H_2O_2 (g) Hydrogen Peroxide **H_2O_2 (g)**

$\Delta H^0_{298} = -135.8$ kJ·mol^{-1} [4] $S^0_{298} = 234.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 42.72 + 19.1 \cdot 10^{-3} \cdot T - 0.54 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

H_2O_2Pb (s) Lead(II) Hydroxide **H_2O_2Pb (s)**

$Pb(OH)_2$ (s) $Pb(OH)_2$ (s)

$\Delta H^0_{298} = -516$ kJ·mol^{-1} [7] $S^0_{298} = [102.5]$ J·mol^{-1}·K^{-1} [130]

$C_p^0 = [88.70]$ J·mol^{-1}·K^{-1} (298 K) [188]

H_2O_2Sr (s) Strontium Hydroxide **H_2O_2Sr (s)**

$Sr(OH)_2$ (s) $Sr(OH)_2$ (s)

mp = 783 K (510 °C)

$\Delta H^0_{298} = -968.7$ kJ·mol^{-1} [4] $S^0_{298} = 97.1 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 35.23 + 133.05 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 783 K) [4]

H_2O_2Sr (s) Strontium Hydroxide **H_2O_2Sr (s)**

$Sr(OH)_2$ (s) $Sr(OH)_2$ (s)

$\Delta H^0_{783} = -916.7$ kJ·mol^{-1} [4] $S^0_{783} = 195.6$ J·mol^{-1}·K^{-1} [4]

H_2O_2Sr (l) Strontium Hydroxide **H_2O_2Sr (l)**

$Sr(OH)_2$ (l) $Sr(OH)_2$ (l)

$\Delta H^0_{783} = -895.7$ kJ·mol^{-1} [4] $S^0_{783} = 222.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 157.74$ J·mol^{-1}·K^{-1} (783 K) [4]

H_2O_2Sr (l) Strontium Hydroxide **H_2O_2Sr (l)**
$Sr(OH)_2$ (l) $Sr(OH)_2$ (l)

$\Delta H^0_{298} = -957.3$ kJ·mol^{-1} [1] $S^0_{298} = 108.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 74.9$ J·mol^{-1}·K^{-1} (298 K) [1]

H_2O_2Sr (g) Strontium Hydroxide **H_2O_2Sr (g)**
$Sr(OH)_2$ (g) $Sr(OH)_2$ (g)

$\Delta H^0_{298} = -595.8 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 305 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 76.2$ J·mol^{-1}·K^{-1} (298 K) [1]

H_2O_3Si (g) Silicic Acid **H_2O_3Si (g)**
$SiO(OH)_2$ (g) $SiO(OH)_2$ (g)

$\Delta H^0_{298} = -891.1 \pm 16.7$ kJ·mol^{-1} [252] $S^0_{298} = [260.2]$ J·mol^{-1}·K^{-1} [15]

H_2O_4S (l) Sulfuric Acid **H_2O_4S (l)**
H_2SO_4 (l) H_2SO_4 (l)

mp = 283 K (10 °C) bp = 608 K (335 °C)
$\Delta H^0_{298} = -814 \pm 0.7$ kJ·mol^{-1} [1] $S^0_{298} = 156.9 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 80.84 + 193.72 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 608 K) [4]
$\lg(p,K) = -5.27 \cdot 10^3 \cdot T^{-1} - 8.41 \cdot \lg(T) + 32.09$ (298 ... 608 K) [4]
{Reaction: evaporation}

H_2O_4S (g) Sulfuric Acid **H_2O_4S (g)**
H_2SO_4 (g) H_2SO_4 (g)

$\Delta H^0_{298} = -735.1 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 298.8 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 117.6 + 17.18 \cdot 10^{-3} \cdot T - 3.85 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

H_2O_4W (s) Tungstic Acid **H_2O_4W (s)**
H_2WO_4 (s) H_2WO_4 (s)

$\Delta H^0_{298} = -1131.8 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 144.8 \pm 25.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 62.76 + 167.36 \cdot 10^{-3} \cdot T - 0.76 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 393 K) [4]

H_2O_4W (g) Tungstic Acid **H_2O_4W (g)**
H_2WO_4 (g) H_2WO_4 (g)

$\Delta H^0_{298} = -905.8 \pm 4.2$ kJ·mol⁻¹ [1] $S^0_{298} = 352$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 132.33 + 11.94 \cdot 10^{-3} \cdot T - 3.26 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

H_2O_5SZn (s) Zinc Sulfate Monohydrate **H_2O_5SZn (s)**
$ZnSO_4 \cdot H_2O$ (s) $ZnSO_4 \cdot H_2O$ (s)

$\Delta H^0_{298} = -1301.5$ kJ·mol⁻¹ [2] $S^0_{298} = 145.5$ J·mol⁻¹·K⁻¹ [2]
$C_p{}^0 = 153.6$ J·mol⁻¹·K⁻¹ (298 K) [2]

H_2P (g) Phosphino **H_2P (g)**
PH_2 (g) PH_2 (g)

$\Delta H^0_{298} = 108.5 \pm 96.2$ kJ·mol⁻¹ [1] $S^0_{298} = 212.7$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 34.8$ J·mol⁻¹·K⁻¹ (298 K) [1]

H_2Pr (s) Praseodymium(II) Hydride **H_2Pr (s)**
PrH_2 (s) PrH_2 (s)

$\Delta H^0_{298} = -200$ kJ·mol⁻¹ [4] $S^0_{298} = 56.8$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 35.48 + 18.83 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 1200 K) [4]

H_2S (g) Hydrogen Sulfide **H_2S (g)**

mp = 188 K (-85 °C) bp = 213 K (-60 °C)
$\Delta H^0_{298} = -20.5 \pm 0.8$ kJ·mol⁻¹ [1] $S^0_{298} = 205.8$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 34.91 + 10.69 \cdot 10^{-3} \cdot T - 0.45 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]
$\lg(p,K) = -3.11 \cdot 10^3 \cdot T^{-1} + 0.08 \cdot \lg(T) + 1.43$ (717 ... 2000 K) [4]
{Reaction:decomposition $2/3H_2S(g) = 2/3H_2(g) + 1/3S_2(g)$}

H_2S_2 (l) Hydrogen Disulfide **H_2S_2 (l)**

$\Delta H^0_{298} = -18.1$ kJ·mol⁻¹ [4] $S^0_{298} = 161.5$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 84.1$ J·mol⁻¹·K⁻¹ (298 K) [4]

H_2S_2 (g) Hydrogen Disulfide **H_2S_2 (g)**

ΔH^0_{298} = 17.8 kJ·mol^{-1} [4] S^0_{298} = 266.5 J·mol^{-1}·K^{-1} [2]
C_p^0= 51.38 + 16.18 ·10^{-3}·T − 0.42 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

H_2S_3 (l) Hydrogen Trisulfide **H_2S_3 (l)**
S_3H_2 (l) S_3H_2 (l)

ΔH^0_{298} = − 15.1 kJ·mol^{-1} [5]
C_p^0= 110.24 + 43.93 ·10^{-3}·T J·mol^{-1}·K^{-1} (237 ... 296 K) [5]

H_2S_3 (g) Hydrogen Trisulfide **H_2S_3 (g)**
S_3H_2 (g) S_3H_2 (g)

ΔH^0_{298} = 30.7 kJ·mol^{-1} [5]

H_2S_4 (l) Hydrogen Tetrasulfide **H_2S_4 (l)**
S_4H_2 (l) S_4H_2 (l)

ΔH^0_{298} = − 12.4 kJ·mol^{-1} [5]
C_p^0= 136.52 + 61.13 ·10^{-3}·T J·mol^{-1}·K^{-1} (246 ... 293 K) [5]

H_2S_4 (g) Hydrogen Tetrasulfide **H_2S_4 (g)**
S_4H_2 (g) S_4H_2 (g)

ΔH^0_{298} = 44.4 kJ·mol^{-1} [5]

H_2S_5 (l) Hydrogen Pentasulfide **H_2S_5 (l)**
S_5H_2 (l) S_5H_2 (l)

ΔH^0_{298} = − 10.3 kJ·mol^{-1} [5]
C_p^0= 155.18 + 105.69 ·10^{-3}·T J·mol^{-1}·K^{-1} (244 ... 293 K) [5]

H_2S_5 (g) Hydrogen Pentasulfide **H_2S_5 (g)**
S_5H_2 (g) S_5H_2 (g)

ΔH^0_{298} = 58 kJ·mol^{-1} [5]

H_2S_6 (l) Hydrogen Hexasulfide **H_2S_6 (l)**

S_6H_2 (l) S_6H_2 (l)

$\Delta H^0_{298} = -8.2$ kJ·mol^{-1} [5]

$C_p^0 = 170.37 + 154.22 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (247 ... 313 K) [5]

H_2Se (g) Hydrogen Selenide **H_2Se (g)**

mp = 219 K (-54 °C) bp = 232 K (-41 °C)

$\Delta H^0_{298} = 29.3$ kJ·mol^{-1} [2] $S^0_{298} = 218.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 31.76 + 14.64 \cdot 10^{-3} \cdot T - 0.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

H_2Sr (s) Strontium(II) Hydride **H_2Sr (s)**

SrH_2 (s) SrH_2 (s)

$\Delta H^0_{298} = -180$ kJ·mol^{-1} [4] $S^0_{298} = 49.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 33.47 + 22.59 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1228 K) [4]

H_2Te (g) Hydrogen Telluride **H_2Te (g)**

mp = 222 K (-51 °C) bp = 271 K (-2 °C)

$\Delta H^0_{298} = 99.6$ kJ·mol^{-1} [2] $S^0_{298} = 229$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 35.48 + 12.05 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

H_2Th (s) Thorium(II) Hydride **H_2Th (s)**

ThH_2 (s) ThH_2 (s)

$\Delta H^0_{298} = -143.5$ kJ·mol^{-1} [4] $S^0_{298} = 59.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 52.72 + 11.26 \cdot 10^{-3} \cdot T - 0.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

H_2Ti (s) Titanium(II) Hydride **H_2Ti (s)**

TiH_2 (s) TiH_2 (s)

$\Delta H^0_{298} = -144.4 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 29.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 37.52 + 33.92 \cdot 10^{-3} \cdot T - 1.64 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 900 K) [4]

H_2Y (s) Yttrium Hydride **H_2Y (s)**

YH_2 (s) YH_2 (s)

$\Delta H^0_{298} = -221.8$ kJ·mol^{-1} [4] $S^0_{298} = 38.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 32.8 + 21.26 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 900 K) [4]

H_2Zr (s) Zirconium Hydride **H_2Zr (s)**

ZrH_2 (s) ZrH_2 (s)

$\Delta H^0_{298} = -169.5$ kJ·mol^{-1} [4] $S^0_{298} = 39.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 37.52 + 33.92 \cdot 10^{-3} \cdot T - 1.64 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 960 K) [4]

H_3ISi (g) Iodosilane **H_3ISi (g)**

SiH_3I (g) SiH_3I (g)

$\Delta H^0_{298} = -2.1 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 271 \pm 0.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 54.4$ J·mol^{-1}·K^{-1} (298 K) [1]

H_3LaO_3 (s) Lanthanum Hydroxide **H_3LaO_3 (s)**

$La(OH)_3$ (s) $La(OH)_3$ (s)

$\Delta H^0_{298} = -1415.5 \pm 1.5$ kJ·mol^{-1} [95] $S^0_{298} = 142.3$ J·mol^{-1}·K^{-1} [96]

H_3N (g) Ammonia **H_3N (g)**

NH_3 (g) NH_3 (g)

mp = 195 K (-78 °C) bp = 240 K (-33 °C)

$\Delta H^0_{298} = -45.9 \pm 0.5$ kJ·mol^{-1} [1] $S^0_{298} = 192.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 37.32 + 18.66 \cdot 10^{-3} \cdot T - 0.65 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

$\lg(p,K) = -1.15 \cdot 10^3 \cdot T^{-1} + 0.66 \cdot \lg(T) + 0.78$ (298 ... 1500 K) [4]

{Reaction: decomposition $1/2NH_3(g) = 1/4N_2(g) + 3/4H_2(g)$}

H_3O_3Sc (s) Scandium Hydroxide **H_3O_3Sc (s)**

$Sc(OH)_3$ (s) $Sc(OH)_3$ (s)

$\Delta H^0_{298} = -1364$ kJ·mol^{-1} [7] $S^0_{298} = 100$ J·mol^{-1}·K^{-1} [7]

H_3O_4P (s) Orthophosphoric Acid **H_3O_4P (s)**

H_3PO_4 (s) H_3PO_4 (s)

mp = 316 K (43 °C)

ΔH^0_{298} = – 1279 kJ·mol⁻¹ [4] S^0_{298} = 110.5 J·mol⁻¹·K⁻¹ [1]

$C_p{}^0$= 49.87 + 189.12 ·10^{-3}·T J·mol⁻¹·K⁻¹ (298 ... 316 K) [4]

H_3O_4P (s) Orthophosphoric Acid **H_3O_4P (s)**

H_3PO_4 (s) H_3PO_4 (s)

ΔH^0_{316} = – 1277.1 kJ·mol⁻¹ [4] S^0_{316} = 116.8 J·mol⁻¹·K⁻¹ [4]

H_3O_4P (l) Orthophosphoric Acid **H_3O_4P (l)**

H_3PO_4 (l) H_3PO_4 (l)

ΔH^0_{316} = – 1264.1 kJ·mol⁻¹ [4] S^0_{316} = 157.8 J·mol⁻¹·K⁻¹ [4]

$C_p{}^0$= 200.83 J·mol⁻¹·K⁻¹ (316 K) [4]

H_3O_4P (l) Orthophosphoric Acid **H_3O_4P (l)**

H_3PO_4 (l) H_3PO_4 (l)

ΔH^0_{298} = – 1271.7 kJ·mol⁻¹ [1] S^0_{298} = 150.8 J·mol⁻¹·K⁻¹ [1]

$C_p{}^0$= 145 J·mol⁻¹·K⁻¹ (298 K) [1]

H_3P (g) Phosphine **H_3P (g)**

PH_3 (g) PH_3 (g)

mp = 141 K (-132 °C) bp = 186 K (-87 °C)

ΔH^0_{298} = 5.4 ± 1.7 kJ·mol⁻¹ [1] S^0_{298} = 210.3 J·mol⁻¹·K⁻¹ [4]

$C_p{}^0$= 51.4 + 14.85 ·10^{-3}·T – 2.57 ·10^{6}·T^{-2} J·mol⁻¹·K⁻¹ (298 ... 317 K) [4]

H_3Sb (g) Antimony(III) Hydride **H_3Sb (g)**

SbH_3 (g) SbH_3 (g)

mp = 185 K (-88 °C) bp = 256 K (-17 °C)

ΔH^0_{298} = 145.1 kJ·mol⁻¹ [2] S^0_{298} = 233.1 J·mol⁻¹·K⁻¹ [2]

$C_p{}^0$= 50.5 + 18.7 ·10^{-3}·T – 1.32 ·10^{6}·T^{-2} J·mol⁻¹·K⁻¹ (298 ... 1500 K) [4]

H_3U (s) Uranium Hydride **H_3U (s)**

UH_3 (s) beta UH_3 (s)

$\Delta H^0_{298} = -127$ kJ·mol^{-1} [4] $S^0_{298} = 63.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 30.39 + 42.34 \cdot 10^{-3} \cdot T + 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 705 K) [4]

H_3Y (s) Yttrium Hydride **H_3Y (s)**

YH_3 (s) YH_3 (s)

$\Delta H^0_{298} = -265.7$ kJ·mol^{-1} [4] $S^0_{298} = 41.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 38.74 + 15.48 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 686 K) [4]

H_4IN (s) Ammonium Iodide **H_4IN (s)**

NH_4I (s) NH_4I (s)

mp = 824 K (551 °C) bp = 620 K (347 °C)

$\Delta H^0_{298} = -202.1$ kJ·mol^{-1} [1] $S^0_{298} = 113 \pm 6.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 60.25 + 71.55 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 620 K) [4]

$\lg(p,K) = -4.94 \cdot 10^3 \cdot T^{-1} - 1.35 \cdot \lg(T) + 11.43$ (298 ... 620 K) [4]

{Reaction: decomposition $1/2NH_4I(s) = 1/2NH_3(g) + 1/2HI(g)$}

H_4IP (s) Phosphonium Iodide **H_4IP (s)**

PH_4I (s) PH_4I (s)

$\Delta H^0_{298} = -70$ kJ·mol^{-1} [7] $S^0_{298} = 123$ J·mol^{-1}·K^{-1} [7]

$C_p^0 = 110$ J·mol^{-1}·K^{-1} (298 K) [7]

H_4NO_3V (s) Ammonium Vanadate **H_4NO_3V (s)**

NH_4VO_3 (s) NH_4VO_3 (s)

$\Delta H^0_{298} = -1053$ kJ·mol^{-1} [7] $S^0_{298} = 141$ J·mol^{-1}·K^{-1} [7]

$C_p^0 = 129$ J·mol^{-1}·K^{-1} (298 K) [7]

H_4NO_4Re (s) Ammonium Perrhenate **H_4NO_4Re (s)**

NH_4ReO_4 (s) NH_4ReO_4 (s)

$\Delta H^0_{298} = -945.6$ kJ·mol^{-1} [4] $S^0_{298} = 232.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 124.12 + 112.45 \cdot 10^{-3} \cdot T - 0.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 500 K) [4]

H_4N_2 (l) Hydrazine **H_4N_2 (l)**

N_2H_4 (l) N_2H_4 (l)

mp = 275 K (2 °C) bp = 387 K (114 °C)

ΔH^0_{298} = 50.6 ± 0.4 kJ·mol^{-1} [1] S^0_{298} = 121.5 ± 0.4 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 73.3 + 84.89 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 387 K) [4]

lg(p,K) = – 3.06 ·10^3·T^{-1} – 5.58 · lg(T) + 22.35 (298 ... 387 K) [4]

{Reaction: evaporation}

H_4N_2 (g) Hydrazine **H_4N_2 (g)**

N_2H_4 (g) N_2H_4 (g)

ΔH^0_{298} = 95.4 ± 0.8 kJ·mol^{-1} [1] S^0_{298} = 238.7 ± 1.7 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 56.28 + 42.51 ·10^{-3}·T – 1.67 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$H_4N_2O_3$ (s) Ammonium Nitrate **$H_4N_2O_3$ (s)**

NH_4NO_3 (s) alpha NH_4NO_3 (s)

mp = 443 K (170 °C)

ΔH^0_{298} = – 365.4 kJ·mol^{-1} [4] S^0_{298} = 151 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 71.13 + 225.94 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 305 K) [4]

$H_4N_2O_3$ (s) Ammonium Nitrate **$H_4N_2O_3$ (s)**

NH_4NO_3 (s) alpha NH_4NO_3 (s)

ΔH^0_{305} = – 364.5 kJ·mol^{-1} [4] S^0_{305} = 154.2 J·mol^{-1}·K^{-1} [4]

$H_4N_2O_3$ (s) Ammonium Nitrate **$H_4N_2O_3$ (s)**

NH_4NO_3 (s) beta NH_4NO_3 (s)

ΔH^0_{305} = – 362.7 kJ·mol^{-1} [4] S^0_{305} = 159.9 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 71.13 + 225.94 ·10^{-3}·T J·mol^{-1}·K^{-1} (305 ... 357 K) [4]

$H_4N_2O_3$ (s) Ammonium Nitrate **$H_4N_2O_3$ (s)**

NH_4NO_3 (s) beta NH_4NO_3 (s)

ΔH^0_{357} = – 355.1 kJ·mol^{-1} [4] S^0_{357} = 182.9 J·mol^{-1}·K^{-1} [4]

$H_4N_2O_3$ (s) Ammonium Nitrate **$H_4N_2O_3$ (s)**
NH_4NO_3 (s) gamma NH_4NO_3 (s)

$\Delta H^0_{357} = -353.8$ kJ·mol^{-1} [4] $S^0_{357} = 186.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 71.13 + 225.94 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (357 ... 398 K) [4]

$H_4N_2O_3$ (s) Ammonium Nitrate **$H_4N_2O_3$ (s)**
NH_4NO_3 (s) gamma NH_4NO_3 (s)

$\Delta H^0_{398} = -347.4$ kJ·mol^{-1} [4] $S^0_{398} = 203.6$ J·mol^{-1}·K^{-1} [4]

$H_4N_2O_3$ (s) Ammonium Nitrate **$H_4N_2O_3$ (s)**
NH_4NO_3 (s) delta NH_4NO_3 (s)

$\Delta H^0_{398} = -343.2$ kJ·mol^{-1} [4] $S^0_{398} = 214.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 71.13 + 225.94 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (398 ... 443 K) [4]

$H_4N_2O_3$ (s) Ammonium Nitrate **$H_4N_2O_3$ (s)**
NH_4NO_3 (s) delta NH_4NO_3 (s)

$\Delta H^0_{443} = -335.7$ kJ·mol^{-1} [4] $S^0_{443} = 232$ J·mol^{-1}·K^{-1} [4]

$H_4N_2O_3$ (l) Ammonium Nitrate **$H_4N_2O_3$ (l)**
NH_4NO_3 (l) NH_4NO_3 (l)

$\Delta H^0_{443} = -296.8$ kJ·mol^{-1} [4] $S^0_{443} = 319.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 188.28$ J·mol^{-1}·K^{-1} (443 K) [4]

H_4O_5S (l) Sulfuric Acid Monohydrate **H_4O_5S (l)**
$H_2SO_4 \cdot H_2O$ (l) $H_2SO_4 \cdot H_2O$ (l)

$\Delta H^0_{298} = -1127.6 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 211.5 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 214.3$ J·mol^{-1}·K^{-1} (298 K) [1]

H_4O_6SZn (s) Zinc Sulfate Dihydrate **H_4O_6SZn (s)**

$ZnSO_4 \cdot 2H_2O$ (s)

$\Delta H^0_{298} = -1596$ kJ·mol^{-1} [2] $S^0_{298} = 192.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 198.7$ J·mol^{-1}·K^{-1} (298 K) [2]

H_4Si (g) Silane **H_4Si (g)**

SiH_4 (g)

mp = 88 K (-185 °C) bp = 161 K (-112 °C)

$\Delta H^0_{298} = 34.3 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 204.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 14.26 + 110.28 \cdot 10^{-3} \cdot T - 0.07 \cdot 10^{6} \cdot T^{-2} - 40 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$\lg(p,K) = -2.04 \cdot 10^3 \cdot T^{-1} - 2.31 \cdot \lg(T) + 2.59$ (400 ... 1000 K) [4]

{Reaction: formation $Si(s) + 2H_2(g) = SiH_4(g)$}

H_4Sn (g) Tin(IV) Hydride **H_4Sn (g)**

SnH_4 (g)

mp = 123 K (-150 °C) bp = 221 K (-52 °C)

$\Delta H^0_{298} = 162.8$ kJ·mol^{-1} [2] $S^0_{298} = 228.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 51.8 + 37.66 \cdot 10^{-3} \cdot T - 1.13 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 450 K) [4]

H_6O_6S (l) Sulfuric Acid Dihydrate **H_6O_6S (l)**

$H_2SO_4 \cdot 2H_2O$ (l)

$\Delta H^0_{298} = -1427.1 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 276.4 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 261.5$ J·mol^{-1}·K^{-1} (298 K) [1]

H_6Si_2 (g) Disilane **H_6Si_2 (g)**

Si_2H_6 (g)

mp = 141 K (-132 °C) bp = 258 K (-15 °C)

$\Delta H^0_{298} = 80.3$ kJ·mol^{-1} [2] $S^0_{298} = 274.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 53.93 + 136.4 \cdot 10^{-3} \cdot T - 1.03 \cdot 10^{6} \cdot T^{-2} - 44.77 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$H_8I_5LaN_2$ (s) Ammonium Lanthanum Iodide **$H_8I_5LaN_2$ (s)**
$(NH_4)_2LaI_5$ (s) $(NH_4)_2LaI_5$ (s)

$\Delta H^0_{298} = -1125.1 \pm 16.3$ kJ·mol^{-1} [19] $S^0_{298} = 483.3 \pm 18$ J·mol^{-1}·K^{-1} [19]

$H_8I_5N_2Nd$ (s) Ammonium Neodymium Iodide **$H_8I_5N_2Nd$ (s)**
$(NH_4)_2NdI_5$ (s) $(NH_4)_2NdI_5$ (s)

$\Delta H^0_{298} = -1091.6 \pm 17.6$ kJ·mol^{-1} [29] $S^0_{298} = 478.2 \pm 19.7$ J·mol^{-1}·K^{-1} [29]

$H_8N_2O_4S$ (s) Ammonium Sulfate **$H_8N_2O_4S$ (s)**
$(NH_4)_2SO_4$ (s) $(NH_4)_2SO_4$ (s)

$\Delta H^0_{298} = -1180.9$ kJ·mol^{-1} [2] $S^0_{298} = 220.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 103.55 + 280.75 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 630 K) [4]

H_8O_7S (l) Sulfuric Acid Trihydrate **H_8O_7S (l)**
$H_2SO_4 \cdot 3H_2O$ (l) $H_2SO_4 \cdot 3H_2O$ (l)

$\Delta H^0_{298} = -1720.4 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 345.4 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 319.1$ J·mol^{-1}·K^{-1} (298 K) [1]

$H_{10}O_8S$ (l) Sulfuric Acid Tetrahydrate **$H_{10}O_8S$ (l)**
$H_2SO_4 \cdot 4H_2O$ (l) $H_2SO_4 \cdot 4H_2O$ (l)

$\Delta H^0_{298} = -2011.2 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 414.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 386.4$ J·mol^{-1}·K^{-1} (298 K) [1]

$H_{12}I_6N_3Nd$ (s) Ammonium Neodymium Iodide **$H_{12}I_6N_3Nd$ (s)**
$(NH_4)_3NdI_6$ (s) $(NH_4)_3NdI_6$ (s)

$\Delta H^0_{298} = -1283.2 \pm 20.5$ kJ·mol^{-1} [29] $S^0_{298} = 639.3 \pm 23.8$ J·mol^{-1}·K^{-1} [29]

$H_{12}I_6N_3Y$ (s) Ammonium Yttrium Iodide **$H_{12}I_6N_3Y$ (s)**
$(NH_4)_3YI_6$ (s) $(NH_4)_3YI_6$ (s)

$\Delta H^0_{298} = -1259 \pm 23$ kJ·mol^{-1} [22] $S^0_{298} = 564 \pm 25.1$ J·mol^{-1}·K^{-1} [22]

$H_{12}O_{10}SZn$ (s) | Zinc Sulfate Hexahydrate | **$H_{12}O_{10}SZn$ (s)**

$ZnSO_4 \cdot 6H_2O$ (s) | | $ZnSO_4 \cdot 6H_2O$ (s)

$\Delta H^0_{298} = -2779$ kJ·mol^{-1} [2]

$S^0_{298} = 355.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 358$ J·mol^{-1}·K^{-1} (298 K) [2]

$H_{14}O_{11}SZn$ (s) | Zinc Sulfate Heptahydrate | **$H_{14}O_{11}SZn$ (s)**

$ZnSO_4 \cdot 7H_2O$ (s) | | $ZnSO_4 \cdot 7H_2O$ (s)

$\Delta H^0_{298} = -3078.5$ kJ·mol^{-1} [2]

$S^0_{298} = 388.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 379.2$ J·mol^{-1}·K^{-1} (298 K) [2]

$H_{15}Th_4$ (s) | Thorium Hydride | **$H_{15}Th_4$ (s)**

Th_4H_{15} (s) | | Th_4H_{15} (s)

$\Delta H^0_{298} = -843.8$ kJ·mol^{-1} [4]

$S^0_{298} = 217.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 304 + 57.99 \cdot 10^{-3} \cdot T + 0.39 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 565 K) [4]

He (g) | Helium | **He (g)**

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1]

$S^0_{298} = 126.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 20.8$ J·mol^{-1}·K^{-1} (298 K) [1]

Hf (s) | Hafnium alpha | **Hf (s)**

mp = 2470 K (2197 °C)

bp = 4872 K (4599 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1]

$S^0_{298} = 43.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 23.47 + 7.62 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2013 K) [4]

Hf (s) | Hafnium alpha | **Hf (s)**

$\Delta H^0_{2013} = 55.3$ kJ·mol^{-1} [4]

$S^0_{2013} = 101.4$ J·mol^{-1}·K^{-1} [4]

Hf (s) Hafnium beta **Hf** (s)

$\Delta H^0_{2013} = 62.1$ kJ·mol^{-1} [4] $S^0_{2013} = 104.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 14.35 + 9.08 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (2013 ... 2470 K) [4]
$\lg(p,K) = -31.62 \cdot 10^3 \cdot T^{-1} - 0.2 \cdot \lg(T) + 7.47$ (2013 ... 2470 K) [4]
{Reaction: evaporation as Hf(g)}

Hf (s) Hafnium beta **Hf** (s)

$\Delta H^0_{2470} = 77.9$ kJ·mol^{-1} [4] $S^0_{2470} = 111.9$ J·mol^{-1}·K^{-1} [4]

Hf (l) Hafnium **Hf** (l)

$\Delta H^0_{2470} = 101.7$ kJ·mol^{-1} [4] $S^0_{2470} = 121.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 33.47$ J·mol^{-1}·K^{-1} (2470 K) [4]

Hf (s) Hafnium beta **Hf** (s)

$\Delta H^0_{298} = 18.7$ kJ·mol^{-1} [1] $S^0_{298} = 61.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 17.7$ J·mol^{-1}·K^{-1} (298 K) [1]

Hf (l) Hafnium **Hf** (l)

$\Delta H^0_{298} = 46.2$ kJ·mol^{-1} [1] $S^0_{298} = 71.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 17.7$ J·mol^{-1}·K^{-1} (298 K) [1]

Hf (g) Hafnium **Hf** (g)

$\Delta H^0_{298} = 618.4 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 186.9 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 12.97 + 16.32 \cdot 10^{-3} \cdot T + 0.3 \cdot 10^6 \cdot T^{-2} - 3.69 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

HfI_2 (s) Hafnium(II) Iodide **HfI_2** (s)

$\Delta H^0_{298} = -272$ kJ·mol^{-1} [4] $S^0_{298} = 160.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 61.84 - 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HfI_4 (s) Hafnium(IV) Iodide **HfI_4 (s)**

$\Delta H^0_{298} = -493.7$ kJ·mol^{-1} [2] $S^0_{298} = 269.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 135.02 + 31.21 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 664 K) [4]

$\lg(p,K) = -7.42 \cdot 10^3 \cdot T^{-1} - 5.48 \cdot \lg(T) + 26.64$ (400 ... 664 K) [4]

{Reaction: evaporation as HfI_4(g)}

HfI_4 (g) Hafnium(IV) Iodide **HfI_4 (g)**

$\Delta H^0_{298} = -366.3$ kJ·mol^{-1} [4] $S^0_{298} = 472$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 108.45 + 0.08 \cdot 10^{-3} \cdot T - 0.27 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$HfLi_2O_3$ (s) Lithium Hafnate **$HfLi_2O_3$ (s)**

$Li_2O \cdot HfO_2$ (s) $Li_2O \cdot HfO_2$ (s)

mp = 1920 K (1647 °C)

$\Delta H^0_{298} = -1774$ kJ·mol^{-1} [4] $S^0_{298} = 96.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 134.73 + 34.39 \cdot 10^{-3} \cdot T - 2.94 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1920 K) [4]

HfN (s) Hafnium Nitride **HfN (s)**

$\Delta H^0_{298} = -373.6$ kJ·mol^{-1} [2] $S^0_{298} = 48.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 45.77 + 9.32 \cdot 10^{-3} \cdot T - 0.67 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HfO_2 (s) Hafnium(IV) Oxide alpha **HfO_2 (s)**

mp = 3083 K (2810 °C)

$\Delta H^0_{298} = -1117.5$ kJ·mol^{-1} [4] $S^0_{298} = 59.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 72.11 + 9.05 \cdot 10^{-3} \cdot T - 1.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1973 K) [4]

HfO_2 (s) Hafnium(IV) Oxide alpha **HfO_2 (s)**

$\Delta H^0_{1973} = -983.2$ kJ·mol^{-1} [4] $S^0_{1973} = 203.7$ J·mol^{-1}·K^{-1} [4]

HfO_2 (s) Hafnium(IV) Oxide beta **HfO_2 (s)**

$\Delta H^0_{1973} = -973.9$ kJ·mol^{-1} [4] $S^0_{1973} = 208.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 108.78$ J·mol^{-1}·K^{-1} (1973 K) [4]

HfO_3Sr (s) Strontium Hafnate **HfO_3Sr (s)**
$SrO \cdot HfO_2$ (s) $SrO \cdot HfO_2$ (s)

mp = 3163 K (2890 °C)
$\Delta H^0_{298} = -1787.8$ kJ·mol^{-1} [4] $S^0_{298} = 113$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 122.17 + 13.81 \cdot 10^{-3} \cdot T - 1.99 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HfS_2 (s) Hafnium Sulfide **HfS_2 (s)**

$\Delta H^0_{298} = [-585.8]$ kJ·mol^{-1} [5] $S^0_{298} = [75.3]$ J·mol^{-1}·K^{-1} [5]

HfS_3 (s) Hafnium Sulfide **HfS_3 (s)**

$\Delta H^0_{298} = [-623.4]$ kJ·mol^{-1} [5] $S^0_{298} = [96.2]$ J·mol^{-1}·K^{-1} [5]

Hg (l) Mercury **Hg (l)**

mp = 234 K (-39 °C) bp = 629 K (356 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 75.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 28.79 - 2.76 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 -629 K) [4]
$\lg(p,K) = -3.31 \cdot 10^{3} \cdot T^{-1} - 0.81 \cdot \lg(T) + 7.53$ (298 ... 629 K) [4]
{Reaction: evaporation}

Hg (g) Mercury **Hg (g)**

$\Delta H^0_{298} = 61.4$ kJ·mol^{-1} [1] $S^0_{298} = 175$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 20.79$ J·mol^{-1}·K^{-1} (298 K) [4]

HgI (g) Mercury(I) Iodide **HgI (g)**

$\Delta H^0_{298} = 133.5 \pm 4.6$ kJ·mol^{-1} [1] $S^0_{298} = 280.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 37.41 + 2.4 \cdot 10^{-3} \cdot T - 0.02 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HgI_2 (s) Mercury(II) Iodide alpha **HgI_2 (s)**

mp = 530 K (257 °C) bp = 626 K (353 °C)

$\Delta H^0_{298} = -105.4 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 181.3 \pm 6.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 65.2 + 42.1 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 402 K) [4]

$\lg(p,K) = -4.96 \cdot 10^3 \cdot T^{-1} - 2.23 \cdot \lg(T) + 14.59$ (298 ... 402 K) [4]

{Reaction: evaporation as HgI_2(g)}

HgI_2 (s) Mercury(II) Iodide alpha **HgI_2 (s)**

$\Delta H^0_{402} = -97.1$ kJ·mol^{-1} [4] $S^0_{402} = 205.2$ J·mol^{-1}·K^{-1} [4]

HgI_2 (s) Mercury(II) Iodide beta **HgI_2 (s)**

$\Delta H^0_{402} = -94.6$ kJ·mol^{-1} [4] $S^0_{402} = 211.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 84.12$ J·mol^{-1}·K^{-1} (402 K) [4]

$\lg(p,K) = -4.9 \cdot 10^3 \cdot T^{-1} - 2.68 \cdot \lg(T) + 15.62$ (402 ... 530 K) [4]

{Reaction: evaporation as HgI_2(g)}

HgI_2 (s) Mercury(II) Iodide beta **HgI_2 (s)**

$\Delta H^0_{530} = -83.9$ kJ·mol^{-1} [4] $S^0_{530} = 234.7$ J·mol^{-1}·K^{-1} [4]

HgI_2 (l) Mercury(II) Iodide **HgI_2 (l)**

$\Delta H^0_{530} = -64.9$ kJ·mol^{-1} [4] $S^0_{530} = 270.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 102.09$ J·mol^{-1}·K^{-1} (530 K) [4]

$\lg(p,K) = -4.4 \cdot 10^3 \cdot T^{-1} - 4.82 \cdot \lg(T) + 20.51$ (530 ... 626 K) [4]

{Reaction: evaporation as HgI_2(g)}

HgI_2 (l) Mercury(II) Iodide **HgI_2 (l)**

$\Delta H^0_{298} = -87.3$ kJ·mol^{-1} [1] $S^0_{298} = 215.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 102.09$ J·mol^{-1}·K^{-1} (530 K) [4]

HgI_2 (g) Mercury(II) Iodide **HgI_2 (g)**

$\Delta H^0_{298} = -16.1 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 336.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 62.34 + 0.01 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HgMg (s) Magnesium Mercury **HgMg (s)**
MgHg (s) MgHg (s)

$\Delta H^0_{298} = -56.4 \pm 1.7$ kJ·mol^{-1} [161] $S^0_{298} = [108.6]$ J·mol^{-1}·K^{-1} [166]

$HgMg_2$ (s) Magnesium Mercury **$HgMg_2$ (s)**
Mg_2Hg (s) Mg_2Hg (s)

$\Delta H^0_{298} = -79.8 \pm 2.8$ kJ·mol^{-1} [161] $S^0_{298} = [141.3]$ J·mol^{-1}·K^{-1} [164]

$HgMg_3$ (s) Magnesium Mercury **$HgMg_3$ (s)**
Mg_3Hg (s) Mg_3Hg (s)

$\Delta H^0_{298} = -84.2 \pm 4$ kJ·mol^{-1} [161] $S^0_{298} = [174]$ J·mol^{-1}·K^{-1} [162]

HgO (s) Mercury(II) Oxide **HgO (s)**

$\Delta H^0_{298} = -90.8 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 70.3 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 48.49 + 12.97 \cdot 10^{-3} \cdot T - 0.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 720 K) [4]
$\lg(p,K) = -5.45 \cdot 10^3 \cdot T^{-1} - 1.12 \cdot \lg(T) + 10.5$ (400 ... 720 K) [4]
{Reaction: decomposition 2/3HgO(s) = 2/3Hg(g) + 1/3O_2(g)}

HgO (g) Mercury(II) Oxide **HgO (g)**

$\Delta H^0_{298} = 41.8$ kJ·mol^{-1} [4] $S^0_{298} = 238.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 36.69 + 0.83 \cdot 10^{-3} \cdot T - 0.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HgO_3Se (s) Mercury(II) Selenite **HgO_3Se (s)**
$HgSeO_3$ (s) $HgSeO_3$ (s)

mp = 738 K (465 °C)
$\Delta H^0_{298} = -365.3$ kJ·mol^{-1} [2] $S^0_{298} = 162.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 83.68 + 61.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 738 K) [4]

HgO_4S (s) Mercury(II) Sulfate **HgO_4S (s)**

$HgSO_4$ (s) $HgSO_4$ (s)

$\Delta H^0_{298} = -707.5$ kJ·mol^{-1} [2] $S^0_{298} = 140.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 58.58 + 146.44 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 941 K) [4]

HgS (s) Mercury(II) Sulfide red **HgS (s)**

$\Delta H^0_{298} = -53.3$ kJ·mol^{-1} [2] $S^0_{298} = 82.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 43.77 + 15.56 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 618 K) [4]

HgS (s) Mercury(II) Sulfide red **HgS (s)**

$\Delta H^0_{618} = -37.1$ kJ·mol^{-1} [4] $S^0_{618} = 119.3$ J·mol^{-1}·K^{-1} [4]

HgS (s) Mercury(II) Sulfide black **HgS (s)**

$\Delta H^0_{618} = -33.1$ kJ·mol^{-1} [4] $S^0_{618} = 125.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 44.02 + 15.19 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (618 ... 862 K) [4]

HgS (g) Mercury(II) Sulfide **HgS (g)**

$\Delta H^0_{298} = 127.2$ kJ·mol^{-1} [4] $S^0_{298} = 254.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 37.38 + 0.02 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HgSe (s) Mercury(II) Selenide **HgSe (s)**

mp = 1043 K (770 °C)

$\Delta H^0_{298} = -54$ kJ·mol^{-1} [4] $S^0_{298} = 104.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 48.95 + 15.48 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 969 K) [4]

HgSe (g) Mercury(II) Selenide **HgSe (g)**

$\Delta H^0_{298} = 167.4$ kJ·mol^{-1} [4] $S^0_{298} = 267.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 37.41 - 0.06 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 969 K) [4]

$HgTe$ (s) Mercury(II) Telluride **$HgTe$ (s)**

$\Delta H^0_{298} = -35.6$ kJ·mol^{-1} [4] $S^0_{298} = 115.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 52.1 + 9.08 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 934 K) [4]

$HgTe$ (g) Mercury(II) Telluride **$HgTe$ (g)**

$\Delta H^0_{298} = 184.1$ kJ·mol^{-1} [4] $S^0_{298} = 275$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 37.41 - 0.04 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Hg_2I_2 (s) Mercury(I) Iodide **Hg_2I_2 (s)**

mp = 563 K (290 °C)

$\Delta H^0_{298} = -122$ kJ·mol^{-1} [4] $S^0_{298} = 245.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 98.45 + 33.01 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 563 K) [4]

Hg_2I_2 (s) Mercury(I) Iodide **Hg_2I_2 (s)**

$\Delta H^0_{563} = -92.5$ kJ·mol^{-1} [4] $S^0_{563} = 316.4$ J·mol^{-1}·K^{-1} [4]

Hg_2I_2 (l) Mercury(I) Iodide **Hg_2I_2 (l)**

$\Delta H^0_{563} = -65.3$ kJ·mol^{-1} [4] $S^0_{563} = 364.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 136.4$ J·mol^{-1}·K^{-1} (563 K) [4]

Hg_2I_2 (l) Mercury(I) Iodide **Hg_2I_2 (l)**

$\Delta H^0_{298} = -98.6$ kJ·mol^{-1} [1] $S^0_{298} = 273.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 136.4$ J·mol^{-1}·K^{-1} (298 K) [1]

Hg_2Mg (s) Magnesium Mercury **Hg_2Mg (s)**

$MgHg_2$ (s) $MgHg_2$ (s)

$\Delta H^0_{298} = -60.5 \pm 4.3$ kJ·mol^{-1} [161] $S^0_{298} = [184.5]$ J·mol^{-1}·K^{-1} [167]

Hg_2Mg_5 (s) Magnesium Mercury **Hg_2Mg_5 (s)**

Mg_5Hg_2 (s) Mg_5Hg_2 (s)

$\Delta H^0_{298} = -166 \pm 6.8$ kJ·mol^{-1} [161] S^0_{298} = [315.3] J·mol^{-1}·K^{-1} [163]

Hg_2O_4S (s) Mercury(I) Sulfate **Hg_2O_4S (s)**

Hg_2SO_4 (s) Hg_2SO_4 (s)

$\Delta H^0_{298} = -743.1$ kJ·mol^{-1} [2] $S^0_{298} = 200.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 131.8$ J·mol^{-1}·K^{-1} (298 K) [4]

Hg_3Mg_5 (s) Magnesium Mercury **Hg_3Mg_5 (s)**

Mg_5Hg_3 (s) Mg_5Hg_3 (s)

$\Delta H^0_{298} = -217.1 \pm 7.3$ kJ·mol^{-1} [161] S^0_{298} = [391.2] J·mol^{-1}·K^{-1} [165]

Ho (s) Holmium alpha **Ho (s)**

mp = 1743 K (1470 °C) bp = 2964 K (2691 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 75$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 32.31 - 17.66 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1701 K) [4]

$\lg(p,K) = -16.72 \cdot 10^3 \cdot T^{-1} - 2.66 \cdot \lg(T) + 15.07$ (1100 ... 1701 K) [4]

{Reaction: evaporation as Ho(g)}

Ho (s) Holmium alpha **Ho (s)**

$\Delta H^0_{1701} = 48.7$ kJ·mol^{-1} [2] $S^0_{1701} = 130.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 52.1$ J·mol^{-1}·K^{-1} (1701 K) [2]

Ho (s) Holmium beta **Ho (s)**

$\Delta H^0_{1701} = 53.4$ kJ·mol^{-1} [2] $S^0_{1701} = 133.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 28$ J·mol^{-1}·K^{-1} (1701 K) [2]

$\lg(p,K) = -14.96 \cdot 10^3 \cdot T^{-1} - 0.64 \cdot \lg(T) + 7.51$ (1701 ... 1743 K) [4]

{Reaction: evaporation as Ho(g)}

Ho (s) | Holmium beta | **Ho** (s)

ΔH^0_{1743} = 54.6 kJ·mol^{-1} [2] | S^0_{1743} = 134 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 28 J·mol^{-1}·K^{-1} (1743 K) [2]

Ho (l) | Holmium | **Ho** (l)

ΔH^0_{1743} = 66.7 kJ·mol^{-1} [2] | S^0_{1743} = 141 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 43.9 J·mol^{-1}·K^{-1} (1743 K) [2]

$\lg(p,K) = -15.74 \cdot 10^3 \cdot T^{-1} - 2.47 \cdot \lg(T) + 13.88$ (1743 ... 2000 K) [4]

{Reaction: evaporation as Ho(g)}

Ho (g) | Holmium | **Ho** (g)

ΔH^0_{298} = 300.8 kJ·mol^{-1} [2] | S^0_{298} = 195.6 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 22.05 - 2.95 \cdot 10^{-3} \cdot T - 0.07 \cdot 10^6 \cdot T^{-2} + 1.95 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HoI_3 (s) | Holmium(III) Iodide | **HoI_3** (s)

mp = 1283 K (1010 °C) | bp = 1570 K (1297 °C)

ΔH^0_{298} = – 622.9 ± 3 kJ·mol^{-1} [266] | S^0_{298} = [217.6] J·mol^{-1}·K^{-1} [267]

$C_p{}^0$= [102.09] J·mol^{-1}·K^{-1} (298 K) [188]

HoI_3 (g) | Holmium(III) Iodide | **HoI_3** (g)

ΔH^0_{298} = – 346.9 kJ·mol^{-1} [4] | S^0_{298} = 432.5 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 81.89 + 1.64 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

HoS (s) | Holmium Sulfide | **HoS** (s)

ΔH^0_{298} = [– 460.2] kJ·mol^{-1} [5] | S^0_{298} = [77.4] J·mol^{-1}·K^{-1} [5]

HoS (g) | Holmium Sulfide | **HoS** (g)

ΔH^0_{298} = 148.1 kJ·mol^{-1} [5] | S^0_{298} = [267.4] J·mol^{-1}·K^{-1} [5]

$C_p{}^0 = [37.13] + [0.15] \cdot 10^{-3} \cdot T + [-0.25] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

HoSe (s) Holmium Selenide **HoSe (s)**

ΔH^0_{298} = [– 368.2] kJ·mol^{-1} [5] S^0_{298} = [90] J·mol^{-1}·K^{-1} [5]

HoSe (g) Holmium Selenide **HoSe (g)**

ΔH^0_{298} = 197.5 kJ·mol^{-1} [5] S^0_{298} = [278] J·mol^{-1}·K^{-1} [5]

$C_p{}^0$= [37.29] + [0.07] $\cdot 10^{-3} \cdot T$ + [– 0.18] $\cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

HoTe (s) Holmium Telluride **HoTe (s)**

ΔH^0_{298} = [– 313.8] kJ·mol^{-1} [5] S^0_{298} = [97.1] J·mol^{-1}·K^{-1} [5]

HoTe (g) Holmium Telluride **HoTe (g)**

ΔH^0_{298} = 259.4 kJ·mol^{-1} [5] S^0_{298} = [286.7] J·mol^{-1}·K^{-1} [5]

$C_p{}^0$= [8.66] J·mol^{-1}·K^{-1} (298 K) [5]

Ho_2O_3 (s) Holmium(III) Oxide **Ho_2O_3 (s)**

mp = 2633 K (2360 °C)

ΔH^0_{298} = – 1880.7 kJ·mol^{-1} [2] S^0_{298} = 158.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 127.04 + 5.57 $\cdot 10^{-3} \cdot T$ – 1.22 $\cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Ho_2S_3 (s) Holmium Sulfide **Ho_2S_3 (s)**

ΔH^0_{298} = [– 1225.9] kJ·mol^{-1} [5] S^0_{298} = [207.1] J·mol^{-1}·K^{-1} [5]

Ho_2Se_3 (s) Holmium Selenide **Ho_2Se_3 (s)**

ΔH^0_{298} = [– 962.3] kJ·mol^{-1} [5] S^0_{298} = [244.8] J·mol^{-1}·K^{-1} [5]

Ho_2Te_3 (s) Holmium Telluride **Ho_2Te_3 (s)**

ΔH^0_{298} = [– 815.9] kJ·mol^{-1} [5] S^0_{298} = [265.7] J·mol^{-1}·K^{-1} [5]

I (g) Iodine **I** (g)

ΔH^0_{298} = 106.8 kJ·mol^{-1} [1] S^0_{298} = 180.8 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 20.39 + 0.4 ·10^{-3}·T + 0.03 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

IIn (s) Indium(I) Iodide **IIn** (s)
InI (s) InI (s)

mp = 638 K (365 °C) bp = 986 K (713 °C)
ΔH^0_{298} = – 115.9 kJ·mol^{-1} [2] S^0_{298} = 123.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 48.12 + 12.55 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 638 K) [4]

IIn (s) Indium(I) Iodide **IIn** (s)
InI (s) InI (s)

ΔH^0_{638} = – 97.5 kJ·mol^{-1} [4] S^0_{638} = 164.7 J·mol^{-1}·K^{-1} [4]

IIn (l) Indium(I) Iodide **IIn** (l)
InI (l) InI (l)

ΔH^0_{638} = – 81.4 kJ·mol^{-1} [4] S^0_{638} = 190 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 60.67 J·mol^{-1}·K^{-1} (638 K) [4]

IIn (g) Indium(I) Iodide **IIn** (g)
InI (g) InI (g)

ΔH^0_{298} = 8.1 kJ·mol^{-1} [4] S^0_{298} = 267.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 37.42 – 0.01 ·10^{-3}·T – 0.04 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

IK (s) Potassium Iodide **IK** (s)
KI (s) KI (s)

mp = 954 K (681 °C) bp = 1616 K (1343 °C)
ΔH^0_{298} = – 327.8 kJ·mol^{-1} [4] S^0_{298} = 106.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 38.83 + 28.91 ·10^{-3}·T + 0.49 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 954 K) [4]

IK (s) Potassium Iodide **IK** (s)
KI (s) KI (s)

ΔH^0_{954} = – 289.3 kJ·mol^{-1} [4] S^0_{954} = 172.9 J·mol^{-1}·K^{-1} [4]

IK (l) Potassium Iodide **IK** (l)
KI (l) KI (l)

$\Delta H^0_{954} = -265.3$ kJ·mol^{-1} [4] $S^0_{954} = 198.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 72.38$ J·mol^{-1}·K^{-1} (954 K) [4]

IK (l) Potassium Iodide **IK** (l)
KI (l) KI (l)

$\Delta H^0_{298} = -312.5$ kJ·mol^{-1} [1] $S^0_{298} = 114.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 72.4$ J·mol^{-1}·K^{-1} (298 K) [1]

IK (g) Potassium Iodide **IK** (g)
KI (g) KI (g)

$\Delta H^0_{298} = -125.5 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 258.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.41 + 0.88 \cdot 10^{-3} \cdot T - 0.04 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -11.15 \cdot 10^{3} \cdot T^{-1} - 3.06 \cdot \lg(T) + 17.21$ (700 ... 954 K) [4]
{Reaction: evaporation of KI(s)}

IKO_3 (s) Potassium Iodate **IKO_3** (s)
KIO_3 (s) KIO_3 (s)

$\Delta H^0_{298} = -501$ kJ·mol^{-1} [7] $S^0_{298} = 151$ J·mol^{-1}·K^{-1} [7]
$C_p{}^0 = 106$ J·mol^{-1}·K^{-1} (298 K) [7]

IKO_4 (s) Potassium Periodate **IKO_4** (s)
KIO_4 (s) KIO_4 (s)

$\Delta H^0_{298} = -467$ kJ·mol^{-1} [7] $S^0_{298} = 176$ J·mol^{-1}·K^{-1} [7]

ILi (s) Lithium Iodide **ILi** (s)
LiI (s) LiI (s)

mp = 742 K (469 °C) bp = 1447 K (1174 °C)
$\Delta H^0_{298} = -270.4$ kJ·mol^{-1} [4] $S^0_{298} = 86.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 45.93 + 22.54 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 742 K) [4]

ILi (s) Lithium Iodide **ILi** (s)

LiI (s) LiI (s)

$\Delta H^0_{742} = -245$ kJ·mol^{-1} [4] $S^0_{742} = 138.3$ J·mol^{-1}·K^{-1} [4]

ILi (l) Lithium Iodide **ILi** (l)

LiI (l) LiI (l)

$\Delta H^0_{742} = -230.3$ kJ·mol^{-1} [4] $S^0_{742} = 158$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 63.18$ J·mol^{-1}·K^{-1} (742 K) [4]

ILi (l) Lithium Iodide **ILi** (l)

LiI (l) LiI (l)

$\Delta H^0_{298} = -258.3$ kJ·mol^{-1} [1] $S^0_{298} = 98.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 63.2$ J·mol^{-1}·K^{-1} (298 K) [1]

ILi (g) Lithium Iodide **ILi** (g)

LiI (g) LiI (g)

$\Delta H^0_{298} = -91 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 232.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 37 + 0.97 \cdot 10^{-3} \cdot T - 0.24 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -9.67 \cdot 10^3 \cdot T^{-1} - 2.86 \cdot \lg(T) + 16.1$ (600 ... 742 K) [4]

{Reaction: evaporation of LiI(s)}

IMg (g) Magnesium(I) Iodide **IMg** (g)

MgI (g) MgI (g)

$\Delta H^0_{298} = 24.6 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 252.7 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 37.35 + 2.09 \cdot 10^{-3} \cdot T - 0.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

IMo (g) Molybdenum(I) Iodide **IMo** (g)

MoI (g) MoI (g)

$\Delta H^0_{298} = 498.7 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 279 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 38.24 - 0.8 \cdot 10^{-3} \cdot T - 0.19 \cdot 10^6 \cdot T^{-2} + 0.63 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

INO (g) Nitrosyl Iodide **INO (g)**
NOI (g) NOI (g)

$\Delta H^0_{298} = 112.1 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 283$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 50.78 + 3.59 \cdot 10^{-3} \cdot T - 0.51 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

INa (s) Sodium Iodide **INa (s)**
NaI (s) NaI (s)

mp = 934 K (661 °C) bp = 1577 K (1304 °C)
$\Delta H^0_{298} = -287.8$ kJ·mol^{-1} [4] $S^0_{298} = 98.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 41.95 + 25.42 \cdot 10^{-3} \cdot T + 0.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 934 K) [4]
$\lg(p,K) = -11.15 \cdot 10^3 \cdot T^{-1} - 3.03 \cdot \lg(T) + 17.01$ (700 ... 934 K) [4]
{Reaction: evaporation (total pressure)}

INa (s) Sodium Iodide **INa (s)**
NaI (s) NaI (s)

$\Delta H^0_{934} = -250.6$ kJ·mol^{-1} [4] $S^0_{934} = 163.7$ J·mol^{-1}·K^{-1} [4]

INa (l) Sodium Iodide **INa (l)**
NaI (l) NaI (l)

$\Delta H^0_{934} = -226.9$ kJ·mol^{-1} [4] $S^0_{934} = 189.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 67.11$ J·mol^{-1}·K^{-1} (934 K) [4]
$\lg(p,K) = -10.07 \cdot 10^3 \cdot T^{-1} - 3.46 \cdot \lg(T) + 17.14$ (934 ... 1686 K) [4]
{Reaction: evaporation (total pressure)}

INa (l) Sodium Iodide **INa (l)**
NaI (l) NaI (l)

$\Delta H^0_{298} = -266.5$ kJ·mol^{-1} [1] $S^0_{298} = 120.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 52.2$ J·mol^{-1}·K^{-1} (298 K) [1]

INa (g) Sodium Iodide **INa (g)**
NaI (g) NaI (g)

$\Delta H^0_{298} = -84.8$ kJ·mol^{-1} [4] $S^0_{298} = 249$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.37 + 0.82 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$INaO_4$ (s) Sodium Periodate **$INaO_4$ (s)**

$NaIO_4$ (s) $NaIO_4$ (s)

$\Delta H^0_{298} = -429$ kJ·mol^{-1} [7] $S^0_{298} = 163$ J·mol^{-1}·K^{-1} [7]

INi (g) Nickel(I) Iodide **INi (g)**

NiI (g) NiI (g)

$\Delta H^0_{298} = 246.9$ kJ·mol^{-1} [4] $S^0_{298} = 270.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 39.5 + 0.85 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

IO (g) Iodine Oxide **IO (g)**

$\Delta H^0_{298} = 126 \pm 18$ kJ·mol^{-1} [1] $S^0_{298} = 239.6 \pm 1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 32.9$ J·mol^{-1}·K^{-1} (298 K) [1]

IO_2 (g) Iodine Oxide **IO_2 (g)**

OIO (g) OIO (g)

$\Delta H^0_{298} = 159.3 \pm 25$ kJ·mol^{-1} [1] $S^0_{298} = 281.5 \pm 4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 46.7$ J·mol^{-1}·K^{-1} (298 K) [1]

IO_2 (g) Iodine Oxide **IO_2 (g)**

IOO (g) IOO (g)

$\Delta H^0_{298} = 116.5 \pm 40$ kJ·mol^{-1} [1] $S^0_{298} = 296.4 \pm 4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 48.73$ J·mol^{-1}·K^{-1} (298 K) [1]

IO_3 (g) Iodine Oxide **IO_3 (g)**

$\Delta H^0_{298} = 241.9 \pm 50$ kJ·mol^{-1} [1] $S^0_{298} = 293 \pm 4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 61.56$ J·mol^{-1}·K^{-1} (298 K) [1]

IO_3Re (g) Rhenium Iodide Oxide **IO_3Re (g)**

ReO_3I (g) ReO_3I (g)

$\Delta H^0_{298} = -443.9$ kJ·mol^{-1} [49] $S^0_{298} = [334.7]$ J·mol^{-1}·K^{-1} [49]

$C_p{}^0 = 104.6$ J·mol^{-1}·K^{-1} (298 K) [50]

IPb (g) Lead(I) Iodide **IPb** (g)
PbI (g) PbI (g)

$\Delta H^0_{298} = 107.7 \pm 37.7$ kJ·mol^{-1} [1] $S^0_{298} = 280.1 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 37.21 + 0.75 \cdot 10^{-3} \cdot T - 0.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

IRb (s) Rubidium Iodide **IRb** (s)
RbI (s) RbI (s)

mp = 929 K (656 °C) bp = 1611 K (1338 °C)
$\Delta H^0_{298} = -331.8$ kJ·mol^{-1} [4] $S^0_{298} = 118.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 49.08 + 11.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 929 K) [4]
$\lg(p,K) = -11.03 \cdot 10^3 \cdot T^{-1} - 2.43 \cdot \lg(T) + 15.22$ (700 ... 929 K) [4]
{Reaction: evaporation (total pressure)}

IRb (s) Rubidium Iodide **IRb** (s)
RbI (s) RbI (s)

$\Delta H^0_{929} = -296.5$ kJ·mol^{-1} [4] $S^0_{929} = 181.7$ J·mol^{-1}·K^{-1} [4]

IRb (l) Rubidium Iodide **IRb** (l)
RbI (l) RbI (l)

$\Delta H^0_{929} = -274.4$ kJ·mol^{-1} [4] $S^0_{929} = 205.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 66.53$ J·mol^{-1}·K^{-1} (929 K) [4]
$\lg(p,K) = -10.26 \cdot 10^3 \cdot T^{-1} - 3.37 \cdot \lg(T) + 17.17$ (929 ... 1611 K) [4]
{Reaction: evaporation (total pressure)}

IRb (g) Rubidium Iodide **IRb** (g)
RbI (g) RbI (g)

$\Delta H^0_{298} = -127.9$ kJ·mol^{-1} [4] $S^0_{298} = 271.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.41 + 0.88 \cdot 10^{-3} \cdot T - 0.04 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ISi (g) Iodosilylidyne **ISi** (g)
SiI (g) SiI (g)

$\Delta H^0_{298} = 316.6 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 253.9$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 39.04$ J·mol^{-1}·K^{-1} (298 K) [1]

ISr (g) Strontium(I) Iodide **ISr** (g)
SrI (g) SrI (g)

$\Delta H^0_{298} = -30.5 \pm 83.7$ kJ·mol^{-1} [1] $S^0_{298} = 272.2 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.4 + 0.66 \cdot 10^{-3} \cdot T - 0.04 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ITi (g) Titanium(I) Iodide **ITi** (g)
TiI (g) TiI (g)

$\Delta H^0_{298} = 274.1 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 268.8 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 43.72 + 0.59 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1939 K) [4]

ITl (s) Thallium(I) Iodide **ITl** (s)
TlI (s) alpha TlI (s)

mp = 715 K (442 °C) bp = 1105 K (832 °C)
$\Delta H^0_{298} = -123.7$ kJ·mol^{-1} [4] $S^0_{298} = 127.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 48.37 + 13.89 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 451 K) [4]

ITl (s) Thallium(I) Iodide **ITl** (s)
TlI (s) alpha TlI (s)

$\Delta H^0_{451} = -115.5$ kJ·mol^{-1} [4] $S^0_{451} = 149.8$ J·mol^{-1}·K^{-1} [4]

ITl (s) Thallium(I) Iodide **ITl** (s)
TlI (s) beta TlI (s)

$\Delta H^0_{451} = -114.6$ kJ·mol^{-1} [4] $S^0_{451} = 151.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 32.31 + 47.15 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (451 ... 715 K) [4]
$\lg(p,K) = -7.66 \cdot 10^3 \cdot T^{-1} - 2.74 \cdot \lg(T) + 15.71$ (451 ... 715 K) [4]
{Reaction: evaporation (total pressure)}

ITl (s) Thallium(I) Iodide **ITl** (s)
TlI (s) beta TlI (s)

$\Delta H^0_{715} = -98.8$ kJ·mol^{-1} [4] $S^0_{715} = 179.2$ J·mol^{-1}·K^{-1} [4]

ITl (l) Thallium(I) Iodide **ITl** (l)
TlI (l) TlI (l)

$\Delta H^0_{715} = -84.1$ kJ·mol^{-1} [4] $S^0_{715} = 199.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 71.97$ J·mol^{-1}·K^{-1} (715 K) [4]
$\lg(p,K) = -7.33 \cdot 10^3 \cdot T^{-1} - 4.18 \cdot \lg(T) + 19.35$ (715 ... 1105 K) [4]
{Reaction: evaporation (total pressure)}

ITl (g) Thallium(I) Iodide **ITl** (g)
TlI (g) TlI (g)

$\Delta H^0_{298} = 16$ kJ·mol^{-1} [4] $S^0_{298} = 274.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.4 - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

IZr (g) Zirconium(I) Iodide **IZr** (g)
ZrI (g) ZrI (g)

$\Delta H^0_{298} = 402.9$ kJ·mol^{-1} [4] $S^0_{298} = 275.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.38 + 0.93 \cdot 10^{-3} \cdot T - 0.07 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_2 (s) Iodine **I_2** (s)

mp = 387 K (114 °C) bp = 458 K (185 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 116.1 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 30.13 + 81.63 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 387 K) [4]
$\lg(p,K) = -3.52 \cdot 10^3 \cdot T^{-1} - 2.02 \cdot \lg(T) + 13.38$ (298 ... 387 K) [4]
{Reaction: evaporation as I_2(g)}

I_2 (s) Iodine **I_2** (s)

$\Delta H^0_{387} = 5.1$ kJ·mol^{-1} [4] $S^0_{387} = 131.2$ J·mol^{-1}·K^{-1} [4]

I_2 (l) Iodine **I_2** (l)

$\Delta H^0_{387} = 20.8$ kJ·mol^{-1} [4] $S^0_{387} = 171.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 82.01$ J·mol^{-1}·K^{-1} (387 K) [4]
$\lg(p,K) = -3.23 \cdot 10^3 \cdot T^{-1} - 4.86 \cdot \lg(T) + 19.98$ (387 ... 458 K) [4]
{Reaction: evaporation as I_2(g)}

I_2 (l) Iodine **I_2 (l)**

ΔH^0_{298} = 13.5 kJ·mol^{-1} [1] S^0_{298} = 150.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 80.7 J·mol^{-1}·K^{-1} (298 K) [1]

I_2 (g) Iodine **I_2 (g)**

ΔH^0_{298} = 62.2 kJ·mol^{-1} [4] S^0_{298} = 260.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 37.25 + 0.78 ·10^{-3}·T – 0.05 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_2In (g) Indium Iodide **I_2In (g)**
InI_2 (g) InI_2 (g)

ΔH^0_{298} = – 23.4 kJ·mol^{-1} [4] S^0_{298} = 351.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 58.17 + 0.03 ·10^{-3}·T – 0.1 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_2Ir (s) Iridium(II) Iodide **I_2Ir (s)**
IrI_2 (s) IrI_2 (s)

ΔH^0_{298} = – 83.7 kJ·mol^{-1} [2] S^0_{298} = 159 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 79.5 J·mol^{-1}·K^{-1} (298 K) [2]

I_2K_2 (g) Potassium Iodide **I_2K_2 (g)**
$(KI)_2$ (g) $(KI)_2$ (g)

ΔH^0_{298} = – 422.2 ± 4.2 kJ·mol^{-1} [1] S^0_{298} = 395.8 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 83.14 – 0.08 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
lg(p,K) = – 13.26 ·10^3·T^{-1} – 5.29 · lg(T) + 25.72 (700 ... 954 K) [4]
{Reaction: evaporation of KI(s)}

I_2Li_2 (g) Lithium Iodide **I_2Li_2 (g)**
$(LiI)_2$ (g) $(LiI)_2$ (g)

ΔH^0_{298} = – 361.9 ± 16.7 kJ·mol^{-1} [1] S^0_{298} = 330.6 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 82.7 + 0.29 ·10^{-3}·T – 0.6 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
lg(p,K) = – 9.84 ·10^3·T^{-1} – 4.84 · lg(T) + 22.62 (600 ... 742 K) [4]
{Reaction: evaporation of LiI(s)}

I_2Mg (s) Magnesium(II) Iodide **I_2Mg (s)**

MgI_2 (s) MgI_2 (s)

mp = 907 K (634 °C) bp = 1255 K (982 °C)

$\Delta H^0_{298} = -367.1$ kJ·mol^{-1} [4] $S^0_{298} = 129.7 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 76.1 + 13.45 \cdot 10^{-3} \cdot T - 0.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 907 K) [4]

$\lg(p,K) = -11.17 \cdot 10^3 \cdot T^{-1} - 2.87 \cdot \lg(T) + 18.38$ (600 ... 907 K) [4]

{Reaction: evaporation as MgI_2(g)}

I_2Mg (s) Magnesium(II) Iodide **I_2Mg (s)**

MgI_2 (s) MgI_2 (s)

$\Delta H^0_{907} = -316.9$ kJ·mol^{-1} [4] $S^0_{907} = 220.2$ J·mol^{-1}·K^{-1} [4]

I_2Mg (l) Magnesium(II) Iodide **I_2Mg (l)**

MgI_2 (l) MgI_2 (l)

$\Delta H^0_{907} = -282.4$ kJ·mol^{-1} [4] $S^0_{907} = 258.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 100.42$ J·mol^{-1}·K^{-1} (907 K) [4]

$\lg(p,K) = -10.04 \cdot 10^3 \cdot T^{-1} - 4.61 \cdot \lg(T) + 22.29$ (907 ... 1255 K) [4]

{Reaction: evaporation as MgI_2(g)}

I_2Mg (l) Magnesium(II) Iodide **I_2Mg (l)**

MgI_2 (l) MgI_2 (l)

$\Delta H^0_{298} = -342.3$ kJ·mol^{-1} [1] $S^0_{298} = 155.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 74.8$ J·mol^{-1}·K^{-1} (298 K) [1]

I_2Mg (g) Magnesium(II) Iodide **I_2Mg (g)**

MgI_2 (g) MgI_2 (g)

$\Delta H^0_{298} = -160.3 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 317.5 \pm 2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 62.12 + 0.14 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_2Mn (s) Manganese(II) Iodide **I_2Mn (s)**

MnI_2 (s) MnI_2 (s)

mp = 911 K (638 °C)

$\Delta H^0_{298} = -266.1$ kJ·mol^{-1} [2] $S^0_{298} = 171.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 75.3$ J·mol^{-1}·K^{-1} (298 K) [2]

I_2Mn (g) Manganese(II) Iodide **I_2Mn (g)**

MnI_2 (g) MnI_2 (g)

$\Delta H^0_{298} = -58.8$ kJ·mol^{-1} [58] $S^0_{298} = 334$ J·mol^{-1}·K^{-1} [58]

I_2Mo (s) Molybdenum(II) Iodide **I_2Mo (s)**

MoI_2 (s) MoI_2 (s)

bp = 1307 K (1034 °C)

$\Delta H^0_{298} = -103.9 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 149.7 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 78.98 + 12.47 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1307 K) [4]

I_2Mo (g) Molybdenum(II) Iodide **I_2Mo (g)**

MoI_2 (g) MoI_2 (g)

$\Delta H^0_{298} = 257.7 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 339.3 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 74.02 - 8.64 \cdot 10^{-3} \cdot T + 1.81 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_2Ni (s) Nickel(II) Iodide **I_2Ni (s)**

NiI_2 (s) NiI_2 (s)

mp = 1070 K (797 °C)

$\Delta H^0_{298} = -83.7 \pm 8.4$ kJ·mol^{-1} [57] $S^0_{298} = 146.4 \pm 8.4$ J·mol^{-1}·K^{-1} [57]

$C_p^0 = 79.95 + 5.55 \cdot 10^{-3} \cdot T - 0.37 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 970 K) [4]

I_2Ni (g) Nickel(II) Iodide **I_2Ni (g)**

NiI_2 (g) NiI_2 (g)

$\Delta H^0_{298} = 130.5 \pm 20.9$ kJ·mol^{-1} [57] $S^0_{298} = 334.7 \pm 4.2$ J·mol^{-1}·K^{-1} [57]

I_2O (g) Iodine Oxide **I_2O (g)**
IOI (g) IOI (g)

ΔH^0_{298} = 119.5 ± 25 kJ·mol^{-1} [1] S^0_{298} = 308.1 ± 4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 51.87 J·mol^{-1}·K^{-1} (298 K) [1]

I_2O (g) Iodine Oxide **I_2O (g)**
IIO (g) IIO (g)

ΔH^0_{298} = 106.7 ± 40 kJ·mol^{-1} [1] S^0_{298} = 330.6 ± 4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 52.36 J·mol^{-1}·K^{-1} (298 K) [1]

I_2OTh (s) Thorium Iodide Oxide **I_2OTh (s)**
$ThOI_2$ (s) $ThOI_2$ (s)

ΔH^0_{298} = – 988.8 kJ·mol^{-1} [4] S^0_{298} = 151 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 107.6 + 4.67 ·10^{-3}·T – 0.46 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1339 K) [4]

I_2O_2W (s) Tungsten Iodide Oxide **I_2O_2W (s)**
WO_2I_2 (s) WO_2I_2 (s)

ΔH^0_{298} = – 721.7 ± 8.4 kJ·mol^{-1} [281]

I_2O_2W (g) Tungsten Iodide Oxide **I_2O_2W (g)**
WO_2I_2 (g) WO_2I_2 (g)

ΔH^0_{298} = – 428.9 kJ·mol^{-1} [2] S^0_{298} = 377.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 92.1 J·mol^{-1}·K^{-1} (298 K) [2]

I_2Pb (s) Lead(II) Iodide **I_2Pb (s)**
PbI_2 (s) PbI_2 (s)

mp = 683 K (410 °C) bp = 1120 K (847 °C)
ΔH^0_{298} = – 175.4 ± 0.4 kJ·mol^{-1} [1] S^0_{298} = 174.8 ± 0.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 62.53 + 33.4 ·10^{-3}·T + 0.45 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 683 K) [4]
lg(p,K) = – 9.46 ·10^{3}·T^{-1} – 3.27 · lg(T) + 19.25 (500 ... 683 K) [4]
{Reaction: evaporation as PbI_2(g)}

I_2Pb (s) Lead(II) Iodide **I_2Pb (s)**

PbI_2 (s) PbI_2 (s)

$\Delta H^0_{683} = -144.2$ kJ·mol^{-1} [4] $S^0_{683} = 241.6$ J·mol^{-1}·K^{-1} [4]

I_2Pb (l) Lead(II) Iodide **I_2Pb (l)**

PbI_2 (l) PbI_2 (l)

$\Delta H^0_{683} = -120.7$ kJ·mol^{-1} [4] $S^0_{683} = 275.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 108.58$ J·mol^{-1}·K^{-1} (683 K) [4]

$\lg(p,K) = -9.09 \cdot 10^3 \cdot T^{-1} - 6.16 \cdot \lg(T) + 26.9$ (683 ... 1120 K) [4]

{Reaction: evaporation as PbI_2(g)}

I_2Pb (g) Lead(II) Iodide **I_2Pb (g)**

PbI_2 (g) PbI_2 (g)

$\Delta H^0_{298} = -3.2 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 359.6 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 58.21 - 0.01 \cdot 10^{-3} \cdot T - 0.54 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_2Pd (s) Palladium(II) Iodide **I_2Pd (s)**

PdI_2 (s) PdI_2 (s)

$\Delta H^0_{298} = -63.2$ kJ·mol^{-1} [2] $S^0_{298} = 180$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 68.2 + 23.01 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1156 K) [4]

$\lg(p,K) = -6.97 \cdot 10^3 \cdot T^{-1} - 2.47 \cdot \lg(T) + 13.6$ (500 ... 1156 K) [4]

{Reaction: decomposition PdI_2(s) = Pd(s) + I_2(g)}

I_2Pt (s) Platinum(II) Iodide **I_2Pt (s)**

PtI_2 (s) PtI_2 (s)

$\Delta H^0_{298} = -51.4 \pm 3.3$ kJ·mol^{-1} [61] $S^0_{298} = 119.3 \pm 5.4$ J·mol^{-1}·K^{-1} [61]

I_2Si (g) Diiodosilylene **I_2Si (g)**

SiI_2 (g) SiI_2 (g)

$\Delta H^0_{298} = 92.5 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 321 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 57.95 + 0.16 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_2Sn (s) Tin(II) Iodide **I_2Sn (s)**

SnI_2 (s) SnI_2 (s)

mp = 593 K (320 °C) bp = 990 K (717 °C)

$\Delta H^0_{298} = -148.7$ kJ·mol^{-1} [4] $S^0_{298} = 168.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 70.29 + 29.29 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 593 K) [4]

I_2Sn (s) Tin(II) Iodide **I_2Sn (s)**

SnI_2 (s) SnI_2 (s)

$\Delta H^0_{593} = -124.2$ kJ·mol^{-1} [4] $S^0_{593} = 225.2$ J·mol^{-1}·K^{-1} [4]

I_2Sn (l) Tin(II) Iodide **I_2Sn (l)**

SnI_2 (l) SnI_2 (l)

$\Delta H^0_{593} = -105.3$ kJ·mol^{-1} [4] $S^0_{593} = 256.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 94.56$ J·mol^{-1}·K^{-1} (593 K) [4]

$\lg(p,K) = -7.41 \cdot 10^3 \cdot T^{-1} - 4.03 \cdot \lg(T) + 19.56$ (593 ... 990 K) [4]

{Reaction: evaporation as SnI_2(g)}

I_2Sn (g) Tin(II) Iodide **I_2Sn (g)**

SnI_2 (g) SnI_2 (g)

$\Delta H^0_{298} = -0.9$ kJ·mol^{-1} [4] $S^0_{298} = 343.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 61.92 - 0.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_2Sr (s) Strontium(II) Iodide **I_2Sr (s)**

SrI_2 (s) SrI_2 (s)

mp = 811 K (538 °C) bp = 2182 K (1909 °C)

$\Delta H^0_{298} = -561.5 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 159.1 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 69.84 + 27.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 811 K) [4]

I_2Sr (s) Strontium(II) Iodide **I_2Sr (s)**

SrI_2 (s) SrI_2 (s)

$\Delta H^0_{811} = -517.9$ kJ·mol^{-1} [4] $S^0_{811} = 243$ J·mol^{-1}·K^{-1} [4]

I_2Sr (l) Strontium(II) Iodide **I_2Sr (l)**

SrI_2 (l) SrI_2 (l)

$\Delta H^0_{811} = -498.2$ kJ·mol^{-1} [4] $S^0_{811} = 267.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 110.04$ J·mol^{-1}·K^{-1} (811 K) [4]

$\lg(p,K) = -15.35 \cdot 10^3 \cdot T^{-1} - 5.74 \cdot \lg(T) + 26.2$ (900 ... 2000 K) [4]

{Reaction: evaporation as SrI_2(g)}

I_2Sr (l) Strontium(II) Iodide **I_2Sr (l)**

SrI_2 (l) SrI_2 (l)

$\Delta H^0_{298} = -548.7$ kJ·mol^{-1} [1] $S^0_{298} = 172.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 77.9$ J·mol^{-1}·K^{-1} (298 K) [1]

I_2Sr (g) Strontium(II) Iodide **I_2Sr (g)**

SrI_2 (g) SrI_2 (g)

$\Delta H^0_{298} = -274.9 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 339.6 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 62.33 + 0.02 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_2Te (g) Tellurium(II) Iodide **I_2Te (g)**

TeI_2 (g) TeI_2 (g)

$\Delta H^0_{298} = 81.6 \pm 10.5$ kJ·mol^{-1} [53] $S^0_{298} = 333.1 \pm 12.6$ J·mol^{-1}·K^{-1} [53]

I_2Ti (s) Titanium(II) Iodide **I_2Ti (s)**

TiI_2 (s) TiI_2 (s)

bp = 1358 K (1085 °C)

$\Delta H^0_{298} = -266.1 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 122.6 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 84.15 + 7.16 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1358 K) [4]

I_2Ti (g) Titanium(II) Iodide **I_2Ti (g)**

TiI_2 (g) TiI_2 (g)

$\Delta H^0_{298} = -19.7 \pm 33.5$ kJ·mol^{-1} [1] $S^0_{298} = 323.7 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 61.49 + 1.12 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_2Tl_2 (g) Thallium(I) Iodide **I_2Tl_2 (g)**

Tl_2I_2 (g) Tl_2I_2 (g)

$\Delta H^0_{298} = -59.6$ kJ·mol^{-1} [254, 8] $S^0_{298} = 424.4$ J·mol^{-1}·K^{-1} [254, 8]

I_2V (s) Vanadium(II) Iodide **I_2V (s)**

VI_2 (s) VI_2 (s)

mp = 1050 K (777 °C) bp = 1200 K (927 °C)

$\Delta H^0_{298} = -256.3$ kJ·mol^{-1} [4] $S^0_{298} = 146.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 72.34 + 8.37 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

I_2V (g) Vanadium(II) Iodide **I_2V (g)**

VI_2 (g) VI_2 (g)

$\Delta H^0_{298} = -21.8$ kJ·mol^{-1} [2] $S^0_{298} = 276.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 100.4$ J·mol^{-1}·K^{-1} (298 K) [2]

I_2Zn (s) Zinc(II) Iodide **I_2Zn (s)**

ZnI_2 (s) ZnI_2 (s)

mp = 719 K (446 °C) bp = 999 K (726 °C)

$\Delta H^0_{298} = -208.2$ kJ·mol^{-1} [2] $S^0_{298} = 161.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 85.14 + 11.46 \cdot 10^{-3} \cdot T - 1.26 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 719 K) [4]

$\lg(p,K) = -8.11 \cdot 10^{3} \cdot T^{-1} - 3.64 \cdot \lg(T) + 19.51$ (500 ... 719 K) [4]

{Reaction: evaporation as ZnI_2(g)}

I_2Zn (s) Zinc(II) Iodide **I_2Zn (s)**

ZnI_2 (s) ZnI_2 (s)

$\Delta H^0_{719} = -172.3$ kJ·mol^{-1} [4] $S^0_{719} = 235.4$ J·mol^{-1}·K^{-1} [4]

I_2Zn (l) Zinc(II) Iodide **I_2Zn (l)**

ZnI_2 (l) ZnI_2 (l)

$\Delta H^0_{719} = -153.5$ kJ·mol^{-1} [4] $S^0_{719} = 261.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 121.34$ J·mol^{-1}·K^{-1} (719 K) [4]

$\lg(p,K) = -8.36 \cdot 10^3 \cdot T^{-1} - 7.6 \cdot \lg(T) + 31.17$ (719 ... 999 K) [4]

{Reaction: evaporation as ZnI_2(g)}

I_2Zn (g) Zinc(II) Iodide **I_2Zn (g)**

ZnI_2 (g) ZnI_2 (g)

$\Delta H^0_{298} = -63.4$ kJ·mol^{-1} [4] $S^0_{298} = 328.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 58.16$ J·mol^{-1}·K^{-1} (298 K) [4]

I_2Zr (s) Zirconium(II) Iodide **I_2Zr (s)**

ZrI_2 (s) ZrI_2 (s)

mp = 700 K (427 °C)

$\Delta H^0_{298} = -277.8$ kJ·mol^{-1} [4] $S^0_{298} = 150.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 102.14 - 6.59 \cdot 10^{-3} \cdot T - 0.54 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 700 K) [4]

I_2Zr (s) Zirconium(II) Iodide **I_2Zr (s)**

ZrI_2 (s) ZrI_2 (s)

$\Delta H^0_{700} = -239.1$ kJ·mol^{-1} [4] $S^0_{700} = 232.3$ J·mol^{-1}·K^{-1} [4]

I_2Zr (l) Zirconium(II) Iodide **I_2Zr (l)**

ZrI_2 (l) ZrI_2 (l)

$\Delta H^0_{700} = -214$ kJ·mol^{-1} [4] $S^0_{700} = 268.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 31.67 + 90.49 \cdot 10^{-3} \cdot T + 1.19 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (700 ... 1294 K) [4]

I_2Zr (l) Zirconium(II) Iodide **I_2Zr (l)**

ZrI_2 (l) ZrI_2 (l)

$\Delta H^0_{298} = -234.2$ kJ·mol^{-1} [1] $S^0_{298} = 186.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 94.1$ J·mol^{-1}·K^{-1} (298 K) [1]

I_2Zr (g) Zirconium(II) Iodide **I_2Zr (g)**

ZrI_2 (g) ZrI_2 (g)

$\Delta H^0_{298} = -85.3$ kJ·mol^{-1} [4] $S^0_{298} = 344.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 58.17 + 0.02 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3Er (s) Erbium(III) Iodide **I_3Er (s)**

ErI_3 (s) ErI_3 (s)

$\Delta H^0_{298} = -619 \pm 3$ kJ·mol^{-1} [266] $S^0_{298} = [217.6]$ J·mol^{-1}·K^{-1} [267]

I_3Eu (s) Europium(III) Iodide **I_3Eu (s)**

EuI_3 (s) EuI_3 (s)

$\Delta H^0_{298} = -538 \pm 10$ kJ·mol^{-1} [266] $S^0_{298} = [215.9]$ J·mol^{-1}·K^{-1} [267]

I_3In (s) Indium(III) Iodide **I_3In (s)**

InI_3 (s) InI_3 (s)

mp = 480 K (207 °C) bp = 719 K (446 °C)

$\Delta H^0_{298} = -234.7$ kJ·mol^{-1} [2] $S^0_{298} = 203.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 164.01$ J·mol^{-1}·K^{-1} (298 K) [4]

I_3In (s) Indium(III) Iodide **I_3In (s)**

InI_3 (s) InI_3 (s)

$\Delta H^0_{480} = -204.9$ kJ·mol^{-1} [4] $S^0_{480} = 281.4$ J·mol^{-1}·K^{-1} [4]

I_3In (l) Indium(III) Iodide **I_3In (l)**

InI_3 (l) InI_3 (l)

$\Delta H^0_{480} = -184.8$ kJ·mol^{-1} [4] $S^0_{480} = 323.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 135.98$ J·mol^{-1}·K^{-1} (480 K) [4]

$\lg(p,K) = -5.54 \cdot 10^3 \cdot T^{-1} - 6.42 \cdot \lg(T) + 26.05$ (480 ... 719 K) [4]

{Reaction: evaporation as InI_3(g)}

I_3In (g) Indium(III) Iodide **I_3In (g)**
InI_3 (g) InI_3 (g)

$\Delta H^0_{298} = -120.5$ kJ·mol^{-1} [2] $S^0_{298} = 400$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 83.1 + 0.03 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3La (s) Lanthanum(III) Iodide **I_3La (s)**
LaI_3 (s) LaI_3 (s)

mp = 1051 K (778 °C) bp = 1925 K (1652 °C)
$\Delta H^0_{298} = -666.9$ kJ·mol^{-1} [2] $S^0_{298} = 214.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 92.35 + 27.56 \cdot 10^{-3} \cdot T - 0.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1051 K) [4]
$\lg(p,K) = -15.93 \cdot 10^3 \cdot T^{-1} - 4.18 \cdot \lg(T) + 23.13$ (800 ... 1051 K) [4]
{Reaction: evaporation as LaI_3(g)}

I_3La (s) Lanthanum(III) Iodide **I_3La (s)**
LaI_3 (s) LaI_3 (s)

$\Delta H^0_{1051} = -583.7$ kJ·mol^{-1} [4] $S^0_{1051} = 350.7$ J·mol^{-1}·K^{-1} [4]

I_3La (l) Lanthanum(III) Iodide **I_3La (l)**
LaI_3 (l) LaI_3 (l)

$\Delta H^0_{1051} = -546.1$ kJ·mol^{-1} [4] $S^0_{1051} = 386.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 151.88$ J·mol^{-1}·K^{-1} (1051 K) [4]
$\lg(p,K) = -15.83 \cdot 10^3 \cdot T^{-1} - 8.28 \cdot \lg(T) + 35.42$ (1051 ... 1925 K) [4]
{Reaction: evaporation as LaI_3(g)}

I_3La (g) Lanthanum(III) Iodide **I_3La (g)**
LaI_3 (g) LaI_3 (g)

$\Delta H^0_{298} = -377.6$ kJ·mol^{-1} [4] $S^0_{298} = 412.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 83.12 + 0.02 \cdot 10^{-3} \cdot T - 0.14 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3LaO_9 (s) Lanthanum Iodate **I_3LaO_9 (s)**
$La(IO_3)_3$ (s) $La(IO_3)_3$ (s)

$\Delta H^0_{298} = -1400$ kJ·mol^{-1} [96] $S^0_{298} = 251.4$ J·mol^{-1}·K^{-1} [96]

I_3Lu (s) Lutetium(III) Iodide **I_3Lu (s)**

LuI_3 (s) LuI_3 (s)

$\Delta H^0_{298} = -605.1 \pm 2.2$ kJ·mol^{-1} [266] $S^0_{298} = [218.8]$ J·mol^{-1}·K^{-1} [267]

I_3Mo (s) Molybdenum(III) Iodide **I_3Mo (s)**

MoI_3 (s) MoI_3 (s)

$\Delta H^0_{298} = -124.7 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 195.4 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 103.92 + 8.31 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 622 K) [4]

I_3Mo (g) Molybdenum(III) Iodide **I_3Mo (g)**

MoI_3 (g) MoI_3 (g)

$\Delta H^0_{298} = 182.8 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 403.5 \pm 8.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 81.94 + 2.57 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^{6} \cdot T^{-2} + 0.02 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3NaPb (g) Sodium Lead Iodide **I_3NaPb (g)**

$NaPbI_3$ (g) $NaPbI_3$ (g)

$\Delta H^0_{298} = -256$ kJ·mol^{-1} [159, 8] $S^0_{298} = 457.6$ J·mol^{-1}·K^{-1} [159, 8]

I_3Nd (s) Neodymium(III) Iodide **I_3Nd (s)**

NdI_3 (s) alpha NdI_3 (s)

mp = 1060 K (787 °C) bp = 1777 K (1504 °C)

$\Delta H^0_{298} = -628.4$ kJ·mol^{-1} [4] $S^0_{298} = 215.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 96 + 30.33 \cdot 10^{-3} \cdot T - 0.56 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 847 K) [4]

I_3Nd (s) Neodymium(III) Iodide **I_3Nd (s)**

NdI_3 (s) alpha NdI_3 (s)

$\Delta H^0_{847} = -567.4$ kJ·mol^{-1} [4] $S^0_{847} = 329.2$ J·mol^{-1}·K^{-1} [4]

I_3Nd (s) Neodymium(III) Iodide **I_3Nd (s)**
NdI_3 (s) beta NdI_3 (s)

$\Delta H^0_{847} = -553.5$ kJ·mol^{-1} [4] $S^0_{847} = 345.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 117.07$ J·mol^{-1}·K^{-1} (847 K) [4]
$\lg(p,K) = -15.21 \cdot 10^3 \cdot T^{-1} - 3.62 \cdot \lg(T) + 21.21$ (847 ... 1060 K) [4]
{Reaction: evaporation as NdI_3(g)}

I_3Nd (s) Neodymium(III) Iodide **I_3Nd (s)**
NdI_3 (s) beta NdI_3 (s)

$\Delta H^0_{1060} = -528.6$ kJ·mol^{-1} [4] $S^0_{1060} = 371.9$ J·mol^{-1}·K^{-1} [4]

I_3Nd (l) Neodymium(III) Iodide **I_3Nd (l)**
NdI_3 (l) NdI_3 (l)

$\Delta H^0_{1060} = -495.1$ kJ·mol^{-1} [4] $S^0_{1060} = 403.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 155.65$ J·mol^{-1}·K^{-1} (1060 K) [4]
$\lg(p,K) = -15.49 \cdot 10^3 \cdot T^{-1} - 8.03 \cdot \lg(T) + 34.81$ (1060 ... 1777 K) [4]
{Reaction: evaporation as NdI_3(g)}

I_3Nd (g) Neodymium(III) Iodide **I_3Nd (g)**
NdI_3 (g) NdI_3 (g)

$\Delta H^0_{298} = -334.2$ kJ·mol^{-1} [4] $S^0_{298} = 430.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 83.6 + 3.87 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3P (g) Phosphorus(III) Iodide **I_3P (g)**
PI_3 (g) PI_3 (g)

mp = 334 K (61 °C) bp = 500 K (227 °C)
$\Delta H^0_{298} = -18$ kJ·mol^{-1} [4] $S^0_{298} = 374.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 82.84 - 0.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3Pm (s) Promethium(III) Iodide **I_3Pm (s)**
PmI_3 (s) PmI_3 (s)

$\Delta H^0_{298} = -634 \pm 10$ kJ·mol^{-1} [266] $S^0_{298} = [215.5]$ J·mol^{-1}·K^{-1} [267]

I_3Pr (s) Praseodymium(III) Iodide **I_3Pr (s)**
PrI_3 (s) PrI_3 (s)

mp = 1011 K (738 °C) bp = 1803 K (1530 °C)
ΔH^0_{298} = – 654.4 kJ·mol^{-1} [2] S^0_{298} = 228.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 98.41 + 27.71 \cdot 10^{-3} \cdot T - 0.63 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1011 K) [4]
$\lg(p,K) = -15.49 \cdot 10^3 \cdot T^{-1} - 4.34 \cdot \lg(T) + 23.69$ (800 ... 1011 K) [4]
{Reaction: evaporation as PrI_3(g)}

I_3Pr (s) Praseodymium(III) Iodide **I_3Pr (s)**
PrI_3 (s) PrI_3 (s)

ΔH^0_{1011} = – 572.8 kJ·mol^{-1} [4] S^0_{1011} = 365.5 J·mol^{-1}·K^{-1} [4]

I_3Pr (l) Praseodymium(III) Iodide **I_3Pr (l)**
PrI_3 (l) PrI_3 (l)

ΔH^0_{1011} = – 535.6 kJ·mol^{-1} [4] S^0_{1011} = 402.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 142.26$ J·mol^{-1}·K^{-1} (1011 K) [4]
$\lg(p,K) = -14.42 \cdot 10^3 \cdot T^{-1} - 6.33 \cdot \lg(T) + 28.61$ (1011 ... 1803 K) [4]
{Reaction: evaporation as PrI_3(g)}

I_3Pr (g) Praseodymium(III) Iodide **I_3Pr (g)**
PrI_3 (g) PrI_3 (g)

ΔH^0_{298} = – 373.4 kJ·mol^{-1} [4] S^0_{298} = 430.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 82.04 + 5.29 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3Re (g) Rhenium(III) Iodide **I_3Re (g)**
ReI_3 (g) ReI_3 (g)

ΔH^0_{298} = 25.1 ± 28 kJ·mol^{-1} [50] S^0_{298} = 412.1 ± 8.4 J·mol^{-1}·K^{-1} [50]
$C_p{}^0 = 75.31$ J·mol^{-1}·K^{-1} (298 K) [50]

I_3Sb (s) Antimony(III) Iodide **I_3Sb (s)**
SbI_3 (s) SbI_3 (s)

mp = 444 K (171 °C) bp = 667 K (394 °C)
ΔH^0_{298} = – 100.4 kJ·mol^{-1} [2] S^0_{298} = 218.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 71.79 + 86 ·10^{-3}·T + 0.06 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 444 K) [4]
lg(p,K) = – 5.95 ·10^3·T^{-1} – 2.66 · lg(T) + 17.48 (300 ... 444 K) [4]
{Reaction: evaporation as SbI_3(g)}

I_3Sb (s) Antimony(III) Iodide **I_3Sb (s)**
SbI_3 (s) SbI_3 (s)

ΔH^0_{444} = – 85.2 kJ·mol^{-1} [4] S^0_{444} = 260.2 J·mol^{-1}·K^{-1} [4]

I_3Sb (l) Antimony(III) Iodide **I_3Sb (l)**
SbI_3 (l) SbI_3 (l)

ΔH^0_{444} = – 62.4 kJ·mol^{-1} [4] S^0_{444} = 311.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 143.93 J·mol^{-1}·K^{-1} (444 K) [4]
lg(p,K) = – 5.66 ·10^3·T^{-1} – 7.37 · lg(T) + 29.3 (444 ... 667 K) [4]
{Reaction: evaporation as SbI_3(g)}

I_3Sb (g) Antimony(III) Iodide **I_3Sb (g)**
SbI_3 (g) SbI_3 (g)

ΔH^0_{298} = 6.7 kJ·mol^{-1} [2] S^0_{298} = 405 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 83.04 + 0.12 ·10^{-3}·T – 0.12 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3Sc (s) Scandium(III) Iodide **I_3Sc (s)**
ScI_3 (s) ScI_3 (s)

ΔH^0_{298} = – 568.7 ± 1 kJ·mol^{-1} [113] S^0_{298} = 185.7 ± 0.4 J·mol^{-1}·K^{-1} [113]
$C_p{}^0$= 98.95 J·mol^{-1}·K^{-1} (298 K) [113]

I_3Sc (g) Scandium(III) Iodide **I_3Sc (g)**
ScI_3 (g) ScI_3 (g)

ΔH^0_{298} = – 316.1 kJ·mol^{-1} [157, 113] S^0_{298} = 396 J·mol^{-1}·K^{-1} [157]

I_3Si (g) Triiodosilyl **I_3Si (g)**
SiI_3 (g) SiI_3 (g)

$\Delta H^0_{298} = 35.3 \pm 62.8$ kJ·mol^{-1} [1] $S^0_{298} = 378.3 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 82.74 + 0.24 \cdot 10^{-3} \cdot T - 0.5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

L_3Sm (s) Samarium(III) Iodide **L_3Sm (s)**
SmI_3 (s) SmI_3 (s)

$\Delta H^0_{298} = -621.5 \pm 4$ kJ·mol^{-1} [266] $S^0_{298} = [215.9]$ J·mol^{-1}·K^{-1} [267]
$C_p{}^0 = [104.18]$ J·mol^{-1}·K^{-1} (298 K) [188]

I_3Tb (s) Terbium(III) Iodide **I_3Tb (s)**
TbI_3 (s) alpha TbI_3 (s)

mp = 1228 K (955 °C) bp = 1625 K (1352 °C)
$\Delta H^0_{298} = -606.7$ kJ·mol^{-1} [4] $S^0_{298} = 229.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 93.61 + 25.46 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1080 K) [4]
$\lg(p,K) = -15.01 \cdot 10^3 \cdot T^{-1} - 3.72 \cdot \lg(T) + 21.83$ (800 ... 1080 K) [4]
{Reaction: evaporation as TbI_3(g)}

I_3Tb (s) Terbium(III) Iodide **I_3Tb (s)**
TbI_3 (s) alpha TbI_3 (s)

$\Delta H^0_{1080} = -520.5$ kJ·mol^{-1} [4] $S^0_{1080} = 368.6$ J·mol^{-1}·K^{-1} [4]

I_3Tb (s) Terbium(III) Iodide **I_3Tb (s)**
TbI_3 (s) beta TbI_3 (s)

$\Delta H^0_{1080} = -519.7$ kJ·mol^{-1} [4] $S^0_{1080} = 369.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 124.39$ J·mol^{-1}·K^{-1} (1080 K) [4]
$\lg(p,K) = -15.31 \cdot 10^3 \cdot T^{-1} - 4.46 \cdot \lg(T) + 24.35$ (1080 ... 1228 K) [4]
{Reaction: evaporation as TbI_3(g)}

I_3Tb (s) Terbium(III) Iodide **I_3Tb (s)**
TbI_3 (s) beta TbI_3 (s)

$\Delta H^0_{1228} = -501.3$ kJ·mol^{-1} [4] $S^0_{1228} = 385.2$ J·mol^{-1}·K^{-1} [4]

I_3Tb (l) Terbium(III) Iodide **I_3Tb (l)**

TbI_3 (l) TbI_3 (l)

$\Delta H^0_{1228} = -447.8$ kJ·mol^{-1} [4] $S^0_{1228} = 428.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 157.32$ J·mol^{-1}·K^{-1} (1228 K) [4]

$\lg(p,K) = -14.53 \cdot 10^3 \cdot T^{-1} - 8.26 \cdot \lg(T) + 35.46$ (1228 ... 1625 K) [4]

{Reaction: evaporation as TbI_3(g)}

I_3Tb (g) Terbium(III) Iodide **I_3Tb (g)**

TbI_3 (g) TbI_3 (g)

$\Delta H^0_{298} = -333$ kJ·mol^{-1} [4] $S^0_{298} = 431$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 82.09 + 4.64 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3Ti (s) Titanium(III) Iodide **I_3Ti (s)**

TiI_3 (s) TiI_3 (s)

$\Delta H^0_{298} = -338.4$ kJ·mol^{-1} [4] $S^0_{298} = 190.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 114.57 + 7.31 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1092 K) [4]

I_3Ti (g) Titanium(III) Iodide **I_3Ti (g)**

TiI_3 (g) TiI_3 (g)

$\Delta H^0_{298} = -150.2 \pm 33.5$ kJ·mol^{-1} [1] $S^0_{298} = 382.2 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 88.93 - 1.77 \cdot 10^{-3} \cdot T - 0.68 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3Tm (s) Thulium(III) Iodide **I_3Tm (s)**

TmI_3 (s) TmI_3 (s)

mp = 1288 K (1015 °C) bp = 1530 K (1257 °C)

$\Delta H^0_{298} = -619.7 \pm 3.5$ kJ·mol^{-1} [266] $S^0_{298} = [218]$ J·mol^{-1}·K^{-1} [267]

I_3Tm (g) Thulium(III) Iodide **I_3Tm (g)**

TmI_3 (g) TmI_3 (g)

$\Delta H^0_{298} = -329.7$ kJ·mol^{-1} [2] $S^0_{298} = 429.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 83.11 + 0.03 \cdot 10^{-3} \cdot T - 0.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3U (s) Uranium(III) Iodide **I_3U (s)**

UI_3 (s) UI_3 (s)

$\Delta H^0_{298} = -460.7$ kJ·mol^{-1} [2] $S^0_{298} = 222$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 102.97 + 30.54 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

I_3V (s) Vanadium(III) Iodide **I_3V (s)**

VI_3 (s) VI_3 (s)

$\Delta H^0_{298} = -265.4$ kJ·mol^{-1} [4] $S^0_{298} = 202.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 97.24 + 8.37 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 553 K) [4]

I_3Y (s) Yttrium(III) Iodide **I_3Y (s)**

YI_3 (s) YI_3 (s)

mp = 1273 K (1000 °C) bp = 1580 K (1307 °C)

$\Delta H^0_{298} = -616.7$ kJ·mol^{-1} [2] $S^0_{298} = 207.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 100.92 + 11.51 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1273 K) [4]

$\lg(p,K) = -15.38 \cdot 10^{3} \cdot T^{-1} - 3.59 \cdot \lg(T) + 21.68$ (800 ... 1273 K) [4]

{Reaction: evaporation as YI_3(g)}

I_3Y (s) Yttrium(III) Iodide **I_3Y (s)**

YI_3 (s) YI_3 (s)

$\Delta H^0_{1273} = -511.4$ kJ·mol^{-1} [4] $S^0_{1273} = 360.9$ J·mol^{-1}·K^{-1} [4]

I_3Y (l) Yttrium(III) Iodide **I_3Y (l)**

YI_3 (l) YI_3 (l)

$\Delta H^0_{1273} = -461.2$ kJ·mol^{-1} [4] $S^0_{1273} = 400.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 163.18$ J·mol^{-1}·K^{-1} (1273 K) [4]

$\lg(p,K) = -16.1 \cdot 10^{3} \cdot T^{-1} - 9.63 \cdot \lg(T) + 40.99$ (1273 ... 1580 K) [4]

{Reaction: evaporation as YI_3(g)}

I_3Y (g) Yttrium(III) Iodide **I_3Y (g)**

YI_3 (g) YI_3 (g)

$\Delta H^0_{298} = -335.3$ kJ·mol^{-1} [4] $S^0_{298} = 413.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 83.68 - 0.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_3Zr (s) Zirconium(III) Iodide **I_3Zr (s)**

ZrI_3 (s) ZrI_3 (s)

$\Delta H^0_{298} = -391.6$ kJ·mol^{-1} [4] $S^0_{298} = 204.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 108.39 + 0.9 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 798 K) [4]

I_3Zr (g) Zirconium(III) Iodide **I_3Zr (g)**

ZrI_3 (g) ZrI_3 (g)

$\Delta H^0_{298} = -128.9$ kJ·mol^{-1} [4] $S^0_{298} = 397.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 83.1 + 0.03 \cdot 10^{-3} \cdot T - 0.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_4Mn_2 (g) Manganese(II) Iodide **I_4Mn_2 (g)**

Mn_2I_4 (g) Mn_2I_4 (g)

$\Delta H^0_{298} = -278$ kJ·mol^{-1} [58] $S^0_{298} = 534$ J·mol^{-1}·K^{-1} [58]

I_4Mo (s) Molybdenum(IV) Iodide **I_4Mo (s)**

MoI_4 (s) MoI_4 (s)

$\Delta H^0_{298} = -123 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 266.1 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 137.2$ J·mol^{-1}·K^{-1} (298 K) [1]

I_4Mo (g) Molybdenum(IV) Iodide **I_4Mo (g)**

MoI_4 (g) MoI_4 (g)

$\Delta H^0_{298} = 124.7 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 452.8 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 107.91 - 0.09 \cdot 10^{-3} \cdot T - 0.03 \cdot 10^6 \cdot T^{-2} + 0.16 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_4Ni_2 (g) Nickel(II) Iodide **I_4Ni_2 (g)**

Ni_2I_4 (g) Ni_2I_4 (g)

$\Delta H^0_{298} = 89.5 \pm 12.6$ kJ·mol^{-1} [57] $S^0_{298} = 535.6 \pm 16.7$ J·mol^{-1}·K^{-1} [57]

I_4Pb (g) Lead(IV) Iodide **I_4Pb (g)**

PbI_4 (g) PbI_4 (g)

$\Delta H^0_{298} = -226.5$ kJ·mol^{-1} [4] $S^0_{298} = 466.3 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 108.07 + 0.01 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_4Pb_2 (g) Lead(II) Iodide **I_4Pb_2 (g)**

Pb_2I_4 (g) Pb_2I_4 (g)

$\Delta H^0_{298} = -136.8$ kJ·mol^{-1} [157, 8] $S^0_{298} = 544$ J·mol^{-1}·K^{-1} [157]

I_4Pt (s) Platinum(IV) Iodide **I_4Pt (s)**

PtI_4 (s) PtI_4 (s)

$\Delta H^0_{298} = -72.8$ kJ·mol^{-1} [2] $S^0_{298} = 180.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 125.5$ J·mol^{-1}·K^{-1} (298 K) [2]

I_4Si (s) Tetraiodosilane **I_4Si (s)**

SiI_4 (s) SiI_4 (s)

mp = 394 K (121 °C) bp = 574 K (301 °C)

$\Delta H^0_{298} = -191.5$ kJ·mol^{-1} [4] $S^0_{298} = 254.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 81.96 + 87.45 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 394 K) [4]

$\lg(p,K) = -4.39 \cdot 10^3 \cdot T^{-1} - 1.22 \cdot \lg(T) + 12$ (298 ... 394 K) [4]

{Reaction: evaporation as SiI_4(g)}

I_4Si (s) Tetraiodosilane **I_4Si (s)**

SiI_4 (s) SiI_4 (s)

$\Delta H^0_{394} = -180.7$ kJ·mol^{-1} [4] $S^0_{394} = 286$ J·mol^{-1}·K^{-1} [4]

I_4Si (l) Tetraiodosilane **I_4Si (l)**

SiI_4 (l) SiI_4 (l)

$\Delta H^0_{394} = -161$ kJ·mol^{-1} [4] $S^0_{394} = 335.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 147.49 + 41.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (394 ... 574 K) [4]

I_4Si (l) Tetraiodosilane **I_4Si (l)**

SiI_4 (l) SiI_4 (l)

$\Delta H^0_{298} = -174.6$ kJ·mol^{-1} [1] $S^0_{298} = 294.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 147.49 + 41.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (394 ... 574 K) [4]

I_4Si (g) Tetraiodosilane **I_4Si (g)**

SiI_4 (g) SiI_4 (g)

$\Delta H^0_{298} = -110.5 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 416.5 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 107.5 + 0.37 \cdot 10^{-3} \cdot T - 0.62 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_4Sn (s) Tin(IV) Iodide **I_4Sn (s)**

SnI_4 (s) SnI_4 (s)

mp = 418 K (145 °C) bp = 626 K (353 °C)

$\Delta H^0_{298} = -210.9$ kJ·mol^{-1} [4] $S^0_{298} = 274.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 140.93 + 3.91 \cdot 10^{-3} \cdot T - 0.9 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 418 K) [4]

$\lg(p,K) = -5.31 \cdot 10^{3} \cdot T^{-1} - 3.49 \cdot \lg(T) + 19.16$ (298 ... 418 K) [4]

{Reaction: evaporation as SnI_4(g)}

I_4Sn (s) Tin(IV) Iodide **I_4Sn (s)**

SnI_4 (s) SnI_4 (s)

$\Delta H^0_{418} = -194.7$ kJ·mol^{-1} [4] $S^0_{418} = 319.7$ J·mol^{-1}·K^{-1} [4]

I_4Sn (l) Tin(IV) Iodide **I_4Sn (l)**

SnI_4 (l) SnI_4 (l)

$\Delta H^0_{418} = -175.4$ kJ·mol^{-1} [4] $S^0_{418} = 365.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 167.76$ J·mol^{-1}·K^{-1} (418 K) [4]

$\lg(p,K) = -5 \cdot 10^3 \cdot T^{-1} - 7.39 \cdot \lg(T) + 28.66$ (418 ... 626 K) [4]

{Reaction: evaporation as SnI_4(g)}

I_4Sn (g) Tin(IV) Iodide **I_4Sn (g)**

SnI_4 (g) SnI_4 (g)

$\Delta H^0_{298} = -118$ kJ·mol^{-1} [4] $S^0_{298} = 446.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 108.19 - 0.16 \cdot 10^{-3} \cdot T - 0.25 \cdot 10^6 \cdot T^{-2} - 2.64 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_4Sn_2 (g) Tin(II) Iodide **I_4Sn_2 (g)**

Sn_2I_4 (g) Sn_2I_4 (g)

$\Delta H^0_{298} = -117.3$ kJ·mol^{-1} [157, 8] $S^0_{298} = 523.5$ J·mol^{-1}·K^{-1} [157]

I_4Te (s) Tellurium(IV) Iodide **I_4Te (s)**

TeI_4 (s) TeI_4 (s)

$\Delta H^0_{298} = -69 \pm 12.6$ kJ·mol^{-1} [53] $S^0_{298} = 225.9 \pm 16.7$ J·mol^{-1}·K^{-1} [53]

I_4Te (g) Tellurium(IV) Iodide **I_4Te (g)**

TeI_4 (g) TeI_4 (g)

$\Delta H^0_{298} = 61.9 \pm 8.4$ kJ·mol^{-1} [53] $S^0_{298} = 434.5 \pm 12.6$ J·mol^{-1}·K^{-1} [53]

I_4Th (s) Thorium(IV) Iodide **I_4Th (s)**

ThI_4 (s) ThI_4 (s)

mp = 839 K (566 °C) bp = 1119 K (846 °C)

$\Delta H^0_{298} = -671.8$ kJ·mol^{-1} [4] $S^0_{298} = 255.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 145.98$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -11.26 \cdot 10^3 \cdot T^{-1} - 4.43 \cdot \lg(T) + 24.37$ (600 ... 839 K) [4]

{Reaction: evaporation as ThI_4(g)}

I_4Th (s) Thorium(IV) Iodide **I_4Th (s)**

ThI_4 (s) ThI_4 (s)

$\Delta H^0_{839} = -592.8$ kJ·mol^{-1} [4] $S^0_{839} = 406.3$ J·mol^{-1}·K^{-1} [4]

I_4Th (l) Thorium(IV) Iodide **I_4Th (l)**

ThI_4 (l) ThI_4 (l)

$\Delta H^0_{839} = -544.9$ kJ·mol^{-1} [4] $S^0_{839} = 463.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 175.73$ J·mol^{-1}·K^{-1} (839 K) [4]

$\lg(p,K) = -10.05 \cdot 10^3 \cdot T^{-1} - 7.98 \cdot \lg(T) + 33.31$ (839 ... 1119 K) [4]

{Reaction: evaporation as ThI_4(g)}

I_4Th (g) Thorium(IV) Iodide **I_4Th (g)**

ThI_4 (g) ThI_4 (g)

$\Delta H^0_{298} = -466.9$ kJ·mol^{-1} [4] $S^0_{298} = 476.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 109.67 + 0.07 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2023 K) [4]

I_4Ti (s) Titanium(IV) Iodide **I_4Ti (s)**

TiI_4 (s) alpha TiI_4 (s)

mp = 428 K (155 °C) bp = 651 K (378 °C)

$\Delta H^0_{298} = -375.7 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 246.2 \pm 6.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 71.42 + 181.87 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 379 K) [4]

$\lg(p,K) = -5.59 \cdot 10^3 \cdot T^{-1} - 3.37 \cdot \lg(T) + 19.58$ (298 ... 379 K) [4]

{Reaction: evaporation as TiI_4(g)}

I_4Ti (s) Titanium(IV) Iodide **I_4Ti (s)**

TiI_4 (s) alpha TiI_4 (s)

$\Delta H^0_{379} = -365$ kJ·mol^{-1} [4] $S^0_{379} = 278$ J·mol^{-1}·K^{-1} [4]

I_4Ti (s) Titanium(IV) Iodide **I_4Ti (s)**
TiI_4 (s) beta TiI_4 (s)

$\Delta H^0_{379} = -355.5$ kJ·mol^{-1} [4] $S^0_{379} = 302.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 192.05$ J·mol^{-1}·K^{-1} (379 K) [4]
$\lg(p,K) = -6.24 \cdot 10^3 \cdot T^{-1} - 10.36 \cdot \lg(T) + 39.33$ (379 ... 428 K) [4]
{Reaction: evaporation as TiI_4(g)}

I_4Ti (s) Titanium(IV) Iodide **I_4Ti (s)**
TiI_4 (s) beta TiI_4 (s)

$\Delta H^0_{428} = -346.1$ kJ·mol^{-1} [4] $S^0_{428} = 326.2$ J·mol^{-1}·K^{-1} [4]

I_4Ti (l) Titanium(IV) Iodide **I_4Ti (l)**
TiI_4 (l) TiI_4 (l)

$\Delta H^0_{428} = -328.4$ kJ·mol^{-1} [4] $S^0_{428} = 367.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 156.9$ J·mol^{-1}·K^{-1} (428 K) [4]
$\lg(p,K) = -4.51 \cdot 10^3 \cdot T^{-1} - 6.04 \cdot \lg(T) + 23.92$ (428 ... 651 K) [4]
{Reaction: evaporation as TiI_4(g)}

I_4Ti (l) Titanium(IV) Iodide **I_4Ti (l)**
TiI_4 (l) TiI_4 (l)

$\Delta H^0_{298} = -348.3$ kJ·mol^{-1} [1] $S^0_{298} = 311.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 156.9$ J·mol^{-1}·K^{-1} (428 K) [4]

I_4Ti (g) Titanium(IV) Iodide **I_4Ti (g)**
TiI_4 (g) TiI_4 (g)

$\Delta H^0_{298} = -277.3 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 433.1 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 107.97 + 0.07 \cdot 10^{-3} \cdot T - 0.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1939 K) [4]

I_4U (s) Uranium(IV) Iodide **I_4U (s)**

UI_4 (s) UI_4 (s)

mp = 779 K (506 °C) bp = 1037 K (764 °C)

$\Delta H^0_{298} = -512.1$ kJ·mol^{-1} [2] $S^0_{298} = 263.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 149.37 + 9.96 \cdot 10^{-3} \cdot T - 1.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 779 K) [4]

$\lg(p,K) = -11.4 \cdot 10^3 \cdot T^{-1} - 5.22 \cdot \lg(T) + 27.47$ (600 ... 779 K) [4]

{Reaction: evaporation as UI_4(g)}

I_4U (s) Uranium(IV) Iodide **I_4U (s)**

UI_4 (s) UI_4 (s)

$\Delta H^0_{779} = -441$ kJ·mol^{-1} [4] $S^0_{779} = 404.2$ J·mol^{-1}·K^{-1} [4]

I_4U (l) Uranium(IV) Iodide **I_4U (l)**

UI_4 (l) UI_4 (l)

$\Delta H^0_{779} = -398.9$ kJ·mol^{-1} [4] $S^0_{779} = 458.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 165.69$ J·mol^{-1}·K^{-1} (779 K) [4]

$\lg(p,K) = -9.78 \cdot 10^3 \cdot T^{-1} - 6.95 \cdot \lg(T) + 30.39$ (779 ... 1037 K) [4]

{Reaction: evaporation as UI_4(g)}

I_4U (g) Uranium(IV) Iodide **I_4U (g)**

UI_4 (g) UI_4 (g)

$\Delta H^0_{298} = -308.5$ kJ·mol^{-1} [4] $S^0_{298} = 494$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 107.91 - 0.09 \cdot 10^{-3} \cdot T - 0.03 \cdot 10^6 \cdot T^{-2} + 0.16 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_4Zn_2 (g) Zinc(II) Iodide **I_4Zn_2 (g)**

Zn_2I_4 (g) Zn_2I_4 (g)

$\Delta H^0_{298} = -220$ kJ·mol^{-1} [241, 8] $S^0_{298} = 515.4$ J·mol^{-1}·K^{-1} [241, 8]

I_4Zr (s) Zirconium(IV) Iodide **I_4Zr (s)**

ZrI_4 (s) ZrI_4 (s)

mp = 772 K (499 °C) bp = 702 K (429 °C)

$\Delta H^0_{298} = -488.7 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 260.3 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 124.1 + 15.1 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 702 K) [4]

$\lg(p,K) = -7.37 \cdot 10^3 \cdot T^{-1} - 2.93 \cdot \lg(T) + 18.84$ (400 ... 702 K) [4]

{Reaction: evaporation as ZrI_4(g)}

I_4Zr (g) Zirconium(IV) Iodide **I_4Zr (g)**

ZrI_4 (g) ZrI_4 (g)

$\Delta H^0_{298} = -362.3 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 446.6 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 107.97 + 0.08 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_5Nb (s) Niobium(V) Iodide **I_5Nb (s)**

NbI_5 (s) NbI_5 (s)

mp = 600 K (327 °C) bp = 620 K (347 °C)

$\Delta H^0_{298} = -270.7$ kJ·mol^{-1} [4] $S^0_{298} = 343.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 129.62 + 87.32 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 600 K) [4]

I_5Nb (s) Niobium(V) Iodide **I_5Nb (s)**

NbI_5 (s) NbI_5 (s)

$\Delta H^0_{600} = -219.7$ kJ·mol^{-1} [4] $S^0_{600} = 460.1$ J·mol^{-1}·K^{-1} [4]

I_5Nb (l) Niobium(V) Iodide **I_5Nb (l)**

NbI_5 (l) NbI_5 (l)

$\Delta H^0_{600} = -182.1$ kJ·mol^{-1} [4] $S^0_{600} = 522.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 184.1$ J·mol^{-1}·K^{-1} (600 K) [4]

I_5Re (g) Rhenium(V) Iodide **I_5Re (g)**

ReI_5 (g) ReI_5 (g)

$\Delta H^0_{298} = 0 \pm 23.4$ kJ·mol^{-1} [50] $S^0_{298} = 497.9 \pm 10.5$ J·mol^{-1}·K^{-1} [50]

$C_p^0 = 108.78$ J·mol^{-1}·K^{-1} (298 K) [50]

I_5Ta (s) Tantalum(V) Iodide **I_5Ta (s)**

TaI_5 (s) TaI_5 (s)

mp = 769 K (496 °C) bp = 817 K (544 °C)

$\Delta H^0_{298} = -333.5$ kJ·mol^{-1} [4] $S^0_{298} = 343.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 129.62 + 87.32 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 769 K) [4]

$\lg(p,K) = -7.45 \cdot 10^3 \cdot T^{-1} - 6 \cdot \lg(T) + 26.76$ (400 ... 769 K) [4]

{Reaction: evaporation}

I_5Ta (s) Tantalum(V) Iodide **I_5Ta (s)**

TaI_5 (s) TaI_5 (s)

$\Delta H^0_{769} = -250.5$ kJ·mol^{-1} [4] $S^0_{769} = 507$ J·mol^{-1}·K^{-1} [4]

I_5Ta (l) Tantalum(V) Iodide **I_5Ta (l)**

TaI_5 (l) TaI_5 (l)

$\Delta H^0_{769} = -208.7$ kJ·mol^{-1} [4] $S^0_{769} = 561.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 184.1$ J·mol^{-1}·K^{-1} (769 K) [4]

I_5Ta (g) Tantalum(V) Iodide **I_5Ta (g)**

TaI_5 (g) TaI_5 (g)

$\Delta H^0_{298} = -192.7$ kJ·mol^{-1} [4] $S^0_{298} = 532.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 133.05 - 0.15 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

I_6Sc_2 (g) Scandium(III) Iodide **I_6Sc_2 (g)**

Sc_2I_6 (g) Sc_2I_6 (g)

$\Delta H^0_{298} = -329.6$ kJ·mol^{-1} [157, 113] $S^0_{298} = 619.8$ J·mol^{-1}·K^{-1} [157]

In (s) Indium **In (s)**

mp = 430 K (157 °C) bp = 2343 K (2070 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 57.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 10.96 + 39.85 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 430 K) [4]

In (s) Indium **In** (s)

$\Delta H^0_{430} = 3$ kJ·mol^{-1} [4] $S^0_{430} = 66.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 26.22$ J·mol^{-1}·K^{-1} (430 K) [4]

In (l) Indium **In** (l)

$\Delta H^0_{430} = 6.3$ kJ·mol^{-1} [4] $S^0_{430} = 73.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 29.88 - 0.89 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (430 ... 900 K) [4]
$\lg(p,K) = -12.65 \cdot 10^3 \cdot T^{-1} - 0.31 \cdot \lg(T) + 644$ (900 ... 2343 K) [4]
{Reaction: evaporation}

In (g) Indium **In** (g)

$\Delta H^0_{298} = 246.4$ kJ·mol^{-1} [4] $S^0_{298} = 173.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 22.69 + 2.36 \cdot 10^{-3} \cdot T - 0.24 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

InN (s) Indium(III) Nitride **InN** (s)

mp = 1473 K (1200 °C)
$\Delta H^0_{298} = -138.1$ kJ·mol^{-1} [4] $S^0_{298} = 43.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 38.07 + 12.13 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1219 K) [4]

InP (s) Indium(III) Phosphide alpha **InP** (s)

mp = 1344 K (1071 °C)
$\Delta H^0_{298} = -88.7$ kJ·mol^{-1} [2] $S^0_{298} = 59.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 41 + 14.64 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 910 K) [4]

InP (s) Indium(III) Phosphide alpha **InP** (s)

$\Delta H^0_{910} = -58.2$ kJ·mol^{-1} [4] $S^0_{910} = 114.5$ J·mol^{-1}·K^{-1} [4]

InP (s) | Indium(III) Phosphide beta | **InP** (s)

$\Delta H^0_{910} = -57.8$ kJ·mol^{-1} [4] | $S^0_{910} = 114.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 55.23$ J·mol^{-1}·K^{-1} (910 K) [4]

InP (s) | Indium(III) Phosphide beta | **InP** (s)

$\Delta H^0_{1344} = -33.9$ kJ·mol^{-1} [4] | $S^0_{1344} = 136.5$ J·mol^{-1}·K^{-1} [4]

InP (l) | Indium(III) Phosphide | **InP** (l)

$\Delta H^0_{1344} = 28.9$ kJ·mol^{-1} [4] | $S^0_{1344} = 183.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 58.58$ J·mol^{-1}·K^{-1} (1344 K) [4]

InS (s) | Indium Sulfide | **InS** (s)

mp = 953 K (680 °C)

$\Delta H^0_{298} = -133.9$ kJ·mol^{-1} [2] | $S^0_{298} = 69$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 42.51 + 18.83 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 953 K) [4]

InS (g) | Indium Sulfide | **InS** (g)

$\Delta H^0_{298} = 233$ kJ·mol^{-1} [2] | $S^0_{298} = 251.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 37.27 + 0.08 \cdot 10^{-3} \cdot T - 0.2 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$InS_{1.2}$ (s) | Indium Sulfide | **$InS_{1.2}$** (s)

$\Delta H^0_{298} = -154.8$ kJ·mol^{-1} [5] | $S^0_{298} = [74.9]$ J·mol^{-1}·K^{-1} [5]

InSb (s) | Indium Antimonide | **InSb** (s)

mp = 798 K (525 °C)

$\Delta H^0_{298} = -30.5$ kJ·mol^{-1} [4] | $S^0_{298} = 87.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 44.77 + 15.06 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 798 K) [4]

InSb (s) Indium Antimonide **InSb** (s)

$\Delta H^0_{798} = -4$ kJ·mol^{-1} [4] $S^0_{798} = 138.7$ J·mol^{-1}·K^{-1} [4]

InSb (l) Indium Antimonide **InSb** (l)

$\Delta H^0_{798} = 43.7$ kJ·mol^{-1} [4] $S^0_{798} = 198.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 61.92$ J·mol^{-1}·K^{-1} (798 K) [4]

InSe (s) Indium Selenide **InSe** (s)

mp = 933 K (660 °C)
$\Delta H^0_{298} = -92.3$ kJ·mol^{-1} [4] $S^0_{298} = 81.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 45.44 + 16.32 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 933 K) [4]

InSe (g) Indium Selenide **InSe** (g)

$\Delta H^0_{298} = 232.3$ kJ·mol^{-1} [4] $S^0_{298} = 263.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.36 + 0.03 \cdot 10^{-3} \cdot T - 0.12 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

InTe (s) Indium Telluride **InTe** (s)

mp = 969 K (696 °C)
$\Delta H^0_{298} = -72$ kJ·mol^{-1} [2] $S^0_{298} = 105.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 41.97 + 19.37 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 969 K) [4]

InTe (s) Indium Telluride **InTe** (s)

$\Delta H^0_{969} = -35.6$ kJ·mol^{-1} [4] $S^0_{969} = 168.1$ J·mol^{-1}·K^{-1} [4]

InTe (l) Indium Telluride **InTe** (l)

$\Delta H^0_{969} = 1$ kJ·mol^{-1} [4] $S^0_{969} = 205.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 60.67$ J·mol^{-1}·K^{-1} (969 K) [4]

InTe (g) Indium Telluride **InTe** (g)

$\Delta H^0_{298} = 240.2$ kJ·mol^{-1} [4] $S^0_{298} = 271.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.39 + 0.02 \cdot 10^{-3} \cdot T - 0.07 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$InTe_2$ (g) Indium Telluride **$InTe_2$ (g)**

ΔH^0_{298} = 212.1 kJ·mol⁻¹ [5] S^0_{298} = [326.4] J·mol⁻¹·K⁻¹ [5]

In_2MnS_4 (s) Manganese Indium Sulfide **In_2MnS_4 (s)**
$MnIn_2S_4$ (s) $MnIn_2S_4$ (s)

ΔH^0_{298} = – 584 kJ·mol⁻¹ [190, 8] S^0_{298} = [243.9] J·mol⁻¹·K⁻¹ [201]
$C_p{}^0$= [167.92] J·mol⁻¹·K⁻¹ (298 K) [271]

In_2O (g) Indium(I) Oxide **In_2O (g)**

ΔH^0_{298} = – 65.7 kJ·mol⁻¹ [2] S^0_{298} = 298.3 J·mol⁻¹·K⁻¹ [2]
$C_p{}^0$= 49.8 J·mol⁻¹·K⁻¹ (298 K) [2]

In_2O_3 (s) Indium(III) Oxide **In_2O_3 (s)**

mp = 2183 K (1910 °C)
ΔH^0_{298} = – 925.8 kJ·mol⁻¹ [2] S^0_{298} = 104.2 J·mol⁻¹·K⁻¹ [2]
$C_p{}^0 = 122.69 + 8.1 \cdot 10^{-3} \cdot T - 2.2 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2183 K) [4]

$In_2O_{12}S_3$ (s) Indium(III) Sulfate **$In_2O_{12}S_3$ (s)**
$In_2(SO_4)_3$ (s) $In_2(SO_4)_3$ (s)

ΔH^0_{298} = – 2725.5 kJ·mol⁻¹ [4] S^0_{298} = 302.1 J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 200.2 + 251.04 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 1030 K) [4]

In_2PbS_4 (s) Lead Indium Sulfide **In_2PbS_4 (s)**
$PbIn_2S_4$ (s) $PbIn_2S_4$ (s)

ΔH^0_{298} = – 476.9 kJ·mol⁻¹ [190, 8] S^0_{298} = [254.9] J·mol⁻¹·K⁻¹ [198]
$C_p{}^0$= [167.52] J·mol⁻¹·K⁻¹ (298 K) [271]

In_2S (g) Indium(I) Sulfide **In_2S (g)**

ΔH^0_{298} = 138.1 kJ·mol⁻¹ [4] S^0_{298} = 318.8 J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 59.97 + 1.24 \cdot 10^{-3} \cdot T - 0.8 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

In_2S_2 (g) Indium Sulfide **In_2S_2 (g)**

ΔH^0_{298} = 93.3 kJ·mol^{-1} [5] S^0_{298} = [313.8] J·mol^{-1}·K^{-1} [5]

In_2S_3 (s) Indium(III) Sulfide **In_2S_3 (s)**
alpha

mp = 1371 K (1098 °C)
ΔH^0_{298} = – 355.6 kJ·mol^{-1} [2] S^0_{298} = 163.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 128.95 + 3.26 ·10^{-3}·T – 1.06 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 660 K) [4]

In_2S_3 (s) Indium(III) Sulfide **In_2S_3 (s)**
alpha

ΔH^0_{660} = – 310.4 kJ·mol^{-1} [4] S^0_{660} = 262.5 J·mol^{-1}·K^{-1} [4]

In_2S_3 (s) Indium(III) Sulfide **In_2S_3 (s)**
beta

ΔH^0_{660} = – 309.3 kJ·mol^{-1} [4] S^0_{660} = 264.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 97.78 + 55.4 ·10^{-3}·T J·mol^{-1}·K^{-1} (660 ... 1100 K) [4]

In_2S_3 (s) Indium(III) Sulfide **In_2S_3 (s)**
beta

ΔH^0_{1100} = – 244.8 kJ·mol^{-1} [4] S^0_{1100} = 338.5 J·mol^{-1}·K^{-1} [4]

In_2S_3 (s) Indium(III) Sulfide **In_2S_3 (s)**
gamma

ΔH^0_{1100} = – 240.8 kJ·mol^{-1} [4] S^0_{1100} = 342.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 159.41 J·mol^{-1}·K^{-1} (1100 K) [4]

In_2S_4Zn (s) Zinc Indium Sulfide **In_2S_4Zn (s)**
$ZnIn_2S_4$ (s) $ZnIn_2S_4$ (s)

ΔH^0_{298} = – 610.5 kJ·mol^{-1} [190, 8] S^0_{298} = [221.3] J·mol^{-1}·K^{-1} [204]
$C_p{}^0$= [163.28] J·mol^{-1}·K^{-1} (298 K) [271]

In_2Se (s) | Indium(I) Selenide | **In_2Se (s)**

mp = 813 K (540 °C)
$\Delta H^0_{298} = -129.7$ kJ·mol^{-1} [4] | $S^0_{298} = 129.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 75.73 + 12.55 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 813 K) [4]

In_2Se (g) | Indium(I) Selenide | **In_2Se (g)**

$\Delta H^0_{298} = 144.3$ kJ·mol^{-1} [4] | $S^0_{298} = 329.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 59.97 + 1.24 \cdot 10^{-3} \cdot T - 0.8 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

In_2Se_2 (g) | Indium Selenide | **In_2Se_2 (g)**

$\Delta H^0_{298} = 101.3$ kJ·mol^{-1} [5] | $S^0_{298} = [343.1]$ J·mol^{-1}·K^{-1} [5]

In_2Se_3 (s) | Indium(III) Selenide alpha | **In_2Se_3 (s)**

mp = 1173 K (900 °C)
$\Delta H^0_{298} = -326.4$ kJ·mol^{-1} [2] | $S^0_{298} = 201.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 59.92 + 270.5 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 470 K) [4]

In_2Se_3 (s) | Indium(III) Selenide alpha | **In_2Se_3 (s)**

$\Delta H^0_{470} = -298.2$ kJ·mol^{-1} [4] | $S^0_{470} = 275$ J·mol^{-1}·K^{-1} [4]

In_2Se_3 (s) | Indium(III) Selenide beta | **In_2Se_3 (s)**

$\Delta H^0_{470} = -296.8$ kJ·mol^{-1} [4] | $S^0_{470} = 278$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 165.27$ J·mol^{-1}·K^{-1} (470 K) [4]

In_2Te (s) | Indium(I) Telluride | **In_2Te (s)**

$\Delta H^0_{298} = -79.7$ kJ·mol^{-1} [2] | $S^0_{298} = 154.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 67.5$ J·mol^{-1}·K^{-1} (298 K) [2]

In_2Te (g) Indium(I) Telluride **In_2Te (g)**

ΔH^0_{298} = 230.5 kJ·mol⁻¹ [4] S^0_{298} = 341.5 J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 59.97 + 1.24 \cdot 10^{-3} \cdot T - 0.83 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

In_2Te_2 (g) Indium Telluride **In_2Te_2 (g)**

ΔH^0_{298} = 179.1 kJ·mol⁻¹ [5] S^0_{298} = [350.2] J·mol⁻¹·K⁻¹ [5]

In_2Te_3 (s) Indium(III) Telluride alpha **In_2Te_3 (s)**

mp = 940 K (667 °C)

ΔH^0_{298} = – 191.6 kJ·mol⁻¹ [2] S^0_{298} = 234.3 J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 110.9 + 41.84 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 898 K) [4]

In_2Te_3 (s) Indium(III) Telluride alpha **In_2Te_3 (s)**

ΔH^0_{898} = – 110.1 kJ·mol⁻¹ [4] S^0_{898} = 381.7 J·mol⁻¹·K⁻¹ [4]

In_2Te_3 (s) Indium(III) Telluride beta **In_2Te_3 (s)**

ΔH^0_{898} = – 108.1 kJ·mol⁻¹ [4] S^0_{898} = 383.9 J·mol⁻¹·K⁻¹ [4]

C_p^0 = 148.53 J·mol⁻¹·K⁻¹ (898 K) [4]

In_2Te_3 (s) Indium(III) Telluride beta **In_2Te_3 (s)**

ΔH^0_{940} = – 101.9 kJ·mol⁻¹ [4] S^0_{940} = 390.7 J·mol⁻¹·K⁻¹ [4]

In_2Te_3 (l) Indium(III) Telluride **In_2Te_3 (l)**

ΔH^0_{940} = – 20.3 kJ·mol⁻¹ [4] S^0_{940} = 477.5 J·mol⁻¹·K⁻¹ [4]

C_p^0 = 154.81 J·mol⁻¹·K⁻¹ (940 K) [4]

In_2Te_5 (s) Indium Telluride **In_2Te_5 (s)**

$\Delta H^0_{298} = -191.6$ kJ·mol^{-1} [5] $S^0_{298} = [364.1]$ J·mol^{-1}·K^{-1} [273]

In_3S_4 (s) Indium Sulfide **In_3S_4 (s)**

$\Delta H^0_{298} = -502.9$ kJ·mol^{-1} [4] $S^0_{298} = 234.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 94.13 + 121.5 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1113 K) [4]

In_4S_5 (s) Indium Sulfide **In_4S_5 (s)**

mp = 1043 K (770 °C)
$\Delta H^0_{298} = -154.8$ kJ·mol^{-1} [4] $S^0_{298} = 74.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 201.59 + 54.29 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1043 K) [4]

In_4Te_3 (s) Indium Telluride **In_4Te_3 (s)**

$\Delta H^0_{298} = -235.5 \pm 1.8$ kJ·mol^{-1} [136] $S^0_{298} = [380.3]$ J·mol^{-1}·K^{-1} [137]

In_5S_6 (s) Indium Sulfide **In_5S_6 (s)**

$\Delta H^0_{298} = -774$ kJ·mol^{-1} [2] $S^0_{298} = 374.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 262.3$ J·mol^{-1}·K^{-1} (298 K) [2]

In_9Te_7 (s) Indium Telluride **In_9Te_7 (s)**

mp = 735 K (462 °C)
$\Delta H^0_{298} = -425.1$ kJ·mol^{-1} [4] $S^0_{298} = 859.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 301.25 + 196.23 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 735 K) [4]

Ir (s) Iridium **Ir (s)**

mp = 2716 K (2443 °C) bp = 4706 K (4433 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 35.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 22.88 + 7.04 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2716 K) [4]
$\lg(p,K) = -35.45 \cdot 10^3 \cdot T^{-1} - 1.27 \cdot \lg(T) + 12.44$ (2100 ... 2716 K) [4]
{Reaction: evaporation as Ir(g)}

Ir (s) Iridium **Ir (s)**

$\Delta H^0_{2716} = 80.2$ kJ·mol^{-1} [2] $S^0_{2716} = 102.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 42$ J·mol^{-1}·K^{-1} (2716 K) [2]

Ir (l) Iridium **Ir (l)**

$\Delta H^0_{2716} = 106.4$ kJ·mol^{-1} [2] $S^0_{2716} = 111.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 41.84$ J·mol^{-1}·K^{-1} (2716 K) [4]
$\lg(p,K) = -34.14 \cdot 10^3 \cdot T^{-1} - 1.32 \cdot \lg(T) + 12.1$ (2716 ... 3000 K) [4]
{Reaction: evaporation as Ir(g)}

Ir (g) Iridium **Ir (g)**

$\Delta H^0_{298} = 669.4$ kJ·mol^{-1} [2] $S^0_{298} = 193.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 20.8$ J·mol^{-1}·K^{-1} (298 K) [2]

IrO_2 (s) Iridium(IV) Oxide **IrO_2 (s)**

$\Delta H^0_{298} = -249.4$ kJ·mol^{-1} [4] $S^0_{298} = 51$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 61.88 + 20.42 \cdot 10^{-3} \cdot T - 1.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 -1368 K) [4]
$\lg(p,K) = -13.48 \cdot 10^3 \cdot T^{-1} - 2.05 \cdot \lg(T) + 16.28$ (700 ... 1368 K) [4]
{Reaction: decomposition IrO_2(s) = Ir(s) + O_2(g)}

IrO_2 (g) Iridium(IV) Oxide **IrO_2 (g)**

$\Delta H^0_{298} = 215.9$ kJ·mol^{-1} [2] $S^0_{298} = 263.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 51.8$ J·mol^{-1}·K^{-1} (298 K) [2]

IrO_3 (g) Iridium(VI) Oxide **IrO_3 (g)**

$\Delta H^0_{298} = 13.4$ kJ·mol^{-1} [2] $S^0_{298} = 288.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 76.5$ J·mol^{-1}·K^{-1} (298 K) [2]

IrS_2 (s) Iridium(IV) Sulfide **IrS_2 (s)**

$\Delta H^0_{298} = -133.1$ kJ·mol^{-1} [2] $S^0_{298} = 69$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 68.58 + 15.77 \cdot 10^{-3} \cdot T - 0.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1325 K) [4]

$IrS_{2.667}$ (s) Iridium Sulfide **$IrS_{2.667}$ (s)**

$\Delta H^0_{298} = -163.2$ kJ·mol^{-1} [5] $S^0_{298} = [75.3]$ J·mol^{-1}·K^{-1} [5]

$IrSe_{1.5}$ (s) Iridium Selenide **$IrSe_{1.5}$ (s)**

$\Delta H^0_{298} = [-75.3]$ kJ·mol^{-1} [5] $S^0_{298} = [85.8]$ J·mol^{-1}·K^{-1} [5]

$IrSe_2$ (s) Iridium Selenide **$IrSe_2$ (s)**

$\Delta H^0_{298} = [-96.2]$ kJ·mol^{-1} [5] $S^0_{298} = [94.1]$ J·mol^{-1}·K^{-1} [5]

$IrSe_3$ (s) Iridium Selenide **$IrSe_3$ (s)**

$\Delta H^0_{298} = [-117.2]$ kJ·mol^{-1} [5] $S^0_{298} = [121.3]$ J·mol^{-1}·K^{-1} [5]

$IrTe_2$ (s) Iridium Telluride **$IrTe_2$ (s)**

$\Delta H^0_{298} = [-71.1]$ kJ·mol^{-1} [5] $S^0_{298} = [123.4]$ J·mol^{-1}·K^{-1} [5]

$IrTe_{2.67}$ (s) Iridium Telluride **$IrTe_{2.67}$ (s)**

$\Delta H^0_{298} = [-83.7]$ kJ·mol^{-1} [5] $S^0_{298} = [133.9]$ J·mol^{-1}·K^{-1} [5]

Ir_2S_3 (s) Iridium(III) Sulfide **Ir_2S_3 (s)**

$\Delta H^0_{298} = -208.8$ kJ·mol^{-1} [4] $S^0_{298} = 120.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 110.29 + 32.97 \cdot 10^{-3} \cdot T - 0.96 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1443 K) [4]

K (s) Potassium **K (s)**

mp = 336 K (63 °C) bp = 1036 K (763 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 64.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 8.45 + 70.75 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 336 K) [4]

$IrS_{2.667}$ (s) Iridium Sulfide **$IrS_{2.667}$ (s)**

$\Delta H^0_{298} = -163.2$ kJ·mol^{-1} [5]
$S^0_{298} = [75.3]$ J·mol^{-1}·K^{-1} [5]

$IrSe_{1.5}$ (s) Iridium Selenide **$IrSe_{1.5}$ (s)**

$\Delta H^0_{298} = [-75.3]$ kJ·mol^{-1} [5]
$S^0_{298} = [85.8]$ J·mol^{-1}·K^{-1} [5]

$IrSe_2$ (s) Iridium Selenide **$IrSe_2$ (s)**

$\Delta H^0_{298} = [-96.2]$ kJ·mol^{-1} [5]
$S^0_{298} = [94.1]$ J·mol^{-1}·K^{-1} [5]

$IrSe_3$ (s) Iridium Selenide **$IrSe_3$ (s)**

$\Delta H^0_{298} = [-117.2]$ kJ·mol^{-1} [5]
$S^0_{298} = [121.3]$ J·mol^{-1}·K^{-1} [5]

$IrTe_2$ (s) Iridium Telluride **$IrTe_2$ (s)**

$\Delta H^0_{298} = [-71.1]$ kJ·mol^{-1} [5]
$S^0_{298} = [123.4]$ J·mol^{-1}·K^{-1} [5]

$IrTe_{2.67}$ (s) Iridium Telluride **$IrTe_{2.67}$ (s)**

$\Delta H^0_{298} = [-83.7]$ kJ·mol^{-1} [5]
$S^0_{298} = [133.9]$ J·mol^{-1}·K^{-1} [5]

Ir_2S_3 (s) Iridium(III) Sulfide **Ir_2S_3 (s)**

$\Delta H^0_{298} = -208.8$ kJ·mol^{-1} [4]
$S^0_{298} = 120.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 110.29 + 32.97 \cdot 10^{-3} \cdot T - 0.96 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1443 K) [4]

K (s) Potassium **K (s)**

mp = 336 K (63 °C)
bp = 1036 K (763 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2]
$S^0_{298} = 64.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 8.45 + 70.75 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 336 K) [4]

K (s) Potassium **K (s)**

ΔH^0_{336} = 1.2 kJ·mol^{-1} [4] S^0_{336} = 68.4 J·mol^{-1}·K^{-1} [4]

K (l) Potassium **K (l)**

ΔH^0_{336} = 3.5 kJ·mol^{-1} [4] S^0_{336} = 75.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.18 - 19.12 \cdot 10^{-3} \cdot T + 12.32 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (336 ... 1036 K) [4]

K (l) Potassium **K (l)**

ΔH^0_{298} = 2.3 kJ·mol^{-1} [1] S^0_{298} = 71.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.18 - 19.12 \cdot 10^{-3} \cdot T + 12.32 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (336 ... 1036 K) [4]

K (g) Potassium **K (g)**

ΔH^0_{298} = 89 ± 0.4 kJ·mol^{-1} [1] S^0_{298} = 160.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 20.61 + 0.15 \cdot 10^{-3} \cdot T + 0.02 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -4.71 \cdot 10^3 \cdot T^{-1} - 1.27 \cdot \lg(T) + 8.35$ (400 ... 1036 K) [4]
{Reaction: evaporation of K(l)}

$KMnO_4$ (s) Potassium Permanganate **$KMnO_4$ (s)**

ΔH^0_{298} = – 837 kJ·mol^{-1} [7] S^0_{298} = 172 J·mol^{-1}·K^{-1} [7]
$C_p{}^0$ = 118 J·mol^{-1}·K^{-1} (298 K) [7]

KNO_2 (s) Potassium Nitrite **KNO_2 (s)**

mp = 713 K (440 °C)
ΔH^0_{298} = – 369.8 kJ·mol^{-1} [4] S^0_{298} = 152.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 41.17 + 110.04 \cdot 10^{-3} \cdot T + 2.97 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 713 K) [4]

KNO_3 (s) Potassium Nitrate alpha **KNO_3 (s)**

mp = 607 K (334 °C)
ΔH^0_{298} = – 494.6 kJ·mol^{-1} [2] S^0_{298} = 133.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 60.46 + 118.83 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 402 K) [4]

KNO_3 (s) Potassium Nitrate alpha **KNO_3 (s)**

$\Delta H^0_{402} = -484$ kJ·mol^{-1} [4] $S^0_{402} = 163.5$ J·mol^{-1}·K^{-1} [4]

KNO_3 (s) Potassium Nitrate beta **KNO_3 (s)**

$\Delta H^0_{402} = -478.9$ kJ·mol^{-1} [4] $S^0_{402} = 176.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 120.5$ J·mol^{-1}·K^{-1} (402 K) [4]

KNO_3 (s) Potassium Nitrate beta **KNO_3 (s)**

$\Delta H^0_{607} = -454.2$ kJ·mol^{-1} [4] $S^0_{607} = 225.8$ J·mol^{-1}·K^{-1} [4]

KNO_3 (l) Potassium Nitrate **KNO_3 (l)**

$\Delta H^0_{607} = -444.5$ kJ·mol^{-1} [4] $S^0_{607} = 241.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 123.43$ J·mol^{-1}·K^{-1} (607 K) [4]

KO (g) Potassium Oxide **KO (g)**

$\Delta H^0_{298} = 71.1 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 238 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36$ J·mol^{-1}·K^{-1} (298 K) [1]

KO_2 (s) Potassium Superoxide **KO_2 (s)**

mp = 782 K (509 °C)
$\Delta H^0_{298} = -284.5 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 122.5 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 87.66 + 10.67 \cdot 10^{-3} \cdot T - 1.12 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 782 K) [4]
$\lg(p,K) = -4.33 \cdot 10^{3} \cdot T^{-1} - 3.12 \cdot \lg(T) + 12.82$ (400 ... 782 K) [4]
{Reaction: decomposition $2KO_2(s) = K_2O_2(s) + O_2(g)$}

K_2 (g) Potassium **K_2 (g)**

$\Delta H^0_{298} = 123.7 \pm 2$ kJ·mol^{-1} [1] $S^0_{298} = 249.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.24 + 1.67 \cdot 10^{-3} \cdot T - 0.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -6.77 \cdot 10^3 \cdot T^{-1} - 2.94 \cdot \lg(T) + 14.14$ (500 ... 1036 K) [4]
{Reaction: evaporation of K(l)}

K_2MoO_4 (s) Potassium Molybdate **K_2MoO_4 (s)**

$\Delta H^0_{298} = -1504.3 \pm 1.5$ kJ·mol^{-1} [239] $S^0_{298} = [171.9]$ J·mol^{-1}·K^{-1} [240, 8]
$C_p{}^0 = [159.56]$ J·mol^{-1}·K^{-1} (298 K) [271]

$K_2Mo_2O_7$ (s) Potassium Molybdate **$K_2Mo_2O_7$ (s)**

$\Delta H^0_{298} = -2298.7 \pm 1.7$ kJ·mol^{-1} [239] $S^0_{298} = [249.7]$ J·mol^{-1}·K^{-1} [240, 8]
$C_p{}^0 = [234.64]$ J·mol^{-1}·K^{-1} (298 K) [271]

$K_2Mo_3O_{10}$ (s) Potassium Molybdate **$K_2Mo_3O_{10}$ (s)**

$\Delta H^0_{298} = -3054.3 \pm 2$ kJ·mol^{-1} [239] $S^0_{298} = [327.5]$ J·mol^{-1}·K^{-1} [240, 8]
$C_p{}^0 = [309.72]$ J·mol^{-1}·K^{-1} (298 K) [271]

$K_2Mo_4O_{13}$ (s) Potassium Molybdate **$K_2Mo_4O_{13}$ (s)**

$\Delta H^0_{298} = -3824.7 \pm 2.1$ kJ·mol^{-1} [239] $S^0_{298} = [405.3]$ J·mol^{-1}·K^{-1} [240, 8]
$C_p{}^0 = [384.80]$ J·mol^{-1}·K^{-1} (298 K) [271]

$K_2Mo_8O_{25}$ (s) Potassium Molybdate **$K_2Mo_8O_{25}$ (s)**

$\Delta H^0_{298} = -6824.2 \pm 3.4$ kJ·mol^{-1} [239] $S^0_{298} = [716.5]$ J·mol^{-1}·K^{-1} [240, 8]
$C_p{}^0 = [685.12]$ J·mol^{-1}·K^{-1} (298 K) [271]

K_2NpO_4 (s) Potassium Neptunium Oxide **K_2NpO_4 (s)**
$K_2O \cdot NpO_3$ (s) $K_2O \cdot NpO_3$ (s)

$\Delta H^0_{298} = -1784.5 \pm 6.1$ kJ·mol^{-1} [14] $S^0_{298} = [192.9]$ J·mol^{-1}·K^{-1} [232, 8]
$C_p{}^0 = [165.64]$ J·mol^{-1}·K^{-1} (298 K) [271]

K_2O (s) — Potassium Oxide — K_2O (s)

$\Delta H^0_{298} = -363.2 \pm 2.1$ kJ·mol^{-1} [1]
$S^0_{298} = 94.1 \pm 6.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 76.94 + 36.66 \cdot 10^{-3} \cdot T - 0.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1154 K) [4]

K_2O_2 (s) — Potassium Peroxide — K_2O_2 (s)

mp = 763 K (490 °C)
$\Delta H^0_{298} = -495.8 \pm 4.2$ kJ·mol^{-1} [1]
$S^0_{298} = 113 \pm 6.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 79.74 + 69.1 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 763 K) [4]

K_2O_3S (s) — Potassium Sulfite — K_2O_3S (s)

K_2SO_3 (s) — K_2SO_3 (s)

$\Delta H^0_{298} = -1126.8$ kJ·mol^{-1} [2]
$S^0_{298} = 171.5$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 123.4$ J·mol^{-1}·K^{-1} (298 K) [2]

K_2O_3Se (s) — Potassium Selenite — K_2O_3Se (s)

K_2SeO_3 (s) — K_2SeO_3 (s)

$\Delta H^0_{298} = -982$ kJ·mol^{-1} [7]
$S^0_{298} = [160.8]$ J·mol^{-1}·K^{-1} [122]
$C_p^0 = [142.72]$ J·mol^{-1}·K^{-1} (298 K) [271]

K_2O_3Si (s) — Potassium Silicate — K_2O_3Si (s)

$K_2O \cdot SiO_2$ (s) — $K_2O \cdot SiO_2$ (s)

mp = 1249 K (976 °C)
$\Delta H^0_{298} = -1590.3$ kJ·mol^{-1} [4]
$S^0_{298} = 146.1 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 135.65 + 24.48 \cdot 10^{-3} \cdot T - 2.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1249 K) [4]

K_2O_3Si (s) — Potassium Silicate — K_2O_3Si (s)

$K_2O \cdot SiO_2$ (s) — $K_2O \cdot SiO_2$ (s)

$\Delta H^0_{1249} = -1448.9$ kJ·mol^{-1} [4]
$S^0_{1249} = 352.3$ J·mol^{-1}·K^{-1} [4]

K_2O_3Si (l) Potassium Silicate **K_2O_3Si (l)**

$K_2O \cdot SiO_2$ (l) $K_2O \cdot SiO_2$ (l)

$\Delta H^0_{1249} = -\ 1398.7$ kJ·mol^{-1} [4] $S^0_{1249} = 392.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 167.36$ J·mol^{-1}·K^{-1} (1249 K) [4]

K_2O_3Si (l) Potassium Silicate **K_2O_3Si (l)**

$K_2O \cdot SiO_2$ (l) $K_2O \cdot SiO_2$ (l)

$\Delta H^0_{298} = -\ 1499.3$ kJ·mol^{-1} [1] $S^0_{298} = 184.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 118.4$ J·mol^{-1}·K^{-1} (298 K) [1]

K_2O_4S (s) Potassium Sulfate **K_2O_4S (s)**

K_2SO_4 (s) alpha K_2SO_4 (s)

mp = 1342 K (1069 °C)

$\Delta H^0_{298} = -\ 1437.7 \pm 0.4$ kJ·mol^{-1} [1] $S^0_{298} = 175.5 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 100.29 + 124.6 \cdot 10^{-3} \cdot T - 0.52 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 857 K) [4]

K_2O_4S (s) Potassium Sulfate **K_2O_4S (s)**

K_2SO_4 (s) alpha K_2SO_4 (s)

$\Delta H^0_{857} = -\ 1342.6$ kJ·mol^{-1} [4] $S^0_{857} = 348.5$ J·mol^{-1}·K^{-1} [4]

K_2O_4S (s) Potassium Sulfate **K_2O_4S (s)**

K_2SO_4 (s) beta K_2SO_4 (s)

$\Delta H^0_{857} = -\ 1334.1$ kJ·mol^{-1} [4] $S^0_{857} = 358.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 114.06 + 81.59 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (857 K) [4]

K_2O_4S (s) Potassium Sulfate **K_2O_4S (s)**

K_2SO_4 (s) beta K_2SO_4 (s)

$\Delta H^0_{1342} = -\ 1235.3$ kJ·mol^{-1} [4] $S^0_{1342} = 449.1$ J·mol^{-1}·K^{-1} [4]

K_2O_4S (l) Potassium Sulfate **K_2O_4S (l)**

K_2SO_4 (l) K_2SO_4 (l)

$\Delta H^0_{1342} = -1200.9$ kJ·mol^{-1} [4] $S^0_{1342} = 474.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 201.46$ J·mol^{-1}·K^{-1} (1342 K) [4]

K_2O_4S (l) Potassium Sulfate **K_2O_4S (l)**

K_2SO_4 (l) K_2SO_4 (l)

$\Delta H^0_{298} = -1393.7$ kJ·mol^{-1} [1] $S^0_{298} = 211.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 201.46$ J·mol^{-1}·K^{-1} (1342 K) [4]

K_2O_4S (g) Potassium Sulfate **K_2O_4S (g)**

K_2SO_4 (g) K_2SO_4 (g)

$\Delta H^0_{298} = -1094.1 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 366.2 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 145.43 + 6.49 \cdot 10^{-3} \cdot T - 3.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

K_2O_4Se (s) Potassium Selenate **K_2O_4Se (s)**

K_2SeO_4 (s) K_2SeO_4 (s)

$\Delta H^0_{298} = -1110$ kJ·mol^{-1} [7] $S^0_{298} = 222$ J·mol^{-1}·K^{-1} [7]

K_2O_4W (s) Potassium Tungstate(VI) **K_2O_4W (s)**

$K_2O \cdot WO_3$ (s) alpha $K_2O \cdot WO_3$ (s)

mp = 1196 K (923 °C)

$\Delta H^0_{298} = -1581.6$ kJ·mol^{-1} [4] $S^0_{298} = 175.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 113.39 + 125.52 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 650 K) [4]

K_2O_4W (s) Potassium Tungstate(VI) **K_2O_4W (s)**

$K_2O \cdot WO_3$ (s) alpha $K_2O \cdot WO_3$ (s)

$\Delta H^0_{650} = -1520.7$ kJ·mol^{-1} [4] $S^0_{650} = 308.3$ J·mol^{-1}·K^{-1} [4]

K_2O_4W (s) Potassium Tungstate(VI) **K_2O_4W (s)**
$K_2O \cdot WO_3$ (s) beta $K_2O \cdot WO_3$ (s)

$\Delta H^0_{650} = -1510.3$ kJ·mol^{-1} [4] $S^0_{650} = 324.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 194.56$ J·mol^{-1}·K^{-1} (650 K) [4]

K_2O_4W (s) Potassium Tungstate(VI) **K_2O_4W (s)**
$K_2O \cdot WO_3$ (s) beta $K_2O \cdot WO_3$ (s)

$\Delta H^0_{1196} = -1404$ kJ·mol^{-1} [4] $S^0_{1196} = 443$ J·mol^{-1}·K^{-1} [4]

K_2O_4W (l) Potassium Tungstate(VI) **K_2O_4W (l)**
$K_2O \cdot WO_3$ (l) $K_2O \cdot WO_3$ (l)

$\Delta H^0_{1196} = -1373.1$ kJ·mol^{-1} [4] $S^0_{1196} = 468.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 213.38$ J·mol^{-1}·K^{-1} (1196 K) [4]

$K_2O_5Si_2$ (s) Potassium Silicate **$K_2O_5Si_2$ (s)**
$K_2O \cdot 2SiO_2$ (s) alpha $K_2O \cdot 2SiO_2$ (s)

mp = 1318 K (1045 °C)
$\Delta H^0_{298} = -2509.6$ kJ·mol^{-1} [4] $S^0_{298} = 190.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 191.84 + 36.57 \cdot 10^{-3} \cdot T - 3.72 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 510 K) [4]

$K_2O_5Si_2$ (s) Potassium Silicate **$K_2O_5Si_2$ (s)**
$K_2O \cdot 2SiO_2$ (s) alpha $K_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{510} = -2471$ kJ·mol^{-1} [4] $S^0_{510} = 287.6$ J·mol^{-1}·K^{-1} [4]

$K_2O_5Si_2$ (s) Potassium Silicate **$K_2O_5Si_2$ (s)**
$K_2O \cdot 2SiO_2$ (s) beta $K_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{510} = -2469.7$ kJ·mol^{-1} [4] $S^0_{510} = 290$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 157.99 + 90.84 \cdot 10^{-3} \cdot T - 1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (510 ... 867 K) [4]

$K_2O_5Si_2$ (s) Potassium Silicate **$K_2O_5Si_2$ (s)**
$K_2O \cdot 2SiO_2$ (s) beta $K_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{867} = -2391.8$ kJ·mol^{-1} [4] $S^0_{867} = 405$ J·mol^{-1}·K^{-1} [4]

$K_2O_5Si_2$ (s) Potassium Silicate **$K_2O_5Si_2$ (s)**
$K_2O \cdot 2SiO_2$ (s) gamma $K_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{867} = -2390.2$ kJ·mol^{-1} [4] $S^0_{867} = 406.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 224.22 + 4.44 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (867 ... 1318 K) [4]

$K_2O_5Si_2$ (s) Potassium Silicate **$K_2O_5Si_2$ (s)**
$K_2O \cdot 2SiO_2$ (s) gamma $K_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{1318} = -2286.9$ kJ·mol^{-1} [4] $S^0_{1318} = 502.8$ J·mol^{-1}·K^{-1} [4]

$K_2O_5Si_2$ (l) Potassium Silicate **$K_2O_5Si_2$ (l)**
$K_2O \cdot 2SiO_2$ (l) $K_2O \cdot 2SiO_2$ (l)

$\Delta H^0_{1318} = -2251.7$ kJ·mol^{-1} [4] $S^0_{1318} = 529.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 275.31$ J·mol^{-1}·K^{-1} (1318 K) [4]

$K_2O_7S_2$ (s) Potassium Disulfate **$K_2O_7S_2$ (s)**
$K_2S_2O_7$ (s) $K_2S_2O_7$ (s)

$\Delta H^0_{298} = -1987$ kJ·mol^{-1} [7] $S^0_{298} = 255$ J·mol^{-1}·K^{-1} [7]

$K_2O_8S_2$ (s) Potassium Peroxydisulfate **$K_2O_8S_2$ (s)**
$K_2S_2O_8$ (s) $K_2S_2O_8$ (s)

$\Delta H^0_{298} = -1916$ kJ·mol^{-1} [7] $S^0_{298} = 279$ J·mol^{-1}·K^{-1} [7]
$C_p{}^0 = 213$ J·mol^{-1}·K^{-1} (298 K) [7]

$K_2O_9Si_4$ (s)	Potassium Silicate	**$K_2O_9Si_4$ (s)**
$K_2O \cdot 4SiO_2$ (s)	alpha	$K_2O \cdot 4SiO_2$ (s)

mp = 1043 K (770 °C)

$\Delta H^0_{298} = -4314.5$ kJ·mol^{-1} [4] — $S^0_{298} = 265.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 253.22 + 159.37 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 865 K) [4]

$K_2O_9Si_4$ (s)	Potassium Silicate	**$K_2O_9Si_4$ (s)**
$K_2O \cdot 4SiO_2$ (s)	alpha	$K_2O \cdot 4SiO_2$ (s)

$\Delta H^0_{865} = -4118.5$ kJ·mol^{-1} [4] — $S^0_{865} = 625.7$ J·mol^{-1}·K^{-1} [4]

$K_2O_9Si_4$ (s)	Potassium Silicate	**$K_2O_9Si_4$ (s)**
$K_2O \cdot 4SiO_2$ (s)	beta	$K_2O \cdot 4SiO_2$ (s)

$\Delta H^0_{865} = -4115.1$ kJ·mol^{-1} [4] — $S^0_{865} = 629.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 391.37 + 16.19 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (865 ... 1043 K) [4]

$K_2O_9Si_4$ (s)	Potassium Silicate	**$K_2O_9Si_4$ (s)**
$K_2O \cdot 4SiO_2$ (s)	beta	$K_2O \cdot 4SiO_2$ (s)

$\Delta H^0_{1043} = -4042.7$ kJ·mol^{-1} [4] — $S^0_{1043} = 705.7$ J·mol^{-1}·K^{-1} [4]

$K_2O_9Si_4$ (l)	Potassium Silicate	**$K_2O_9Si_4$ (l)**
$K_2O \cdot 4SiO_2$ (l)		$K_2O \cdot 4SiO_2$ (l)

$\Delta H^0_{1043} = -3954.8$ kJ·mol^{-1} [4] — $S^0_{1043} = 790$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 410.03$ J·mol^{-1}·K^{-1} (1043 K) [4]

K_2S (s)	Potassium Sulfide	**K_2S (s)**

mp = 1221 K (948 °C)

$\Delta H^0_{298} = -376.6 \pm 12.6$ kJ·mol^{-1} [1] — $S^0_{298} = 115.1 \pm 16.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 66.9 + 26.02 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 800 K) [4]

K_2S (s)	Potassium Sulfide	**K_2S (s)**

$\Delta H^0_{1221} = -279.7$ kJ·mol^{-1} [4] — $S^0_{1221} = 249.4$ J·mol^{-1}·K^{-1} [4]

K_2S (l) Potassium Sulfide **K_2S (l)**

$\Delta H^0_{1221} = -263.5$ kJ·mol^{-1} [4]
$S^0_{1221} = 262.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 100.96$ J·mol^{-1}·K^{-1} (1221 K) [4]

K_2S (l) Potassium Sulfide **K_2S (l)**

$\Delta H^0_{298} = -346.5$ kJ·mol^{-1} [1]
$S^0_{298} = 141.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 74.7$ J·mol^{-1}·K^{-1} (298 K) [1]

K_2Se (s) Potassium Selenide **K_2Se (s)**

$\Delta H^0_{298} = -384.9$ kJ·mol^{-1} [5]
$S^0_{298} = [125.5]$ J·mol^{-1}·K^{-1} [5]

K_2Te (s) Potassium Telluride **K_2Te (s)**

$\Delta H^0_{298} = [-334.7]$ kJ·mol^{-1} [5]
$S^0_{298} = [131.8]$ J·mol^{-1}·K^{-1} [5]

K_3O_4P (s) Potassium Phosphate **K_3O_4P (s)**
K_3PO_4 (s) K_3PO_4 (s)

mp = 1613 K (1340 °C)
$\Delta H^0_{298} = -1988.2$ kJ·mol^{-1} [2]
$S^0_{298} = 211.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 185.69 + 41.46 \cdot 10^{-3} \cdot T - 2.97 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

K_3P_7 (s) Potassium Phosphide **K_3P_7 (s)**

$\Delta H^0_{298} = -114 \pm 16$ kJ·mol^{-1} [10]
$S^0_{298} = 612$ J·mol^{-1}·K^{-1} [10]

Kr (g) Krypton **Kr (g)**

mp = 116 K (-157 °C)
bp = 120 K (-153 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1]
$S^0_{298} = 164.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 20.8$ J·mol^{-1}·K^{-1} (298 K) [1]

La (s) Lanthanum alpha **La** (s)

mp = 1193 K (920 °C) bp = 3730 K (3457 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 56.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 26.44 + 2.33 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 550 K) [4]

La (s) Lanthanum alpha **La** (s)

ΔH^0_{550} = 6.9 kJ·mol^{-1} [2] S^0_{550} = 73.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 27.72 J·mol^{-1}·K^{-1} (550 K) [4]

La (s) Lanthanum beta **La** (s)

ΔH^0_{550} = 7.3 kJ·mol^{-1} [2] S^0_{550} = 74.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 17.66 + 15.02 ·10^{-3}·T + 0.39 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (550 ... 1134 K) [4]

La (s) Lanthanum beta **La** (s)

ΔH^0_{1134} = 25.3 kJ·mol^{-1} [2] S^0_{1134} = 96.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 34.99 J·mol^{-1}·K^{-1} (1134 K) [4]

La (s) Lanthanum gamma **La** (s)

ΔH^0_{1134} = 28.5 kJ·mol^{-1} [2] S^0_{1134} = 99.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 39.54 J·mol^{-1}·K^{-1} (1134 K) [4]

La (s) Lanthanum gamma **La** (s)

ΔH^0_{1193} = 30.8 kJ·mol^{-1} [2] S^0_{1193} = 101.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 39.54 J·mol^{-1}·K^{-1} (1193 K) [4]

La (l) | Lanthanum | **La** (l)

ΔH^0_{1193} = 37 kJ·mol^{-1} [2] | S^0_{1193} = 106.3 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 34.31 J·mol^{-1}·K^{-1} (1193 K) [4]

$\lg(p,K) = -22.05 \cdot 10^3 \cdot T^{-1} - 0.3 \cdot \lg(T) + 6.99$ (1500 ... 2000 K) [4]

{Reaction: evaporation as La(g)}

La (g) | Lanthanum | **La** (g)

ΔH^0_{298} = 431 kJ·mol^{-1} [2] | S^0_{298} = 182.4 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 18.91 + 16.49 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

LaMg (s) | Lanthanum Magnesium | **LaMg** (s)

mp = 1018 K (745 °C)

ΔH^0_{298} = – 18 kJ·mol^{-1} [4] | S^0_{298} = 93.1 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 50.71 + 19.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1018 K) [4]

LaN (s) | Lanthanum Nitride | **LaN** (s)

ΔH^0_{298} = – 299.2 kJ·mol^{-1} [4] | S^0_{298} = 60.5 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 45.52 + 7.28 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

LaO (g) | Lanthanum Oxide | **LaO** (g)

ΔH^0_{298} = – 121.3 kJ·mol^{-1} [96] | S^0_{298} = 239.6 J·mol^{-1}·K^{-1} [96]

LaO_4P (s) | Lanthanum Phosphate | **LaO_4P** (s)

$LaPO_4$ (s) | | $LaPO_4$ (s)

ΔH^0_{298} = – 1912.5 kJ·mol^{-1} [4] | S^0_{298} = 121.3 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 125.52 + 24.9 \cdot 10^{-3} \cdot T - 2.78 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 800 K) [4]

$LaPd_3S_4$ (s) | Lanthanum Palladium Sulfide | **$LaPd_3S_4$** (s)

ΔH^0_{298} = – 817.6 kJ·mol^{-1} [275] | S^0_{298} = [242.7] J·mol^{-1}·K^{-1} [277]

$C_p{}^0$= [181.94] J·mol^{-1}·K^{-1} (298 K) [271]

LaRh (g) Lanthanum Rhodium **LaRh (g)**

$\Delta H^0_{298} = 454$ kJ·mol^{-1} [96] $S^0_{298} = 255.2$ J·mol^{-1}·K^{-1} [96]

LaS (s) Lanthanum Sulfide **LaS (s)**

mp = 2448 K (2175 °C)
$\Delta H^0_{298} = -464.4$ kJ·mol^{-1} [4] $S^0_{298} = 73.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 46.48 + 5.44 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2448 K) [4]

LaS (g) Lanthanum Sulfide **LaS (g)**

$\Delta H^0_{298} = 119.7$ kJ·mol^{-1} [4] $S^0_{298} = 252.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.06 + 0.18 \cdot 10^{-3} \cdot T - 0.24 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

LaS_2 (s) Lanthanum Sulfide **LaS_2 (s)**

$\Delta H^0_{298} = -623.4$ kJ·mol^{-1} [5] $S^0_{298} = [89.9]$ J·mol^{-1}·K^{-1} [5]

LaSe (s) Lanthanum Selenide **LaSe (s)**

mp = 2250 K (1977 °C)
$\Delta H^0_{298} = -359.8$ kJ·mol^{-1} [2] $S^0_{298} = 81.2$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 47.45 + 5.86 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

LaSe (g) Lanthanum Selenide **LaSe (g)**

$\Delta H^0_{298} = 187.4$ kJ·mol^{-1} [2] $S^0_{298} = 263.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 37.34 + 0.04 \cdot 10^{-3} \cdot T - 0.14 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

LaTe (s) Lanthanum Telluride **LaTe (s)**

mp = 1993 K (1720 °C)
$\Delta H^0_{298} = -301.2$ kJ·mol^{-1} [4] $S^0_{298} = 88.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 48.12 + 6.15 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

LaTe (g) Lanthanum Telluride **LaTe (g)**

ΔH^0_{298} = 257.7 kJ·mol^{-1} [4] S^0_{298} = 270.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.38 + 0.02 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

La_2 (g) Lanthanum **La_2 (g)**

ΔH^0_{298} = 615 kJ·mol^{-1} [96] S^0_{298} = 276.1 J·mol^{-1}·K^{-1} [96]

La_2O_3 (s) Lanthanum Oxide **La_2O_3 (s)**

mp = 2553 K (2280 °C)
ΔH^0_{298} = – 1793.7 kJ·mol^{-1} [2] S^0_{298} = 127.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 119.7 + 14.23 \cdot 10^{-3} \cdot T - 1.35 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$La_2O_7Si_2$ (s) Lanthanum Silicate **$La_2O_7Si_2$ (s)**
$La_2Si_2O_7$ (s) beta $La_2Si_2O_7$ (s)

ΔH^0_{298} = – 3815.7 ± 4.5 kJ·mol^{-1} [103] S^0_{298} = [214.1] J·mol^{-1}·K^{-1} [105, 8]

$La_2O_7Zr_2$ (s) Lanthanum Zirconate **$La_2O_7Zr_2$ (s)**
$La_2Zr_2O_7$ (s) $La_2Zr_2O_7$ (s)

ΔH^0_{298} = – 4130.4 ± 6.8 kJ·mol^{-1} [264] S^0_{298} = [228.1] J·mol^{-1}·K^{-1} [265, 8]
$C_p{}^0$ = [221.18] J·mol^{-1}·K^{-1} (298 K) [271]

$La_2O_9Se_3$ (s) Lanthanum Selenite **$La_2O_9Se_3$ (s)**
$La_2(SeO_3)_3$ (s) $La_2(SeO_3)_3$ (s)

ΔH^0_{298} = – 2879.4 kJ·mol^{-1} [96] S^0_{298} = 338.9 J·mol^{-1}·K^{-1} [96]

$La_2O_{12}Mo_3$ (s) Lanthanum Molybdate(VI) **$La_2O_{12}Mo_3$ (s)**
$La_2O_3 \cdot 3MoO_3$ (s) $La_2O_3 \cdot 3MoO_3$ (s)

mp = 1288 K (1015 °C)
ΔH^0_{298} = – 4323.7 kJ·mol^{-1} [4] S^0_{298} = 389.9 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$ = 329.36 J·mol^{-1}·K^{-1} (298 K) [4]

$La_2O_{12}S_3$ (s) Lanthanum Sulfate **$La_2O_{12}S_3$ (s)**

$La_2(SO_4)_3$ (s) $La_2(SO_4)_3$ (s)

ΔH^0_{298} = – 3941.3 kJ·mol^{-1} [96] S^0_{298} = [287.3] J·mol^{-1}·K^{-1} [98]

La_2S_3 (s) Lanthanum Sulfide **La_2S_3 (s)**

mp = 2190 K (1917 °C)

ΔH^0_{298} = – 1205 kJ·mol^{-1} [4] S^0_{298} = 165 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 116.52 + 14.64 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

La_2Se_3 (s) Lanthanum Selenide **La_2Se_3 (s)**

mp = 1900 K (1627 °C)

ΔH^0_{298} = – 933 kJ·mol^{-1} [2] S^0_{298} = 202.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 120.71 + 16.32 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1900 K) [4]

La_2Te_3 (s) Lanthanum Telluride **La_2Te_3 (s)**

mp = 1760 K (1487 °C)

ΔH^0_{298} = – 784.5 kJ·mol^{-1} [2] S^0_{298} = 231.6 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 128.16 + 13.39 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1760 K) [4]

La_3Se_4 (s) Lanthanum Selenide **La_3Se_4 (s)**

mp = 2120 K (1847 °C)

ΔH^0_{298} = [– 1317.9] kJ·mol^{-1} [5] S^0_{298} = [282.4] J·mol^{-1}·K^{-1} [5]

Li (s) Lithium **Li (s)**

mp = 454 K (181 °C) bp = 1605 K (1332 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 29.1 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 1.3 + 56.31 ·10^{-3}·T + 0.6 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 454 K) [4]

Li (s) Lithium **Li (s)**

ΔH^0_{454} = 4.2 kJ·mol^{-1} [4] S^0_{454} = 40.4 J·mol^{-1}·K^{-1} [4]

Li (l) Lithium **Li (l)**

ΔH^0_{454} = 7.2 kJ·mol^{-1} [4] S^0_{454} = 47 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 26.76 + 1.49 \cdot 10^{-3} \cdot T + 0.64 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (454 K) [4]

Li (l) Lithium **Li (l)**

ΔH^0_{298} = 2.4 kJ·mol^{-1} [1] S^0_{298} = 33.9 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 26.76 + 1.49 \cdot 10^{-3} \cdot T + 0.64 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (454 K) [4]

Li (g) Lithium **Li (g)**

ΔH^0_{298} = 159.3 ± 1 kJ·mol^{-1} [1] S^0_{298} = 138.8 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 20.72 + 0.08 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -8.32 \cdot 10^{3} \cdot T^{-1} - 1.03 \cdot \lg(T) + 8.44$ (600 ... 1605 K) [4]
{Reaction: evaporation of Li(l)}

LiN (g) Lithium Nitride **LiN (g)**

ΔH^0_{298} = 334.7 ± 167 kJ·mol^{-1} [1] S^0_{298} = 208.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$ = 32.8 J·mol^{-1}·K^{-1} (298 K) [1]

LiNO (g) Lithium Oxynitride **LiNO (g)**
LiON (g) LiON (g)

ΔH^0_{298} = 179.9 ± 41.8 kJ·mol^{-1} [1] S^0_{298} = 245.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$ = 44.42 J·mol^{-1}·K^{-1} (298 K) [1]

$LiNO_3$ (s) Lithium Nitrate **$LiNO_3$ (s)**

mp = 526 K (253 °C)
ΔH^0_{298} = – 483.1 kJ·mol^{-1} [4] S^0_{298} = 90 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 62.68 + 88.7 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 526 K) [4]

$LiNO_3$ (s) Lithium Nitrate **$LiNO_3$ (s)**

ΔH^0_{526} = – 460.5 kJ·mol^{-1} [4] S^0_{526} = 145.8 J·mol^{-1}·K^{-1} [4]

$LiNO_3$ (l) Lithium Nitrate **$LiNO_3$ (l)**

$\Delta H^0_{526} = -434.6$ kJ·mol^{-1} [4] $S^0_{526} = 195.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 111.29$ J·mol^{-1}·K^{-1} (526 K) [4]

LiNaO (s) Lithium Sodium Oxide **LiNaO (s)**
NaLiO (s) NaLiO (s)

$\Delta H^0_{298} = -104.6 \pm 125.5$ kJ·mol^{-1} [1] $S^0_{298} = 256.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 43.1$ J·mol^{-1}·K^{-1} (298 K) [1]

LiO (g) Lithium Oxide **LiO (g)**

$\Delta H^0_{298} = 75.7$ kJ·mol^{-1} [4] $S^0_{298} = 211$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36.79 + 0.81 \cdot 10^{-3} \cdot T - 0.43 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Li_2 (g) Lithium **Li_2 (g)**

$\Delta H^0_{298} = 210.9$ kJ·mol^{-1} [4] $S^0_{298} = 197$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.22 + 1.45 \cdot 10^{-3} \cdot T - 0.13 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -11.02 \cdot 10^{3} \cdot T^{-1} - 2.38 \cdot \lg(T) + 13.51$ (800 ... 1605 K) [4]
{Reaction: evaporation of Li(l)}

Li_2MoO_4 (s) Lithium Molybdate **Li_2MoO_4 (s)**

$\Delta H^0_{298} = -1519.2 \pm 2.2$ kJ·mol^{-1} [84] $S^0_{298} = [126]$ J·mol^{-1}·K^{-1} [86]
$C_p{}^0 = [129.70]$ J·mol^{-1}·K^{-1} (298 K) [188]

$Li_2Nb_2O_6$ (s) Lithium Niobate(V) **$Li_2Nb_2O_6$ (s)**
$Li_2O \cdot Nb_2O_5$ (s) $Li_2O \cdot Nb_2O_5$ (s)

mp = 1527 K (1254 °C)
$\Delta H^0_{298} = -2730.5$ kJ·mol^{-1} [4] $S^0_{298} = 170.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 229.87 + 48.7 \cdot 10^{-3} \cdot T - 4.07 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1527 K) [4]

Li_2NpO_4 (s) Lithium Neptunium Oxide **Li_2NpO_4 (s)**

$Li_2O \cdot NpO_3$ (s) $Li_2O \cdot NpO_3$ (s)

$\Delta H^0_{298} = -1827.8 \pm 5.6$ kJ·mol^{-1} [14] $S^0_{298} = [136.4]$ J·mol^{-1}·K^{-1} [228, 8]

$C_p^0 = [135.38]$ J·mol^{-1}·K^{-1} (298 K) [271]

Li_2O (s) Lithium Oxide **Li_2O (s)**

mp = 1843 K (1570 °C) bp = 2724 K (2451 °C)

$\Delta H^0_{298} = -598$ kJ·mol^{-1} [4] $S^0_{298} = 37.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 69.79 + 17.66 \cdot 10^{-3} \cdot T - 1.85 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1843 K) [4]

Li_2O (s) Lithium Oxide **Li_2O (s)**

$\Delta H^0_{1843} = -466.1$ kJ·mol^{-1} [4] $S^0_{1843} = 181.8$ J·mol^{-1}·K^{-1} [4]

Li_2O (l) Lithium Oxide **Li_2O (l)**

$\Delta H^0_{1843} = -423$ kJ·mol^{-1} [4] $S^0_{1843} = 205.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 97.07$ J·mol^{-1}·K^{-1} (1843 K) [4]

Li_2O (l) Lithium Oxide **Li_2O (l)**

$\Delta H^0_{298} = -553.2$ kJ·mol^{-1} [1] $S^0_{298} = 55.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 54.1$ J·mol^{-1}·K^{-1} (298 K) [1]

Li_2O (g) Lithium Oxide **Li_2O (g)**

$\Delta H^0_{298} = -160.7$ kJ·mol^{-1} [4] $S^0_{298} = 231.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 60.46 + 0.84 \cdot 10^{-3} \cdot T - 0.93 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2724 K) [4]

Li_2O_2 (s) Lithium Peroxide **Li_2O_2 (s)**

$\Delta H^0_{298} = -632.6 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 56.5 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 71.46 + 49.79 \cdot 10^{-3} \cdot T - 1.39 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 436 K) [4]

$\lg(p,K) = -3.88 \cdot 10^{3} \cdot T^{-1} - 0.55 \cdot \lg(T) + 10.35$ (298 ... 436 K) [4]

{Reaction: decomposition $2Li_2O_2(s) = 2Li_2O(s) + O_2(g)$}

Li_2O_2 (g) Lithium Peroxide **Li_2O_2 (g)**

$\Delta H^0_{298} = -242.7 \pm 25.1$ kJ·mol^{-1} [1] $S^0_{298} = 273.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 72.7$ J·mol^{-1}·K^{-1} (298 K) [1]

Li_2O_3Si (s) Lithium Silicate **Li_2O_3Si (s)**
$Li_2O \cdot SiO_2$ (s) $Li_2O \cdot SiO_2$ (s)

mp = 1474 K (1201 °C)
$\Delta H^0_{298} = -1649.5 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 80.3 \pm 1.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 118.78 + 41.25 \cdot 10^{-3} \cdot T - 2.72 \cdot 10^{6} \cdot T^{-2} - 6.11 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 1474 K) [4]

Li_2O_3Si (s) Lithium Silicate **Li_2O_3Si (s)**
$Li_2O \cdot SiO_2$ (s) $Li_2O \cdot SiO_2$ (s)

$\Delta H^0_{1474} = -1480.5$ kJ·mol^{-1} [4] $S^0_{1474} = 297.7$ J·mol^{-1}·K^{-1} [4]

Li_2O_3Si (l) Lithium Silicate **Li_2O_3Si (l)**
$Li_2O \cdot SiO_2$ (l) $Li_2O \cdot SiO_2$ (l)

$\Delta H^0_{1474} = -1452.5$ kJ·mol^{-1} [4] $S^0_{1474} = 316.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 167.36$ J·mol^{-1}·K^{-1} (1474 K) [4]

Li_2O_3Si (l) Lithium Silicate **Li_2O_3Si (l)**
$Li_2O \cdot SiO_2$ (l) $Li_2O \cdot SiO_2$ (l)

$\Delta H^0_{298} = -1625.2$ kJ·mol^{-1} [1] $S^0_{298} = 96.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 100.6$ J·mol^{-1}·K^{-1} (298 K) [1]

Li_2O_3Ti (s) Lithium Titanium Oxide **Li_2O_3Ti (s)**
$Li_2O \cdot TiO_2$ (s) alpha $Li_2O \cdot TiO_2$ (s)

mp = 1809 K (1536 °C)
$\Delta H^0_{298} = -1671.7$ kJ·mol^{-1} [4] $S^0_{298} = 91.8 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 143.39 + 13.22 \cdot 10^{-3} \cdot T - 3.35 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1485 K) [4]

Li_2O_3Ti (s) Lithium Titanium Oxide **Li_2O_3Ti (s)**

$Li_2O \cdot TiO_2$ (s) alpha $Li_2O \cdot TiO_2$ (s)

$\Delta H^0_{1485} = -1496.5$ kJ·mol^{-1} [4] $S^0_{1485} = 319.6$ J·mol^{-1}·K^{-1} [4]

Li_2O_3Ti (s) Lithium Titanium Oxide **Li_2O_3Ti (s)**

$Li_2O \cdot TiO_2$ (s) beta $Li_2O \cdot TiO_2$ (s)

$\Delta H^0_{1485} = -1485$ kJ·mol^{-1} [4] $S^0_{1485} = 327.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 125.52 + 33.47 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1485 ... 1809 K) [4]

Li_2O_3Ti (s) Lithium Titanium Oxide **Li_2O_3Ti (s)**

$Li_2O \cdot TiO_2$ (s) beta $Li_2O \cdot TiO_2$ (s)

$\Delta H^0_{1809} = -1426.5$ kJ·mol^{-1} [4] $S^0_{1809} = 363$ J·mol^{-1}·K^{-1} [4]

Li_2O_3Ti (l) Lithium Titanium Oxide **Li_2O_3Ti (l)**

$Li_2O \cdot TiO_2$ (l) $Li_2O \cdot TiO_2$ (l)

$\Delta H^0_{1809} = -1316.5$ kJ·mol^{-1} [4] $S^0_{1809} = 423.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 200.83$ J·mol^{-1}·K^{-1} (1809 K) [4]

Li_2O_3Ti (l) Lithium Titanium Oxide **Li_2O_3Ti (l)**

$Li_2O \cdot TiO_2$ (l) $Li_2O \cdot TiO_2$ (l)

$\Delta H^0_{298} = -1566.8$ kJ·mol^{-1} [1] $S^0_{298} = 147.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 109.9$ J·mol^{-1}·K^{-1} (298 K) [1]

Li_2O_3Zr (s) Lithium Zirconium Oxide **Li_2O_3Zr (s)**

$Li_2O \cdot ZrO_2$ (s) $Li_2O \cdot ZrO_2$ (s)

mp = 1883 K (1610 °C)

$\Delta H^0_{298} = -1762.3$ kJ·mol^{-1} [4] $S^0_{298} = 91.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 132.13 + 32.97 \cdot 10^{-3} \cdot T - 2.82 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1883 K) [4]

Li_2O_4S (s) Lithium Sulfate **Li_2O_4S (s)**

Li_2SO_4 (s) alpha Li_2SO_4 (s)

mp = 1130 K (857 °C)

ΔH^0_{298} = – 1437.2 kJ·mol^{-1} [4] S^0_{298} = 113.9 ± 0.4 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 65.27 + 174.05 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 848 K) [4]

Li_2O_4S (s) Lithium Sulfate **Li_2O_4S (s)**

Li_2SO_4 (s) alpha Li_2SO_4 (s)

ΔH^0_{848} = – 1346.5 kJ·mol^{-1} [4] S^0_{848} = 277.9 J·mol^{-1}·K^{-1} [4]

Li_2O_4S (s) Lithium Sulfate **Li_2O_4S (s)**

Li_2SO_4 (s) beta Li_2SO_4 (s)

ΔH^0_{848} = – 1320.9 kJ·mol^{-1} [4] S^0_{848} = 308 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 607.52 – 383.25 ·10^{-3}·T J·mol^{-1}·K^{-1} (848 ... 1130 K) [4]

Li_2O_4S (s) Lithium Sulfate **Li_2O_4S (s)**

Li_2SO_4 (s) beta Li_2SO_4 (s)

ΔH^0_{1130} = – 1256.5 kJ·mol^{-1} [4] S^0_{1130} = 374.3 J·mol^{-1}·K^{-1} [4]

Li_2O_4S (l) Lithium Sulfate **Li_2O_4S (l)**

Li_2SO_4 (l) Li_2SO_4 (l)

ΔH^0_{1130} = – 1247.2 kJ·mol^{-1} [4] S^0_{1130} = 382.6 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 207.95 J·mol^{-1}·K^{-1} (1130 K) [4]

Li_2O_4S (s) Lithium Sulfate **Li_2O_4S (s)**

Li_2SO_4 (s) beta Li_2SO_4 (s)

ΔH^0_{298} = – 1425.4 kJ·mol^{-1} [1] S^0_{298} = 113.8 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 129.7 J·mol^{-1}·K^{-1} (298 K) [1]

Li_2O_4S (l) Lithium Sulfate **Li_2O_4S (l)**

Li_2SO_4 (l) Li_2SO_4 (l)

$\Delta H^0_{298} = -1399.3$ kJ·mol^{-1} [1] $S^0_{298} = 154.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 117.6$ J·mol^{-1}·K^{-1} (298 K) [1]

Li_2O_4S (g) Lithium Sulfate **Li_2O_4S (g)**

Li_2SO_4 (g) Li_2SO_4 (g)

$\Delta H^0_{298} = -1041.8$ kJ·mol^{-1} [1] $S^0_{298} = 322.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 144.18 + 7.13 \cdot 10^{-3} \cdot T - 4.31 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Li_2O_4U (s) Lithium Uranium Oxide **Li_2O_4U (s)**

Li_2UO_4 (s) Li_2UO_4 (s)

$\Delta H^0_{298} = -1967.5 \pm 2$ kJ·mol^{-1} [150] $S^0_{298} = [136.4]$ J·mol^{-1}·K^{-1} [153]

$C_p^0 = [135.38]$ J·mol^{-1}·K^{-1} (298 K) [271]

Li_2O_4W (s) Lithium Tungstate(VI) **Li_2O_4W (s)**

$Li_2O \cdot WO_3$ (s) alpha $Li_2O \cdot WO_3$ (s)

mp = 1013 K (740 °C)

$\Delta H^0_{298} = -1603.7$ kJ·mol^{-1} [4] $S^0_{298} = 113$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 101.67 + 106.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 948 K) [4]

Li_2O_4W (s) Lithium Tungstate(VI) **Li_2O_4W (s)**

$Li_2O \cdot WO_3$ (s) alpha $Li_2O \cdot WO_3$ (s)

$\Delta H^0_{948} = -1494.6$ kJ·mol^{-1} [4] $S^0_{948} = 299.6$ J·mol^{-1}·K^{-1} [4]

Li_2O_4W (s) Lithium Tungstate(VI) **Li_2O_4W (s)**

$Li_2O \cdot WO_3$ (s) beta $Li_2O \cdot WO_3$ (s)

$\Delta H^0_{948} = -1491.9$ kJ·mol^{-1} [4] $S^0_{948} = 302.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 199.16$ J·mol^{-1}·K^{-1} (948 ... 1013 K) [4]

Li_2O_4W (s) Lithium Tungstate(VI) **Li_2O_4W (s)**
$Li_2O \cdot WO_3$ (s) beta $Li_2O \cdot WO_3$ (s)

$\Delta H^0_{1013} = -1479$ kJ·mol⁻¹ [4] $S^0_{1013} = 315.7$ J·mol⁻¹·K⁻¹ [4]

Li_2O_4W (l) Lithium Tungstate(VI) **Li_2O_4W (l)**
$Li_2O \cdot WO_3$ (l) $Li_2O \cdot WO_3$ (l)

$\Delta H^0_{1013} = -1450.5$ kJ·mol⁻¹ [4] $S^0_{1013} = 343.8$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 205.02$ J·mol⁻¹·K⁻¹ (1013 K) [4]

$Li_2O_5Si_2$ (s) Lithium Silicate **$Li_2O_5Si_2$ (s)**
$Li_2O \cdot 2SiO_2$ (s) alpha $Li_2O \cdot 2SiO_2$ (s)

mp = 1307 K (1034 °C)
$\Delta H^0_{298} = -2560.9 \pm 4.2$ kJ·mol⁻¹ [1] $S^0_{298} = 125.5$ J·mol⁻¹·K⁻¹ [1]
$C_p{}^0 = 190.41 + 58.24 \cdot 10^{-3} \cdot T - 6.13 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1209 K) [4]

$Li_2O_5Si_2$ (s) Lithium Silicate **$Li_2O_5Si_2$ (s)**
$Li_2O \cdot 2SiO_2$ (s) alpha $Li_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{1209} = -2363$ kJ·mol⁻¹ [4] $S^0_{1209} = 412.7$ J·mol⁻¹·K⁻¹ [4]

$Li_2O_5Si_2$ (s) Lithium Silicate **$Li_2O_5Si_2$ (s)**
$Li_2O \cdot 2SiO_2$ (s) beta $Li_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{1209} = -2362$ kJ·mol⁻¹ [4] $S^0_{1209} = 413.5$ J·mol⁻¹·K⁻¹ [4]
$C_p{}^0 = 214.14 + 26.19 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (1209 ... 1307 K) [4]

$Li_2O_5Si_2$ (s) Lithium Silicate **$Li_2O_5Si_2$ (s)**
$Li_2O \cdot 2SiO_2$ (s) beta $Li_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{1307} = -2337.8$ kJ·mol⁻¹ [4] $S^0_{1307} = 432.8$ J·mol⁻¹·K⁻¹ [4]

$Li_2O_5Si_2$ (l) Lithium Silicate **$Li_2O_5Si_2$ (l)**
$Li_2O \cdot 2SiO_2$ (l) $Li_2O \cdot 2SiO_2$ (l)

$\Delta H^0_{1307} = -2284$ kJ·mol^{-1} [4] $S^0_{1307} = 473.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 251.04$ J·mol^{-1}·K^{-1} (1307 K) [4]

$Li_2O_5Si_2$ (l) Lithium Silicate **$Li_2O_5Si_2$ (l)**
$Li_2O \cdot 2SiO_2$ (l) $Li_2O \cdot 2SiO_2$ (l)

$\Delta H^0_{298} = -2513.1$ kJ·mol^{-1} [1] $S^0_{298} = 160.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 138.1$ J·mol^{-1}·K^{-1} (298 K) [1]

$Li_2O_6Ta_2$ (s) Lithium Tantalate(V) **$Li_2O_6Ta_2$ (s)**
$Li_2O \cdot Ta_2O_5$ (s) $Li_2O \cdot Ta_2O_5$ (s)

mp = 1923 K (1650 °C)
$\Delta H^0_{298} = -2838.4$ kJ·mol^{-1} [4] $S^0_{298} = 179.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 235.56 + 39.08 \cdot 10^{-3} \cdot T - 4.18 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1923 K) [4]

$Li_2O_{10}U_3$ (s) Lithium Uranium Oxide **$Li_2O_{10}U_3$ (s)**
$Li_2O \cdot 3UO_3$ (s) $Li_2O \cdot 3UO_3$ (s)

$\Delta H^0_{298} = -4437.6 \pm 3.6$ kJ·mol^{-1} [150] $S^0_{298} = [334]$ J·mol^{-1}·K^{-1} [152]
$C_p^0 = [297.70]$ J·mol^{-1}·K^{-1} (298 K) [271]

Li_2S (s) Lithium Sulfide **Li_2S (s)**

mp = 1223 K (950 °C)
$\Delta H^0_{298} = -441.4$ kJ·mol^{-1} [4] $S^0_{298} = 60.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 66.32 + 20.17 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1223 K) [4]

Li_2Se (s) Lithium Selenide **Li_2Se (s)**

mp = 1375 K (1102 °C)
$\Delta H^0_{298} = -420.1$ kJ·mol^{-1} [4] $S^0_{298} = 66.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 74.81 + 10.29 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Li_2Te (s) Lithium Telluride **Li_2Te (s)**

mp = 1477 K (1204 °C)
$\Delta H^0_{298} = -355.6$ kJ·mol^{-1} [2] $S^0_{298} = 77.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 77.4 + 16.74 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Li_3N (s) Lithium Nitride **Li_3N (s)**

mp = 1088 K (815 °C)
$\Delta H^0_{298} = -164.6 \pm 1.1$ kJ·mol^{-1} [1] $S^0_{298} = 62.6 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 56.53 + 85.77 \cdot 10^{-3} \cdot T - 0.61 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1088 K) [4]

Li_4O_4Si (s) Lithium Silicate **Li_4O_4Si (s)**
$2Li_2O \cdot SiO_2$ (s) $2Li_2O \cdot SiO_2$ (s)

mp = 1528 K (1255 °C)
$\Delta H^0_{298} = -2330.1$ kJ·mol^{-1} [2] $S^0_{298} = 121.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 137.32 + 68.33 \cdot 10^{-3} \cdot T - 0.98 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1528 K) [4]

Li_4O_5U (s) Lithium Uranium Oxide **Li_4O_5U (s)**
Li_4UO_5 (s) Li_4UO_5 (s)

$\Delta H^0_{298} = -2639.7$ kJ·mol^{-1} [150] $S^0_{298} = [174]$ J·mol^{-1}·K^{-1} [151]
$C_p{}^0 = [189.60]$ J·mol^{-1}·K^{-1} (298 K) [271]

Lu (s) Lutetium **Lu (s)**

mp = 1936 K (1663 °C) bp = 3664 K (3391 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 51$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 27.41 - 5.4 \cdot 10^{-3} \cdot T + 0.03 \cdot 10^{6} \cdot T^{-2} + 8.28 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 1936 K) [4]
$\lg(p,K) = -23.44 \cdot 10^{3} \cdot T^{-1} - 2.16 \cdot \lg(T) + 14.38$ (1500 ... 1936 K) [4]
{Reaction: evaporation as Lu(g)}

Lu (s) Lutetium **Lu (s)**

$\Delta H^0_{1936} = 55.1$ kJ·mol^{-1} [2] $S^0_{1936} = 108.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 48.01$ J·mol^{-1}·K^{-1} (1936 K) [4]

Lu (l) | Lutetium | **Lu** (l)

ΔH^0_{1936} = 73.8 kJ·mol^{-1} [2] S^0_{1936} = 118.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 47.91 J·mol^{-1}·K^{-1} (1936 K) [4]
$\lg(p,K) = -22.87 \cdot 10^3 \cdot T^{-1} - 2.7 \cdot \lg(T) + 15.87$ (1936 ... 2000 K) [4]
{Reaction: evaporation as Lu(g)}

Lu (g) | Lutetium | **Lu** (g)

ΔH^0_{298} = 427.6 kJ·mol^{-1} [2] S^0_{298} = 184.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 16.92 + 13.4 \cdot 10^{-3} \cdot T + 0.01 \cdot 10^6 \cdot T^{-2} - 4.61 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

LuS (s) | Lutetium Sulfide | **LuS** (s)

ΔH^0_{298} = [– 460.2] kJ·mol^{-1} [5] S^0_{298} = [62.8] J·mol^{-1}·K^{-1} [5]

LuS (g) | Lutetium Sulfide | **LuS** (g)

ΔH^0_{298} = 202.1 kJ·mol^{-1} [5] S^0_{298} = [253.2] J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.13] + [0.15] \cdot 10^{-3} \cdot T + [-0.25] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

LuSe (s) | Lutetium Selenide | **LuSe** (s)

ΔH^0_{298} = [– 368.2] kJ·mol^{-1} [5] S^0_{298} = [75.3] J·mol^{-1}·K^{-1} [5]

LuSe (g) | Lutetium Selenide | **LuSe** (g)

ΔH^0_{298} = 245.2 kJ·mol^{-1} [5] S^0_{298} = [263.6] J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.28] + [0.07] \cdot 10^{-3} \cdot T + [-0.18] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

LuTe (s) | Lutetium Telluride | **LuTe** (s)

ΔH^0_{298} = [– 313.8] kJ·mol^{-1} [5] S^0_{298} = [82.4] J·mol^{-1}·K^{-1} [5]

LuTe (g) | Lutetium Telluride | **LuTe** (g)

ΔH^0_{298} = 314.2 kJ·mol^{-1} [5] S^0_{298} = [272.3] J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.38] + [0.02] \cdot 10^{-3} \cdot T + [-0.10] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

Lu_2O_3 (s) Lutetium Oxide **Lu_2O_3 (s)**

mp = 2723 K (2450 °C)

$\Delta H^0_{298} = -1878.2$ kJ·mol^{-1} [2] $S^0_{298} = 110$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 119.46 + 9.62 \cdot 10^{-3} \cdot T - 1.83 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Lu_2S_3 (s) Lutetium Sulfide **Lu_2S_3 (s)**

$\Delta H^0_{298} = [-1242.6]$ kJ·mol^{-1} [5] $S^0_{298} = [161.1]$ J·mol^{-1}·K^{-1} [5]

Lu_2Se_3 (s) Lutetium Selenide **Lu_2Se_3 (s)**

$\Delta H^0_{298} = [-962.3]$ kJ·mol^{-1} [5] $S^0_{298} = [198.7]$ J·mol^{-1}·K^{-1} [5]

Lu_2Te_3 (s) Lutetium Telluride **Lu_2Te_3 (s)**

$\Delta H^0_{298} = [-815.9]$ kJ·mol^{-1} [5] $S^0_{298} = [219.7]$ J·mol^{-1}·K^{-1} [5]

Mg (s) Magnesium **Mg (s)**

mp = 923 K (650 °C) bp = 1366 K (1093 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 32.7 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 21.39 + 11.78 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 923 K) [4]

$\lg(p,K) = -7.88 \cdot 10^3 \cdot T^{-1} - 1.15 \cdot \lg(T) + 9.55$ (600 ... 923 K) [4]

{Reaction: evaporation as Mg(g)}

Mg (s) Magnesium **Mg (s)**

$\Delta H^0_{923} = 17.9$ kJ·mol^{-1} [4] $S^0_{923} = 64.2$ J·mol^{-1}·K^{-1} [4]

Mg (l) Magnesium **Mg (l)**

$\Delta H^0_{923} = 26.3$ kJ·mol^{-1} [4] $S^0_{923} = 73.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 34.31$ J·mol^{-1}·K^{-1} (923 K) [4]

$\lg(p,K) = -7.63 \cdot 10^3 \cdot T^{-1} - 1.63 \cdot \lg(T) + 10.69$ (923 ... 1366 K) [4]

{Reaction: evaporation as Mg(g)}

Lu_2O_3 (s) Lutetium Oxide **Lu_2O_3 (s)**

mp = 2723 K (2450 °C)
ΔH^0_{298} = – 1878.2 kJ·mol⁻¹ [2] S^0_{298} = 110 J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 119.46 + 9.62 \cdot 10^{-3} \cdot T - 1.83 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

Lu_2S_3 (s) Lutetium Sulfide **Lu_2S_3 (s)**

ΔH^0_{298} = [– 1242.6] kJ·mol⁻¹ [5] S^0_{298} = [161.1] J·mol⁻¹·K⁻¹ [5]

Lu_2Se_3 (s) Lutetium Selenide **Lu_2Se_3 (s)**

ΔH^0_{298} = [– 962.3] kJ·mol⁻¹ [5] S^0_{298} = [198.7] J·mol⁻¹·K⁻¹ [5]

Lu_2Te_3 (s) Lutetium Telluride **Lu_2Te_3 (s)**

ΔH^0_{298} = [– 815.9] kJ·mol⁻¹ [5] S^0_{298} = [219.7] J·mol⁻¹·K⁻¹ [5]

Mg (s) Magnesium **Mg (s)**

mp = 923 K (650 °C) bp = 1366 K (1093 °C)
ΔH^0_{298} = 0 kJ·mol⁻¹ [1] S^0_{298} = 32.7 ± 0.1 J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 21.39 + 11.78 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 923 K) [4]
$\lg(p,K) = -7.88 \cdot 10^3 \cdot T^{-1} - 1.15 \cdot \lg(T) + 9.55$ (600 ... 923 K) [4]
{Reaction: evaporation as Mg(g)}

Mg (s) Magnesium **Mg (s)**

ΔH^0_{923} = 17.9 kJ·mol⁻¹ [4] S^0_{923} = 64.2 J·mol⁻¹·K⁻¹ [4]

Mg (l) Magnesium **Mg (l)**

ΔH^0_{923} = 26.3 kJ·mol⁻¹ [4] S^0_{923} = 73.4 J·mol⁻¹·K⁻¹ [4]
C_p^0 = 34.31 J·mol⁻¹·K⁻¹ (923 K) [4]
$\lg(p,K) = -7.63 \cdot 10^3 \cdot T^{-1} - 1.63 \cdot \lg(T) + 10.69$ (923 ... 1366 K) [4]
{Reaction: evaporation as Mg(g)}

Mg (l) Magnesium **Mg (l)**

$\Delta H^0_{298} = 4.8$ kJ·mol^{-1} [1] $S^0_{298} = 34.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 34.31$ J·mol^{-1}·K^{-1} (923 K) [4]

Mg (g) Magnesium **Mg (g)**

$\Delta H^0_{298} = 147.1 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 148.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 20.79$ J·mol^{-1}·K^{-1} (298 K) [4]

$MgMoO_4$ (s) Magnesium Molybdate **$MgMoO_4$ (s)**
$MgO \cdot MoO_3$ (s) $MgO \cdot MoO_3$ (s)

mp = 1503 K (1230 °C)
$\Delta H^0_{298} = -1400.3$ kJ·mol^{-1} [4] $S^0_{298} = 118.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 133.01 + 27.78 \cdot 10^{-3} \cdot T - 2.7 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1503 K) [4]

MgN (g) Magnesium Nitride **MgN (g)**

$\Delta H^0_{298} = 288.7 \pm 25.1$ kJ·mol^{-1} [1] $S^0_{298} = 224.8$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 32.73$ J·mol^{-1}·K^{-1} (298 K) [1]

MgN_2O_6 (s) Magnesium Nitrate **MgN_2O_6 (s)**
$Mg(NO_3)_2$ (s) $Mg(NO_3)_2$ (s)

$\Delta H^0_{298} = -790.7$ kJ·mol^{-1} [2] $S^0_{298} = 164$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 44.69 + 297.9 \cdot 10^{-3} \cdot T + 0.75 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 577 K) [4]

$MgNi_2$ (s) Magnesium Nickel **$MgNi_2$ (s)**

mp = 1420 K (1147 °C)
$\Delta H^0_{298} = -56.5$ kJ·mol^{-1} [4] $S^0_{298} = 88.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 79.96 + 19.51 \cdot 10^{-3} \cdot T - 0.75 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1420 K) [4]

MgO (s) Magnesium Oxide Periclase **MgO (s)**

mp = 3105 K (2832 °C)

$\Delta H^0_{298} = -601.2 \pm 0.6$ kJ·mol^{-1} [1] $S^0_{298} = 26.9 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 49 + 3.43 \cdot 10^{-3} \cdot T - 1.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 3105 K) [4]

MgO (l) Magnesium Oxide **MgO (l)**

$\Delta H^0_{298} = -532.6$ kJ·mol^{-1} [1] $S^0_{298} = 48.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 37.1$ J·mol^{-1}·K^{-1} (298 K) [1]

MgO (g) Magnesium Oxide **MgO (g)**

$\Delta H^0_{298} = 58.2 \pm 25.1$ kJ·mol^{-1} [1] $S^0_{298} = 213.3 \pm 3.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 32.2$ J·mol^{-1}·K^{-1} (298 K) [1]

MgO_3Se (s) Magnesium Selenite **MgO_3Se (s)**

$MgSeO_3$ (s) $MgSeO_3$ (s)

$\Delta H^0_{298} = -900.2$ kJ·mol^{-1} [2] $S^0_{298} = 100.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 104.6$ J·mol^{-1}·K^{-1} (298 K) [2]

MgO_3Si (s) Magnesium Silicate alpha **MgO_3Si (s)**

$MgO \cdot SiO_2$ (s) $MgO \cdot SiO_2$ (s)

mp = 1850 K (1577 °C)

$\Delta H^0_{298} = -1548.5$ kJ·mol^{-1} [4] $S^0_{298} = 67.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 92.05 + 33.05 \cdot 10^{-3} \cdot T - 1.78 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 903 K) [4]

MgO_3Si (s) Magnesium Silicate alpha **MgO_3Si (s)**

$MgO \cdot SiO_2$ (s) $MgO \cdot SiO_2$ (s)

$\Delta H^0_{903} = -1484.8$ kJ·mol^{-1} [4] $S^0_{903} = 180.9$ J·mol^{-1}·K^{-1} [4]

MgO_3Si (s)	Magnesium Silicate	**MgO_3Si (s)**
$MgO \cdot SiO_2$ (s)	beta	$MgO \cdot SiO_2$ (s)

$\Delta H^0_{903} = -1484.1$ kJ·mol^{-1} [4] $S^0_{903} = 181.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 120.33$ J·mol^{-1}·K^{-1} (903 K) [4]

MgO_3Si (s)	Magnesium Silicate	**MgO_3Si (s)**
$MgO \cdot SiO_2$ (s)	beta	$MgO \cdot SiO_2$ (s)

$\Delta H^0_{1258} = -1441.4$ kJ·mol^{-1} [4] $S^0_{1258} = 221.6$ J·mol^{-1}·K^{-1} [4]

MgO_3Si (s)	Magnesium Silicate	**MgO_3Si (s)**
$MgO \cdot SiO_2$ (s)	gamma	$MgO \cdot SiO_2$ (s)

$\Delta H^0_{1258} = -1439.8$ kJ·mol^{-1} [4] $S^0_{1258} = 222.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 122.42$ J·mol^{-1}·K^{-1} (1258 K) [4]

MgO_3Si (s)	Magnesium Silicate	**MgO_3Si (s)**
$MgO \cdot SiO_2$ (s)	gamma	$MgO \cdot SiO_2$ (s)

$\Delta H^0_{1850} = -1367.3$ kJ·mol^{-1} [4] $S^0_{1850} = 270.1$ J·mol^{-1}·K^{-1} [4]

MgO_3Si (l)	Magnesium Silicate	**MgO_3Si (l)**
$MgO \cdot SiO_2$ (l)		$MgO \cdot SiO_2$ (l)

$\Delta H^0_{1850} = -1292$ kJ·mol^{-1} [4] $S^0_{1850} = 310.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 146.44$ J·mol^{-1}·K^{-1} (1850 K) [4]

MgO_3Si (l)	Magnesium Silicate	**MgO_3Si (l)**
$MgO \cdot SiO_2$ (l)		$MgO \cdot SiO_2$ (l)

$\Delta H^0_{298} = -1494.9$ kJ·mol^{-1} [1] $S^0_{298} = 92.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 146.44$ J·mol^{-1}·K^{-1} (1850 K) [4]

MgO_3Ti (s) Magnesium Titanate **MgO_3Ti (s)**
$MgO \cdot TiO_2$ (s) $MgO \cdot TiO_2$ (s)

mp = 1953 K (1680 °C)
$\Delta H^0_{298} = -1572.6 \pm 6.3$ kJ·mol⁻¹ [1] $S^0_{298} = 74.6 \pm 0.4$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 118.53 + 13.6 \cdot 10^{-3} \cdot T - 2.79 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1953 K) [4]

MgO_3Ti (s) Magnesium Titanate **MgO_3Ti (s)**
$MgO \cdot TiO_2$ (s) $MgO \cdot TiO_2$ (s)

$\Delta H^0_{1953} = -1359$ kJ·mol⁻¹ [4] $S^0_{1953} = 304.5$ J·mol⁻¹·K⁻¹ [4]

MgO_3Ti (l) Magnesium Titanate **MgO_3Ti (l)**
$MgO \cdot TiO_2$ (l) $MgO \cdot TiO_2$ (l)

$\Delta H^0_{1953} = -1268.6$ kJ·mol⁻¹ [4] $S^0_{1953} = 350.8$ J·mol⁻¹·K⁻¹ [4]
$C_p^0 = 163.18$ J·mol⁻¹·K⁻¹ (1953 K) [4]

MgO_3Ti (l) Magnesium Titanate **MgO_3Ti (l)**
$MgO \cdot TiO_2$ (l) $MgO \cdot TiO_2$ (l)

$\Delta H^0_{298} = -1497.6$ kJ·mol⁻¹ [1] $S^0_{298} = 111.1$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 91.9$ J·mol⁻¹·K⁻¹ (298 K) [1]

MgO_4S (s) Magnesium Sulfate **MgO_4S (s)**
$MgSO_4$ (s) $MgSO_4$ (s)

mp = 1400 K (1127 °C)
$\Delta H^0_{298} = -1261.8 \pm 20.9$ kJ·mol⁻¹ [1] $S^0_{298} = 91.4 \pm 0.8$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 106.44 + 46.28 \cdot 10^{-3} \cdot T - 2.19 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1270 K) [4]

MgO_4S (l) Magnesium Sulfate **MgO_4S (l)**
$MgSO_4$ (l) $MgSO_4$ (l)

$\Delta H^0_{298} = -1246.6$ kJ·mol⁻¹ [1] $S^0_{298} = 102.1$ J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 96.2$ J·mol⁻¹·K⁻¹ (298 K) [1]

MgO_4U (s) Magnesium Uranate(VI) **MgO_4U (s)**
$MgO \cdot UO_3$ (s) $MgO \cdot UO_3$ (s)

$\Delta H^0_{298} = -1856.9$ kJ·mol^{-1} [4] $S^0_{298} = 131.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 110.25 + 66.78 \cdot 10^{-3} \cdot T + 2.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1400 K) [4]

MgO_4W (s) Magnesium Tungstate(VI) **MgO_4W (s)**
$MgO \cdot WO_3$ (s) $MgO \cdot WO_3$ (s)

mp = 1631 K (1358 °C)
$\Delta H^0_{298} = -1517.1$ kJ·mol^{-1} [4] $S^0_{298} = 101.2 \pm 0.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 115.02 + 42.3 \cdot 10^{-3} \cdot T - 1.58 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1631 K) [4]

MgO_5Ti_2 (s) Magnesium Titanate **MgO_5Ti_2 (s)**
$MgO \cdot 2TiO_2$ (s) $MgO \cdot 2TiO_2$ (s)

mp = 1963 K (1690 °C)
$\Delta H^0_{298} = -2509.4 \pm 10.5$ kJ·mol^{-1} [1] $S^0_{298} = 135.6 \pm 6.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 170.41 + 38.37 \cdot 10^{-3} \cdot T - 3.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1963 K) [4]

MgO_5Ti_2 (s) Magnesium Titanate **MgO_5Ti_2 (s)**
$MgO \cdot 2TiO_2$ (s) $MgO \cdot 2TiO_2$ (s)

$\Delta H^0_{1963} = -2162.3$ kJ·mol^{-1} [4] $S^0_{1963} = 503.4$ J·mol^{-1}·K^{-1} [4]

MgO_5Ti_2 (l) Magnesium Titanate **MgO_5Ti_2 (l)**
$MgO \cdot 2TiO_2$ (l) $MgO \cdot 2TiO_2$ (l)

$\Delta H^0_{1963} = -2015.9$ kJ·mol^{-1} [4] $S^0_{1963} = 578$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 261.5$ J·mol^{-1}·K^{-1} (1963 K) [4]

MgO_5Ti_2 (l) Magnesium Titanate **MgO_5Ti_2 (l)**
$MgO \cdot 2TiO_2$ (l) $MgO \cdot 2TiO_2$ (l)

$\Delta H^0_{298} = -2382.3$ kJ·mol^{-1} [1] $S^0_{298} = 197.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 146.9$ J·mol^{-1}·K^{-1} (298 K) [1]

MgO_6V_2 (s) Magnesium Vanadate(V) **MgO_6V_2 (s)**

$MgO \cdot V_2O_5$ (s) $MgO \cdot V_2O_5$ (s)

mp = 1015 K (742 °C)

$\Delta H^0_{298} = -2200.8$ kJ·mol^{-1} [4] $S^0_{298} = 160.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 231.29 - 6.09 \cdot 10^{-3} \cdot T - 6.48 \cdot 10^6 \cdot T^{-2} - 2.93 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1015 K) [4]

MgS (s) Magnesium Sulfide **MgS (s)**

$\Delta H^0_{298} = -345.7 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 50.3 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 48.74 + 3.64 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

MgS (g) Magnesium Sulfide **MgS (g)**

$\Delta H^0_{298} = 145.2 \pm 66.9$ kJ·mol^{-1} [1] $S^0_{298} = 225.5 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 36.9 + 0.34 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

MgSe (s) Magnesium Selenide **MgSe (s)**

$\Delta H^0_{298} = -292.9$ kJ·mol^{-1} [2] $S^0_{298} = 62.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 48$ J·mol^{-1}·K^{-1} (298 K) [2]

MgTe (s) Magnesium Telluride **MgTe (s)**

$\Delta H^0_{298} = -209.2$ kJ·mol^{-1} [2] $S^0_{298} = 74.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 37.66 + 10.46 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

Mg_2 (g) Magnesium **Mg_2 (g)**

$\Delta H^0_{298} = 287.6 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 240.2 \pm 0.5$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 24.3$ J·mol^{-1}·K^{-1} (298 K) [1]

Mg_2O_4Si (s) Magnesium Silicate **Mg_2O_4Si (s)**

$2MgO \cdot SiO_2$ (s) $2MgO \cdot SiO_2$ (s)

mp = 2171 K (1898 °C)

$\Delta H^0_{298} = -2176.9 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 95.2 \pm 0.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 144.31 + 38.74 \cdot 10^{-3} \cdot T - 3.28 \cdot 10^6 \cdot T^{-2} - 5.48 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2171 K) [4]

Mg_2O_4Si (l) Magnesium Silicate **Mg_2O_4Si (l)**
$2MgO \cdot SiO_2$ (l) $2MgO \cdot SiO_2$ (l)

$\Delta H^0_{298} = -2113.9$ kJ·mol^{-1} [1] $S^0_{298} = 123$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 205.02$ J·mol^{-1}·K^{-1} (2171 K) [4]

Mg_2O_4Ti (s) Magnesium Titanate **Mg_2O_4Ti (s)**
$2MgO \cdot TiO_2$ (s) $2MgO \cdot TiO_2$ (s)

mp = 2013 K (1740 °C)
$\Delta H^0_{298} = -2164.4 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 115.1 \pm 6.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 152.37 + 34.06 \cdot 10^{-3} \cdot T - 3.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2013 K) [4]

Mg_2O_4Ti (s) Magnesium Titanate **Mg_2O_4Ti (s)**
$2MgO \cdot TiO_2$ (s) $2MgO \cdot TiO_2$ (s)

$\Delta H^0_{2013} = -1844.3$ kJ·mol^{-1} [4] $S^0_{2013} = 447.7$ J·mol^{-1}·K^{-1} [4]

Mg_2O_4Ti (l) Magnesium Titanate **Mg_2O_4Ti (l)**
$2MgO \cdot TiO_2$ (l) $2MgO \cdot TiO_2$ (l)

$\Delta H^0_{2013} = -1714.6$ kJ·mol^{-1} [4] $S^0_{2013} = 512.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 228.45$ J·mol^{-1}·K^{-1} (2013 K) [4]

Mg_2O_4Ti (l) Magnesium Titanate **Mg_2O_4Ti (l)**
$2MgO \cdot TiO_2$ (l) $2MgO \cdot TiO_2$ (l)

$\Delta H^0_{298} = -2046.3$ kJ·mol^{-1} [1] $S^0_{298} = 172.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 128.6$ J·mol^{-1}·K^{-1} (298 K) [1]

$Mg_2O_7V_2$ (s) Magnesium Vanadate(V) **$Mg_2O_7V_2$ (s)**
$2MgO \cdot V_2O_5$ (s) $2MgO \cdot V_2O_5$ (s)

mp = 1253 K (980 °C)
$\Delta H^0_{298} = -2834.7$ kJ·mol^{-1} [4] $S^0_{298} = 200$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 284.6 + 4.06 \cdot 10^{-3} \cdot T - 7.42 \cdot 10^6 \cdot T^{-2} - 5.82 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1253 K) [4]

Mg_2Pb (s) Magnesium Lead **Mg_2Pb (s)**

mp = 823 K (550 °C)
$\Delta H^0_{298} = -48.1$ kJ·mol^{-1} [4] $S^0_{298} = 119.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 65.9 + 34.52 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 823 K) [4]

Mg_2Pb (s) Magnesium Lead **Mg_2Pb (s)**

$\Delta H^0_{823} = -3.3$ kJ·mol^{-1} [4] $S^0_{823} = 204.3$ J·mol^{-1}·K^{-1} [4]

Mg_2Pb (l) Magnesium Lead **Mg_2Pb (l)**

$\Delta H^0_{823} = 36.8$ kJ·mol^{-1} [4] $S^0_{823} = 253.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 94.98$ J·mol^{-1}·K^{-1} (823 K) [4]

Mg_2Si (s) Magnesium Silicide **Mg_2Si (s)**

mp = 1358 K (1085 °C)
$\Delta H^0_{298} = -77.8$ kJ·mol^{-1} [1] $S^0_{298} = 75$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 73.35 + 14.97 \cdot 10^{-3} \cdot T - 0.88 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1358 K) [4]

Mg_2Si (s) Magnesium Silicide **Mg_2Si (s)**

$\Delta H^0_{1358} = 10.8$ kJ·mol^{-1} [4] $S^0_{1358} = 197.3$ J·mol^{-1}·K^{-1} [4]

Mg_2Si (l) Magnesium Silicide **Mg_2Si (l)**

$\Delta H^0_{1358} = 96.5$ kJ·mol^{-1} [4] $S^0_{1358} = 260.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 94.14$ J·mol^{-1}·K^{-1} (1358 K) [4]

Mg_2Si (l) Magnesium Silicide **Mg_2Si (l)**

$\Delta H^0_{298} = -3.3$ kJ·mol^{-1} [1] $S^0_{298} = 123.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 94.1$ J·mol^{-1}·K^{-1} (298 K) [1]

Mg_2Th (s) Magnesium Thorium **Mg_2Th (s)**

$\Delta H^0_{298} = -31.4$ kJ·mol^{-1} [2] $S^0_{298} = 92.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 77$ J·mol^{-1}·K^{-1} (298 K) [2]

Mg_3N_2 (s) Magnesium Nitride alpha **Mg_3N_2 (s)**

$\Delta H^0_{298} = -461.5$ kJ·mol^{-1} [4] $S^0_{298} = 93.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 86.9 + 46.86 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 823 K) [4]

Mg_3N_2 (s) Magnesium Nitride alpha **Mg_3N_2 (s)**

$\Delta H^0_{823} = -402.1$ kJ·mol^{-1} [4] $S^0_{823} = 206.6$ J·mol^{-1}·K^{-1} [4]

Mg_3N_2 (s) Magnesium Nitride beta **Mg_3N_2 (s)**

$\Delta H^0_{823} = -401.6$ kJ·mol^{-1} [4] $S^0_{823} = 207.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 83.97 + 44.6 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (823 ... 1061 K) [4]

Mg_3N_2 (s) Magnesium Nitride beta **Mg_3N_2 (s)**

$\Delta H^0_{1061} = -371.7$ kJ·mol^{-1} [4] $S^0_{1061} = 239.1$ J·mol^{-1}·K^{-1} [4]

Mg_3N_2 (s) Magnesium Nitride gamma **Mg_3N_2 (s)**

$\Delta H^0_{1061} = -370.7$ kJ·mol^{-1} [4] $S^0_{1061} = 239.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 119.24$ J·mol^{-1}·K^{-1} (1061 K) [4]

$Mg_3O_8P_2$ (s) Magnesium Diphosphate **$Mg_3O_8P_2$ (s)**

$3MgO \cdot P_2O_5$ (s) $3MgO \cdot P_2O_5$ (s)

mp = 1621 K (1348 °C)

$\Delta H^0_{298} = -3745.1 \pm 10.5$ kJ·mol⁻¹ [1] $S^0_{298} = 188.3$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 121.46 + 335.77 \cdot 10^{-3} \cdot T + 0.11 \cdot 10^{6} \cdot T^{-2} - 108.78 \cdot 10^{-6} \cdot T^2$ J·mol⁻¹·K⁻¹ (298 ... 1621 K) [4]

$Mg_3O_8P_2$ (l) Magnesium Diphosphate **$Mg_3O_8P_2$ (l)**

$3MgO \cdot P_2O_5$ (l) $3MgO \cdot P_2O_5$ (l)

$\Delta H^0_{298} = -3663.2$ kJ·mol⁻¹ [1] $S^0_{298} = 235.1$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 474.67$ J·mol⁻¹·K⁻¹ (1621 K) [4]

Mg_3Sb_2 (s) Magnesium Antimonide alpha **Mg_3Sb_2 (s)**

mp = 1518 K (1245 °C)

$\Delta H^0_{298} = -300$ kJ·mol⁻¹ [4] $S^0_{298} = 136.6$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 112.97 + 40.17 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 1203 K) [4]

Mg_3Sb_2 (s) Magnesium Antimonide alpha **Mg_3Sb_2 (s)**

$\Delta H^0_{1203} = -170.5$ kJ·mol⁻¹ [4] $S^0_{1203} = 330.5$ J·mol⁻¹·K⁻¹ [4]

Mg_3Sb_2 (s) Magnesium Antimonide beta **Mg_3Sb_2 (s)**

$\Delta H^0_{1203} = -97.2$ kJ·mol⁻¹ [4] $S^0_{1203} = 391.4$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 160.67$ J·mol⁻¹·K⁻¹ (1203 K) [4]

Mn (s) Manganese alpha **Mn (s)**

mp = 1519 K (1246 °C) bp = 2332 K (2059 °C)

$\Delta H^0_{298} = 0$ kJ·mol⁻¹ [1] $S^0_{298} = 32 \pm 0.1$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 25.19 + 12.75 \cdot 10^{-3} \cdot T - 0.33 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 980 K) [4]

Mn (s) | Manganese alpha | **Mn** (s)

$\Delta H^0_{980} = 22$ kJ·mol^{-1} [4]
$S^0_{980} = 69$ J·mol^{-1}·K^{-1} [4]

Mn (s) | Manganese beta | **Mn** (s)

$\Delta H^0_{980} = 24.2$ kJ·mol^{-1} [4]
$S^0_{980} = 71.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 33.38 + 4.27 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (980 ... 1361 K) [4]
$\lg(p,K) = -15.2 \cdot 10^3 \cdot T^{-1} - 2.12 \cdot \lg(T) + 13.91$ (980 ... 1361 K) [4]
{Reaction: evaporation as Mn(g)}

Mn (s) | Manganese beta | **Mn** (s)

$\Delta H^0_{1361} = 38.8$ kJ·mol^{-1} [4]
$S^0_{1361} = 83.9$ J·mol^{-1}·K^{-1} [4]

Mn (s) | Manganese gamma | **Mn** (s)

$\Delta H^0_{1361} = 40.9$ kJ·mol^{-1} [4]
$S^0_{1361} = 85.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 29.99 + 9.63 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1361 ... 1412 K) [4]
$\lg(p,K) = -15.43 \cdot 10^3 \cdot T^{-1} - 2.71 \cdot \lg(T) + 15.93$ (1361 ... 1412 K) [4]
{Reaction: evaporation as Mn(g)}

Mn (s) | Manganese gamma | **Mn** (s)

$\Delta H^0_{1412} = 43.1$ kJ·mol^{-1} [4]
$S^0_{1412} = 87$ J·mol^{-1}·K^{-1} [4]

Mn (s) | Manganese delta | **Mn** (s)

$\Delta H^0_{1412} = 45$ kJ·mol^{-1} [4]
$S^0_{1412} = 88.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 33.63 + 8.21 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1412 ... 1519 K) [4]
$\lg(p,K) = -15.51 \cdot 10^3 \cdot T^{-1} - 2.99 \cdot \lg(T) + 16.87$ (1412 ... 1519 K) [4]
{Reaction: evaporation as Mn(g)}

Mn (s) Manganese delta **Mn (s)**

ΔH^0_{1519} = 49.9 kJ·mol^{-1} [4] S^0_{1519} = 91.7 J·mol^{-1}·K^{-1} [4]

Mn (l) Manganese **Mn (l)**

ΔH^0_{1519} = 62 kJ·mol^{-1} [4] S^0_{1519} = 99.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 46.02 J·mol^{-1}·K^{-1} (1519 K) [4]
$\lg(p,K) = -14.9 \cdot 10^3 \cdot T^{-1} - 3.03 \cdot \lg(T) + 16.6$ (1519 ... 2332 K) [4]
{Reaction: evaporation as Mn(g)}

Mn (l) Manganese **Mn (l)**

ΔH^0_{298} = 16.3 kJ·mol^{-1} [1] S^0_{298} = 43.5 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 46.02 J·mol^{-1}·K^{-1} (1519 K) [4]

Mn (g) Manganese **Mn (g)**

ΔH^0_{298} = 283.3 ± 4.2 kJ·mol^{-1} [1] S^0_{298} = 173.7 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 20.79 J·mol^{-1}·K^{-1} (298 K) [4]

$MnMoO_4$ (s) Manganese Molybdate(VI) **$MnMoO_4$ (s)**
$MnO \cdot MoO_3$ (s) $MnO \cdot MoO_3$ (s)

ΔH^0_{298} = – 1191.3 kJ·mol^{-1} [2] S^0_{298} = 136 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 108.78 + 51.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1100 K) [4]

MnO (s) Manganese(II) Oxide **MnO (s)**

mp = 2083 K (1810 °C)
ΔH^0_{298} = – 382.5 kJ·mol^{-1} [4] S^0_{298} = 59 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 46.48 + 8.12 \cdot 10^{-3} \cdot T - 0.37 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2083 K) [4]

MnO_2 (s) Manganese(IV) Oxide **MnO_2 (s)**

$\Delta H^0_{298} = -522.1$ kJ·mol^{-1} [4] $S^0_{298} = 53.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 70.84 + 7.6 \cdot 10^{-3} \cdot T - 1.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 803 K) [4]

$\lg(p,K) = -8.99 \cdot 10^3 \cdot T^{-1} - 0.78 \cdot \lg(T) + 13.47$ (500 ... 803 K) [4]

{Reaction: decomposition $3MnO_2(s) = Mn_3O_4(s) + O_2(g)$}

MnO_3Si (s) Manganese(II) Silicate **MnO_3Si (s)**

$MnO \cdot SiO_2$ (s) $MnO \cdot SiO_2$ (s)

mp = 1564 K (1291 °C)

$\Delta H^0_{298} = -1318.1$ kJ·mol^{-1} [4] $S^0_{298} = 102.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 110.54 + 16.23 \cdot 10^{-3} \cdot T - 2.58 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1564 K) [4]

MnO_3Ti (s) Manganese(II) Titanate **MnO_3Ti (s)**

$MnO \cdot TiO_2$ (s) $MnO \cdot TiO_2$ (s)

mp = 1633 K (1360 °C)

$\Delta H^0_{298} = -1354.5$ kJ·mol^{-1} [4] $S^0_{298} = 105.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 121.67 + 9.29 \cdot 10^{-3} \cdot T - 2.19 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1633 K) [4]

MnO_4S (s) Manganese(II) Sulfate **MnO_4S (s)**

$MnSO_4$ (s) $MnSO_4$ (s)

mp = 973 K (700 °C)

$\Delta H^0_{298} = -1065.3$ kJ·mol^{-1} [2] $S^0_{298} = 112.1$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 122.42 + 37.32 \cdot 10^{-3} \cdot T - 2.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 973 K) [4]

MnO_4W (s) Manganese(II) Tungstate **MnO_4W (s)**

$MnO \cdot WO_3$ (s) $MnO \cdot WO_3$ (s)

$\Delta H^0_{298} = -1305$ kJ·mol^{-1} [2] $S^0_{298} = 140.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 108.78 + 51.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1100 K) [4]

MnP (s) Manganese Phosphide **MnP** (s)

mp = 1420 K (1147 °C)
$\Delta H^0_{298} = -96.2$ kJ·mol^{-1} [4] $S^0_{298} = 52.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 44.98 + 10.46 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1420 K) [4]

MnP_3 (s) Manganese Phosphide **MnP_3** (s)

$\Delta H^0_{298} = -213$ kJ·mol^{-1} [2] $S^0_{298} = 96.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 102.7$ J·mol^{-1}·K^{-1} (298 K) [2]

MnS (s) Manganese(II) Sulfide **MnS** (s)

mp = 1803 K (1530 °C)
$\Delta H^0_{298} = -213.4$ kJ·mol^{-1} [4] $S^0_{298} = 80.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 47.7 + 7.53 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1803 K) [4]

MnS (s) Manganese(II) Sulfide **MnS** (s)

$\Delta H^0_{1803} = -129.7$ kJ·mol^{-1} [4] $S^0_{1803} = 177.5$ J·mol^{-1}·K^{-1} [4]

MnS (l) Manganese(II) Sulfide **MnS** (l)

$\Delta H^0_{1803} = -103.6$ kJ·mol^{-1} [4] $S^0_{1803} = 192$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 66.94$ J·mol^{-1}·K^{-1} (1803 K) [4]

MnS (g) Manganese(II) Sulfide **MnS** (g)

$\Delta H^0_{298} = 272$ kJ·mol^{-1} [4] $S^0_{298} = 240.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.14 + 0.14 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

MnS_2 (s) Manganese(IV) Sulfide **MnS_2** (s)

$\Delta H^0_{298} = -225.7$ kJ·mol^{-1} [4] $S^0_{298} = 99.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 69.71 + 17.66 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 717 K) [4]

MnSb (s) Manganese Antimonide **MnSb (s)**

$\Delta H^0_{298} = -27.2$ kJ·mol^{-1} [4] $S^0_{298} = 92.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 46.02 + 20.29 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 843 K) [4]

MnSe (s) Manganese(II) Selenide **MnSe (s)**

$\Delta H^0_{298} = -154.8$ kJ·mol^{-1} [4] $S^0_{298} = 90.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 49.04 + 6.74 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1600 K) [4]

MnSe (g) Manganese(II) Selenide **MnSe (g)**

$\Delta H^0_{298} = 318$ kJ·mol^{-1} [4] $S^0_{298} = 252.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 37.33 + 0.05 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1600 K) [4]

$MnSe_2$ (s) Manganese(IV) Selenide **$MnSe_2$ (s)**

$\Delta H^0_{298} = [-167.4]$ kJ·mol^{-1} [5] $S^0_{298} = [129.7]$ J·mol^{-1}·K^{-1} [5]

MnSi (s) Manganese Silicide **MnSi (s)**

mp = 1548 K (1275 °C)

$\Delta H^0_{298} = -65.3$ kJ·mol^{-1} [4] $S^0_{298} = 46.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 49.33 + 12.76 \cdot 10^{-3} \cdot T - 0.64 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1548 K) [4]

MnSi (s) Manganese Silicide **MnSi (s)**

$\Delta H^0_{1548} = 9.4$ kJ·mol^{-1} [4] $S^0_{1548} = 140$ J·mol^{-1}·K^{-1} [4]

MnSi (l) Manganese Silicide **MnSi (l)**

$\Delta H^0_{1548} = 68.8$ kJ·mol^{-1} [4] $S^0_{1548} = 178.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 78.66$ J·mol^{-1}·K^{-1} (1548 K) [4]

$MnSi_{1.727}$ (s) — Manganese Silicide — $MnSi_{1.727}$ (s)

mp = 1418 K (1145 °C)

$\Delta H^0_{298} = -75.7$ kJ·mol^{-1} [4] $S^0_{298} = 56.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 71.92 + 4.6 \cdot 10^{-3} \cdot T - 1.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1418 K) [4]

$MnSn_2$ (s) — Mangenese Tin — $MnSn_2$ (s)

mp = 822 K (549 °C)

$\Delta H^0_{298} = -27.4$ kJ·mol^{-1} [4] $S^0_{298} = 130.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 92.38 + 1.26 \cdot 10^{-3} \cdot T - 1.14 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 822 K) [4]

MnTe (s) — Manganese(II) Telluride — MnTe (s)

mp = 1483 K (1210 °C)

$\Delta H^0_{298} = -111.3$ kJ·mol^{-1} [4] $S^0_{298} = 93.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 56.69 + 2.76 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (307 ... 1438 K) [4]

$MnTe_2$ (s) — Manganese(IV) Telluride — $MnTe_2$ (s)

$\Delta H^0_{298} = -123.4$ kJ·mol^{-1} [4] $S^0_{298} = 145$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 76.65 + 4.18 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 700 K) [4]

$Mn_2Mo_3O_8$ (s) — Manganese(II) Molybdate(IV) — $Mn_2Mo_3O_8$ (s)

$2MnO \cdot 3MoO_2$ (s) — $2MnO \cdot 3MoO_2$ (s)

$\Delta H^0_{298} = -2577.3 \pm 15.5$ kJ·mol^{-1} [40] $S^0_{298} = 254.4 \pm 0.4$ J·mol^{-1}·K^{-1} [40]

$C_p^0 = 265.7$ J·mol^{-1}·K^{-1} (298 K) [41]

Mn_2O_3 (s) — Manganese(III) Oxide — Mn_2O_3 (s)

$\Delta H^0_{298} = -959$ kJ·mol^{-1} [2] $S^0_{298} = 110.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 102.8 + 35.67 \cdot 10^{-3} \cdot T - 1.28 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1361 K) [4]

$\lg(p,K) = -11.4 \cdot 10^3 \cdot T^{-1} - 1.93 \cdot \lg(T) + 14.42$ (700 ... 1361 K) [4]

{Reaction: decomposition $6Mn_2O_3(s) = 4Mn_3O_4(s) + O_2(g)$}

Mn_2O_4Si (s) Manganese(II) Silicate **Mn_2O_4Si (s)**
$2MnO \cdot SiO_2$ (s) $2MnO \cdot SiO_2$ (s)

mp = 1618 K (1345 °C)
$\Delta H^0_{298} = -1725.3$ kJ·mol^{-1} [4] $S^0_{298} = 142.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 159.08 + 19.5 \cdot 10^{-3} \cdot T - 3.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1618 K) [4]

Mn_2O_4Si (s) Manganese(II) Silicate **Mn_2O_4Si (s)**
$2MnO \cdot SiO_2$ (s) $2MnO \cdot SiO_2$ (s)

$\Delta H^0_{1618} = -1499.2$ kJ·mol^{-1} [4] $S^0_{1618} = 420.1$ J·mol^{-1}·K^{-1} [4]

Mn_2O_4Si (l) Manganese(II) Silicate **Mn_2O_4Si (l)**
$2MnO \cdot SiO_2$ (l) $2MnO \cdot SiO_2$ (l)

$\Delta H^0_{1618} = -1409.6$ kJ·mol^{-1} [4] $S^0_{1618} = 475.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 243.09$ J·mol^{-1}·K^{-1} (1618 K) [4]

Mn_2O_4Ti (s) Manganese(II) Titanate **Mn_2O_4Ti (s)**
$2MnO \cdot TiO_2$ (s) $2MnO \cdot TiO_2$ (s)

mp = 1723 K (1450 °C)
$\Delta H^0_{298} = -1749.9$ kJ·mol^{-1} [2] $S^0_{298} = 169.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 168.16 + 17.4 \cdot 10^{-3} \cdot T - 2.56 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1723 K) [4]

Mn_2P (s) Manganese Phosphide **Mn_2P (s)**

$\Delta H^0_{298} = -171.1$ kJ·mol^{-1} [2] $S^0_{298} = 91$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 73.6$ J·mol^{-1}·K^{-1} (298 K) [2]

Mn_2Sb (s) Manganese Antimonide **Mn_2Sb (s)**

mp = 1221 K (948 °C)
$\Delta H^0_{298} = -32.6$ kJ·mol^{-1} [2] $S^0_{298} = 136.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 66.94 + 29.29 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1221 K) [4]

Mn_3O_4 (s) Manganese Oxide alpha **Mn_3O_4 (s)**

$\Delta H^0_{298} = -1386.1$ kJ·mol^{-1} [4] $S^0_{298} = 154.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 146.63 + 48.5 \cdot 10^{-3} \cdot T - 1.83 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1445 K) [4]
$\lg(p,K) = -26.89 \cdot 10^3 \cdot T^{-1} - 5 \cdot \lg(T) + 30.07$ (1200 ... 1445 K) [4]
{Reaction: decomposition $2Mn_3O_4(s) = 6MnO(s) + O_2(g)$}

Mn_3O_4 (s) Manganese Oxide alpha **Mn_3O_4 (s)**

$\Delta H^0_{1445} = -1174.4$ kJ·mol^{-1} [4] $S^0_{1445} = 431.6$ J·mol^{-1}·K^{-1} [4]

Mn_3O_4 (s) Manganese Oxide beta **Mn_3O_4 (s)**

$\Delta H^0_{1445} = -1156.2$ kJ·mol^{-1} [4] $S^0_{1445} = 444.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 210.04$ J·mol^{-1}·K^{-1} (1445 K) [4]
$\lg(p,K) = -23.83 \cdot 10^3 \cdot T^{-1} - 3.19 \cdot \lg(T) + 22.23$ (1445 ... 1833 K) [4]
{Reaction: decomposition $2Mn_3O_4(s) = 6MnO(s) + O_2(g)$}

Mn_3Si (s) Manganese Silicide **Mn_3Si (s)**

mp = 1348 K (1075 °C)
$\Delta H^0_{298} = -110.5$ kJ·mol^{-1} [4] $S^0_{298} = 103.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 100.88 + 52.09 \cdot 10^{-3} \cdot T - 1.47 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Mn_4N (s) Manganese Nitride **Mn_4N (s)**

$\Delta H^0_{298} = -128.7$ kJ·mol^{-1} [2] $S^0_{298} = 142.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 92.72 + 127.61 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 800 K) [3]

Mn_5N_2 (s) Manganese Nitride **Mn_5N_2 (s)**

$\Delta H^0_{298} = -204.2$ kJ·mol^{-1} [2] $S^0_{298} = 187.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 127.82 + 160.67 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 800 K) [3]

Mn_5Si_3 (s) Manganese Silicide **Mn_5Si_3 (s)**

mp = 1573 K (1300 °C)
$\Delta H^0_{298} = -244.3$ kJ·mol^{-1} [4] $S^0_{298} = 238.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 201.38 + 54.14 \cdot 10^{-3} \cdot T - 1.96 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1573 K) [4]

Mn_5Si_3 (s) Manganese Silicide **Mn_5Si_3 (s)**

$\Delta H^0_{1573} = 71.6$ kJ·mol^{-1} [4] $S^0_{1573} = 631.8$ J·mol^{-1}·K^{-1} [4]

Mn_5Si_3 (l) Manganese Silicide **Mn_5Si_3 (l)**

$\Delta H^0_{1573} = 244.9$ kJ·mol^{-1} [4] $S^0_{1573} = 741.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 324.68$ J·mol^{-1}·K^{-1} (1573 K) [4]

Mo (s) Molybdenum **Mo (s)**

mp = 2896 K (2623 °C) bp = 4950 K (4677 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 28.6 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 29.73 - 5.7 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^6 \cdot T^{-2} + 4.67 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2896 K) [4]
$\lg(p,K) = -35.85 \cdot 10^3 \cdot T^{-1} - 2.58 \cdot \lg(T) + 16.91$ (2100 ... 2896 K) [4]
{Reaction: evaporation as Mo(g)}

Mo (l) Molybdenum **Mo (l)**

$\Delta H^0_{298} = 41.6$ kJ·mol^{-1} [1] $S^0_{298} = 43.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 40.33$ J·mol^{-1}·K^{-1} (2893 ... 3383 K) [3]

Mo (g) Molybdenum **Mo (g)**

$\Delta H^0_{298} = 659 \pm 3.8$ kJ·mol^{-1} [1] $S^0_{298} = 182$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 23.48 - 4.99 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2} + 1.93 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

$MoNa_2O_4$ (s) Sodium Molybdate(VI) **$MoNa_2O_4$ (s)**
$Na_2O \cdot MoO_3$ (s) alpha $Na_2O \cdot MoO_3$ (s)

mp = 962 K (689 °C)
$\Delta H^0_{298} = -1534.2$ kJ·mol^{-1} [4] $S^0_{298} = 159.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 142.8 + 58.33 \cdot 10^{-3} \cdot T - 1.67 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 718 K) [4]

$MoNa_2O_4$ (s) Sodium Molybdate(VI) **$MoNa_2O_4$ (s)**
$Na_2O \cdot MoO_3$ (s) alpha $Na_2O \cdot MoO_3$ (s)

$\Delta H^0_{718} = -1465.1$ kJ·mol^{-1} [4] $S^0_{718} = 301.7$ J·mol^{-1}·K^{-1} [4]

$MoNa_2O_4$ (s) Sodium Molybdate(VI) **$MoNa_2O_4$ (s)**
$Na_2O \cdot MoO_3$ (s) beta $Na_2O \cdot MoO_3$ (s)

$\Delta H^0_{718} = -1443.4$ kJ·mol^{-1} [4] $S^0_{718} = 332$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = -215.48 + 506.26 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (718 ... 866 K) [4]

$MoNa_2O_4$ (s) Sodium Molybdate(VI) **$MoNa_2O_4$ (s)**
$Na_2O \cdot MoO_3$ (s) beta $Na_2O \cdot MoO_3$ (s)

$\Delta H^0_{866} = -1415.9$ kJ·mol^{-1} [4] $S^0_{866} = 366.5$ J·mol^{-1}·K^{-1} [4]

$MoNa_2O_4$ (s) Sodium Molybdate(VI) **$MoNa_2O_4$ (s)**
$Na_2O \cdot MoO_3$ (s) gamma $Na_2O \cdot MoO_3$ (s)

$\Delta H^0_{866} = -1413.8$ kJ·mol^{-1} [4] $S^0_{866} = 368.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = -589.94 + 891.19 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (866 ... 915 K) [4]

$MoNa_2O_4$ (s) Sodium Molybdate(VI) **$MoNa_2O_4$ (s)**
$Na_2O \cdot MoO_3$ (s) gamma $Na_2O \cdot MoO_3$ (s)

$\Delta H^0_{915} = -1403.9$ kJ·mol^{-1} [4] $S^0_{915} = 380.1$ J·mol^{-1}·K^{-1} [4]

$MoNa_2O_4$ (s) Sodium Molybdate(VI) **$MoNa_2O_4$ (s)**
$Na_2O \cdot MoO_3$ (s) delta $Na_2O \cdot MoO_3$ (s)

$\Delta H^0_{915} = -1395.6$ kJ·mol^{-1} [4] $S^0_{915} = 389.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 210.04$ J·mol^{-1}·K^{-1} (915 K) [4]

$MoNa_2O_4$ (s) Sodium Molybdate(VI) **$MoNa_2O_4$ (s)**
$Na_2O \cdot MoO_3$ (s) delta $Na_2O \cdot MoO_3$ (s)

$\Delta H^0_{962} = -1385.7$ kJ·mol^{-1} [4] $S^0_{962} = 399.7$ J·mol^{-1}·K^{-1} [4]

$MoNa_2O_4$ (l) Sodium Molybdate(VI) **$MoNa_2O_4$ (l)**
$Na_2O \cdot MoO_3$ (l) $Na_2O \cdot MoO_3$ (l)

$\Delta H^0_{962} = -1364.3$ kJ·mol^{-1} [4] $S^0_{962} = 421.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 212.97$ J·mol^{-1}·K^{-1} (962 K) [4]

MoO (g) Molybdenum(II) Oxide **MoO (g)**

$\Delta H^0_{298} = 311 \pm 33.5$ kJ·mol^{-1} [1] $S^0_{298} = 241.8 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36.88 + 3.69 \cdot 10^{-3} \cdot T - 0.09 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

MoO_2 (s) Molybdenum(IV) Oxide **MoO_2 (s)**

$\Delta H^0_{298} = -587.9 \pm 2.9$ kJ·mol^{-1} [1] $S^0_{298} = 46.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 61.87 + 20.85 \cdot 10^{-3} \cdot T - 1.08 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

MoO_2 (g) Molybdenum(IV) Oxide **MoO_2 (g)**

$\Delta H^0_{298} = -8.3 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 277 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 52.67 + 3.37 \cdot 10^{-3} \cdot T - 0.85 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$MoO_{2.750}$ (s) Molybdenum Oxide **$MoO_{2.750}$ (s)**

$\Delta H^0_{298} = -708.4 \pm 3.3$ kJ·mol^{-1} [1] $S^0_{298} = 69.9 \pm 1.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 70.1$ J·mol^{-1}·K^{-1} (298 K) [1]

$MoO_{2.875}$ (s) Molybdenum Oxide **$MoO_{2.875}$ (s)**

$\Delta H^0_{298} = -727.1 \pm 2.5$ kJ·mol^{-1} [1] $S^0_{298} = 73.8 \pm 1.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 72.5$ J·mol^{-1}·K^{-1} (298 K) [1]

$MoO_{2.889}$ (s) Molybdenum Oxide **$MoO_{2.889}$ (s)**

$\Delta H^0_{298} = -729.2 \pm 2.5$ kJ·mol^{-1} [1] $S^0_{298} = 74.3 \pm 1.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 72.8$ J·mol^{-1}·K^{-1} (298 K) [1]

MoO_3 (s) Molybdenum(VI) Oxide **MoO_3 (s)**

mp = 1074 K (801 °C) bp = 1378 K (1105 °C)
$\Delta H^0_{298} = -745$ kJ·mol^{-1} [4] $S^0_{298} = 77.8 \pm 1.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 92.42 - 14.67 \cdot 10^{-3} \cdot T - 1.41 \cdot 10^{6} \cdot T^{-2} + 32.74 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 1074 K) [4]
$\lg(p,K) = -16.55 \cdot 10^{3} \cdot T^{-1} - 6.16 \cdot \lg(T) + 32.16$ (800 ... 1074 K) [4]
{Reaction: evaporation (total pressure)}

MoO_3 (s) Molybdenum(VI) Oxide **MoO_3 (s)**

$\Delta H^0_{1074} = -671.2$ kJ·mol^{-1} [4] $S^0_{1074} = 195$ J·mol^{-1}·K^{-1} [4]

MoO_3 (l) Molybdenum(VI) Oxide **MoO_3 (l)**

$\Delta H^0_{1074} = -622.7$ kJ·mol^{-1} [4] $S^0_{1074} = 240.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 126.9$ J·mol^{-1}·K^{-1} (1074 K) [4]
$\lg(p,K) = -16.83 \cdot 10^{3} \cdot T^{-1} - 14.23 \cdot \lg(T) + 56.89$ (1074 ... 1378 K) [4]
{Reaction: evaporation (total pressure)}

MoO_3 (l) Molybdenum(VI) Oxide **MoO_3 (l)**

$\Delta H^0_{298} = -703.7$ kJ·mol^{-1} [1] $S^0_{298} = 114.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 74.9$ J·mol^{-1}·K^{-1} (298 K) [1]

MoO_3 (g) Molybdenum(VI) Oxide **MoO_3 (g)**

$\Delta H^0_{298} = -346.4 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 283.9 \pm 12.6$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 74.53 + 5.09 \cdot 10^{-3} \cdot T - 1.48 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

MoO_3Sr (s) Strontium Molybdenum Oxide **MoO_3Sr (s)**
$SrO \cdot MoO_2$ (s) $SrO \cdot MoO_2$ (s)

$\Delta H^0_{298} = -1278.9$ kJ·mol^{-1} [179] $S^0_{298} = [102]$ J·mol^{-1}·K^{-1} [189]
$C_p{}^0 = [101.36]$ J·mol^{-1}·K^{-1} (298 K) [271]

MoO_4Pb (s) Lead Molybdate(VI) **MoO_4Pb (s)**
$PbO \cdot MoO_3$ (s) $PbO \cdot MoO_3$ (s)

mp = 1213 K (940 °C)
$\Delta H^0_{298} = -1052.3$ kJ·mol^{-1} [2] $S^0_{298} = 166.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 119.7$ J·mol^{-1}·K^{-1} (298 K) [2]

MoO_4Sr (s) Strontium Molybdate(VI) **MoO_4Sr (s)**
$SrO \cdot MoO_3$ (s) $SrO \cdot MoO_3$ (s)

mp = 1730 K (1457 °C)
$\Delta H^0_{298} = -1549.3$ kJ·mol^{-1} [4] $S^0_{298} = 128.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 134.14 + 29.37 \cdot 10^{-3} \cdot T - 2.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1730 K) [4]

MoO_4Zn (s) Zinc Molybdate(VI) **MoO_4Zn (s)**
$ZnO \cdot MoO_3$ (s) $ZnO \cdot MoO_3$ (s)

$\Delta H^0_{298} = -1139$ kJ·mol^{-1} [42] $S^0_{298} = 134$ J·mol^{-1}·K^{-1} [42]
$C_p{}^0 = 117.1 + 46.1 \cdot 10^{-3} \cdot T - 1.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [42]

MoS_2 (s) Molybdenum(IV) Sulfide **MoS_2 (s)**

$\Delta H^0_{298} = -276.1 \pm 2.5$ kJ·mol^{-1} [1] $S^0_{298} = 62.6 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 71.69 + 7.45 \cdot 10^{-3} \cdot T - 0.92 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2023 K) [4]

MoS_3 (s) Molybdenum(VI) Sulfide **MoS_3 (s)**

$\Delta H^0_{298} = -309.6$ kJ·mol^{-1} [2] $S^0_{298} = 75.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 82.6$ J·mol^{-1}·K^{-1} (298 K) [2]

$MoSe_2$ (s) Molybdenum(IV) Selenide **$MoSe_2$ (s)**

$\Delta H^0_{298} = -153.5$ kJ·mol^{-1} [4] $S^0_{298} = 89.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 78.15 + 2.49 \cdot 10^{-3} \cdot T - 0.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1423 K) [4]

$MoSi_2$ (s) Molybdenum Silicide **$MoSi_2$ (s)**

mp = 2293 K (2020 °C)
$\Delta H^0_{298} = -131.4$ kJ·mol^{-1} [4] $S^0_{298} = 65$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 67.84 + 11.95 \cdot 10^{-3} \cdot T - 0.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2293 K) [4]

$MoTe_2$ (s) Molybdenum(IV) Telluride **$MoTe_2$ (s)**

$\Delta H^0_{298} = -80.1$ kJ·mol^{-1} [4] $S^0_{298} = 115.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 84.47 + 1.08 \cdot 10^{-3} \cdot T - 0.71 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1453 K) [4]

Mo_2N (s) Molybdenum Nitride **Mo_2N (s)**

$\Delta H^0_{298} = -81.6$ kJ·mol^{-1} [2] $S^0_{298} = 63.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 65.01 + 39.91 \cdot 10^{-3} \cdot T - 1.09 \cdot 10^6 \cdot T^{-2} - 8.83 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 800 K) [4]

$Mo_2Na_2O_7$ (s) Sodium Molybdate(VI) **$Mo_2Na_2O_7$ (s)**
$Na_2O \cdot 2MoO_3$ (s) $Na_2O \cdot 2MoO_3$ (s)

mp = 888 K (615 °C)
$\Delta H^0_{298} = -2361$ kJ·mol^{-1} [4] $S^0_{298} = 250.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 173.64 + 144.35 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 888 K) [4]

Mo_2O_6 (g) Molybdenum(VI) Oxide **Mo_2O_6 (g)**
$(MoO_3)_2$ (g) $(MoO_3)_2$ (g)

$\Delta H^0_{298} = -984.9$ kJ·mol^{-1} [4] $S^0_{298} = 407.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 181.17 + 0.42 \cdot 10^{-3} \cdot T - 2.53 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -24.32 \cdot 10^3 \cdot T^{-1} - 8 \cdot \lg(T) + 39.29$ (1074 ... 1378 K) [4]
{Reaction: evaporation of MoO_3(l)}

$Mo_2O_9Zn_3$ (s) Zinc Molybdate(VI) **$Mo_2O_9Zn_3$ (s)**
$3ZnO \cdot 2MoO_3$ (s) $3ZnO \cdot 2MoO_3$ (s)

$\Delta H^0_{298} = -2631$ kJ·mol^{-1} [42] $S^0_{298} = 311.5$ J·mol^{-1}·K^{-1} [42]
$C_p^0 = 283.3 + 98.9 \cdot 10^{-3} \cdot T - 3.68 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [42]

Mo_2S_3 (s) Molybdenum(III) Sulfide **Mo_2S_3 (s)**

mp = 2050 K (1777 °C)
$\Delta H^0_{298} = -407.1 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 115 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 110.28 + 32.96 \cdot 10^{-3} \cdot T - 0.96 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2050 K) [4]

Mo_2S_3 (l) Molybdenum(III) Sulfide **Mo_2S_3 (l)**

$\Delta H^0_{298} = -270.3$ kJ·mol^{-1} [1] $S^0_{298} = 181.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 109.3$ J·mol^{-1}·K^{-1} (298 K) [1]

$Mo_3O_8Zn_2$ (s) Zinc Molybdate(VI) **$Mo_3O_8Zn_2$ (s)**
$2ZnO \cdot 3MoO_3$ (s) $2ZnO \cdot 3MoO_3$ (s)

$\Delta H^0_{298} = -2508$ kJ·mol^{-1} [42] $S^0_{298} = 237.4$ J·mol^{-1}·K^{-1} [42]
$C_p^0 = 281.2 + 75 \cdot 10^{-3} \cdot T + 4.9 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 K) [42]

Mo_3O_9 (g) Molybdenum(VI) Oxide **Mo_3O_9 (g)**
$(MoO_3)_3$ (g) $(MoO_3)_3$ (g)

$\Delta H^0_{298} = -1878.3$ kJ·mol^{-1} [4] $S^0_{298} = 526.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 274.48 + 4.23 \cdot 10^{-3} \cdot T - 4.81 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -20.35 \cdot 10^3 \cdot T^{-1} - 5.58 \cdot \lg(T) + 33.57$ (800 ... 1074 K) [4]
{Reaction: evaporation of MoO_3(l)}

Mo_3Se_4 (s) Molybdenum Selenide **Mo_3Se_4 (s)**

$\Delta H^0_{298} = -336.4$ kJ·mol^{-1} [4] $S^0_{298} = 217.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 168.77 + 17.46 \cdot 10^{-3} \cdot T - 0.83 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1778 K) [4]

Mo_3Si (s) Molybdenum Silicide **Mo_3Si (s)**

mp = 2300 K (2027 °C)
$\Delta H^0_{298} = -118.4$ kJ·mol^{-1} [4] $S^0_{298} = 105.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 85.86 + 22.68 \cdot 10^{-3} \cdot T + 0.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2300 K) [4]

Mo_3Te_4 (s) Molybdenum Telluride **Mo_3Te_4 (s)**

$\Delta H^0_{298} = -162.9$ kJ·mol^{-1} [4] $S^0_{298} = 267.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 186.23 + 5.82 \cdot 10^{-3} \cdot T - 0.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1557 K) [4]

Mo_4O_{12} (g) Molybdenum(VI) Oxide **Mo_4O_{12} (g)**
$(MoO_3)_4$ (g) $(MoO_3)_4$ (g)

$\Delta H^0_{298} = -2570.1$ kJ·mol^{-1} [4] $S^0_{298} = 654$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 371.36 + 5.73 \cdot 10^{-3} \cdot T - 6.51 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -23.6 \cdot 10^3 \cdot T^{-1} - 6.79 \cdot \lg(T) + 40.33$ (800 ... 1074 K) [4]
{Reaction: evaporation of MoO_3(l)}

Mo_5O_{15} (g) Molybdenum(VI) Oxide **Mo_5O_{15} (g)**
$(MoO_3)_5$ (g) $(MoO_3)_5$ (g)

$\Delta H^0_{298} = -3256$ kJ·mol^{-1} [4] $S^0_{298} = 771.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 468.23 + 7.22 \cdot 10^{-3} \cdot T - 8.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -27.69 \cdot 10^3 \cdot T^{-1} - 9.18 \cdot \lg(T) + 50.64$ (900 ... 1074 K) [4]
{Reaction: evaporation of MoO_3(l)}

Mo_5Si_3 (s) Molybdenum Silicide **Mo_5Si_3 (s)**

mp = 2453 K (2180 °C)
$\Delta H^0_{298} = -310.6$ kJ·mol^{-1} [4] $S^0_{298} = 207.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 183.36 + 35.01 \cdot 10^{-3} \cdot T - 1.2 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2453 K) [4]

$N_{0.465}V$ (s) Vanadium Nitride **$N_{0.465}V$ (s)**
$VN_{0.465}$ (s) $VN_{0.465}$ (s)

$\Delta H^0_{298} = -132.2 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 26.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 28.88$ J·mol^{-1}·K^{-1} (298 K) [1]

N (g) Nitrogen **N (g)**

$\Delta H^0_{298} = 472.7 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 153.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 20.88 - 0.15 \cdot 10^{-3} \cdot T + 0.04 \cdot 10^6 \cdot T^{-2} + 0.05 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

$NNaO_2$ (s) Sodium Nitrite **$NNaO_2$ (s)**
$NaNO_2$ (s) $NaNO_2$ (s)

mp = 544 K (271 °C)
$\Delta H^0_{298} = -358.7$ kJ·mol^{-1} [4] $S^0_{298} = 103.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 21.76 + 171.54 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 544 K) [4]

$NNaO_2$ (s) Sodium Nitrite **$NNaO_2$ (s)**
$NaNO_2$ (s) $NaNO_2$ (s)

$\Delta H^0_{544} = -335.6$ kJ·mol^{-1} [4] $S^0_{544} = 159.1$ J·mol^{-1}·K^{-1} [4]

Mo_5O_{15} (g) Molybdenum(VI) Oxide **Mo_5O_{15} (g)**
$(MoO_3)_5$ (g) $(MoO_3)_5$ (g)

$\Delta H^0_{298} = -3256$ kJ·mol^{-1} [4] $S^0_{298} = 771.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 468.23 + 7.22 \cdot 10^{-3} \cdot T - 8.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -27.69 \cdot 10^3 \cdot T^{-1} - 9.18 \cdot \lg(T) + 50.64$ (900 ... 1074 K) [4]
{Reaction: evaporation of MoO_3(l)}

Mo_5Si_3 (s) Molybdenum Silicide **Mo_5Si_3 (s)**

mp = 2453 K (2180 °C)
$\Delta H^0_{298} = -310.6$ kJ·mol^{-1} [4] $S^0_{298} = 207.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 183.36 + 35.01 \cdot 10^{-3} \cdot T - 1.2 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2453 K) [4]

$N_{0.465}V$ (s) Vanadium Nitride **$N_{0.465}V$ (s)**
$VN_{0.465}$ (s) $VN_{0.465}$ (s)

$\Delta H^0_{298} = -132.2 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 26.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 28.88$ J·mol^{-1}·K^{-1} (298 K) [1]

N (g) Nitrogen **N (g)**

$\Delta H^0_{298} = 472.7 \pm 0.1$ kJ·mol^{-1} [1] $S^0_{298} = 153.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 20.88 - 0.15 \cdot 10^{-3} \cdot T + 0.04 \cdot 10^6 \cdot T^{-2} + 0.05 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

$NNaO_2$ (s) Sodium Nitrite **$NNaO_2$ (s)**
$NaNO_2$ (s) $NaNO_2$ (s)

mp = 544 K (271 °C)
$\Delta H^0_{298} = -358.7$ kJ·mol^{-1} [4] $S^0_{298} = 103.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 21.76 + 171.54 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 544 K) [4]

$NNaO_2$ (s) Sodium Nitrite **$NNaO_2$ (s)**
$NaNO_2$ (s) $NaNO_2$ (s)

$\Delta H^0_{544} = -335.6$ kJ·mol^{-1} [4] $S^0_{544} = 159.1$ J·mol^{-1}·K^{-1} [4]

$NNaO_2$ (l) Sodium Nitrite **$NNaO_2$ (l)**

$NaNO_2$ (l) $NaNO_2$ (l)

$\Delta H^0_{544} = -323.5$ kJ·mol^{-1} [4] $S^0_{544} = 181.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 124.52$ J·mol^{-1}·K^{-1} (544 K) [4]

$NNaO_3$ (s) Sodium Nitrate **$NNaO_3$ (s)**

$NaNO_3$ (s) $NaNO_3$ (s)

mp = 580 K (307 °C)

$\Delta H^0_{298} = -467.9$ kJ·mol^{-1} [4] $S^0_{298} = 116.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 25.67 + 225.94 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 580 K) [4]

$NNaO_3$ (s) Sodium Nitrate **$NNaO_3$ (s)**

$NaNO_3$ (s) $NaNO_3$ (s)

$\Delta H^0_{580} = -432.6$ kJ·mol^{-1} [4] $S^0_{580} = 197.3$ J·mol^{-1}·K^{-1} [4]

$NNaO_3$ (l) Sodium Nitrate **$NNaO_3$ (l)**

$NaNO_3$ (l) $NaNO_3$ (l)

$\Delta H^0_{580} = -417.6$ kJ·mol^{-1} [4] $S^0_{580} = 223.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 155.65$ J·mol^{-1}·K^{-1} (580 K) [4]

NNb (s) Niobium Nitride **NNb (s)**

NbN (s) NbN (s)

mp = 2320 K (2047 °C)

$\Delta H^0_{298} = -235.1$ kJ·mol^{-1} [2] $S^0_{298} = 34.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 32.22 + 22.59 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 600 K) [4]

NNb_2 (s) Niobium Nitride **NNb_2 (s)**

Nb_2N (s) Nb_2N (s)

mp = 2673 K (2400 °C)

$\Delta H^0_{298} = -246.9$ kJ·mol^{-1} [4] $S^0_{298} = 79.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 69.71 + 9.42 \cdot 10^{-3} \cdot T - 0.5 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NO (g) Nitrogen(II) Oxide **NO (g)**

mp = 110 K (-163 °C) bp = 121 K (-152 °C)

$\Delta H^0_{298} = 90.3 \pm 0.2$ kJ·mol^{-1} [1] $S^0_{298} = 210.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 29.41 + 3.85 \cdot 10^{-3} \cdot T - 0.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NO_2 (g) Nitrogen(IV) Oxide **NO_2 (g)**

mp = 263 K (-10 °C) bp = 294 K (21 °C)

$\Delta H^0_{298} = 33.1 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 240 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 34.53 + 24.67 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^6 \cdot T^{-2} - 6.87 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -2.02 \cdot 10^3 \cdot T^{-1} + 0.03 \cdot \lg(T) + 2.56$ (298 ... 2000 K) [4]

{Reaction: decomposition $2/3NO_2(g) = 2/3NO(g) + 1/3O_2(g)$}

NO_3 (g) Nitrogen Oxide **NO_3 (g)**

$\Delta H^0_{298} = 71.1 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 252.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 71.92 + 5.84 \cdot 10^{-3} \cdot T - 2.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 800 K) [4]

NO_3Tl (s) Thallium(I) Nitrate **NO_3Tl (s)**

$TlNO_3$ (s) $TlNO_3$ (s)

$\Delta H^0_{298} = -244$ kJ·mol^{-1} [7] $S^0_{298} = 161$ J·mol^{-1}·K^{-1} [7]

$C_p{}^0 = 100$ J·mol^{-1}·K^{-1} (298 K) [7]

NP (g) Phosphorus Nitride **NP (g)**

PN (g) PN (g)

$\Delta H^0_{298} = 104.8 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 211.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 33.07 + 2.41 \cdot 10^{-3} \cdot T - 0.39 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NPu (s) Plutonium Nitride **NPu (s)**

PuN (s) PuN (s)

$\Delta H^0_{298} = -299.2$ kJ·mol^{-1} [4] $S^0_{298} = 64.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 44.89 + 15.48 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NS (g) Nitrogen Sulfide **NS** (g)

ΔH^0_{298} = 263.6 ± 105 kJ·mol^{-1} [1] S^0_{298} = 222.1 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 32.84 + 2.93 \cdot 10^{-3} \cdot T - 0.17 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NSc (s) Scandium Nitride **NSc** (s)
ScN (s) ScN (s)

ΔH^0_{298} = – 313.8 kJ·mol^{-1} [4] S^0_{298} = 29.7 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 45.82 + 5.44 \cdot 10^{-3} \cdot T - 0.92 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NSe (g) Selenium Nitride **NSe** (g)
SeN (g) SeN (g)

ΔH^0_{298} = [329.3] kJ·mol^{-1} [5] S^0_{298} = [234.3] J·mol^{-1}·K^{-1} [5]

NSi (g) Silicon Nitride **NSi** (g)
SiN (g) SiN (g)

ΔH^0_{298} = 372.4 ± 62.8 kJ·mol^{-1} [1] S^0_{298} = 216.8 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$ = 30.2 J·mol^{-1}·K^{-1} (298 K) [1]

NSi_2 (g) Silicon Nitride **NSi_2** (g)
Si_2N (g) Si_2N (g)

ΔH^0_{298} = 397.5 ± 20.9 kJ·mol^{-1} [1] S^0_{298} = 256.5 ± 8.4 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$ = 49.9 J·mol^{-1}·K^{-1} (298 K) [1]

NTa (s) Tantalum Nitride **NTa** (s)
TaN (s) TaN (s)

mp = 3360 K (3087 °C)

ΔH^0_{298} = – 252.3 kJ·mol^{-1} [2] S^0_{298} = 41.8 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 55.27 + 2.72 \cdot 10^{-3} \cdot T - 1.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NTa_2 (s) Tantalum Nitride **NTa_2 (s)**
Ta_2N (s) Ta_2N (s)

mp = 3000 K (2727 °C)
$\Delta H^0_{298} = -272.4$ kJ·mol^{-1} [4] $S^0_{298} = 74.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 70.29 + 17.66 \cdot 10^{-3} \cdot T - 0.71 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NTh (s) Thorium Nitride **NTh (s)**
ThN (s) ThN (s)

mp = 3100 K (2827 °C)
$\Delta H^0_{298} = -378.6$ kJ·mol^{-1} [4] $S^0_{298} = 57.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 47.45 + 9.53 \cdot 10^{-3} \cdot T - 0.48 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

NTi (s) Titanium Nitride **NTi (s)**
TiN (s) TiN (s)

mp = 3218 K (2945 °C)
$\Delta H^0_{298} = -337.7 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 30.2 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 49.83 + 3.93 \cdot 10^{-3} \cdot T - 1.24 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NTi (l) Titanium Nitride **NTi (l)**
TiN (l) TiN (l)

$\Delta H^0_{298} = -265.8$ kJ·mol^{-1} [1] $S^0_{298} = 52.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 37.1$ J·mol^{-1}·K^{-1} (298 K) [1]

NU (s) Uranium Nitride **NU (s)**
UN (s) UN (s)

$\Delta H^0_{298} = -290.8$ kJ·mol^{-1} [2] $S^0_{298} = 62.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 55.73 + 4.98 \cdot 10^{-3} \cdot T - 0.88 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NV (s) Vanadium Nitride **NV (s)**
VN (s) VN (s)

mp = 2350 K (2077 °C)
$\Delta H^0_{298} = -217.2 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 37.3 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 45.77 + 8.79 \cdot 10^{-3} \cdot T - 0.93 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NV (g) Vanadium Nitride **NV** (g)
VN (g) VN (g)

ΔH^0_{298} = 523 ± 20.9 kJ·mol^{-1} [1] S^0_{298} = 233.4 ± 8.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 31.1 J·mol^{-1}·K^{-1} (298 K) [1]

NY (s) Yttrium Nitride **NY** (s)
YN (s) YN (s)

ΔH^0_{298} = – 299.2 kJ·mol^{-1} [4] S^0_{298} = 37.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 45.61 + 6.49 ·10^{-3}·T – 0.73 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NYb (s) Ytterbium Nitride **NYb** (s)
YbN (s) YbN (s)

ΔH^0_{298} = – 359.8 kJ·mol^{-1} [4] S^0_{298} = 62.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 46.44 + 8.37 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

NZr (s) Zirconium Nitride **NZr** (s)
ZrN (s) ZrN (s)

mp = 3233 K (2960 °C)
ΔH^0_{298} = – 365.3 ± 8.4 kJ·mol^{-1} [1] S^0_{298} = 38.9 ± 0.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 46.44 + 7.03 ·10^{-3}·T – 0.72 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NZr (l) Zirconium Nitride **NZr** (l)
ZrN (l) ZrN (l)

ΔH^0_{298} = – 290.7 kJ·mol^{-1} [1] S^0_{298} = 62.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 40.4 J·mol^{-1}·K^{-1} (298 K) [1]

NZr (g) Zirconium Nitride **NZr** (g)
ZrN (g) ZrN (g)

ΔH^0_{298} = 713.4 kJ·mol^{-1} [1] S^0_{298} = 233.5 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 31.7 J·mol^{-1}·K^{-1} (298 K) [1]

N_2 (g) Nitrogen **N_2 (g)**

mp = 63 K (-210 °C) bp = 79 K (-194 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 191.6 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 30.42 + 2.54 ·10^{-3}·T – 0.24 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

N_2O (g) Nitrogen(I) Oxide **N_2O (g)**

mp = 171 K (-102 °C) bp = 184 K (-89 °C)
ΔH^0_{298} = 82.1 ± 0.4 kJ·mol^{-1} [1] S^0_{298} = 220 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 38.1 + 23.17 ·10^{-3}·T – 0.55 ·10^6·T^{-2} – 6.16 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

N_2OTh_2 (s) Thorium Nitride Oxide **N_2OTh_2 (s)**
Th_2N_2O (s) Th_2N_2O (s)

ΔH^0_{298} = – 1287.8 kJ·mol^{-1} [4] S^0_{298} = 124.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 116.9 + 18.74 ·10^{-3}·T – 1.57 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

N_2O_3 (g) Nitrogen(III) Oxide **N_2O_3 (g)**

mp = 171 K (-102 °C) bp = 277 K (4 °C)
ΔH^0_{298} = 82.8 ± 0.8 kJ·mol^{-1} [1] S^0_{298} = 308.5 ± 2.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 80.5 + 13.55 ·10^{-3}·T – 1.74 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

N_2O_4 (s) Nitrogen(IV) Oxide **N_2O_4 (s)**

ΔH^0_{298} = – 35 ± 1.7 kJ·mol^{-1} [1] S^0_{298} = 150.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 122.1 J·mol^{-1}·K^{-1} (298 K) [1]

N_2O_4 (l) Nitrogen(IV) Oxide **N_2O_4 (l)**

ΔH^0_{298} = – 19.6 kJ·mol^{-1} [1] S^0_{298} = 209.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 142.5 J·mol^{-1}·K^{-1} (298 K) [1]

N_2O_4 (g) Nitrogen(IV) Oxide **N_2O_4 (g)**

ΔH^0_{298} = 9.1 ± 1.7 kJ·mol^{-1} [1] S^0_{298} = 304.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 82.07 + 52.92 ·10^{-3}·T – 1.82 ·10^6·T^{-2} – 14.86 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

N_2O_5 (g) Nitrogen(V) Oxide **N_2O_5 (g)**

mp = 303 K (30 °C) bp = 318 K (45 °C)
ΔH^0_{298} = 11.3 ± 1.3 kJ·mol^{-1} [1] S^0_{298} = 346.5 ± 4.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 136.94 + 6.68 ·10^{-3}·T – 3.9 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 500 K) [4]

N_2O_6Pb (s) Lead Nitrate **N_2O_6Pb (s)**
$Pb(NO_3)_2$ (s) $Pb(NO_3)_2$ (s)

mp = 743 K (470 °C)
ΔH^0_{298} = – 456.8 kJ·mol^{-1} [4] S^0_{298} = 224.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 125.94 + 149.37 ·10^{-3}·T – 1.67 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 732 K) [4]

N_2O_8U (s) Uranyl Nitrate **N_2O_8U (s)**
$UO_2(NO_3)_2$ (s) $UO_2(NO_3)_2$ (s)

ΔH^0_{298} = – 1349.3 kJ·mol^{-1} [2] S^0_{298} = 242.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 187.7 J·mol^{-1}·K^{-1} (298 K) [2]

N_2Sr_3 (s) Strontium Nitride **N_2Sr_3 (s)**
Sr_3N_2 (s) Sr_3N_2 (s)

mp = 1303 K (1030 °C)
ΔH^0_{298} = – 391.2 kJ·mol^{-1} [2] S^0_{298} = 123.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 121.55 + 27.2 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1303 K) [4]

N_2Zn_3 (s) Zinc Nitride **N_2Zn_3 (s)**
Zn_3N_2 (s) Zn_3N_2 (s)

ΔH^0_{298} = – 22.6 kJ·mol^{-1} [2] S^0_{298} = 140.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 79.5 + 94.14 ·10^{-3}·T J·mol^{-1}·K^{-1} (273 ... 500 K) [4]

N_3 (g) Nitrogen **N_3 (g)**

ΔH^0_{298} = 414.2 ± 20.9 kJ·mol^{-1} [1] S^0_{298} = 226.5 ± 2.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 40.8 J·mol^{-1}·K^{-1} (298 K) [1]

N_3U_2 (s) Uranium Nitride **N_3U_2 (s)**
U_2N_3 (s) U_2N_3 (s)

ΔH^0_{298} = – 760.6 kJ·mol^{-1} [4] S^0_{298} = 129.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 96.23 + 40.59 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

N_4S_4 (s) Sulfur Nitride **N_4S_4 (s)**

mp = 45 K (-228 °C)
ΔH^0_{298} = 460.2 kJ·mol^{-1} [5]

N_4S_4 (g) Sulfur Nitride **N_4S_4 (g)**

ΔH^0_{298} = 523 kJ·mol^{-1} [5]

N_4Se_4 (s) Selenium Nitride **N_4Se_4 (s)**
Se_4N_4 (s) Se_4N_4 (s)

ΔH^0_{298} = 618 kJ·mol^{-1} [5]

N_4Se_4 (g) Selenium Nitride **N_4Se_4 (g)**
Se_4N_4 (g) Se_4N_4 (g)

ΔH^0_{298} = [765.7] kJ·mol^{-1} [5]

N_4Si_3 (s) Silicon Nitride **N_4Si_3 (s)**
Si_3N_4 (s) Si_3N_4 (s)

ΔH^0_{298} = – 744.8 ± 29.3 kJ·mol^{-1} [1] S^0_{298} = 113 ± 16.7 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 76.38 + 109.04 ·10^{-3}·T – 0.65 ·10^{6}·T^{-2} – 27.08 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (298 ... 2146 K) [4]

N_4Th_3 (s) Thorium Nitride **N_4Th_3 (s)**

Th_3N_4 (s) Th_3N_4 (s)

$\Delta H^0_{298} = -1305.4$ kJ·mol^{-1} [4] $S^0_{298} = 182.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 164.56 + 26.11 \cdot 10^{-3} \cdot T - 2.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2042 K) [4]

N_5P_3 (s) Phosphorus Nitride **N_5P_3 (s)**

P_3N_5 (s) P_3N_5 (s)

$\Delta H^0_{298} = -320.2 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 184.1 \pm 25.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 149$ J·mol^{-1}·K^{-1} (298 K) [1]

Na (s) Sodium **Na (s)**

mp = 371 K (98 °C) bp = 1154 K (881 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 51.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = -62.35 + 200.72 \cdot 10^{-3} \cdot T + 2.73 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 371 K) [4]

Na (s) Sodium **Na (s)**

$\Delta H^0_{371} = 2.1$ kJ·mol^{-1} [4] $S^0_{371} = 57.6$ J·mol^{-1}·K^{-1} [4]

Na (l) Sodium **Na (l)**

$\Delta H^0_{371} = 4.7$ kJ·mol^{-1} [4] $S^0_{371} = 64.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 37.47 - 19.15 \cdot 10^{-3} \cdot T + 10.64 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (371 ... 1154 K) [4]

Na (l) Sodium **Na (l)**

$\Delta H^0_{298} = 2.4$ kJ·mol^{-1} [1] $S^0_{298} = 57.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 37.47 - 19.15 \cdot 10^{-3} \cdot T + 10.64 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (371 ... 1154 K) [4]

Na (g) Sodium **Na (g)**

$\Delta H^0_{298} = 107.3 \pm 0.7$ kJ·mol^{-1} [1] $S^0_{298} = 153.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 20.79$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -5.65 \cdot 10^3 \cdot T^{-1} - 1.11 \cdot \lg(T) + 8.22$ (400 ... 1154 K) [4]

{Reaction: evaporation of Na(l)}

NaO (g) Sodium Oxide **NaO (g)**

$\Delta H^0_{298} = 102.5$ kJ·mol^{-1} [4] $S^0_{298} = 229.1 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.24 + 0.92 \cdot 10^{-3} \cdot T - 0.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NaO_2 (s) Sodium Superoxide **NaO_2 (s)**

mp = 825 K (552 °C)
$\Delta H^0_{298} = -260.7$ kJ·mol^{-1} [1] $S^0_{298} = 115.9 \pm 1.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 60 + 40.85 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 825 K) [4]

NaO_3V (s) Sodium Vanadate(V) **NaO_3V (s)**
$NaVO_3$ (s) $NaVO_3$ (s)

$\Delta H^0_{298} = -1147.7$ kJ·mol^{-1} [2] $S^0_{298} = 113.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 97.6$ J·mol^{-1}·K^{-1} (298 K) [2]

$NaTe$ (s) Sodium Telluride **$NaTe$ (s)**

$\Delta H^0_{298} = -175.7$ kJ·mol^{-1} [2] $S^0_{298} = 80.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 52.2$ J·mol^{-1}·K^{-1} (298 K) [2]

$NaTe_3$ (s) Sodium Tritelluride **$NaTe_3$ (s)**

$\Delta H^0_{298} = -125.5$ kJ·mol^{-1} [2] $S^0_{298} = 134.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 100.3$ J·mol^{-1}·K^{-1} (298 K) [2]

Na_2 (g) Sodium **Na_2 (g)**

$\Delta H^0_{298} = 138.4$ kJ·mol^{-1} [4] $S^0_{298} = 230.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 35.82 + 8.26 \cdot 10^{-3} \cdot T - 0.04 \cdot 10^6 \cdot T^{-2} - 5.04 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1154 K) [4]
$\lg(p,K) = -7.3 \cdot 10^3 \cdot T^{-1} - 2.59 \cdot \lg(T) + 13.48$ (500 ... 1154 K) [4]
{Reaction: evaporation of Na(l)}

Na_2NpO_4 (s) Sodium Neptunium Oxide **Na_2NpO_4 (s)**
$Na_2O \cdot NpO_3$ (s) alpha $Na_2O \cdot NpO_3$ (s)

$\Delta H^0_{298} = -1763.9 \pm 5.3$ kJ·mol^{-1} [14] $S^0_{298} = [173.9]$ J·mol^{-1}·K^{-1} [230, 8]
$C_p{}^0 = [149.70]$ J·mol^{-1}·K^{-1} (298 K) [271]

Na_2NpO_4 (s) Sodium Neptunium Oxide **Na_2NpO_4 (s)**
$Na_2O \cdot NpO_3$ (s) beta $Na_2O \cdot NpO_3$ (s)

$\Delta H^0_{298} = -1748.6 \pm 5.8$ kJ·mol^{-1} [14] $S^0_{298} = [173.9]$ J·mol^{-1}·K^{-1} [229, 8]
$C_p{}^0 = [149.70]$ J·mol^{-1}·K^{-1} (298 K) [271]

Na_2O (s) Sodium Oxide **Na_2O (s)**
alpha

mp = 1405 K (1132 °C)
$\Delta H^0_{298} = -415.1$ kJ·mol^{-1} [4] $S^0_{298} = 75.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 76.74 + 20.09 \cdot 10^{-3} \cdot T - 1.26 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1023 K) [4]

Na_2O (s) Sodium Oxide **Na_2O (s)**
alpha

$\Delta H^0_{1023} = -352.8$ kJ·mol^{-1} [4] $S^0_{1023} = 177.8$ J·mol^{-1}·K^{-1} [4]

Na_2O (s) Sodium Oxide **Na_2O (s)**
beta

$\Delta H^0_{1023} = -351$ kJ·mol^{-1} [4] $S^0_{1023} = 179.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 82.3 + 12.76 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1023 ... 1243 K) [4]

Na_2O (s) Sodium Oxide **Na_2O (s)**
beta

$\Delta H^0_{1243} = -329.8$ kJ·mol^{-1} [4] $S^0_{1243} = 198.3$ J·mol^{-1}·K^{-1} [4]

Na_2O (s) Sodium Oxide gamma **Na_2O (s)**

$\Delta H^0_{1243} = -317.8$ kJ·mol^{-1} [4] $S^0_{1243} = 207.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 84.85 + 10.71 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1243 K) [4]

Na_2O (s) Sodium Oxide gamma **Na_2O (s)**

$\Delta H^0_{1405} = -301.8$ kJ·mol^{-1} [4] $S^0_{1405} = 220.1$ J·mol^{-1}·K^{-1} [4]

Na_2O (l) Sodium Oxide **Na_2O (l)**

$\Delta H^0_{1405} = -254.1$ kJ·mol^{-1} [4] $S^0_{1405} = 254$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 104.6$ J·mol^{-1}·K^{-1} (1405 K) [4]

Na_2O (l) Sodium Oxide **Na_2O (l)**

$\Delta H^0_{298} = -372.8$ kJ·mol^{-1} [1] $S^0_{298} = 91.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 104.6$ J·mol^{-1}·K^{-1} (1405 K) [4]

Na_2O_2 (s) Sodium Peroxide alpha **Na_2O_2 (s)**

mp = 948 K (675 °C)
$\Delta H^0_{298} = -513.2 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 94.8 \pm 1.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 97.91 + 23.42 \cdot 10^{-3} \cdot T - 1.42 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 785 K) [4]
$\lg(p,K) = -10.48 \cdot 10^{3} \cdot T^{-1} - 1.63 \cdot \lg(T) + 13.43$ (600 ... 785 K) [4]
{Reaction: decomposition $2Na_2O_2(s) = 2Na_2O(s) + O_2(g)$}

Na_2O_2 (s) Sodium Peroxide alpha **Na_2O_2 (s)**

$\Delta H^0_{785} = -462.3$ kJ·mol^{-1} [4] $S^0_{785} = 194.2$ J·mol^{-1}·K^{-1} [4]

Na_2O_2 (s) Sodium Peroxide beta **Na_2O_2 (s)**

$\Delta H^0_{785} = -456.7$ kJ·mol^{-1} [4] $S^0_{785} = 201.4$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 113.6$ J·mol^{-1}·K^{-1} (785 K) [4]

Na_2O_3S (s) Sodium Sulfite **Na_2O_3S (s)**

Na_2SO_3 (s) Na_2SO_3 (s)

mp = 1184 K (911 °C)

$\Delta H^0_{298} = -1095$ kJ·mol^{-1} [4] $S^0_{298} = 146$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 107.11 + 43.51 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1184 K) [4]

Na_2O_3S (s) Sodium Sulfite **Na_2O_3S (s)**

Na_2SO_3 (s) Na_2SO_3 (s)

$\Delta H^0_{1184} = -971.5$ kJ·mol^{-1} [4] $S^0_{1184} = 332.3$ J·mol^{-1}·K^{-1} [4]

Na_2O_3S (l) Sodium Sulfite **Na_2O_3S (l)**

Na_2SO_3 (l) Na_2SO_3 (l)

$\Delta H^0_{1184} = -945.6$ kJ·mol^{-1} [4] $S^0_{1184} = 354.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 182$ J·mol^{-1}·K^{-1} (1184 K) [4]

$Na_2O_3S_2$ (s) Sodium Thiosulfate **$Na_2O_3S_2$ (s)**

$Na_2S_2O_3$ (s) $Na_2S_2O_3$ (s)

$\Delta H^0_{298} = -1123$ kJ·mol^{-1} [7] $S^0_{298} = 155$ J·mol^{-1}·K^{-1} [7]

$C_p^0 = 146$ J·mol^{-1}·K^{-1} (298 K) [7]

Na_2O_3Si (s) Sodium Silicate **Na_2O_3Si (s)**

$Na_2O \cdot SiO_2$ (s) $Na_2O \cdot SiO_2$ (s)

mp = 1362 K (1089 °C)

$\Delta H^0_{298} = -1556$ kJ·mol^{-1} [4] $S^0_{298} = 113.8 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 130.29 + 40.17 \cdot 10^{-3} \cdot T - 2.71 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1362 K) [4]

Na_2O_3Si (s) Sodium Silicate **Na_2O_3Si (s)**
$Na_2O \cdot SiO_2$ (s) $Na_2O \cdot SiO_2$ (s)

$\Delta H^0_{1362} = -1389$ kJ·mol^{-1} [4] $S^0_{1362} = 340$ J·mol^{-1}·K^{-1} [4]

Na_2O_3Si (l) Sodium Silicate **Na_2O_3Si (l)**
$Na_2O \cdot SiO_2$ (l) $Na_2O \cdot SiO_2$ (l)

$\Delta H^0_{1362} = -1336.7$ kJ·mol^{-1} [4] $S^0_{1362} = 378.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 179.08$ J·mol^{-1}·K^{-1} (1362 K) [4]

Na_2O_3Si (l) Sodium Silicate **Na_2O_3Si (l)**
$Na_2O \cdot SiO_2$ (l) $Na_2O \cdot SiO_2$ (l)

$\Delta H^0_{298} = -1510.9$ kJ·mol^{-1} [1] $S^0_{298} = 150.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 179.08$ J·mol^{-1}·K^{-1} (1362 K) [4]

Na_2O_3Te (s) Sodium Tellurite **Na_2O_3Te (s)**
Na_2TeO_3 (s) Na_2TeO_3 (s)

$\Delta H^0_{298} = -1003$ kJ·mol^{-1} [7] $S^0_{298} = [149.4]$ J·mol^{-1}·K^{-1} [123]
$C_p{}^0 = [132.43]$ J·mol^{-1}·K^{-1} (298 K) [271]

Na_2O_3Ti (s) Sodium Titanate **Na_2O_3Ti (s)**
$Na_2O \cdot TiO_2$ (s) alpha $Na_2O \cdot TiO_2$ (s)

mp = 1303 K (1030 °C)
$\Delta H^0_{298} = -1576.1$ kJ·mol^{-1} [4] $S^0_{298} = 121.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 105.35 + 86.69 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 560 K) [4]

Na_2O_3Ti (s) Sodium Titanate **Na_2O_3Ti (s)**
$Na_2O \cdot TiO_2$ (s) alpha $Na_2O \cdot TiO_2$ (s)

$\Delta H^0_{560} = -1538.8$ kJ·mol^{-1} [4] $S^0_{560} = 210.9$ J·mol^{-1}·K^{-1} [4]

Na_2O_3Ti (s) Sodium Titanate **Na_2O_3Ti (s)**

$Na_2O \cdot TiO_2$ (s) beta $Na_2O \cdot TiO_2$ (s)

$\Delta H^0_{560} = - 1537.1$ kJ·mol^{-1} [4] $S^0_{560} = 213.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 108.58 + 71.13 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (560 ... 1303 K) [4]

Na_2O_3Ti (s) Sodium Titanate **Na_2O_3Ti (s)**

$Na_2O \cdot TiO_2$ (s) beta $Na_2O \cdot TiO_2$ (s)

$\Delta H^0_{1303} = - 1407.2$ kJ·mol^{-1} [4] $S^0_{1303} = 358.4$ J·mol^{-1}·K^{-1} [4]

Na_2O_3Ti (l) Sodium Titanate **Na_2O_3Ti (l)**

$Na_2O \cdot TiO_2$ (l) $Na_2O \cdot TiO_2$ (l)

$\Delta H^0_{1303} = - 1336.9$ kJ·mol^{-1} [4] $S^0_{1303} = 412.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 196.23$ J·mol^{-1}·K^{-1} (1303 K) [4]

Na_2O_3Zr (s) Sodium Zirconium Oxide **Na_2O_3Zr (s)**

$Na_2O \cdot ZrO_2$ (s) $Na_2O \cdot ZrO_2$ (s)

$\Delta H^0_{298} = - 1654.9 \pm 8$ kJ·mol^{-1} [154] $S^0_{298} = [125.5]$ J·mol^{-1}·K^{-1} [155]

$C_p{}^0 = [124.76]$ J·mol^{-1}·K^{-1} (298 K) [271]

Na_2O_4S (s) Sodium Sulfate **Na_2O_4S (s)**

Na_2SO_4 (s) alpha, orthorhombic Na_2SO_4 (s)

mp = 1157 K (884 °C)

$\Delta H^0_{298} = - 1387.8$ kJ·mol^{-1} [4] $S^0_{298} = 149.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 82.34 + 154.35 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 458 K) [4]

Na_2O_4S (s) Sodium Sulfate **Na_2O_4S (s)**

Na_2SO_4 (s) alpha, orthorhombic Na_2SO_4 (s)

$\Delta H^0_{458} = - 1365.3$ kJ·mol^{-1} [4] $S^0_{458} = 209.6$ J·mol^{-1}·K^{-1} [4]

Na_2O_4S (s) | Sodium Sulfate | **Na_2O_4S (s)**
Na_2SO_4 (s) | beta, orthorhombic | Na_2SO_4 (s)

ΔH^0_{458} = – 1365 kJ·mol^{-1} [4] S^0_{458} = 210.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 92.96 + 131.8 ·10^{-3}·T J·mol^{-1}·K^{-1} (458 ... 514 K) [4]

Na_2O_4S (s) | Sodium Sulfate | **Na_2O_4S (s)**
Na_2SO_4 (s) | beta, orthorhombic | Na_2SO_4 (s)

ΔH^0_{514} = – 1356.3 kJ·mol^{-1} [4] S^0_{514} = 228.3 J·mol^{-1}·K^{-1} [4]

Na_2O_4S (s) | Sodium Sulfate | **Na_2O_4S (s)**
Na_2SO_4 (s) | gamma, hexagonal | Na_2SO_4 (s)

ΔH^0_{514} = – 1345.4 kJ·mol^{-1} [4] S^0_{514} = 249.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 131.44 + 67.54 ·10^{-3}·T J·mol^{-1}·K^{-1} (514 ... 1157 K) [4]

Na_2O_4S (s) | Sodium Sulfate | **Na_2O_4S (s)**
Na_2SO_4 (s) | gamma, hexagonal | Na_2SO_4 (s)

ΔH^0_{1157} = – 1224.6 kJ·mol^{-1} [4] S^0_{1157} = 399.6 J·mol^{-1}·K^{-1} [4]

Na_2O_4S (l) | Sodium Sulfate | **Na_2O_4S (l)**
Na_2SO_4 (l) | | Na_2SO_4 (l)

ΔH^0_{1157} = – 1200.7 kJ·mol^{-1} [4] S^0_{1157} = 420.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 197.03 J·mol^{-1}·K^{-1} (1157 K) [4]

Na_2O_4S (l) | Sodium Sulfate | **Na_2O_4S (l)**
Na_2SO_4 (l) | | Na_2SO_4 (l)

ΔH^0_{298} = – 1356.4 kJ·mol^{-1} [1] S^0_{298} = 181.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 197.03 J·mol^{-1}·K^{-1} (1157 K) [4]

Na_2O_4S (g) Sodium Sulfate **Na_2O_4S (g)**
Na_2SO_4 (g) Na_2SO_4 (g)

$\Delta H^0_{298} = -1033.6 \pm 25.1$ kJ·mol^{-1} [1] $S^0_{298} = 346.9 \pm 16.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 145.1 + 6.66 \cdot 10^{-3} \cdot T - 4.01 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Na_2O_4U (s) Sodium Uranate(VI) **Na_2O_4U (s)**
$Na_2O \cdot UO_3$ (s) alpha $Na_2O \cdot UO_3$ (s)

$\Delta H^0_{298} = -1889.5$ kJ·mol^{-1} [4] $S^0_{298} = 166.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 162.55 + 25.9 \cdot 10^{-3} \cdot T - 2.1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1193 K) [4]

Na_2O_4U (s) Sodium Uranate(VI) **Na_2O_4U (s)**
$Na_2O \cdot UO_3$ (s) alpha $Na_2O \cdot UO_3$ (s)

$\Delta H^0_{1193} = -1732$ kJ·mol^{-1} [4] $S^0_{1193} = 403.6$ J·mol^{-1}·K^{-1} [4]

Na_2O_4U (s) Sodium Uranate(VI) **Na_2O_4U (s)**
$Na_2O \cdot UO_3$ (s) beta $Na_2O \cdot UO_3$ (s)

$\Delta H^0_{1193} = -1711.1$ kJ·mol^{-1} [4] $S^0_{1193} = 421.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 224.68$ J·mol^{-1}·K^{-1} (1193 K) [4]

Na_2O_4W (s) Sodium Tungstate(VI) **Na_2O_4W (s)**
$Na_2O \cdot WO_3$ (s) alpha $Na_2O \cdot WO_3$ (s)

mp = 969 K (696 °C)
$\Delta H^0_{298} = -1544.7 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 160.3 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 107.19 + 115.98 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 864 K) [4]

Na_2O_4W (s) Sodium Tungstate(VI) **Na_2O_4W (s)**
$Na_2O \cdot WO_3$ (s) alpha $Na_2O \cdot WO_3$ (s)

$\Delta H^0_{864} = -1445.9$ kJ·mol^{-1} [4] $S^0_{864} = 340$ J·mol^{-1}·K^{-1} [4]

Na_2O_4W (s) Sodium Tungstate(VI) **Na_2O_4W (s)**
$Na_2O \cdot WO_3$ (s) beta $Na_2O \cdot WO_3$ (s)

$\Delta H^0_{864} = -1411.5$ kJ·mol^{-1} [4] $S^0_{864} = 379.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 209.2$ J·mol^{-1}·K^{-1} (864 K) [4]

Na_2O_4W (s) Sodium Tungstate(VI) **Na_2O_4W (s)**
$Na_2O \cdot WO_3$ (s) beta $Na_2O \cdot WO_3$ (s)

$\Delta H^0_{969} = -1389.5$ kJ·mol^{-1} [4] $S^0_{969} = 403.9$ J·mol^{-1}·K^{-1} [4]

Na_2O_4W (l) Sodium Tungstate(VI) **Na_2O_4W (l)**
$Na_2O \cdot WO_3$ (l) $Na_2O \cdot WO_3$ (l)

$\Delta H^0_{969} = -1365.7$ kJ·mol^{-1} [4] $S^0_{969} = 428.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 209.2$ J·mol^{-1}·K^{-1} (969 K) [4]

$Na_2O_5Si_2$ (s) Sodium Silicate **$Na_2O_5Si_2$ (s)**
$Na_2O \cdot 2SiO_2$ (s) alpha $Na_2O \cdot 2SiO_2$ (s)

mp = 1147 K (874 °C)
$\Delta H^0_{298} = -2467.3$ kJ·mol^{-1} [4] $S^0_{298} = 164.1 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 185.69 + 70.54 \cdot 10^{-3} \cdot T - 4.46 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 951 K) [4]

$Na_2O_5Si_2$ (s) Sodium Silicate **$Na_2O_5Si_2$ (s)**
$Na_2O \cdot 2SiO_2$ (s) alpha $Na_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{951} = -2327.6$ kJ·mol^{-1} [4] $S^0_{951} = 402.8$ J·mol^{-1}·K^{-1} [4]

$Na_2O_5Si_2$ (s) Sodium Silicate **$Na_2O_5Si_2$ (s)**
$Na_2O \cdot 2SiO_2$ (s) beta $Na_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{951} = -2326.5$ kJ·mol^{-1} [4] $S^0_{951} = 403.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 292.88$ J·mol^{-1}·K^{-1} (951 K) [4]

$Na_2O_5Si_2$ (s) Sodium Silicate **$Na_2O_5Si_2$ (s)**

$Na_2O \cdot 2SiO_2$ (s) beta $Na_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{1147} = -2269.1$ kJ·mol^{-1} [4] $S^0_{1147} = 458.8$ J·mol^{-1}·K^{-1} [4]

$Na_2O_5Si_2$ (l) Sodium Silicate **$Na_2O_5Si_2$ (l)**

$Na_2O \cdot 2SiO_2$ (l) $Na_2O \cdot 2SiO_2$ (l)

$\Delta H^0_{1147} = -2233.6$ kJ·mol^{-1} [4] $S^0_{1147} = 489.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 276.98$ J·mol^{-1}·K^{-1} (1147 K) [4]

$Na_2O_5Si_2$ (l) Sodium Silicate **$Na_2O_5Si_2$ (l)**

$Na_2O \cdot 2SiO_2$ (l) $Na_2O \cdot 2SiO_2$ (l)

$\Delta H^0_{298} = -2438.5$ kJ·mol^{-1} [1] $S^0_{298} = 188.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 276.98$ J·mol^{-1}·K^{-1} (1147 K) [4]

$Na_2O_5Ti_2$ (s) Sodium Titanate **$Na_2O_5Ti_2$ (s)**

$Na_2O \cdot 2TiO_2$ (s) $Na_2O \cdot 2TiO_2$ (s)

mp = 1258 K (985 °C)

$\Delta H^0_{298} = -2536.8$ kJ·mol^{-1} [4] $S^0_{298} = 173.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 205.98 + 29.54 \cdot 10^{-3} \cdot T - 1.93 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1258 K) [4]

$Na_2O_5Ti_2$ (s) Sodium Titanate **$Na_2O_5Ti_2$ (s)**

$Na_2O \cdot 2TiO_2$ (s) $Na_2O \cdot 2TiO_2$ (s)

$\Delta H^0_{1258} = -2321.9$ kJ·mol^{-1} [4] $S^0_{1258} = 488.3$ J·mol^{-1}·K^{-1} [4]

$Na_2O_5Ti_2$ (l) Sodium Titanate **$Na_2O_5Ti_2$ (l)**

$Na_2O \cdot 2TiO_2$ (l) $Na_2O \cdot 2TiO_2$ (l)

$\Delta H^0_{1258} = -2212.3$ kJ·mol^{-1} [4] $S^0_{1258} = 575.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 286.6$ J·mol^{-1}·K^{-1} (1258 K) [4]

$Na_2O_6P_2$ (s) Sodium Phosphate **$Na_2O_6P_2$ (s)**
$Na_2O \cdot P_2O_5$ (s) $Na_2O \cdot P_2O_5$ (s)

mp = 900 K (627 °C)
$\Delta H^0_{298} = -2440.1$ kJ·mol^{-1} [4] $S^0_{298} = 191$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 105.86 + 230.12 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 900 K) [4]

$Na_2O_6V_2$ (s) Sodium Vanadate(V) **$Na_2O_6V_2$ (s)**
$Na_2O \cdot V_2O_5$ (s) $Na_2O \cdot V_2O_5$ (s)

mp = 903 K (630 °C)
$\Delta H^0_{298} = -2383.2$ kJ·mol^{-1} [4] $S^0_{298} = 227.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 255.39 + 6.28 \cdot 10^{-3} \cdot T - 5.52 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 903 K) [4]

$Na_2O_7Ti_3$ (s) Sodium Titanate **$Na_2O_7Ti_3$ (s)**
$Na_2O \cdot 3TiO_2$ (s) $Na_2O \cdot 3TiO_2$ (s)

mp = 1401 K (1128 °C)
$\Delta H^0_{298} = -3486.5$ kJ·mol^{-1} [4] $S^0_{298} = 233.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 265.52 + 44.52 \cdot 10^{-3} \cdot T - 2.36 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1401 K) [4]

$Na_2O_7Ti_3$ (s) Sodium Titanate **$Na_2O_7Ti_3$ (s)**
$Na_2O \cdot 3TiO_2$ (s) $Na_2O \cdot 3TiO_2$ (s)

$\Delta H^0_{1401} = -3158.2$ kJ·mol^{-1} [4] $S^0_{1401} = 681.2$ J·mol^{-1}·K^{-1} [4]

$Na_2O_7Ti_3$ (l) Sodium Titanate **$Na_2O_7Ti_3$ (l)**
$Na_2O \cdot 3TiO_2$ (l) $Na_2O \cdot 3TiO_2$ (l)

$\Delta H^0_{1401} = -3003$ kJ·mol^{-1} [4] $S^0_{1401} = 792$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 393.92$ J·mol^{-1}·K^{-1} (1401 K) [4]

$Na_2O_7W_2$ (s) Sodium Tungstate(VI) **$Na_2O_7W_2$ (s)**
$Na_2O \cdot 2WO_3$ (s) $Na_2O \cdot 2WO_3$ (s)

$\Delta H^0_{298} = -2405$ kJ·mol^{-1} [268] $S^0_{298} = 254.4$ J·mol^{-1}·K^{-1} [268]

Na_2S (s) Sodium Sulfide **Na_2S (s)**

mp = 1445 K (1172 °C)
$\Delta H^0_{298} = -366.1 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 96.2 \pm 16.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 78.58 + 14.37 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Na_2S (s) Sodium Sulfide **Na_2S (s)**

$\Delta H^0_{1445} = -240.5$ kJ·mol^{-1} [4] $S^0_{1445} = 253.4$ J·mol^{-1}·K^{-1} [4]

Na_2S (l) Sodium Sulfide **Na_2S (l)**

$\Delta H^0_{1445} = -221.3$ kJ·mol^{-1} [4] $S^0_{1445} = 266.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 92.05$ J·mol^{-1}·K^{-1} (1445 K) [4]

Na_2S (l) Sodium Sulfide **Na_2S (l)**

$\Delta H^0_{298} = -323.9$ kJ·mol^{-1} [1] $S^0_{298} = 127.7$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 92.05$ J·mol^{-1}·K^{-1} (1445 K) [4]

Na_2S_2 (s) Sodium Disulfide **Na_2S_2 (s)**

mp = 753 K (480 °C)
$\Delta H^0_{298} = -397.1 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 150.6 \pm 24$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 98.6$ J·mol^{-1}·K^{-1} (298 K) [1]

Na_2S_2 (l) Sodium Disulfide **Na_2S_2 (l)**

$\Delta H^0_{298} = -380.1$ kJ·mol^{-1} [1] $S^0_{298} = 172.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 98.6$ J·mol^{-1}·K^{-1} (298 K) [1]

Na_2S_3 (s) Sodium Trisulfide **Na_2S_3 (s)**

$\Delta H^0_{298} = -432.6$ kJ·mol^{-1} [2] $S^0_{298} = 101.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 125.3$ J·mol^{-1}·K^{-1} (298 K) [2]

Na_2S_4 (s) Sodium Tetrasulfide **Na_2S_4 (s)**

$\Delta H^0_{298} = -411.3$ kJ·mol^{-1} [2] $S^0_{298} = 167.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 152.2$ J·mol^{-1}·K^{-1} (298 K) [2]

Na_2Se (s) Sodium Selenide **Na_2Se (s)**

mp = 1173 K (900 °C)
$\Delta H^0_{298} = -342.7$ kJ·mol^{-1} [5] $S^0_{298} = [104.2]$ J·mol^{-1}·K^{-1} [5]

Na_2Se_2 (s) Sodium Diselenide **Na_2Se_2 (s)**

mp = 768 K (495 °C)
$\Delta H^0_{298} = -388.3$ kJ·mol^{-1} [5] $S^0_{298} = [125.5]$ J·mol^{-1}·K^{-1} [5]

Na_2Te (s) Sodium Telluride **Na_2Te (s)**

mp = 1226 K (953 °C)
$\Delta H^0_{298} = -313.8$ kJ·mol^{-1} [2] $S^0_{298} = 115.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 77.3$ J·mol^{-1}·K^{-1} (298 K) [2]

Na_2Te_2 (s) Sodium Ditelluride **Na_2Te_2 (s)**

mp = 650 K (377 °C)
$\Delta H^0_{298} = -355.6$ kJ·mol^{-1} [5] $S^0_{298} = [146.4]$ J·mol^{-1}·K^{-1} [5]

Na_3O_4P (s) Sodium Phosphate **Na_3O_4P (s)**
Na_3PO_4 (s) Na_3PO_4 (s)

$\Delta H^0_{298} = -1917.4$ kJ·mol^{-1} [2] $S^0_{298} = 173.8$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 150$ J·mol^{-1}·K^{-1} (298 K) [2]

Na_3O_4U (s) Sodium Uranate(V) **Na_3O_4U (s)**
Na_3UO_4 (s) Na_3UO_4 (s)

$\Delta H^0_{298} = -2023.8$ kJ·mol^{-1} [4] $S^0_{298} = 198.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 188.91 + 25.2 \cdot 10^{-3} \cdot T - 2.1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

Na_3O_4V (s) Sodium Vanadate(V) **Na_3O_4V (s)**
Na_3VO_4 (s) Na_3VO_4 (s)

$\Delta H^0_{298} = -\ 1763.5$ kJ·mol^{-1} [2] $S^0_{298} = 190$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 164.85$ J·mol^{-1}·K^{-1} (298 K) [2]

Na_3P_7 (s) Sodium Phosphide **Na_3P_7 (s)**

$\Delta H^0_{298} = -\ 119 \pm 10$ kJ·mol^{-1} [10] $S^0_{298} = 509$ J·mol^{-1}·K^{-1} [10]

Na_4NpO_5 (s) Sodium Neptunium Oxide **Na_4NpO_5 (s)**
$2Na_2O \cdot NpO_3$ (s) beta $2Na_2O \cdot NpO_3$ (s)

$\Delta H^0_{298} = -\ 2315.5 \pm 5.3$ kJ·mol^{-1} [14] $S^0_{298} = [249]$ J·mol^{-1}·K^{-1} [231, 8]
$C_p{}^0 = [218.24]$ J·mol^{-1}·K^{-1} (298 K) [271]

Na_4O_4Si (s) Sodium Silicate **Na_4O_4Si (s)**
$2Na_2O \cdot SiO_2$ (s) $2Na_2O \cdot SiO_2$ (s)

mp = 1393 K (1120 °C)
$\Delta H^0_{298} = -\ 2100.8$ kJ·mol^{-1} [4] $S^0_{298} = 195.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 162.59 + 74.22 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1393 K) [4]

Na_4O_4Si (s) Sodium Silicate **Na_4O_4Si (s)**
$2Na_2O \cdot SiO_2$ (s) $2Na_2O \cdot SiO_2$ (s)

$\Delta H^0_{1393} = -\ 1854.1$ kJ·mol^{-1} [4] $S^0_{1393} = 527.7$ J·mol^{-1}·K^{-1} [4]

Na_4O_4Si (l) Sodium Silicate **Na_4O_4Si (l)**
$2Na_2O \cdot SiO_2$ (l) $2Na_2O \cdot SiO_2$ (l)

$\Delta H^0_{1393} = -\ 1796.3$ kJ·mol^{-1} [4] $S^0_{1393} = 569.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 259.41$ J·mol^{-1}·K^{-1} (1393 K) [4]

$Na_4O_7P_2$ (s) Sodium Phosphate **$Na_4O_7P_2$ (s)**

$2Na_2O \cdot P_2O_5$ (s) $2Na_2O \cdot P_2O_5$ (s)

mp = 1268 K (995 °C)

$\Delta H^0_{298} = -3166.4$ kJ·mol^{-1} [4] $S^0_{298} = 270.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 184.51 + 190.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1268 K) [4]

$Na_4O_7V_2$ (s) Sodium Vanadate(V) **$Na_4O_7V_2$ (s)**

$2Na_2O \cdot V_2O_5$ (s) $2Na_2O \cdot V_2O_5$ (s)

mp = 933 K (660 °C)

$\Delta H^0_{298} = -3037.2$ kJ·mol^{-1} [4] $S^0_{298} = 318.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 323.42 + 28.87 \cdot 10^{-3} \cdot T - 5.53 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 933 K) [4]

$Na_6O_7Si_2$ (s) Sodium Silicate **$Na_6O_7Si_2$ (s)**

$3Na_2O \cdot 2SiO_2$ (s) $3Na_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{298} = -3632$ kJ·mol^{-1} [2] $S^0_{298} = 309.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 306.2$ J·mol^{-1}·K^{-1} (298 K) [2]

$Na_6O_8P_2$ (s) Sodium Phosphate **$Na_6O_8P_2$ (s)**

$3Na_2O \cdot P_2O_5$ (s) $3Na_2O \cdot P_2O_5$ (s)

mp = 1856 K (1583 °C)

$\Delta H^0_{298} = -3833.9$ kJ·mol^{-1} [4] $S^0_{298} = 347.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 236.81 + 234.3 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$Na_6O_8V_2$ (s) Sodium Vanadate(V) **$Na_6O_8V_2$ (s)**

$3Na_2O \cdot V_2O_5$ (s) $3Na_2O \cdot V_2O_5$ (s)

$\Delta H^0_{298} = -3682.7$ kJ·mol^{-1} [4] $S^0_{298} = 379.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 376.56 + 51.46 \cdot 10^{-3} \cdot T - 5.53 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Nb (s) Niobium **Nb (s)**

mp = 2745 K (2472 °C) bp = 5072 K (4799 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 36.5 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 27.78 - 3.84 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2} + 3.6 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Nb (l) Niobium **Nb (l)**

$\Delta H^0_{298} = 29.6$ kJ·mol^{-1} [1] $S^0_{298} = 47.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 41.78$ J·mol^{-1}·K^{-1} (2000 K) [4]

Nb (g) Niobium **Nb (g)**

$\Delta H^0_{298} = 733 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 186.3 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 31.91 - 8.45 \cdot 10^{-3} \cdot T + 0.08 \cdot 10^{6} \cdot T^{-2} + 2.48 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]
$\lg(p,K) = -26.26 \cdot 10^3 \cdot T^{-1} - 1.43 \cdot \lg(T) + 8.61$ (2100 ... 2745 K) [4]
{Reaction: evaporation of Nb(s)}

NbO (s) Niobium(II) Oxide **NbO (s)**

mp = 2218 K (1945 °C)
$\Delta H^0_{298} = -419.7 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 46 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 42.97 + 8.87 \cdot 10^{-3} \cdot T - 0.4 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2218 K) [4]

NbO (l) Niobium(II) Oxide **NbO (l)**

$\Delta H^0_{298} = -336.7$ kJ·mol^{-1} [1] $S^0_{298} = 83.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 41.1$ J·mol^{-1}·K^{-1} (298 K) [1]

NbO (g) Niobium(II) Oxide **NbO (g)**

$\Delta H^0_{298} = 198.7 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 239 \pm 3.6$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 35.52 + 1.09 \cdot 10^{-3} \cdot T - 0.46 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2218 K) [4]

NbO_2 (s) Niobium(IV) Oxide alpha **NbO_2 (s)**

mp = 2188 K (1915 °C)
$\Delta H^0_{298} = -795 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 54.5 \pm 0.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 50.46 + 37.18 \cdot 10^{-3} \cdot T - 0.34 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1090 K) [4]

NbO_2 (s) Niobium(IV) Oxide alpha **NbO_2 (s)**

$\Delta H^0_{1090} = -735.4$ kJ·mol^{-1} [4] $S^0_{1090} = 147.6$ J·mol^{-1}·K^{-1} [4]

NbO_2 (s) Niobium(IV) Oxide beta **NbO_2 (s)**

$\Delta H^0_{1090} = -732$ kJ·mol⁻¹ [4] $S^0_{1090} = 150.7$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 92.89$ J·mol⁻¹·K⁻¹ (1090 K) [4]

NbO_2 (l) Niobium(IV) Oxide **NbO_2 (l)**

$\Delta H^0_{298} = -710.9$ kJ·mol⁻¹ [1] $S^0_{298} = 92.8$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 57.5$ J·mol⁻¹·K⁻¹ (298 K) [1]

NbO_2 (g) Niobium(IV) Oxide **NbO_2 (g)**

$\Delta H^0_{298} = -200 \pm 20.9$ kJ·mol⁻¹ [1] $S^0_{298} = 272.9 \pm 8.4$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 54.77 + 1.59 \cdot 10^{-3} \cdot T - 1.02 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2188 K) [4]

NbO_4Sb (s) Antimony Niobium Oxide **NbO_4Sb (s)**

$SbNbO_4$ (s) $SbNbO_4$ (s)

$\Delta H^0_{298} = -1307.5$ kJ·mol⁻¹ [92] $S^0_{298} = [147.6]$ J·mol⁻¹·K⁻¹ [92]

$C_p^0 = [121.96]$ J·mol⁻¹·K⁻¹ (298 K) [271]

NbS (g) Niobium(II) Sulfide **NbS (g)**

$\Delta H^0_{298} = [430.9]$ kJ·mol⁻¹ [5] $S^0_{298} = [250.5]$ J·mol⁻¹·K⁻¹ [5]

$C_p^0 = [36.89] + [0.27] \cdot 10^{-3} \cdot T + [-0.32] \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [5]

NbS_2 (s) Niobium(IV) Sulfide **NbS_2 (s)**

$\Delta H^0_{298} = -354.8$ kJ·mol⁻¹ [5] $S^0_{298} = [71.1]$ J·mol⁻¹·K⁻¹ [5]

$NbSi_2$ (s) Niobium Silicide **$NbSi_2$ (s)**

$\Delta H^0_{298} = -125.5$ kJ·mol⁻¹ [2] $S^0_{298} = 69.9$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 63.18 + 15.36 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [3]

Nb_2O_5 (s) Niobium(V) Oxide **Nb_2O_5 (s)**

mp = 1783 K (1510 °C)
ΔH^0_{298} = – 1899.5 ± 4.2 kJ·mol⁻¹ [1] S^0_{298} = 137.3 ± 1.3 J·mol⁻¹·K⁻¹ [1]
$C_p^0 = 162.17 + 14.81 \cdot 10^{-3} \cdot T - 3.06 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1783 K) [4]

Nb_2O_5 (s) Niobium(V) Oxide **Nb_2O_5 (s)**

ΔH^0_{1783} = – 1644.4 kJ·mol⁻¹ [4] S^0_{1783} = 432.6 J·mol⁻¹·K⁻¹ [4]

Nb_2O_5 (l) Niobium(V) Oxide **Nb_2O_5 (l)**

ΔH^0_{1783} = – 1540.2 kJ·mol⁻¹ [4] S^0_{1783} = 491 J·mol⁻¹·K⁻¹ [4]
C_p^0 = 242.25 J·mol⁻¹·K⁻¹ (1783 K) [4]

Nb_2O_5 (l) Niobium(V) Oxide **Nb_2O_5 (l)**

ΔH^0_{298} = – 1830.9 kJ·mol⁻¹ [1] S^0_{298} = 171.5 J·mol⁻¹·K⁻¹ [1]
C_p^0 = 242.25 J·mol⁻¹·K⁻¹ (1783 K) [4]

Nb_5Si_3 (s) Niobium Silicide **Nb_5Si_3 (s)**

ΔH^0_{298} = – 510.4 kJ·mol⁻¹ [2] S^0_{298} = 251 J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 189.16 + 30.79 \cdot 10^{-3} \cdot T - 1.51 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [3]

Nd (s) Neodymium alpha **Nd (s)**

mp = 1289 K (1016 °C) bp = 3337 K (3064 °C)
ΔH^0_{298} = 0 kJ·mol⁻¹ [2] S^0_{298} = 71.1 J·mol⁻¹·K⁻¹ [2]
$C_p^0 = 25.82 + 2.19 \cdot 10^{-3} \cdot T - 0.03 \cdot 10^{6} \cdot T^{-2} + 13.93 \cdot 10^{-6} \cdot T^{2}$ J·mol⁻¹·K⁻¹ (298 ... 1128 K) [4]

Nd (s) Neodymium alpha **Nd (s)**

ΔH^0_{1128} = 29.2 kJ·mol⁻¹ [2] S^0_{1128} = 115.4 J·mol⁻¹·K⁻¹ [2]
C_p^0 = 45.99 J·mol⁻¹·K⁻¹ (1128 K) [2]

Nd (s) Neodymium beta **Nd (s)**

$\Delta H^0{}_{1128}$ = 32.2 kJ·mol^{-1} [2]
$S^0{}_{1128}$ = 118.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 44.56 J·mol^{-1}·K^{-1} (1128 K) [4]

Nd (s) Neodymium beta **Nd (s)**

$\Delta H^0{}_{1289}$ = 39.4 kJ·mol^{-1} [2]
$S^0{}_{1289}$ = 124 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 44.56 J·mol^{-1}·K^{-1} (1289 K) [4]

Nd (l) Neodymium **Nd (l)**

$\Delta H^0{}_{1289}$ = 46.5 kJ·mol^{-1} [2]
$S^0{}_{1289}$ = 129.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 48.79 J·mol^{-1}·K^{-1} (1289 K) [4]
$\lg(p,K) = -17.18 \cdot 10^3 \cdot T^{-1} - 1.97 \cdot \lg(T) + 12.09$ (1289 ... 2000 K) [4]
{Reaction: evaporation as Nd(g)}

Nd (g) Neodymium **Nd (g)**

$\Delta H^0{}_{298}$ = 328.3 kJ·mol^{-1} [4]
$S^0{}_{298}$ = 189.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 26.23 + 2.75 \cdot 10^{-3} \cdot T - 0.48 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NdS (s) Neodymium(II) Sulfide **NdS (s)**

mp = 2400 K (2127 °C)
$\Delta H^0{}_{298}$ = – 464.8 kJ·mol^{-1} [4]
$S^0{}_{298}$ = 74.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 46.19 + 8.37 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NdS (g) Neodymium(II) Sulfide **NdS (g)**

$\Delta H^0{}_{298}$ = 133.9 kJ·mol^{-1} [4]
$S^0{}_{298}$ = 264.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.13 + 0.15 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NdSe (s) | Neodymium(II) Selenide | **NdSe** (s)

mp = 2100 K (1827 °C)
$\Delta H^0_{298} = -359.8$ kJ·mol^{-1} [2] | $S^0_{298} = 90.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 47.49 + 6.28 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NdSe (g) | Neodymium(II) Selenide | **NdSe** (g)

$\Delta H^0_{298} = 183.7$ kJ·mol^{-1} [4] | $S^0_{298} = 275.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.29 + 0.08 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NdTe (s) | Neodymium(II) Telluride | **NdTe** (s)

mp = 2313 K (2040 °C)
$\Delta H^0_{298} = -301.2$ kJ·mol^{-1} [2] | $S^0_{298} = 97.5$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 48.37 + 6.11 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

NdTe (g) | Neodymium(II) Telluride | **NdTe** (g)

$\Delta H^0_{298} = 238.1$ kJ·mol^{-1} [4] | $S^0_{298} = 284.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.38 + 0.02 \cdot 10^{-3} \cdot T - 0.1 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Nd_2O_3 (s) | Neodymium(III) Oxide alpha | **Nd_2O_3** (s)

mp = 2545 K (2272 °C)
$\Delta H^0_{298} = -1807.9$ kJ·mol^{-1} [2] | $S^0_{298} = 158.6$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 115.52 + 30 \cdot 10^{-3} \cdot T - 1.17 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1395 K) [4]

Nd_2O_3 (s) | Neodymium(III) Oxide alpha | **Nd_2O_3** (s)

$\Delta H^0_{1395} = -1656.4$ kJ·mol^{-1} [4] | $S^0_{1395} = 363.5$ J·mol^{-1}·K^{-1} [4]

Nd_2O_3 (s) | Neodymium(III) Oxide beta | **Nd_2O_3** (s)

$\Delta H^0_{1395} = -1655.8$ kJ·mol^{-1} [4] | $S^0_{1395} = 363.9$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 155.65$ J·mol^{-1}·K^{-1} (1395 K) [4]

$Nd_2O_7Zr_2$ (s) Neodymium Zirconate **$Nd_2O_7Zr_2$ (s)**

$Nd_2O_3 \cdot 2ZrO_2$ (s) $Nd_2O_3 \cdot 2ZrO_2$ (s)

$\Delta H^0_{298} = -4121.7$ kJ·mol^{-1} [4] $S^0_{298} = 259.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 255.22 + 44.77 \cdot 10^{-3} \cdot T - 4.02 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1400 K) [4]

$Nd_2O_{12}S_3$ (s) Neodymium Sulfate **$Nd_2O_{12}S_3$ (s)**

$Nd_2(SO_4)_3$ (s) $Nd_2(SO_4)_3$ (s)

$\Delta H^0_{298} = -3781.9$ kJ·mol^{-1} [4] $S^0_{298} = 288.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 213.38 + 198.74 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1140 K) [4]

Nd_2S_3 (s) Neodymium(III) Sulfide **Nd_2S_3 (s)**

mp = 2480 K (2207 °C)

$\Delta H^0_{298} = -1125.5$ kJ·mol^{-1} [4] $S^0_{298} = 185.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 118.53 + 13.35 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Nd_2Se_3 (s) Neodymium(III) Selenide **Nd_2Se_3 (s)**

mp = 1830 K (1557 °C)

$\Delta H^0_{298} = -941.4$ kJ·mol^{-1} [2] $S^0_{298} = 224.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 125.98 + 14.02 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1830 K) [4]

Nd_2Te_3 (s) Neodymium(III) Telluride **Nd_2Te_3 (s)**

mp = 1650 K (1377 °C)

$\Delta H^0_{298} = -795$ kJ·mol^{-1} [2] $S^0_{298} = 253.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 128.57 + 13.98 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1650 K) [4]

Ne (g) Neon **Ne (g)**

mp = 25 K (-248 °C) bp = 27 K (-246 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 146.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 20.8$ J·mol^{-1}·K^{-1} (298 K) [1]

Ni (s) Nickel **Ni (s)**

mp = 1728 K (1455 °C) bp = 3169 K (2896 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 29.9 ± 0.2 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 19.36 + 22.46 \cdot 10^{-3} \cdot T + 0.02 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 400 K) [4]

Ni (s) Nickel **Ni (s)**

ΔH^0_{1728} = 47.6 kJ·mol^{-1} [4] S^0_{1728} = 86 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$ = 38.68 J·mol^{-1}·K^{-1} (1728 K) [4]

Ni (l) Nickel **Ni (l)**

ΔH^0_{1728} = 65 kJ·mol^{-1} [4] S^0_{1728} = 96.1 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$ = 38.91 J·mol^{-1}·K^{-1} (1728 K) [4]

$\lg(p,K) = -22.39 \cdot 10^3 \cdot T^{-1} - 1.93 \cdot \lg(T) + 13.82$ (1728 ... 3169 K) [4]

{Reaction: evaporation as Ni(g)}

Ni (l) Nickel **Ni (l)**

ΔH^0_{298} = 17.5 kJ·mol^{-1} [1] S^0_{298} = 41.5 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$ = 38.91 J·mol^{-1}·K^{-1} (1728 K) [4]

Ni (g) Nickel **Ni (g)**

ΔH^0_{298} = 430.1 ± 8.4 kJ·mol^{-1} [1] S^0_{298} = 182.2 ± 0.1 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 26.77 - 2.04 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2} + 0.18 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3169 K) [4]

NiO (s) Nickel Oxide **NiO (s)**

alpha, non stochiometric

mp = 2228 K (1955 °C)

ΔH^0_{298} = – 239.7 kJ·mol^{-1} [2] S^0_{298} = 38 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = -6.32 + 131.24 \cdot 10^{-3} \cdot T + 1.02 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 525 K) [4]

NiO (g) Nickel Oxide **NiO (g)**

ΔH^0_{298} = 309.6 kJ·mol^{-1} [4] S^0_{298} = 241.4 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 39.82 + 1.54 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2228 K) [4]

NiO_3Se (s) Nickel Selenite **NiO_3Se (s)**

$NiSeO_3$ (s) $NiSeO_3$ (s)

mp = 953 K (680 °C)

$\Delta H^0_{298} = -560.7$ kJ·mol^{-1} [4] $S^0_{298} = 125.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 79.5 + 59.83 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 953 K) [4]

NiO_3Ti (s) Nickel Titanate **NiO_3Ti (s)**

$NiO \cdot TiO_2$ (s) $NiO \cdot TiO_2$ (s)

$\Delta H^0_{298} = -1201.4$ kJ·mol^{-1} [4] $S^0_{298} = 82.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 115.1 + 15.98 \cdot 10^{-3} \cdot T - 1.83 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1667 K) [4]

NiO_4S (s) Nickel Sulfate **NiO_4S (s)**

$NiSO_4$ (s) $NiSO_4$ (s)

$\Delta H^0_{298} = -873.2$ kJ·mol^{-1} [4] $S^0_{298} = 101.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 125.94 + 27.82 \cdot 10^{-3} \cdot T - 3.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1152 K) [4]

NiO_4W (s) Nickel Tungstate(VI) **NiO_4W (s)**

$NiO \cdot WO_3$ (s) $NiO \cdot WO_3$ (s)

$\Delta H^0_{298} = -1127.8$ kJ·mol^{-1} [4] $S^0_{298} = 118$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 110.63 + 53.39 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1100 K) [4]

$NiS_{0.84}$ (s) Nickel Sulfide **$NiS_{0.84}$ (s)**

$\Delta H^0_{298} = -82.4$ kJ·mol^{-1} [2] $S^0_{298} = 49$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 43.1$ J·mol^{-1}·K^{-1} (298 K) [2]

NiS (s) Nickel Sulfide **NiS (s)**

alpha, non stochiometric

mp = 1249 K (976 °C)

$\Delta H^0_{298} = -87.9 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 53 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 44.69 + 19.04 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 652 K) [4]

NiS (s) Nickel Sulfide **NiS** (s)
alpha, non stochiometric

$\Delta H^0_{652} = -69.4$ kJ·mol^{-1} [4] $S^0_{652} = 93.4$ J·mol^{-1}·K^{-1} [4]

NiS (s) Nickel Sulfide **NiS** (s)
beta, non stochiometric

$\Delta H^0_{652} = -62.9$ kJ·mol^{-1} [4] $S^0_{652} = 103.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 34.39 + 28.66 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (652 ... 1249 K) [4]

NiS (s) Nickel Sulfide **NiS** (s)
beta, non stochiometric

$\Delta H^0_{1249} = -26.1$ kJ·mol^{-1} [4] $S^0_{1249} = 142.8$ J·mol^{-1}·K^{-1} [4]

NiS (l) Nickel Sulfide **NiS** (l)
non stochiometric

$\Delta H^0_{1249} = 4$ kJ·mol^{-1} [4] $S^0_{1249} = 166.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 34.59 + 28.46 \cdot 10^{-3} \cdot T + 0.01 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1249 ... 1700 K) [4]

NiS (l) Nickel Sulfide **NiS** (l)
non stochiometric

$\Delta H^0_{298} = -62.5$ kJ·mol^{-1} [1] $S^0_{298} = 72.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 47.1$ J·mol^{-1}·K^{-1} (298 K) [1]

NiS (g) Nickel Sulfide **NiS** (g)

$\Delta H^0_{298} = 357.4 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 252.3 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 34.5$ J·mol^{-1}·K^{-1} (298 K) [1]

NiS_2 (s) Nickel Sulfide **NiS_2** (s)

$\Delta H^0_{298} = -131.4 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 72 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 74.81 + 5.52 \cdot 10^{-3} \cdot T - 1.28 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1068 K) [4]

NiS_2 (l) Nickel Sulfide **NiS_2 (l)**

$\Delta H^0_{298} = -66.6$ kJ·mol^{-1} [1] $S^0_{298} = 122.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 70.6$ J·mol^{-1}·K^{-1} (298 K) [1]

NiSb (s) Nickel Antimonide **NiSb (s)**

mp = 1433 K (1160 °C)
$\Delta H^0_{298} = -83.7$ kJ·mol^{-1} [2] $S^0_{298} = 78.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 46.23 + 11.63 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1433 K) [4]

NiSe (s) Nickel Selenide non stochiometric **NiSe (s)**

mp = 1253 K (980 °C)
$\Delta H^0_{298} = -74.9$ kJ·mol^{-1} [4] $S^0_{298} = 75.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 40.45 + 29.38 \cdot 10^{-3} \cdot T + 0.37 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1253 K) [4]

$NiSe_{1.143}$ (s) Nickel Selenide **$NiSe_{1.143}$ (s)**

$\Delta H^0_{298} = -79.7$ kJ·mol^{-1} [2] $S^0_{298} = 77.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 55.1$ J·mol^{-1}·K^{-1} (298 K) [2]

$NiSe_{1.25}$ (s) Nickel Selenide **$NiSe_{1.25}$ (s)**

$\Delta H^0_{298} = -83.1$ kJ·mol^{-1} [2] $S^0_{298} = 80.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 56.9$ J·mol^{-1}·K^{-1} (298 K) [2]

$NiSe_2$ (s) Nickel Selenide **$NiSe_2$ (s)**

mp = 1123 K (850 °C)
$\Delta H^0_{298} = -108.8$ kJ·mol^{-1} [2] $S^0_{298} = 103.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 76.65 + 13.14 \cdot 10^{-3} \cdot T - 0.46 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1112 K) [4]

NiSi (s) Nickel Silicide **NiSi (s)**

mp = 1265 K (992 °C)
$\Delta H^0_{298} = -89.5$ kJ·mol^{-1} [4] $S^0_{298} = 44.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 48.74 + 6.15 \cdot 10^{-3} \cdot T - 0.65 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1265 K) [4]

NiSi (s) Nickel Silicide **NiSi (s)**

$\Delta H^0_{1265} = -39.4$ kJ·mol^{-1} [4] $S^0_{1265} = 117.3$ J·mol^{-1}·K^{-1} [4]

NiSi (l) Nickel Silicide **NiSi (l)**

$\Delta H^0_{1265} = 3.6$ kJ·mol^{-1} [4] $S^0_{1265} = 151.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 79.5$ J·mol^{-1}·K^{-1} (1265 K) [4]

$NiSi_2$ (s) Nickel Silicide **$NiSi_2$ (s)**

$\Delta H^0_{298} = -87.9$ kJ·mol^{-1} [181] $S^0_{298} = 65.4$ J·mol^{-1}·K^{-1} [181]

NiTe (s) Nickel Telluride **NiTe (s)**

$\Delta H^0_{298} = -38.5$ kJ·mol^{-1} [4] $S^0_{298} = 84.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 57.18 + 7.11 \cdot 10^{-3} \cdot T - 0.4 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1262 K) [4]

$NiTe_{1.1}$ (s) Nickel Telluride **$NiTe_{1.1}$ (s)**

$\Delta H^0_{298} = -57.3$ kJ·mol^{-1} [5] $S^0_{298} = 84.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 54.8$ J·mol^{-1}·K^{-1} (298 K) [2]

$NiTe_2$ (s) Nickel Telluride **$NiTe_2$ (s)**

mp = 978 K (705 °C)
$\Delta H^0_{298} = [-87.9]$ kJ·mol^{-1} [5] $S^0_{298} = 120.3$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = 75.9$ J·mol^{-1}·K^{-1} (298 K) [5]

NiTi (s) Nickel Titanium **NiTi** (s)

mp = 1583 K (1310 °C)
$\Delta H^0_{298} = -66.5$ kJ·mol^{-1} [4] $S^0_{298} = 53.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 53.01 + 9.62 \cdot 10^{-3} \cdot T - 0.81 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1583 K) [4]

$NiTi_2$ (s) Nickel Titanium **$NiTi_2$** (s)

$\Delta H^0_{298} = -83.7$ kJ·mol^{-1} [4] $S^0_{298} = 83.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 67.99 + 23.43 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1257 K) [4]

Ni_2O_4Si (s) Nickel Silicate **Ni_2O_4Si** (s)
$2NiO \cdot SiO_2$ (s) $2NiO \cdot SiO_2$ (s)

$\Delta H^0_{298} = -1397.2$ kJ·mol^{-1} [4] $S^0_{298} = 110$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 185.1 + 19.87 \cdot 10^{-3} \cdot T - 5.69 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1818 K) [4]

Ni_2P (s) Nickel Phosphide **Ni_2P** (s)

mp = 1383 K (1110 °C)
$\Delta H^0_{298} = -184.9$ kJ·mol^{-1} [4] $S^0_{298} = 77.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 57.95 + 23.01 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1383 K) [4]

Ni_2Te_3 (s) Nickel Telluride **Ni_2Te_3** (s)

$\Delta H^0_{298} = -144.8$ kJ·mol^{-1} [5] $S^0_{298} = 200.8$ J·mol^{-1}·K^{-1} [5]

Ni_3P (s) Nickel Phosphide **Ni_3P** (s)

$\Delta H^0_{298} = -220$ kJ·mol^{-1} [4] $S^0_{298} = 106.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 77.82 + 33.47 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1243 K) [4]

Ni_3S_2 (s) Nickel Sulfide **Ni_3S_2** (s)
alpha

mp = 1079 K (806 °C)
$\Delta H^0_{298} = -216.3 \pm 5$ kJ·mol^{-1} [1] $S^0_{298} = 133.9 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 110.79 + 51.67 \cdot 10^{-3} \cdot T - 0.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 829 K) [4]

Ni_3S_2 (s) Nickel Sulfide alpha **Ni_3S_2 (s)**

$\Delta H^0_{829} = -143.7$ kJ·mol^{-1} [4]
$S^0_{829} = 270.9$ J·mol^{-1}·K^{-1} [4]

Ni_3S_2 (s) Nickel Sulfide beta **Ni_3S_2 (s)**

$\Delta H^0_{829} = -87.4$ kJ·mol^{-1} [4]
$S^0_{829} = 338.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 188.62$ J·mol^{-1}·K^{-1} (829 K) [4]

Ni_3S_2 (s) Nickel Sulfide beta **Ni_3S_2 (s)**

$\Delta H^0_{1079} = -40.3$ kJ·mol^{-1} [4]
$S^0_{1079} = 388.5$ J·mol^{-1}·K^{-1} [4]

Ni_3S_2 (l) Nickel Sulfide **Ni_3S_2 (l)**

$\Delta H^0_{1079} = -20.5$ kJ·mol^{-1} [4]
$S^0_{1079} = 406.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 191.8$ J·mol^{-1}·K^{-1} (1079 K) [4]

Ni_3S_2 (l) Nickel Sulfide **Ni_3S_2 (l)**

$\Delta H^0_{298} = -143.9$ kJ·mol^{-1} [1]
$S^0_{298} = 215.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 117.7$ J·mol^{-1}·K^{-1} (298 K) [1]

Ni_3S_4 (s) Nickel Sulfide **Ni_3S_4 (s)**

$\Delta H^0_{298} = -301.1 \pm 25.1$ kJ·mol^{-1} [1]
$S^0_{298} = 186.5 \pm 16.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 121.96 + 143.68 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 629 K) [4]

Ni_3Sn (s) Nickel Tin **Ni_3Sn (s)**

$\Delta H^0_{298} = -93.7$ kJ·mol^{-1} [2]
$S^0_{298} = 131.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 86.94 + 42.68 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 900 K) [3]

Ni_3Sn_2 (s) Nickel Tin **Ni_3Sn_2 (s)**

mp = 1537 K (1264 °C)
ΔH^0_{298} = – 156.9 kJ·mol^{-1} [2] S^0_{298} = 173.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 108.7 J·mol^{-1}·K^{-1} (298 K) [2]

Ni_3Sn_4 (s) Nickel Tin **Ni_3Sn_4 (s)**

ΔH^0_{298} = – 177.3 kJ·mol^{-1} [69] S^0_{298} = [257.7] J·mol^{-1}·K^{-1} [14]

Ni_3Ti (s) Nickel Titanium **Ni_3Ti (s)**

mp = 1653 K (1380 °C)
ΔH^0_{298} = – 139.3 kJ·mol^{-1} [4] S^0_{298} = 138.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 108.95 + 16.86 ·10^{-3}·T – 1.82 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1653 K) [4]

Ni_5P_2 (s) Nickel Phosphide **Ni_5P_2 (s)**

mp = 1448 K (1175 °C)
ΔH^0_{298} = – 436 kJ·mol^{-1} [4] S^0_{298} = 184.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 135.14 + 56.48 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1448 K) [4]

Ni_7Si_{13} (s) Nickel Silicide **Ni_7Si_{13} (s)**

ΔH^0_{298} = – 586.1 kJ·mol^{-1} [2] S^0_{298} = 436.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 436.7 J·mol^{-1}·K^{-1} (298 K) [2]

Np (s) Neptunium alpha **Np (s)**

mp = 912 K (639 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 50.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 29.6 J·mol^{-1}·K^{-1} (298 K) [2]

Np (s) | Neptunium alpha | **Np** (s)

ΔH^0_{553} = 9.2 kJ·mol^{-1} [2] | S^0_{553} = 72.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 44.2 J·mol^{-1}·K^{-1} (553 K) [2]

Np (s) | Neptunium beta | **Np** (s)

ΔH^0_{553} = 14.8 kJ·mol^{-1} [2] | S^0_{553} = 82.4 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 39.3 J·mol^{-1}·K^{-1} (553 K) [2]

Np (s) | Neptunium beta | **Np** (s)

ΔH^0_{849} = 26.4 kJ·mol^{-1} [2] | S^0_{849} = 99.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 39.3 J·mol^{-1}·K^{-1} (849 K) [2]

Np (s) | Neptunium gamma | **Np** (s)

ΔH^0_{849} = 31.7 kJ·mol^{-1} [2] | S^0_{849} = 105.4 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 36.4 J·mol^{-1}·K^{-1} (849 K) [2]

Np (s) | Neptunium gamma | **Np** (s)

ΔH^0_{912} = 34 kJ·mol^{-1} [2] | S^0_{912} = 108 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 36.4 J·mol^{-1}·K^{-1} (912 K) [2]

Np (l) | Neptunium | **Np** (l)

ΔH^0_{912} = 39.2 kJ·mol^{-1} [2] | S^0_{912} = 113.7 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 45.4 J·mol^{-1}·K^{-1} (912 K) [2]

Np (g) | Neptunium | **Np** (g)

ΔH^0_{298} = 464.8 kJ·mol^{-1} [2] | S^0_{298} = 197.7 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 20.8 J·mol^{-1}·K^{-1} (298 K) [2]

O (g) Oxygen **O** (g)

ΔH^0_{298} = 249.2 ± 0.1 kJ·mol^{-1} [4] S^0_{298} = 161.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 21.01 – 0.25 ·10^{-3}·T + 0.09 ·10^6·T^{-2} + 0.07 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

OP (g) Phosphorus(II) Oxide **OP** (g)
PO (g) PO (g)

ΔH^0_{298} = – 23.3 ± 4.2 kJ·mol^{-1} [1] S^0_{298} = 222.8 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 31.8 J·mol^{-1}·K^{-1} (298 K) [1]

OPb (s) Lead(II) Oxide **OPb** (s)
PbO (s) red PbO (s)

mp = 1159 K (886 °C) bp = 1897 K (1624 °C)
ΔH^0_{298} = – 220 kJ·mol^{-1} [4] S^0_{298} = 65.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 52.38 + 8.66 ·10^{-3}·T – 0.82 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 762 K) [4]

OPb (s) Lead(II) Oxide **OPb** (s)
PbO (s) red PbO (s)

ΔH^0_{762} = – 195.2 kJ·mol^{-1} [4] S^0_{762} = 114.7 J·mol^{-1}·K^{-1} [4]

OPb (s) Lead(II) Oxide **OPb** (s)
PbO (s) yellow PbO (s)

ΔH^0_{762} = – 194.5 kJ·mol^{-1} [4] S^0_{762} = 115.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 45.27 + 12.8 ·10^{-3}·T – 0.3 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (762 ... 1159 K) [4]
lg(p,K) = – 15.66 ·10^3·T^{-1} – 2.56 · lg(T) + 16.72 (900 ... 1159 K) [4]
{Reaction: evaporation as PbO(g)}

OPb (s) Lead(II) Oxide **OPb** (s)
PbO (s) yellow PbO (s)

ΔH^0_{1159} = – 171.8 kJ·mol^{-1} [4] S^0_{1159} = 139.6 J·mol^{-1}·K^{-1} [4]

OPb (l) Lead(II) Oxide **OPb** (l)
PbO (l) PbO (l)

$\Delta H^0_{1159} = -145.3$ kJ·mol^{-1} [4] $S^0_{1159} = 162.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 65.22$ J·mol^{-1}·K^{-1} (1159 K) [4]
$\lg(p,K) = -14.66 \cdot 10^3 \cdot T^{-1} - 3.32 \cdot \lg(T) + 18.18$ (1159 ... 1897 K) [4]
{Reaction: evaporation as PbO(g)}

OPb (l) Lead(II) Oxide **OPb** (l)
PbO (l) PbO (l)

$\Delta H^0_{298} = -202.2$ kJ·mol^{-1} [1] $S^0_{298} = 73.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 65.22$ J·mol^{-1}·K^{-1} (1159 K) [4]

OPb (g) Lead(II) Oxide **OPb** (g)
PbO (g) PbO (g)

$\Delta H^0_{298} = 70.3 \pm 7.1$ kJ·mol^{-1} [1] $S^0_{298} = 240$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 36.18 + 1.05 \cdot 10^{-3} \cdot T - 0.36 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

OPd (s) Palladium(II) Oxide **OPd** (s)
PdO (s) PdO (s)

mp = 1143 K (870 °C)
$\Delta H^0_{298} = -114.1$ kJ·mol^{-1} [4] $S^0_{298} = 37.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 45.31 + 7.03 \cdot 10^{-3} \cdot T - 13 \cdot 10^6 \cdot T^{-2} + 0.38 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1148 K) [4]
$\lg(p,K) = -12.08 \cdot 10^3 \cdot T^{-1} - 1.32 \cdot \lg(T) + 14.57$ (700 ... 1148 K) [4]
{Reaction: decomposition 2PdO(s) = 2Pd(s) + O_2(g)}

OPd (g) Palladium(II) Oxide **OPd** (g)
PdO (g) PdO (g)

$\Delta H^0_{298} = 348.9$ kJ·mol^{-1} [4] $S^0_{298} = 218$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 34.73 + 3.52 \cdot 10^{-3} \cdot T + 0.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

OPu (s) Plutonium(II) Oxide **OPu (s)**

PuO (s) PuO (s)

mp = 2173 K (1900 °C)

ΔH^0_{298} = – 564.8 kJ·mol^{-1} [4] S^0_{298} = 70.7 J·mol^{-1}·K^{-1} [4]

$C_p^0 = 53.1 + 10.21 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2173 K) [4]

ORb$_2$ (s) Rubidium Oxide **ORb$_2$ (s)**

Rb_2O (s) alpha Rb_2O (s)

mp = 778 K (505 °C)

ΔH^0_{298} = – 338.8 kJ·mol^{-1} [4] S^0_{298} = 125.5 J·mol^{-1}·K^{-1} [2]

$C_p^0 = 60.25 + 46.02 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 613 K) [4]

ORb$_2$ (s) Rubidium Oxide **ORb$_2$ (s)**

Rb_2O (s) alpha Rb_2O (s)

ΔH^0_{613} = – 313.3 kJ·mol^{-1} [4] S^0_{613} = 183.4 J·mol^{-1}·K^{-1} [4]

ORb$_2$ (s) Rubidium Oxide **ORb$_2$ (s)**

Rb_2O (s) beta Rb_2O (s)

ΔH^0_{613} = – 308.7 kJ·mol^{-1} [4] S^0_{613} = 190.9 J·mol^{-1}·K^{-1} [4]

$C_p^0 = 89.96$ J·mol^{-1}·K^{-1} (613 K) [4]

ORb$_2$ (s) Rubidium Oxide **ORb$_2$ (s)**

Rb_2O (s) beta Rb_2O (s)

ΔH^0_{778} = – 293.8 kJ·mol^{-1} [4] S^0_{778} = 212.4 J·mol^{-1}·K^{-1} [4]

ORb$_2$ (l) Rubidium Oxide **ORb$_2$ (l)**

Rb_2O (l) Rb_2O (l)

ΔH^0_{778} = – 272.9 kJ·mol^{-1} [4] S^0_{778} = 239.3 J·mol^{-1}·K^{-1} [4]

$C_p^0 = 95.81$ J·mol^{-1}·K^{-1} (778 K) [4]

ORh (g) Rhodium Oxide **ORh (g)**
RhO (g) RhO (g)

ΔH^0_{298} = 410 kJ·mol^{-1} [4] S^0_{298} = 229.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 37.87 − 0.54 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

OS (g) Sulfur(II) Oxide **OS (g)**
SO (g) SO (g)

ΔH^0_{298} = 5 ± 1.3 kJ·mol^{-1} [1] S^0_{298} = 221.9 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 34.56 + 1.34 ·10^{-3}·T − 0.04 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

OS_2 (g) Sulfur Oxide **OS_2 (g)**
S_2O (g) S_2O (g)

ΔH^0_{298} = − 40.6 kJ·mol^{-1} [4] S^0_{298} = 267 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 53.97 + 2.17 ·10^{-3}·T − 0.95 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

OSb (g) Antimony(II) Oxide **OSb (g)**
SbO (g) SbO (g)

ΔH^0_{298} = − 103.5 kJ·mol^{-1} [2] S^0_{298} = 238.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 35.44 + 3.51 ·10^{-3}·T − 0.41 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [6]

OSc (g) Scandium Oxide **OSc (g)**
ScO (g) ScO (g)

ΔH^0_{298} = − 54 kJ·mol^{-1} [93] S^0_{298} = 224.5 J·mol^{-1}·K^{-1} [93]

OSe (g) Selenium(II) Oxide **OSe (g)**
SeO (g) SeO (g)

ΔH^0_{298} = 62.3 kJ·mol^{-1} [2] S^0_{298} = 234 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 34.94 + 1.51 ·10^{-3}·T − 0.37 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

OSi (g) | Silicon(II) Oxide | **OSi** (g)
SiO (g) | | SiO (g)

$\Delta H^0_{298} = -98.3$ kJ·mol⁻¹ [4] | $S^0_{298} = 211.6$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 32.66 + 2.86 \cdot 10^{-3} \cdot T - 0.32 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

OSn (s) | Tin(II) Oxide | **OSn** (s)
SnO (s) | | SnO (s)

mp = 1250 K (977 °C) | bp = 2100 K (1827 °C)

$\Delta H^0_{298} = -285.9$ kJ·mol⁻¹ [4] | $S^0_{298} = 57.2$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 50.49 + 9.17 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1250 K) [4]

$\lg(p,K) = -16.74 \cdot 10^{3} \cdot T^{-1} - 3.24 \cdot \lg(T) + 19.08$ (1000 ... 1250 K) [4]

{Reaction: evaporation as SnO(g)}

OSn (s) | Tin(II) Oxide | **OSn** (s)
SnO (s) | | SnO (s)

$\Delta H^0_{1250} = -232.4$ kJ·mol⁻¹ [4] | $S^0_{1250} = 135.7$ J·mol⁻¹·K⁻¹ [4]

OSn (l) | Tin(II) Oxide | **OSn** (l)
SnO (l) | | SnO (l)

$\Delta H^0_{1250} = -211.4$ kJ·mol⁻¹ [4] | $S^0_{1250} = 152.4$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 62.76$ J·mol⁻¹·K⁻¹ (1250 K) [4]

$\lg(p,K) = -15.54 \cdot 10^{3} \cdot T^{-1} - 3.04 \cdot \lg(T) + 17.5$ (1250 ... 2100 K) [4]

{Reaction: evaporation as SnO(g)}

OSn (g) | Tin(II) Oxide | **OSn** (g)
SnO (g) | | SnO (g)

$\Delta H^0_{298} = 20.9$ kJ·mol⁻¹ [2] | $S^0_{298} = 232.1$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 35.23 + 1.34 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2100 K) [4]

OSr (s) | Strontium Oxide | **OSr** (s)
SrO (s) | | SrO (s)

mp = 2938 K (2665 °C)

$\Delta H^0_{298} = -592 \pm 3.3$ kJ·mol⁻¹ [1] | $S^0_{298} = 55.5 \pm 0.4$ J·mol⁻¹·K⁻¹ [1]

$C_p^0 = 50.75 + 6.07 \cdot 10^{-3} \cdot T - 0.63 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

OSr (l) Strontium Oxide **OSr (l)**
SrO (l) SrO (l)

$\Delta H^0_{298} = -517.3$ kJ·mol^{-1} [1] $S^0_{298} = 80.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 45.4$ J·mol^{-1}·K^{-1} (298 K) [1]

OSr (g) Strontium Oxide **OSr (g)**
SrO (g) SrO (g)

$\Delta H^0_{298} = -13.4 \pm 16.7$ kJ·mol^{-1} [1] $S^0_{298} = 230.1 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 43.07 - 13.07 \cdot 10^{-3} \cdot T - 0.64 \cdot 10^{6} \cdot T^{-2} + 7.59 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

OTa (g) Tantalum(II) Oxide **OTa (g)**
TaO (g) TaO (g)

$\Delta H^0_{298} = 192.5 \pm 62.8$ kJ·mol^{-1} [1] $S^0_{298} = 241.1 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 32.95 + 4.77 \cdot 10^{-3} \cdot T - 0.39 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2058 K) [4]

OTe (g) Tellurium(II) Oxide **OTe (g)**
TeO (g) TeO (g)

$\Delta H^0_{298} = 74.5$ kJ·mol^{-1} [2] $S^0_{298} = 240.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 35.31 + 1.34 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

OTh (g) Thorium(II) Oxide **OTh (g)**
ThO (g) ThO (g)

$\Delta H^0_{298} = -28.5$ kJ·mol^{-1} [4] $S^0_{298} = 240.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 32 + 5.49 \cdot 10^{-3} \cdot T - 0.21 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

OTi (s) Titanium(II) Oxide **OTi (s)**
TiO (s) alpha TiO (s)

mp = 2023 K (1750 °C)
$\Delta H^0_{298} = -542.7 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 34.8 \pm 2.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 44.22 + 15.06 \cdot 10^{-3} \cdot T - 0.78 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1213 K) [4]

OTi (s) Titanium(II) Oxide **OTi** (s)
TiO (s) alpha TiO (s)

$\Delta H^0_{1213} = -493.8$ kJ·mol^{-1} [4] $S^0_{1213} = 106.5$ J·mol^{-1}·K^{-1} [4]

OTi (s) Titanium(II) Oxide **OTi** (s)
TiO (s) beta TiO (s)

$\Delta H^0_{1213} = -489.6$ kJ·mol^{-1} [4] $S^0_{1213} = 110$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 42.18 + 17.56 \cdot 10^{-3} \cdot T - 0.65 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1213 ... 2023 K) [4]

OTi (s) Titanium(II) Oxide **OTi** (s)
TiO (s) beta TiO (s)

$\Delta H^0_{298} = -538.5$ kJ·mol^{-1} [1] $S^0_{298} = 38.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 42.18 + 17.56 \cdot 10^{-3} \cdot T - 0.65 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1213 ... 2023 K) [4]

OTi (l) Titanium(II) Oxide **OTi** (l)
TiO (l) TiO (l)

$\Delta H^0_{298} = -493.9$ kJ·mol^{-1} [1] $S^0_{298} = 60.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 40$ J·mol^{-1}·K^{-1} (298 K) [1]

OTi (g) Titanium(II) Oxide **OTi** (g)
TiO (g) TiO (g)

$\Delta H^0_{298} = 54.4 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 233.5 \pm 0.3$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.04 + 0.97 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2023 K) [4]

OTl_2 (s) Thallium(I) Oxide **OTl_2** (s)
Tl_2O (s) Tl_2O (s)

mp = 852 K (579 °C)
$\Delta H^0_{298} = -169$ kJ·mol^{-1} [2] $S^0_{298} = 145.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 75.42 + 20.33 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 852 K) [4]
$\lg(p,K) = -9.78 \cdot 10^3 \cdot T^{-1} - 4.06 \cdot \lg(T) + 21.03$ (600 ... 852 K) [4]
{Reaction: evaporation as Tl_2O(g)}

OTl_2 (s) Thallium(I) Oxide **OTl_2 (s)**

Tl_2O (s) Tl_2O (s)

$\Delta H^0_{852} = -121.3$ kJ·mol^{-1} [4] $S^0_{852} = 234.5$ J·mol^{-1}·K^{-1} [4]

OTl_2 (l) Thallium(I) Oxide **OTl_2 (l)**

Tl_2O (l) Tl_2O (l)

$\Delta H^0_{852} = -91.1$ kJ·mol^{-1} [4] $S^0_{852} = 269.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 111.71$ J·mol^{-1}·K^{-1} (852 K) [4]

$\lg(p,K) = -9.08 \cdot 10^3 \cdot T^{-1} - 6.45 \cdot \lg(T) + 27.22$ (852 ... 1257 K) [4]

{Reaction: evaporation as Tl_2O(g)}

OTl_2 (g) Thallium(I) Oxide **OTl_2 (g)**

Tl_2O (g) Tl_2O (g)

$\Delta H^0_{298} = 6.3$ kJ·mol^{-1} [2] $S^0_{298} = 317.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 55.61 + 2.71 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

OV (s) Vanadium(II) Oxide **OV (s)**

VO (s) VO (s)

mp = 1973 K (1700 °C)

$\Delta H^0_{298} = -431.8 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 39 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 50.21 + 11.84 \cdot 10^{-3} \cdot T - 1.35 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1973 K) [4]

OV (l) Vanadium(II) Oxide **OV (l)**

VO (l) VO (l)

$\Delta H^0_{298} = -370.9$ kJ·mol^{-1} [1] $S^0_{298} = 69.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 45.5$ J·mol^{-1}·K^{-1} (298 K) [1]

OV (g) Vanadium(II) Oxide **OV (g)**

VO (g) VO (g)

$\Delta H^0_{298} = 127.6 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 230.9 \pm 2.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 37.41$ J·mol^{-1}·K^{-1} (298 K) [4]

OW (g) Tungsten(II) Oxide **OW (g)**
WO (g) WO (g)

$\Delta H^0_{298} = 425.1 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 248.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 33.29 + 2.8 \cdot 10^{-3} \cdot T - 0.32 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

OZn (s) Zinc Oxide **OZn (s)**
ZnO (s) ZnO (s)

$\Delta H^0_{298} = -350.5$ kJ·mol^{-1} [2] $S^0_{298} = 43.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 45.34 + 7.29 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2242 K) [4]

OZr (g) Zirconium(II) Oxide **OZr (g)**
ZrO (g) ZrO (g)

$\Delta H^0_{298} = 58.6 \pm 50.2$ kJ·mol^{-1} [1] $S^0_{298} = 227.6 \pm 8.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 13.37 + 37.09 \cdot 10^{-3} \cdot T + 0.72 \cdot 10^6 \cdot T^{-2} - 8.61 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2125 K) [4]

O_2 (g) Oxygen **O_2 (g)**

mp = 55 K (-218 °C) bp = 90 K (-183 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 205.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 29.15 + 6.48 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2} - 1.02 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3200 K) [4]
$\lg(p,K) = -13.18 \cdot 10^3 \cdot T^{-1} + 0.18 \cdot \lg(T) + 2.82$ (1100 ... 3200 K) [4]
{Reaction: decomposition $1/2O_2$(g) = O(g)}

O_2Os (s) Osmium(IV) Oxide **O_2Os (s)**
OsO_2 (s) OsO_2 (s)

$\Delta H^0_{298} = -295$ kJ·mol^{-1} [2] $S^0_{298} = 51.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 69.96 + 10.38 \cdot 10^{-3} \cdot T - 1.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1201 K) [4]

O_2P (g) Phosphorus(IV) Oxide **O_2P (g)**
PO_2 (g) PO_2 (g)

$\Delta H^0_{298} = -276.6$ kJ·mol^{-1} [4] $S^0_{298} = 252.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 53.21 + 2.62 \cdot 10^{-3} \cdot T - 1.15 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_2Pb (s) Lead(IV) Oxide **O_2Pb (s)**
PbO_2 (s) PbO_2 (s)

$\Delta H^0_{298} = -282.8$ kJ·mol^{-1} [4] $S^0_{298} = 74.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 57.05 + 29 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 587 K) [4]
$\lg(p,K) = -6.12 \cdot 10^3 \cdot T^{-1} + 0.37 \cdot \lg(T) + 9.4$ (400 ... 587 K) [4]
{Reaction: decomposition $3PbO_2(s) = Pb_3O_4(s) + O_2(g)$}

O_2Pr (s) Praseodymium(IV) Oxide **O_2Pr (s)**
PrO_2 (s) PrO_2 (s)

$\Delta H^0_{298} = -974.4$ kJ·mol^{-1} [4] $S^0_{298} = 79.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 77.57 + 25.02 \cdot 10^{-3} \cdot T - 1.08 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 500 K) [4]

O_2Pt (g) Platinum(IV) Oxide **O_2Pt (g)**
PtO_2 (g) PtO_2 (g)

$\Delta H^0_{298} = 171.5$ kJ·mol^{-1} [4] $S^0_{298} = 252.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 57.11 + 0.68 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_2Pu (s) Plutonium(IV) Oxide **O_2Pu (s)**
PuO_2 (s) PuO_2 (s)

mp = 2715 K (2442 °C)
$\Delta H^0_{298} = -1055.8$ kJ·mol^{-1} [4] $S^0_{298} = 66.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 86.51 + 7.98 \cdot 10^{-3} \cdot T - 2.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_2Rb (s) Rubidium Superoxide **O_2Rb (s)**
RbO_2 (s) RbO_2 (s)

$\Delta H^0_{298} = -278.7$ kJ·mol^{-1} [2] $S^0_{298} = 130.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 77.6$ J·mol^{-1}·K^{-1} (298 K) [2]

O_2Re (s) Rhenium(IV) Oxide **O_2Re (s)**
ReO_2 (s) ReO_2 (s)

$\Delta H^0_{298} = -442.2$ kJ·mol^{-1} [4] $S^0_{298} = 46.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 67.36 + 12.68 \cdot 10^{-3} \cdot T - 1.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1370 K) [4]

O_2Rh (g) Rhodium(IV) Oxide **O_2Rh (g)**

RhO_2 (g) RhO_2 (g)

$\Delta H^0_{298} = -\ 184$ kJ·mol^{-1} [2] $S^0_{298} = 263.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 43$ J·mol^{-1}·K^{-1} (298 K) [2]

O_2Ru (s) Ruthenium(IV) Oxide **O_2Ru (s)**

RuO_2 (s) RuO_2 (s)

$\Delta H^0_{298} = -\ 305$ kJ·mol^{-1} [2] $S^0_{298} = 58.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 76.63 + 10.8 \cdot 10^{-3} \cdot T - 2.41 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

O_2S (g) Sulfur Dioxide **O_2S (g)**

SO_2 (g) SO_2 (g)

mp = 198 K (-75 °C) bp = 263 K (-10 °C)

$\Delta H^0_{298} = -\ 296.8 \pm 0.2$ kJ·mol^{-1} [1] $S^0_{298} = 248.2 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 49.94 + 4.77 \cdot 10^{-3} \cdot T - 1.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_2Se (s) Selenium(IV) Oxide **O_2Se (s)**

SeO_2 (s) SeO_2 (s)

bp = 601 K (328 °C)

$\Delta H^0_{298} = -\ 225.4$ kJ·mol^{-1} [2] $S^0_{298} = 66.7$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 69.58 + 3.89 \cdot 10^{-3} \cdot T - 1.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 601 K) [4]

$\lg(p,K) = -\ 6.39 \cdot 10^3 \cdot T^{-1} - 2 \cdot \lg(T) + 16.19$ (400 ... 601 K) [4]

{Reaction: evaporation as SeO_2(g)}

O_2Se (g) Selenium(IV) Oxide **O_2Se (g)**

SeO_2 (g) SeO_2 (g)

$\Delta H^0_{298} = -\ 107.8$ kJ·mol^{-1} [4] $S^0_{298} = 265$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 52.84 + 3.09 \cdot 10^{-3} \cdot T - 0.99 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_2Si (s)	Silicon Oxide	**O_2Si (s)**
SiO_2 (s)	alpha-Cristobalite	SiO_2 (s)

mp = 2001 K (1728 °C)
$\Delta H^0_{298} = -908.3$ kJ·mol^{-1} [4] $S^0_{298} = 43.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 46.9 + 31.51 \cdot 10^{-3} \cdot T - 1.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 543 K) [4]

O_2Si (s)	Silicon Oxide	**O_2Si (s)**
SiO_2 (s)	alpha-Cristobalite	SiO_2 (s)

$\Delta H^0_{543} = -895.1$ kJ·mol^{-1} [4] $S^0_{543} = 75.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 60.59$ J·mol^{-1}·K^{-1} (543 K) [4]

O_2Si (s)	Silicon Oxide	**O_2Si (s)**
SiO_2 (s)	beta-Cristobalite	SiO_2 (s)

$\Delta H^0_{543} = -893.8$ kJ·mol^{-1} [4] $S^0_{543} = 77.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 71.63 + 1.88 \cdot 10^{-3} \cdot T - 3.91 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (543 ... 1079 K) [4]

O_2Si (s)	Silicon Oxide	**O_2Si (s)**
SiO_2 (s)	beta-Cristobalite	SiO_2 (s)

$\Delta H^0_{1079} = -858.2$ kJ·mol^{-1} [4] $S^0_{1079} = 123$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 70.31$ J·mol^{-1}·K^{-1} (1079 K) [4]

O_2Si (s)	Silicon Oxide	**O_2Si (s)**
SiO_2 (s)	gamma-Cristobalite	SiO_2 (s)

$\Delta H^0_{1079} = -856.2$ kJ·mol^{-1} [4] $S^0_{1079} = 124.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 71.63 + 1.88 \cdot 10^{-3} \cdot T - 3.91 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1079 ... 2001 K) [4]

O_2Si (s)	Silicon Oxide	**O_2Si (s)**
SiO_2 (s)	gamma-Cristobalite	SiO_2 (s)

$\Delta H^0_{2001} = -789.1$ kJ·mol^{-1} [4] $S^0_{2001} = 169.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 74.42$ J·mol^{-1}·K^{-1} (2001 K) [4]

O_2Si (l) Silicon Oxide **O_2Si (l)**

SiO_2 (l) SiO_2 (l)

$\Delta H^0_{2001} = -779.5$ kJ·mol^{-1} [4] $S^0_{2001} = 174.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 85.77$ J·mol^{-1}·K^{-1} (2001 K) [4]

O_2Si (s) Silicon Oxide **O_2Si (s)**

SiO_2 (s) alpha-Quartz SiO_2 (s)

mp = 1823 K (1550 °C)

$\Delta H^0_{298} = -910.9$ kJ·mol^{-1} [1] $S^0_{298} = 41.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 40.5 + 44.6 \cdot 10^{-3} \cdot T - 0.83 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 -847 K) [4]

O_2Si (s) Silicon Oxide **O_2Si (s)**

SiO_2 (s) alpha-Quartz SiO_2 (s)

$\Delta H^0_{847} = -876.4$ kJ·mol^{-1} [4] $S^0_{847} = 104.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 77.11$ J·mol^{-1}·K^{-1} (847 K) [4]

O_2Si (s) Silicon Oxide **O_2Si (s)**

SiO_2 (s) beta-Quartz SiO_2 (s)

$\Delta H^0_{847} = -875.7$ kJ·mol^{-1} [4] $S^0_{847} = 105$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 67.59 + 2.58 \cdot 10^{-3} \cdot T - 0.14 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (847 ... 1823 K) [4]

O_2Si (s) Silicon Oxide **O_2Si (s)**

SiO_2 (s) alpha-Trydimite SiO_2 (s)

$\Delta H^0_{298} = -910$ kJ·mol^{-1} [4] $S^0_{298} = 43.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 14.11 + 102.63 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 390 K) [4]

O_2Si (s) Silicon Oxide **O_2Si (s)**

SiO_2 (s) alpha-Trydimite SiO_2 (s)

$\Delta H^0_{390} = -905.5$ kJ·mol^{-1} [4] $S^0_{390} = 56.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 54.14$ J·mol^{-1}·K^{-1} (390 K) [4]

O_2Si (s) Silicon Oxide **O_2Si (s)**
SiO_2 (s) beta-Trydimite SiO_2 (s)

$\Delta H^0_{390} = -905.3$ kJ·mol^{-1} [4] $S^0_{390} = 57.1$ J·mol^{-1}·K^{-1} [4]
$C_p^{\,0} = 41.07 + 38.49 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (390 ... 500 K) [4]

O_2Si (s) Silicon Oxide **O_2Si (s)**
SiO_2 (s) beta-Trydimite SiO_2 (s)

$\Delta H^0_{500} = -898.9$ kJ·mol^{-1} [4] $S^0_{500} = 71.5$ J·mol^{-1}·K^{-1} [4]
$C_p^{\,0} = 60.32$ J·mol^{-1}·K^{-1} (500 K) [4]

O_2Si (s) Silicon Oxide **O_2Si (s)**
SiO_2 (s) gamma-Trydimite SiO_2 (s)

$\Delta H^0_{500} = -898.7$ kJ·mol^{-1} [4] $S^0_{500} = 71.9$ J·mol^{-1}·K^{-1} [4]
$C_p^{\,0} = 70.34 + 2.54 \cdot 10^{-3} \cdot T - 3.17 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (500 ... 1743 K) [4]

O_2Si (g) Silicon Oxide **O_2Si (g)**
SiO_2 (g) SiO_2 (g)

$\Delta H^0_{298} = -305.4 \pm 33.5$ kJ·mol^{-1} [1] $S^0_{298} = 229$ J·mol^{-1}·K^{-1} [1]
$C_p^{\,0} = 44$ J·mol^{-1}·K^{-1} (298 K) [1]

O_2Sn (s) Tin(IV) Oxide **O_2Sn (s)**
SnO_2 (s) SnO_2 (s)

mp = 1893 K (1620 °C)
$\Delta H^0_{298} = -580.8$ kJ·mol^{-1} [2] $S^0_{298} = 52.3$ J·mol^{-1}·K^{-1} [2]
$C_p^{\,0} = 66.47 + 16.64 \cdot 10^{-3} \cdot T - 1.67 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1893 K) [4]

O_2Sr (s) Strontium Superoxide **O_2Sr (s)**
SrO_2 (s) SrO_2 (s)

$\Delta H^0_{298} = -633.5$ kJ·mol^{-1} [2] $S^0_{298} = 59$ J·mol^{-1}·K^{-1} [2]
$C_p^{\,0} = 73.97 + 18.41 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 423 K) [4]

O_2Ta (g) Tantalum(IV) Oxide **O_2Ta (g)**

TaO_2 (g) TaO_2 (g)

$\Delta H^0_{298} = -200.8 \pm 62.8$ kJ·mol⁻¹ [1] $S^0_{298} = 280.3 \pm 11.7$ J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 54.81 + 1.67 \cdot 10^{-3} \cdot T - 1.01 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2058 K) [4]

O_2Tb (s) Terbium(IV) Oxide **O_2Tb (s)**

TbO_2 (s) TbO_2 (s)

$\Delta H^0_{298} = -971.5$ kJ·mol⁻¹ [2] $S^0_{298} = 82.8$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 64.81 + 17.7 \cdot 10^{-3} \cdot T - 0.76 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 401 K) [4]

O_2Tc (s) Technetium(IV) Oxide **O_2Tc (s)**

TcO_2 (s) TcO_2 (s)

$\Delta H^0_{298} = -433$ kJ·mol⁻¹ [2] $S^0_{298} = 58.6$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 68.62 + 11.51 \cdot 10^{-3} \cdot T - 1.46 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1200 K) [4]

O_2Te (s) Tellurium(IV) Oxide **O_2Te (s)**

TeO_2 (s) TeO_2 (s)

mp = 1006 K (733 °C) bp = 1533 K (1260 °C)

$\Delta H^0_{298} = -323.4$ kJ·mol⁻¹ [2] $S^0_{298} = 74.3$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 65.19 + 14.56 \cdot 10^{-3} \cdot T - 0.5 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1006 K) [4]

$\lg(p,K) = -14.1 \cdot 10^{3} \cdot T^{-1} - 2.68 \cdot \lg(T) + 18.4$ (800 ... 1006 K) [4]

{Reaction: evaporation as TeO_2(g)}

O_2Te (s) Tellurium(IV) Oxide **O_2Te (s)**

TeO_2 (s) TeO_2 (s)

$\Delta H^0_{1006} = -271.7$ kJ·mol⁻¹ [4] $S^0_{1006} = 161.3$ J·mol⁻¹·K⁻¹ [4]

O_2Te (l) Tellurium(IV) Oxide **O_2Te (l)**

TeO_2 (l) TeO_2 (l)

$\Delta H^0_{1006} = -242.7$ kJ·mol^{-1} [4] $S^0_{1006} = 190.2$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 112.63 + 2.18 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1006 ... 1533 K) [4]

$\lg(p,K) = -14.48 \cdot 10^3 \cdot T^{-1} - 7.02 \cdot \lg(T) + 31.81$ (1006 ... 1533 K) [4]

{Reaction: evaporation as TeO_2(g)}

O_2Te (g) Tellurium(IV) Oxide **O_2Te (g)**

TeO_2 (g) TeO_2 (g)

$\Delta H^0_{298} = -61.3$ kJ·mol^{-1} [4] $S^0_{298} = 275$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 54.77 + 2.42 \cdot 10^{-3} \cdot T - 1.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_2Te_2 (g) Tellurium(II) Oxide **O_2Te_2 (g)**

Te_2O_2 (g) Te_2O_2 (g)

$\Delta H^0_{298} = -108.8$ kJ·mol^{-1} [2] $S^0_{298} = 327.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 82.11 + 0.56 \cdot 10^{-3} \cdot T - 1.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_2Th (s) Thorium(IV) Oxide **O_2Th (s)**

ThO_2 (s) ThO_2 (s)

mp = 3643 K (3370 °C)

$\Delta H^0_{298} = -1226.4$ kJ·mol^{-1} [2] $S^0_{298} = 65.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 71.37 + 7.57 \cdot 10^{-3} \cdot T - 1.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

O_2Th (g) Thorium(IV) Oxide **O_2Th (g)**

ThO_2 (g) ThO_2 (g)

$\Delta H^0_{298} = -496.5$ kJ·mol^{-1} [4] $S^0_{298} = 287.6$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 55.72 + 1.26 \cdot 10^{-3} \cdot T - 0.78 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

O_2Ti (s) Titanium(IV) Oxide **O_2Ti (s)**
TiO_2 (s) Rutile TiO_2 (s)

mp = 2130 K (1857 °C)
$\Delta H^0_{298} = -944.7$ kJ·mol^{-1} [4] $S^0_{298} = 50.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 73.35 + 3.05 \cdot 10^{-3} \cdot T - 1.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2130 K) [4]

O_2Ti (s) Titanium(IV) Oxide **O_2Ti (s)**
TiO_2 (s) Anatase TiO_2 (s)

mp = 1949 K (1676 °C)
$\Delta H^0_{298} = -941.4$ kJ·mol^{-1} [4] $S^0_{298} = 49.9$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 76.36 + 0.84 \cdot 10^{-3} \cdot T - 2.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1949 K) [4]

O_2Ti (l) Titanium(IV) Oxide **O_2Ti (l)**
TiO_2 (l) TiO_2 (l)

$\Delta H^0_{298} = -894.1$ kJ·mol^{-1} [1] $S^0_{298} = 72.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 55.1$ J·mol^{-1}·K^{-1} (298 K) [1]

O_2Ti (g) Titanium(IV) Oxide **O_2Ti (g)**
TiO_2 (g) TiO_2 (g)

$\Delta H^0_{298} = -305.4 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 260.1 \pm 4.2$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 54.32 + 2.02 \cdot 10^{-3} \cdot T - 1.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2130 K) [4]

O_2U (s) Uranium(IV) Oxide **O_2U (s)**
UO_2 (s) UO_2 (s)

mp = 3115 K (2842 °C)
$\Delta H^0_{298} = -1085$ kJ·mol^{-1} [4] $S^0_{298} = 77$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 77.9 + 8.98 \cdot 10^{-3} \cdot T - 1.51 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_2U (g) Uranium(IV) Oxide **O_2U (g)**
UO_2 (g) UO_2 (g)

$\Delta H^0_{298} = -476.7$ kJ·mol^{-1} [4] $S^0_{298} = 274.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 51.12 + 4.16 \cdot 10^{-3} \cdot T - 0.09 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 3115 K) [4]

O_2U_2 (g) Uranium Oxide **O_2U_2 (g)**
U_2O_2 (g) U_2O_2 (g)

$\Delta H^0_{298} = 388.5 \pm 24$ kJ·mol^{-1} [253] $S^0_{298} = [388.7]$ J·mol^{-1}·K^{-1} [15]

O_2V (s) Vanadium(IV) Oxide **O_2V (s)**
VO_2 (s) alpha VO_2 (s)

mp = 1818 K (1545 °C)
$\Delta H^0_{298} = -713.8$ kJ·mol^{-1} [4] $S^0_{298} = 47.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 73.01 + 2.43 \cdot 10^{-3} \cdot T - 1.5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 341 K) [4]

O_2V (s) Vanadium(IV) Oxide **O_2V (s)**
VO_2 (s) alpha VO_2 (s)

$\Delta H^0_{341} = -711.3$ kJ·mol^{-1} [4] $S^0_{341} = 55$ J·mol^{-1}·K^{-1} [4]

O_2V (s) Vanadium(IV) Oxide **O_2V (s)**
VO_2 (s) beta VO_2 (s)

$\Delta H^0_{341} = -707$ kJ·mol^{-1} [4] $S^0_{341} = 67.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 74.68 + 7.11 \cdot 10^{-3} \cdot T - 1.65 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (341 ... 1818 K) [4]

O_2V (s) Vanadium(IV) Oxide **O_2V (s)**
VO_2 (s) beta VO_2 (s)

$\Delta H^0_{1818} = -589.3$ kJ·mol^{-1} [4] $S^0_{1818} = 196.2$ J·mol^{-1}·K^{-1} [4]

O_2V (l) Vanadium(IV) Oxide **O_2V (l)**
VO_2 (l) VO_2 (l)

$\Delta H^0_{1818} = -532.4$ kJ·mol^{-1} [4] $S^0_{1818} = 227.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 106.69$ J·mol^{-1}·K^{-1} (1818 K) [4]

O_2V (g) Vanadium(IV) Oxide **O_2V (g)**

VO_2 (g) VO_2 (g)

$\Delta H^0_{298} = -232.6 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 265.3 \pm 5.9$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 43.9$ J·mol^{-1}·K^{-1} (298 K) [1]

O_2W (s) Tungsten(IV) Oxide **O_2W (s)**

WO_2 (s) WO_2 (s)

$\Delta H^0_{298} = -589.7 \pm 0.9$ kJ·mol^{-1} [1] $S^0_{298} = 50.5 \pm 0.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 62.1 + 17.04 \cdot 10^{-3} \cdot T - 0.92 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1803 K) [4]

O_2W (g) Tungsten(IV) Oxide **O_2W (g)**

WO_2 (g) WO_2 (g)

$\Delta H^0_{298} = 76.6 \pm 29.3$ kJ·mol^{-1} [1] $S^0_{298} = 285.5$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 52.13 + 3.69 \cdot 10^{-3} \cdot T - 0.84 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -36.07 \cdot 10^3 \cdot T^{-1} - 4.01 \cdot \lg(T) + 25.11$ (1800 ... 2000 K) [4]

{Reaction: evaporation of WO_2(s)}

O_2Zr (s) Zirconium(IV) Oxide **O_2Zr (s)**

ZrO_2 (s) alpha ZrO_2 (s)

mp = 2950 K (2677 °C)

$\Delta H^0_{298} = -1100.6$ kJ·mol^{-1} [4] $S^0_{298} = 50.4 \pm 0.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 70.12 + 7.02 \cdot 10^{-3} \cdot T - 1.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1478 K) [4]

O_2Zr (s) Zirconium(IV) Oxide **O_2Zr (s)**

ZrO_2 (s) alpha ZrO_2 (s)

$\Delta H^0_{1478} = -1014.3$ kJ·mol^{-1} [4] $S^0_{1478} = 163.2$ J·mol^{-1}·K^{-1} [4]

O_2Zr (s) Zirconium(IV) Oxide **O_2Zr (s)**

ZrO_2 (s) beta ZrO_2 (s)

$\Delta H^0_{1478} = -1007.4$ kJ·mol^{-1} [4] $S^0_{1478} = 167.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 78.6$ J·mol^{-1}·K^{-1} (1478 K) [4]

O_2Zr (l) Zirconium(IV) Oxide **O_2Zr (l)**

ZrO_2 (l) ZrO_2 (l)

$\Delta H^0_{298} = -1023.2$ kJ·mol^{-1} [1] $S^0_{298} = 74.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 56.2$ J·mol^{-1}·K^{-1} (298 K) [1]

O_2Zr (g) Zirconium(IV) Oxide **O_2Zr (g)**

ZrO_2 (g) ZrO_2 (g)

$\Delta H^0_{298} = -286.2 \pm 46$ kJ·mol^{-1} [1] $S^0_{298} = 273.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 55.89 + 1.02 \cdot 10^{-3} \cdot T - 0.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

$O_{2.72}W$ (s) Tungsten Oxide **$O_{2.72}W$ (s)**

$WO_{2.72}$ (s) $WO_{2.72}$ (s)

mp = 1870 K (1597 °C)

$\Delta H^0_{298} = -781.2 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 68.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 84.5 + 12.18 \cdot 10^{-3} \cdot T - 1.81 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1870 K) [4]

$O_{2.90}W$ (s) Tungsten Oxide **$O_{2.90}W$ (s)**

$WO_{2.90}$ (s) $WO_{2.90}$ (s)

mp = 1710 K (1437 °C)

$\Delta H^0_{298} = -820.1 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 73.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 89.32 + 11.54 \cdot 10^{-3} \cdot T - 1.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1710 K) [4]

$O_{2.96}W$ (s) Tungsten Oxide **$O_{2.96}W$ (s)**

$WO_{2.96}$ (s) $WO_{2.96}$ (s)

$\Delta H^0_{298} = -835 \pm 12.6$ kJ·mol^{-1} [1] $S^0_{298} = 75$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 72.4$ J·mol^{-1}·K^{-1} (298 K) [1]

O_3 (g) Ozone **O_3 (g)**

mp = 80 K (-193 °C) bp = 161 K (-112 °C)

$\Delta H^0_{298} = 142.7 \pm 1.7$ kJ·mol^{-1} [1] $S^0_{298} = 238.9$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 54.26 + 2 \cdot 10^{-3} \cdot T - 1.56 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_3Os (g) Osmium(VI) Oxide **O_3Os (g)**
OsO_3 (g) OsO_3 (g)

ΔH^0_{298} = – 167.4 ± 12.6 kJ·mol^{-1} [60] S^0_{298} = 276.1 J·mol^{-1}·K^{-1} [60]

O_3PbSe (s) Lead Selenite **O_3PbSe (s)**
$PbSeO_3$ (s) $PbSeO_3$ (s)

ΔH^0_{298} = – 538 kJ·mol^{-1} [2] S^0_{298} = 128.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 99.5 J·mol^{-1}·K^{-1} (298 K) [2]

O_3PbSi (s) Lead Silicate **O_3PbSi (s)**
$PbO \cdot SiO_2$ (s) $PbO \cdot SiO_2$ (s)

mp = 1037 K (764 °C)
ΔH^0_{298} = – 1138.1 kJ·mol^{-1} [4] S^0_{298} = 109.9 ± 1.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 112.24 + 21.95 ·10^{-3}·T – 2.64 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1037 K) [4]

O_3PbSi (s) Lead Silicate **O_3PbSi (s)**
$PbO \cdot SiO_2$ (s) $PbO \cdot SiO_2$ (s)

ΔH^0_{1037} = – 1050.6 kJ·mol^{-1} [4] S^0_{1037} = 252.4 J·mol^{-1}·K^{-1} [4]

O_3PbSi (l) Lead Silicate **O_3PbSi (l)**
$PbO \cdot SiO_2$ (l) $PbO \cdot SiO_2$ (l)

ΔH^0_{1037} = – 1016.1 kJ·mol^{-1} [4] S^0_{1037} = 285.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 130.12 J·mol^{-1}·K^{-1} (1037 K) [4]

O_3PbTi (s) Lead Titanate **O_3PbTi (s)**
$PbO \cdot TiO_2$ (s) alpha $PbO \cdot TiO_2$ (s)

mp = 1443 K (1170 °C)
ΔH^0_{298} = – 1194.7 kJ·mol^{-1} [4] S^0_{298} = 111.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 119.54 + 17.91 ·10^{-3}·T – 1.82 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 763 K) [4]

O_3PbTi (s) Lead Titanate **O_3PbTi (s)**

$PbO \cdot TiO_2$ (s) alpha $PbO \cdot TiO_2$ (s)

$\Delta H^0_{763} = -1138.5$ kJ·mol⁻¹ [4] $S^0_{763} = 223.9$ J·mol⁻¹·K⁻¹ [4]

O_3PbTi (s) Lead Titanate **O_3PbTi (s)**

$PbO \cdot TiO_2$ (s) beta $PbO \cdot TiO_2$ (s)

$\Delta H^0_{763} = -1133.7$ kJ·mol⁻¹ [4] $S^0_{763} = 230.2$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 109.08 + 22.8 \cdot 10^{-3} \cdot T - 1.34 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (763 ... 1443 K) [4]

O_3Pm_2 (s) Promethium(III) Oxide **O_3Pm_2 (s)**

Pm_2O_3 (s) Pm_2O_3 (s)

$\Delta H^0_{298} = -1811 \pm 21$ kJ·mol⁻¹ [269] $S^0_{298} = [158.6]$ J·mol⁻¹·K⁻¹ [270]

O_3PrSr (s) Strontium Praseodymium Oxide **O_3PrSr (s)**

$SrPrO_3$ (s) $SrPrO_3$ (s)

$\Delta H^0_{298} = -1588.4 \pm 4.1$ kJ·mol⁻¹ [126] $S^0_{298} = [135.4]$ J·mol⁻¹·K⁻¹ [127]

$C_p{}^0 = [118.33]$ J·mol⁻¹·K⁻¹ (298 K) [271]

O_3Pr_2 (s) Praseodymium(III) Oxide **O_3Pr_2 (s)**

Pr_2O_3 (s) Pr_2O_3 (s)

mp = 2570 K (2297 °C)

$\Delta H^0_{298} = -1809.7$ kJ·mol⁻¹ [2] $S^0_{298} = 155.6$ J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 119.66 + 17.78 \cdot 10^{-3} \cdot T - 0.74 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

O_3Pu_2 (s) Plutonium(III) Oxide **O_3Pu_2 (s)**

Pu_2O_3 (s) Pu_2O_3 (s)

$\Delta H^0_{298} = -1799.1$ kJ·mol⁻¹ [4] $S^0_{298} = 153.6$ J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 156.58 + 22.26 \cdot 10^{-3} \cdot T - 2.68 \cdot 10^6 \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

O_3Rb_2Si (s) Rubidium Silicate **O_3Rb_2Si (s)**

$Rb_2O \cdot SiO_2$ (s) $Rb_2O \cdot SiO_2$ (s)

mp = 1143 K (870 °C)

$\Delta H^0_{298} = -1536.3$ kJ·mol^{-1} [4] $S^0_{298} = 161.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 123.68 + 49.2 \cdot 10^{-3} \cdot T - 1.86 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1143 K) [4]

O_3Rb_2Si (s) Rubidium Silicate **O_3Rb_2Si (s)**

$Rb_2O \cdot SiO_2$ (s) $Rb_2O \cdot SiO_2$ (s)

$\Delta H^0_{1143} = -1406.5$ kJ·mol^{-1} [4] $S^0_{1143} = 359.1$ J·mol^{-1}·K^{-1} [4]

O_3Rb_2Si (l) Rubidium Silicate **O_3Rb_2Si (l)**

$Rb_2O \cdot SiO_2$ (l) $Rb_2O \cdot SiO_2$ (l)

$\Delta H^0_{1143} = -1364.6$ kJ·mol^{-1} [4] $S^0_{1143} = 395.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 177.82$ J·mol^{-1}·K^{-1} (1143 K) [4]

O_3Re (s) Rhenium(VI) Oxide **O_3Re (s)**

ReO_3 (s) ReO_3 (s)

$\Delta H^0_{298} = -594.3$ kJ·mol^{-1} [4] $S^0_{298} = 80.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 87.66 + 16.17 \cdot 10^{-3} \cdot T - 1.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 950 K) [4]

O_3Rh_2 (s) Rhodium(III) Oxide **O_3Rh_2 (s)**

Rh_2O_3 (s) Rh_2O_3 (s)

$\Delta H^0_{298} = -355.6$ kJ·mol^{-1} [2] $S^0_{298} = 106.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 86.78 + 57.74 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1412 K) [4]

O_3Ru (g) Ruthenium(VI) Oxide **O_3Ru (g)**

RuO_3 (g) RuO_3 (g)

$\Delta H^0_{298} = -78.2$ kJ·mol^{-1} [2] $S^0_{298} = 276.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 59.4$ J·mol^{-1}·K^{-1} (298 K) [2]

O_3S (l) Sulfur Trioxide **O_3S (l)**

SO_3 (l) SO_3 (l)

bp = 318 K (45 °C)

ΔH^0_{298} = – 438.4 kJ·mol^{-1} [4] S^0_{298} = 122.6 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 179.91 J·mol^{-1}·K^{-1} (298 K) [4]

O_3S (g) Sulfur Trioxide **O_3S (g)**

SO_3 (g) SO_3 (g)

ΔH^0_{298} = – 395.8 ± 0.7 kJ·mol^{-1} [1] S^0_{298} = 256.8 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 70 + 6.61 ·10^{-3}·T – 1.94 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_3Sb_2 (s) Antimony(III) Oxide cubic **O_3Sb_2 (s)**

Sb_2O_3 (s) Sb_2O_3 (s)

mp = 929 K (656 °C) bp = 1729 K (1456 °C)

ΔH^0_{298} = – 720.3 kJ·mol^{-1} [2] S^0_{298} = 110.4 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 111.8 J·mol^{-1}·K^{-1} (298 K) [2]

O_3Sb_2 (s) Antimony(III) Oxide rhombic **O_3Sb_2 (s)**

Sb_2O_3 (s) Sb_2O_3 (s)

ΔH^0_{298} = – 708.6 kJ·mol^{-1} [2] S^0_{298} = 123 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 101.4 J·mol^{-1}·K^{-1} (298 K) [2]

O_3Sc_2 (s) Scandium(III) Oxide **O_3Sc_2 (s)**

Sc_2O_3 (s) Sc_2O_3 (s)

ΔH^0_{298} = – 1908.8 kJ·mol^{-1} [2] S^0_{298} = 77 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 99.79 + 22.22 ·10^{-3}·T – 1.11 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_3Se (s) Selenium(VI) Oxide **O_3Se (s)**

SeO_3 (s) SeO_3 (s)

mp = 394 K (121 °C) bp = 592 K (319 °C)

ΔH^0_{298} = – 170.3 kJ·mol^{-1} [4] S^0_{298} = 96.2 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 14.6 + 205.02 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 394 K) [4]

O_3Se (s) Selenium(VI) Oxide **O_3Se (s)**

SeO_3 (s) SeO_3 (s)

$\Delta H^0_{394} = -162.1$ kJ·mol⁻¹ [4] $S^0_{394} = 119.9$ J·mol⁻¹·K⁻¹ [4]

O_3Se (l) Selenium(VI) Oxide **O_3Se (l)**

SeO_3 (l) SeO_3 (l)

$\Delta H^0_{394} = -155$ kJ·mol⁻¹ [4] $S^0_{394} = 138$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 125.52$ J·mol⁻¹·K⁻¹ (394 K) [4]

O_3SeZn (s) Zinc Selenite **O_3SeZn (s)**

$ZnSeO_3$ (s) $ZnSeO_3$ (s)

mp = 894 K (621 °C)

$\Delta H^0_{298} = -652.3$ kJ·mol⁻¹ [2] $S^0_{298} = 98.3$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 77.2 + 55.23 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 894 K) [4]

O_3SeZn (s) Zinc Selenite **O_3SeZn (s)**

$ZnSeO_3$ (s) $ZnSeO_3$ (s)

$\Delta H^0_{894} = -586.7$ kJ·mol⁻¹ [4] $S^0_{894} = 216$ J·mol⁻¹·K⁻¹ [4]

O_3SeZn (l) Zinc Selenite **O_3SeZn (l)**

$ZnSeO_3$ (l) $ZnSeO_3$ (l)

$\Delta H^0_{894} = -540.2$ kJ·mol⁻¹ [4] $S^0_{894} = 267.9$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 140.16$ J·mol⁻¹·K⁻¹ (894 K) [4]

O_3SiSr (s) Strontium Silicate **O_3SiSr (s)**

$SrO \cdot SiO_2$ (s) $SrO \cdot SiO_2$ (s)

mp = 1853 K (1580 °C)

$\Delta H^0_{298} = -1633.9$ kJ·mol⁻¹ [2] $S^0_{298} = 96.7$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 116.73 + 11.09 \cdot 10^{-3} \cdot T - 2.93 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 1853 K) [4]

O_3SiZn (s) Zinc Silicate **O_3SiZn (s)**

$ZnO \cdot SiO_2$ (s) $ZnO \cdot SiO_2$ (s)

mp = 1710 K (1437 °C)

ΔH^0_{298} = – 1262.6 kJ·mol^{-1} [2] S^0_{298} = 89.5 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 84.8 J·mol^{-1}·K^{-1} (298 K) [2]

O_3Sm_2 (s) Samarium(III) Oxide **O_3Sm_2 (s)**

Sm_2O_3 (s) alpha, cubic Sm_2O_3 (s)

mp = 2543 K (2270 °C)

ΔH^0_{298} = – 1827.4 kJ·mol^{-1} [4] S^0_{298} = 144.8 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 129 + 20.23 $\cdot 10^{-3} \cdot T$ – 1.71 $\cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1195 K) [4]

O_3Sm_2 (s) Samarium(III) Oxide **O_3Sm_2 (s)**

Sm_2O_3 (s) alpha, cubic Sm_2O_3 (s)

ΔH^0_{1195} = – 1702.5 kJ·mol^{-1} [4] S^0_{1195} = 333 J·mol^{-1}·K^{-1} [4]

O_3Sm_2 (s) Samarium(III) Oxide **O_3Sm_2 (s)**

Sm_2O_3 (s) beta, monoclinic Sm_2O_3 (s)

ΔH^0_{1195} = – 1701.4 kJ·mol^{-1} [4] S^0_{1195} = 333.9 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 154.39 J·mol^{-1}·K^{-1} (1195 K) [4]

O_3SrTb (s) Strontium Terbium Oxide **O_3SrTb (s)**

$SrO \cdot TbO_2$ (s) $SrO \cdot TbO_2$ (s)

ΔH^0_{298} = – 1612.9 ± 2.1 kJ·mol^{-1} [179] S^0_{298} = [138.3] J·mol^{-1}·K^{-1} [192]

$C_p{}^0$= [106.99] J·mol^{-1}·K^{-1} (298 K) [271]

O_3SrTe (s) Strontium Tellurium Oxide **O_3SrTe (s)**

$SrO \cdot TeO_2$ (s) $SrO \cdot TeO_2$ (s)

ΔH^0_{298} = – 1026 ± 10.7 kJ·mol^{-1} [106] S^0_{298} = [129.8] J·mol^{-1}·K^{-1} [107]

$C_p{}^0$= [109.36] J·mol^{-1}·K^{-1} (298 K) [271]

O_3SrTi (s) Strontium Titanate **O_3SrTi (s)**

$SrO \cdot TiO_2$ (s) $SrO \cdot TiO_2$ (s)

mp = 2183 K (1910 °C)

$\Delta H^0_{298} = -1670.7$ kJ·mol^{-1} [4] $S^0_{298} = 108.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 118.11 + 8.54 \cdot 10^{-3} \cdot T - 1.92 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 -2000 K) [4]

O_3SrZr (s) Strontium Zirconate **O_3SrZr (s)**

$SrO \cdot ZrO_2$ (s) $SrO \cdot ZrO_2$ (s)

mp = 3000 K (2727 °C)

$\Delta H^0_{298} = -1767.3$ kJ·mol^{-1} [2] $S^0_{298} = 108.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 121.25 + 12.22 \cdot 10^{-3} \cdot T - 2.14 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_3Tb_2 (s) Terbium(III) Oxide **O_3Tb_2 (s)**

Tb_2O_3 (s) Tb_2O_3 (s)

mp = 2663 K (2390 °C)

$\Delta H^0_{298} = -1865.2$ kJ·mol^{-1} [2] $S^0_{298} = 156.9$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 122.62 + 20.72 \cdot 10^{-3} \cdot T - 1.22 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1800 K) [4]

O_3Tc (s) Technetium(VI) Oxide **O_3Tc (s)**

TcO_3 (s) TcO_3 (s)

$\Delta H^0_{298} = -539.7$ kJ·mol^{-1} [2] $S^0_{298} = 71.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 107.95$ J·mol^{-1}·K^{-1} (298 K) [4]

O_3Ti_2 (s) Titanium(III) Oxide **O_3Ti_2 (s)**

Ti_2O_3 (s) Ti_2O_3 (s)

mp = 2115 K (1842 °C)

$\Delta H^0_{298} = -1520.9 \pm 8.4$ kJ·mol^{-1} [1] $S^0_{298} = 77.3 \pm 0.2$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 53.07 + 163.44 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 600 K) [4]

O_3Ti_2 (l) Titanium(III) Oxide **O_3Ti_2 (l)**

Ti_2O_3 (l) Ti_2O_3 (l)

$\Delta H^0_{298} = -1418.5$ kJ·mol^{-1} [1] $S^0_{298} = 127.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 94.9$ J·mol^{-1}·K^{-1} (298 K) [1]

O_3Tl_2 (s) Thallium(III) Oxide **O_3Tl_2 (s)**

Tl_2O_3 (s) Tl_2O_3 (s)

mp = 1107 K (834 °C)

$\Delta H^0_{298} = -394.6$ kJ·mol^{-1} [2] $S^0_{298} = 159$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 136.71 + 2.36 \cdot 10^{-3} \cdot T - 2.84 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1107 K) [4]

O_3Tm_2 (s) Thulium(III) Oxide **O_3Tm_2 (s)**

Tm_2O_3 (s) alpha Tm_2O_3 (s)

$\Delta H^0_{298} = -1888.7$ kJ·mol^{-1} [2] $S^0_{298} = 139.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 127.87 + 4.47 \cdot 10^{-3} \cdot T - 1.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1680 K) [4]

O_3Tm_2 (s) Thulium(III) Oxide **O_3Tm_2 (s)**

Tm_2O_3 (s) alpha Tm_2O_3 (s)

$\Delta H^0_{1680} = -1708.9$ kJ·mol^{-1} [4] $S^0_{1680} = 361$ J·mol^{-1}·K^{-1} [4]

O_3Tm_2 (s) Thulium(III) Oxide **O_3Tm_2 (s)**

Tm_2O_3 (s) beta Tm_2O_3 (s)

$\Delta H^0_{1680} = -1707.6$ kJ·mol^{-1} [4] $S^0_{1680} = 361.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 133.89$ J·mol^{-1}·K^{-1} (1680 K) [4]

O_3U (s) Uranium(VI) Oxide **O_3U (s)**

UO_3 (s) UO_3 (s)

$\Delta H^0_{298} = -1226.5$ kJ·mol^{-1} [4] $S^0_{298} = 98.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 90.37 + 11.05 \cdot 10^{-3} \cdot T - 1.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1050 K) [4]

O_3U (g) Uranium(VI) Oxide **O_3U (g)**

UO_3 (g) UO_3 (g)

ΔH^0_{298} = 802 ± 24 kJ·mol^{-1} [253] S^0_{298} = [352.2] J·mol^{-1}·K^{-1} [15]

O_3U_2 (g) Uranium Oxide **O_3U_2 (g)**

U_2O_3 (g) U_2O_3 (g)

ΔH^0_{298} = 807.5 ± 32 kJ·mol^{-1} [253] S^0_{298} = [431.4] J·mol^{-1}·K^{-1} [15]

O_3V_2 (s) Vanadium(III) Oxide **O_3V_2 (s)**

V_2O_3 (s) V_2O_3 (s)

mp = 2240 K (1967 °C)

ΔH^0_{298} = – 1218.8 ± 6.3 kJ·mol^{-1} [1] S^0_{298} = 98.1 ± 1.3 J·mol^{-1}·K^{-1} [1]

$C_p^0 = 112.97 + 19.29 \cdot 10^{-3} \cdot T - 1.5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_3V_2 (l) Vanadium(III) Oxide **O_3V_2 (l)**

V_2O_3 (l) V_2O_3 (l)

ΔH^0_{298} = – 1093.1 kJ·mol^{-1} [1] S^0_{298} = 152.3 J·mol^{-1}·K^{-1} [1]

C_p^0 = 105 J·mol^{-1}·K^{-1} (298 K) [1]

O_3W (s) Tungsten(VI) Oxide **O_3W (s)**

WO_3 (s) alpha WO_3 (s)

mp = 1745 K (1472 °C) bp = 2115 K (1842 °C)

ΔH^0_{298} = – 842.9 ± 0.8 kJ·mol^{-1} [1] S^0_{298} = 75.9 ± 1.3 J·mol^{-1}·K^{-1} [1]

$C_p^0 = 87.66 + 16.17 \cdot 10^{-3} \cdot T - 1.75 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1050 K) [4]

O_3W (s) Tungsten(VI) Oxide **O_3W (s)**

WO_3 (s) alpha WO_3 (s)

ΔH^0_{1050} = – 773 kJ·mol^{-1} [4] S^0_{1050} = 189.4 J·mol^{-1}·K^{-1} [4]

O_3W (s) Tungsten(VI) Oxide **O_3W (s)**
WO_3 (s) beta WO_3 (s)

$\Delta H^0_{1050} = -771.5$ kJ·mol^{-1} [4] $S^0_{1050} = 190.8$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 80.96 + 16.37 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (1050 ... 1745 K) [4]

O_3W (s) Tungsten(VI) Oxide **O_3W (s)**
WO_3 (s) beta WO_3 (s)

$\Delta H^0_{1745} = -699.4$ kJ·mol^{-1} [4] $S^0_{1745} = 243.3$ J·mol^{-1}·K^{-1} [4]

O_3W (l) Tungsten(VI) Oxide **O_3W (l)**
WO_3 (l) WO_3 (l)

$\Delta H^0_{1745} = -625.9$ kJ·mol^{-1} [4] $S^0_{1745} = 285.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 131.8$ J·mol^{-1}·K^{-1} (1745 K) [4]

O_3W (l) Tungsten(VI) Oxide **O_3W (l)**
WO_3 (l) WO_3 (l)

$\Delta H^0_{298} = -788.9$ kJ·mol^{-1} [1] $S^0_{298} = 103.5$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 73.1$ J·mol^{-1}·K^{-1} (298 K) [1]

O_3W (g) Tungsten(VI) Oxide **O_3W (g)**
WO_3 (g) WO_3 (g)

$\Delta H^0_{298} = -292.9 \pm 29.3$ kJ·mol^{-1} [1] $S^0_{298} = 286.4$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 77.51 + 2.94 \cdot 10^{-3} \cdot T - 1.59 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2115 K) [4]
$\lg(p,K) = -27.72 \cdot 10^{3} \cdot T^{-1} - 5.9 \cdot \lg(T) + 28.67$ (1745 ... 2115 K) [4]
{Reaction: evaporation of WO_3(s)}

O_3Xe (g) Xenon(VI) Oxide **O_3Xe (g)**
XeO_3 (g) XeO_3 (g)

$\Delta H^0_{298} = 502$ kJ·mol^{-1} [7] $S^0_{298} = 287$ J·mol^{-1}·K^{-1} [7]
$C_p^0 = 62$ J·mol^{-1}·K^{-1} (298 K) [7]

O_3Y_2 (s) Yttrium(III) Oxide **O_3Y_2 (s)**
Y_2O_3 (s) alpha Y_2O_3 (s)

mp = 2700 K (2427 °C)
ΔH^0_{298} = – 1905.3 kJ·mol^{-1} [2] S^0_{298} = 99.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 123.1 + 5.94 \cdot 10^{-3} \cdot T - 1.99 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1330 K) [4]

O_3Y_2 (s) Yttrium(III) Oxide **O_3Y_2 (s)**
Y_2O_3 (s) alpha Y_2O_3 (s)

ΔH^0_{1330} = – 1778.5 kJ·mol^{-1} [4] S^0_{1330} = 278.7 J·mol^{-1}·K^{-1} [4]

O_3Y_2 (s) Yttrium(III) Oxide **O_3Y_2 (s)**
Y_2O_3 (s) beta Y_2O_3 (s)

ΔH^0_{1330} = – 1777.2 kJ·mol^{-1} [4] S^0_{1330} = 279.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$ = 131.8 J·mol^{-1}·K^{-1} (1330 K) [4]

O_3Yb_2 (s) Ytterbium(III) Oxide **O_3Yb_2 (s)**
Yb_2O_3 (s) alpha Yb_2O_3 (s)

mp = 2550 K (2277 °C)
ΔH^0_{298} = – 1814.5 kJ·mol^{-1} [2] S^0_{298} = 133.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 133.12 + 0.26 \cdot 10^{-3} \cdot T - 1.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1365 K) [4]

O_3Yb_2 (s) Ytterbium(III) Oxide **O_3Yb_2 (s)**
Yb_2O_3 (s) alpha Yb_2O_3 (s)

ΔH^0_{1365} = – 1676.4 kJ·mol^{-1} [4] S^0_{1365} = 327.4 J·mol^{-1}·K^{-1} [4]

O_3Yb_2 (s) Ytterbium(III) Oxide **O_3Yb_2 (s)**
Yb_2O_3 (s) beta Yb_2O_3 (s)

ΔH^0_{1365} = – 1675.8 kJ·mol^{-1} [4] S^0_{1365} = 327.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$ = 134.52 J·mol^{-1}·K^{-1} (1365 K) [4]

O_4Os (s) Osmium(VIII) Oxide **O_4Os (s)**

OsO_4 (s) OsO_4 (s)

mp = 314 K (41 °C)

$\Delta H^0_{298} = -393.7$ kJ·mol^{-1} [4] $S^0_{298} = 136.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 151.46$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -4.3 \cdot 10^3 \cdot T^{-1} - 9.18 \cdot \lg(T) + 35.11$ (298 ... 314 K) [4]

{Reaction: evaporation as OsO_4(g)}

O_4Os (s) Osmium(VIII) Oxide **O_4Os (s)**

OsO_4 (s) OsO_4 (s)

$\Delta H^0_{314} = -391.3$ kJ·mol^{-1} [4] $S^0_{314} = 144.7$ J·mol^{-1}·K^{-1} [4]

O_4Os (l) Osmium(VIII) Oxide **O_4Os (l)**

OsO_4 (l) OsO_4 (l)

$\Delta H^0_{314} = -377$ kJ·mol^{-1} [4] $S^0_{314} = 190.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 157.74$ J·mol^{-1}·K^{-1} (314 K) [4]

O_4Os (g) Osmium(VIII) Oxide **O_4Os (g)**

OsO_4 (g) OsO_4 (g)

$\Delta H^0_{298} = -334.1$ kJ·mol^{-1} [4] $S^0_{298} = 297.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 85.98 + 20.42 \cdot 10^{-3} \cdot T - 1.6 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_4PbS (s) Lead Sulfate **O_4PbS (s)**

$PbSO_4$ (s) alpha $PbSO_4$ (s)

mp = 1443 K (1170 °C)

$\Delta H^0_{298} = -919.9$ kJ·mol^{-1} [4] $S^0_{298} = 148.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 74.18 + 102.51 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1139 K) [4]

O_4PbS (s) Lead Sulfate **O_4PbS (s)**

$PbSO_4$ (s) alpha $PbSO_4$ (s)

$\Delta H^0_{1139} = -796$ kJ·mol^{-1} [4] $S^0_{1139} = 333.4$ J·mol^{-1}·K^{-1} [4]

O_4PbS (s) | Lead Sulfate | **O_4PbS (s)**

$PbSO_4$ (s) | beta | $PbSO_4$ (s)

$\Delta H^0_{1139} = -778.9$ kJ·mol^{-1} [4] $S^0_{1139} = 348.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 184.1$ J·mol^{-1}·K^{-1} (1139 K) [4]

O_4PbS (s) | Lead Sulfate | **O_4PbS (s)**

$PbSO_4$ (s) | beta | $PbSO_4$ (s)

$\Delta H^0_{1443} = -722.9$ kJ·mol^{-1} [4] $S^0_{1443} = 392$ J·mol^{-1}·K^{-1} [4]

O_4PbS (l) | Lead Sulfate | **O_4PbS (l)**

$PbSO_4$ (l) | $PbSO_4$ (l)

$\Delta H^0_{1443} = -682.7$ kJ·mol^{-1} [4] $S^0_{1443} = 419.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 179.91$ J·mol^{-1}·K^{-1} (1443 K) [4]

O_4PbSe (s) | Lead Selenate | **O_4PbSe (s)**

$PbSeO_4$ (s) | $PbSeO_4$ (s)

$\Delta H^0_{298} = -609.6$ kJ·mol^{-1} [2] $S^0_{298} = 167.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 104$ J·mol^{-1}·K^{-1} (298 K) [2]

O_4PbW (s) | Lead Tungstate(VI) | **O_4PbW (s)**

$PbO \cdot WO_3$ (s) | $PbO \cdot WO_3$ (s)

mp = 1398 K (1125 °C)

$\Delta H^0_{298} = -1121.3$ kJ·mol^{-1} [4] $S^0_{298} = -167.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 120 + 41.25 \cdot 10^{-3} \cdot T - 1.13 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1398 K) [4]

O_4Pb_2Si (s) | Lead Silicate | **O_4Pb_2Si (s)**

$2PbO \cdot SiO_2$ (s) | alpha | $2PbO \cdot SiO_2$ (s)

mp = 1019 K (746 °C)

$\Delta H^0_{298} = -1369$ kJ·mol^{-1} [4] $S^0_{298} = 186.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 127.7 + 82.55 \cdot 10^{-3} \cdot T - 1.37 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 600 K) [4]

O_4Pb_3 (s) Lead Oxide **O_4Pb_3 (s)**

Pb_3O_4 (s) Pb_3O_4 (s)

$\Delta H^0_{298} = -730.7$ kJ·mol^{-1} [4] $S^0_{298} = 218.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 178.83 + 32.13 \cdot 10^{-3} \cdot T - 2.98 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 901 K) [4]

$\lg(p,K) = -7.68 \cdot 10^3 \cdot T^{-1} - 1.91 \cdot \lg(T) + 14.14$ (500 ... 762 K) [4]

{Reaction: decomposition $2Pb_3O_4(s) = 6PbO(s) + O_2(g)$}

O_4Rb_2S (s) Rubidium Sulfate **O_4Rb_2S (s)**

Rb_2SO_4 (s) alpha Rb_2SO_4 (s)

mp = 1342 K (1069 °C)

$\Delta H^0_{298} = -1437.2$ kJ·mol^{-1} [4] $S^0_{298} = 197.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 123.14 + 99.58 \cdot 10^{-3} \cdot T - 1.67 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 928 K) [4]

O_4Rb_2S (s) Rubidium Sulfate **O_4Rb_2S (s)**

Rb_2SO_4 (s) alpha Rb_2SO_4 (s)

$\Delta H^0_{928} = -1325$ kJ·mol^{-1} [4] $S^0_{928} = 391.6$ J·mol^{-1}·K^{-1} [4]

O_4Rb_2S (s) Rubidium Sulfate **O_4Rb_2S (s)**

Rb_2SO_4 (s) beta Rb_2SO_4 (s)

$\Delta H^0_{928} = -1320.8$ kJ·mol^{-1} [4] $S^0_{928} = 396.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 205.85$ J·mol^{-1}·K^{-1} (928 K) [4]

O_4Rb_2S (s) Rubidium Sulfate **O_4Rb_2S (s)**

Rb_2SO_4 (s) beta Rb_2SO_4 (s)

$\Delta H^0_{1342} = -1235.6$ kJ·mol^{-1} [4] $S^0_{1342} = 472$ J·mol^{-1}·K^{-1} [4]

O_4Rb_2S (l) Rubidium Sulfate **O_4Rb_2S (l)**

Rb_2SO_4 (l) Rb_2SO_4 (l)

$\Delta H^0_{1342} = -1197.1$ kJ·mol^{-1} [4] $S^0_{1342} = 500.7$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 208.36$ J·mol^{-1}·K^{-1} (1342 K) [4]

O_4Ru (l) Ruthenium(VIII) Oxide **O_4Ru (l)**

RuO_4 (l) RuO_4 (l)

mp = 298 K (25 °C) bp = 445 K (172 °C)

$\Delta H^0_{298} = -228.4$ kJ·mol^{-1} [4] $S^0_{298} = 183.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 149.37$ J·mol^{-1}·K^{-1} (298 K) [4]

O_4Ru (g) Ruthenium(VIII) Oxide **O_4Ru (g)**

RuO_4 (g) RuO_4 (g)

$\Delta H^0_{298} = -183.1$ kJ·mol^{-1} [4] $S^0_{298} = 290.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 101.8 + 3.05 \cdot 10^{-3} \cdot T - 2.4 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2523 K) [4]

O_4SSn (s) Tin(II) Sulfate **O_4SSn (s)**

$SnSO_4$ (s) $SnSO_4$ (s)

$\Delta H^0_{298} = -887$ kJ·mol^{-1} [2] $S^0_{298} = 138.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 150.6$ J·mol^{-1}·K^{-1} (298 K) [2]

O_4SSr (s) Strontium Sulfate **O_4SSr (s)**

$SrSO_4$ (s) $SrSO_4$ (s)

mp = 1873 K (1600 °C)

$\Delta H^0_{298} = -1453.1$ kJ·mol^{-1} [4] $S^0_{298} = 117.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 91.21 + 55.65 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1873 K) [4]

O_4STl_2 (s) Thallium(I) Sulfate **O_4STl_2 (s)**

Tl_2SO_4 (s) Tl_2SO_4 (s)

mp = 905 K (632 °C)

$\Delta H^0_{298} = -933.7$ kJ·mol^{-1} [4] $S^0_{298} = 200.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 100.42 + 125.52 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 905 K) [4]

O_4STl_2 (s) Thallium(I) Sulfate **O_4STl_2 (s)**

Tl_2SO_4 (s) Tl_2SO_4 (s)

$\Delta H^0_{905} = -826.9$ kJ·mol^{-1} [4] $S^0_{905} = 388.5$ J·mol^{-1}·K^{-1} [4]

O_4STl_2 (l) Thallium(I) Sulfate **O_4STl_2 (l)**

Tl_2SO_4 (l)

$\Delta H^0_{905} = -803.1$ kJ·mol^{-1} [4] $S^0_{905} = 414.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 205.02$ J·mol^{-1}·K^{-1} (905 K) [4]

O_4STl_2 (g) Thallium(I) Sulfate **O_4STl_2 (g)**

Tl_2SO_4 (g)

$\Delta H^0_{298} = -674.5$ kJ·mol^{-1} [9] $S^0_{298} = 440.2$ J·mol^{-1}·K^{-1} [9]

O_4SZn (s) Zinc Sulfate alpha **O_4SZn (s)**

$ZnSO_4$ (s)

$\Delta H^0_{298} = -980.1$ kJ·mol^{-1} [1] $S^0_{298} = 110.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 65.82 + 135.71 \cdot 10^{-3} \cdot T - 0.64 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 540 K) [4]

O_4SZn (s) Zinc Sulfate alpha **O_4SZn (s)**

$ZnSO_4$ (s)

$\Delta H^0_{540} = -951.4$ kJ·mol^{-1} [4] $S^0_{540} = 179.9$ J·mol^{-1}·K^{-1} [4]

O_4SZn (s) Zinc Sulfate beta **O_4SZn (s)**

$ZnSO_4$ (s)

$\Delta H^0_{540} = -946.4$ kJ·mol^{-1} [4] $S^0_{540} = 189.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 130.31 + 11.62 \cdot 10^{-3} \cdot T + 0.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (540 ... 1013 K) [4]

O_4SZn (s) Zinc Sulfate beta **O_4SZn (s)**

$ZnSO_4$ (s)

$\Delta H^0_{1013} = -880.5$ kJ·mol^{-1} [4] $S^0_{1013} = 276.8$ J·mol^{-1}·K^{-1} [4]

O_4SZn (s) Zinc Sulfate **O_4SZn (s)**

$ZnSO_4$ (s) $ZnSO_4$ (s)

$\Delta H^0_{1013} = -860.1$ kJ·mol^{-1} [4] $S^0_{1013} = 296.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 145.18$ J·mol^{-1}·K^{-1} (1013 K) [4]

O_4Sb_2 (s) Antimony Oxide **O_4Sb_2 (s)**

Sb_2O_4 (s) Sb_2O_4 (s)

$\Delta H^0_{298} = -907.5$ kJ·mol^{-1} [2] $S^0_{298} = 127$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 99.81 + 49.82 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1524 K) [4]

O_4SiSr_2 (s) Strontium Silicate **O_4SiSr_2 (s)**

$2SrO \cdot SiO_2$ (s) $2SrO \cdot SiO_2$ (s)

mp = 2598 K (2325 °C)

$\Delta H^0_{298} = -2304.5$ kJ·mol^{-1} [2] $S^0_{298} = 149.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 154.39 + 31.38 \cdot 10^{-3} \cdot T - 2.93 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_4SiZn_2 (s) Zinc Silicate **O_4SiZn_2 (s)**

$2ZnO \cdot SiO_2$ (s) $2ZnO \cdot SiO_2$ (s)

mp = 1785 K (1512 °C)

$\Delta H^0_{298} = -1644.4$ kJ·mol^{-1} [2] $S^0_{298} = 131.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 144.89 + 36.94 \cdot 10^{-3} \cdot T - 3.03 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1785 K) [4]

O_4SiZr (s) Zirconium Silicate **O_4SiZr (s)**

$ZrO_2 \cdot SiO_2$ (s) $ZrO_2 \cdot SiO_2$ (s)

$\Delta H^0_{298} = -2035.7$ kJ·mol^{-1} [4] $S^0_{298} = 84$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 131.71 + 16.4 \cdot 10^{-3} \cdot T - 3.38 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1949 K) [4]

O_4SrW (s) Strontium Tungstate(VI) **O_4SrW (s)**

$SrO \cdot WO_3$ (s) $SrO \cdot WO_3$ (s)

mp = 1808 K (1535 °C)

$\Delta H^0_{298} = -1621.1$ kJ·mol^{-1} [4] $S^0_{298} = 133.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 120.67 + 36.11 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1808 K) [4]

O_4Sr_2Ti (s) Strontium Titanate **O_4Sr_2Ti (s)**
2SrO · TiO_2 (s) 2SrO · TiO_2 (s)

mp = 2133 K (1860 °C)
ΔH^0_{298} = – 2287.4 kJ·mol^{-1} [2] S^0_{298} = 159 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 160.87 + 16.07 \cdot 10^{-3} \cdot T - 1.95 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1798 K) [4]

O_4Te_2 (g) Tellurium(IV) Oxide **O_4Te_2 (g)**
$(TeO_2)_2$ (g) $(TeO_2)_2$ (g)

ΔH^0_{298} = – 347.3 kJ·mol^{-1} [4] S^0_{298} = 376.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 131.75 + 0.67 \cdot 10^{-3} \cdot T - 1.72 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -16.26 \cdot 10^3 \cdot T^{-1} - 3.03 \cdot \lg(T) + 21.18$ (800 ... 1006 K) [4]
{Reaction: evaporation of TeO_2(s)}

O_4TiZn_2 (s) Zinc Titanate **O_4TiZn_2 (s)**
2ZnO · TiO_2 (s) 2ZnO · TiO_2 (s)

mp = 1822 K (1549 °C)
ΔH^0_{298} = – 1649.8 kJ·mol^{-1} [4] S^0_{298} = 144.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 166.61 + 23.18 \cdot 10^{-3} \cdot T - 3.22 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1822 K) [4]

O_4U_2 (g) Uranium Oxide **O_4U_2 (g)**
U_2O_4 (g) U_2O_4 (g)

ΔH^0_{298} = 1263 ± 27 kJ·mol^{-1} [253] S^0_{298} = [434.1] J·mol^{-1}·K^{-1} [15]

O_4V_2 (s) Vanadium Oxide **O_4V_2 (s)**
V_2O_4 (s) V_2O_4 (s)

ΔH^0_{298} = – 1427.2 ± 6.3 kJ·mol^{-1} [1] S^0_{298} = 103.5 ± 2.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$ = 115.4 J·mol^{-1}·K^{-1} (298 K) [1]

O_4V_2 (l) Vanadium Oxide **O_4V_2 (l)**
V_2O_4 (l) V_2O_4 (l)

ΔH^0_{298} = – 1332.2 kJ·mol^{-1} [1] S^0_{298} = 173.5 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$ = 120.08 J·mol^{-1}·K^{-1} (298 K) [1]

O_4WZn (s) Zinc Tungstate(VI) **O_4WZn (s)**
$ZnO \cdot WO_3$ (s) $ZnO \cdot WO_3$ (s)

$\Delta H^0_{298} = -1235.4$ kJ·mol^{-1} [4] $S^0_{298} = 144.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 113.3 + 40.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1100 K) [4]

O_5P_2 (l) Phosphorus(V) Oxide **O_5P_2 (l)**
P_2O_5 (l) P_2O_5 (l)

$\Delta H^0_{298} = -1498.1$ kJ·mol^{-1} [2] $S^0_{298} = 117.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 156.9$ J·mol^{-1}·K^{-1} (298 K) [2]

O_5Pb_2S (s) Lead Oxide Sulfate **O_5Pb_2S (s)**
$PbO \cdot PbSO_4$ (s) $PbO \cdot PbSO_4$ (s)

mp = 1248 K (975 °C)
$\Delta H^0_{298} = -1171.5$ kJ·mol^{-1} [4] $S^0_{298} = 206.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 129.86 + 105.91 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1248 K) [4]

$O_5Rb_2Si_2$ (s) Rubidium Silicate **$O_5Rb_2Si_2$ (s)**
$Rb_2O \cdot 2SiO_2$ (s) $Rb_2O \cdot 2SiO_2$ (s)

mp = 1363 K (1090 °C)
$\Delta H^0_{298} = -2474.3$ kJ·mol^{-1} [4] $S^0_{298} = 194.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 193.26 + 50.38 \cdot 10^{-3} \cdot T - 3.34 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1363 K) [4]

$O_5Rb_2Si_2$ (s) Rubidium Silicate **$O_5Rb_2Si_2$ (s)**
$Rb_2O \cdot 2SiO_2$ (s) $Rb_2O \cdot 2SiO_2$ (s)

$\Delta H^0_{1363} = -2232.8$ kJ·mol^{-1} [4] $S^0_{1363} = 524$ J·mol^{-1}·K^{-1} [4]

$O_5Rb_2Si_2$ (l) Rubidium Silicate **$O_5Rb_2Si_2$ (l)**
$Rb_2O \cdot 2SiO_2$ (l) $Rb_2O \cdot 2SiO_2$ (l)

$\Delta H^0_{1363} = -2178.4$ kJ·mol^{-1} [4] $S^0_{1363} = 563.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 259.41$ J·mol^{-1}·K^{-1} (1363 K) [4]

O_5SV (s) Vanadyl Sulfate **O_5SV (s)**

$VOSO_4$ (s) $VOSO_4$ (s)

$\Delta H^0_{298} = -1309.2$ kJ·mol^{-1} [4] $S^0_{298} = 108.8$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 96.65 + 116.73 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 952 K) [4]

O_5Sb_2 (s) Antimony(V) Oxide **O_5Sb_2 (s)**

Sb_2O_5 (s) Sb_2O_5 (s)

$\Delta H^0_{298} = -993.7$ kJ·mol^{-1} [4] $S^0_{298} = 124.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 141.33 - 3.73 \cdot 10^{-3} \cdot T - 2.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 798 K) [4]

O_5Se_2 (s) Selenium(V) Oxide **O_5Se_2 (s)**

Se_2O_5 (s) Se_2O_5 (s)

mp = 497 K (224 °C)

$\Delta H^0_{298} = -413.4$ kJ·mol^{-1} [4] $S^0_{298} = 159$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 141 + 42.68 \cdot 10^{-3} \cdot T - 2.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 497 K) [4]

O_5SrTe_2 (s) Strontium Tellurium Oxide **O_5SrTe_2 (s)**

$SrO \cdot 2TeO_2$ (s) $SrO \cdot 2TeO_2$ (s)

$\Delta H^0_{298} = -1026 \pm 100.7$ kJ·mol^{-1} [106] $S^0_{298} = [204.1]$ J·mol^{-1}·K^{-1} [108]

$C_p{}^0 = [173.25]$ J·mol^{-1}·K^{-1} (298 K) [271]

O_5Ta_2 (s) Tantalum(V) Oxide **O_5Ta_2 (s)**

Ta_2O_5 (s) Ta_2O_5 (s)

mp = 2058 K (1785 °C)

$\Delta H^0_{298} = -2046 \pm 4.2$ kJ·mol^{-1} [1] $S^0_{298} = 143.1 \pm 1.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 165.96 + 17.93 \cdot 10^{-3} \cdot T - 3.54 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2058 K) [4]

O_5Ta_2 (l) Tantalum(V) Oxide **O_5Ta_2 (l)**

Ta_2O_5 (l) Ta_2O_5 (l)

$\Delta H^0_{298} = -1957.2$ kJ·mol^{-1} [1] $S^0_{298} = 183.1$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 135$ J·mol^{-1}·K^{-1} (298 K) [1]

O_5Ti_3 (s) Titanium Oxide **O_5Ti_3 (s)**

Ti_3O_5 (s) alpha Ti_3O_5 (s)

mp = 2050 K (1777 °C)

ΔH^0_{298} = – 2459.1 ± 4.2 kJ·mol^{-1} [1] S^0_{298} = 129.4 ± 1.7 J·mol^{-1}·K^{-1} [1]

C_p^0= 231.04 – 24.77 ·10^{-3}·T – 6.13 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 450 K) [4]

O_5Ti_3 (s) Titanium Oxide **O_5Ti_3 (s)**

Ti_3O_5 (s) alpha Ti_3O_5 (s)

ΔH^0_{450} = – 2432.4 kJ·mol^{-1} [4] S^0_{450} = 201.4 J·mol^{-1}·K^{-1} [4]

O_5Ti_3 (s) Titanium Oxide **O_5Ti_3 (s)**

Ti_3O_5 (s) beta Ti_3O_5 (s)

ΔH^0_{450} = – 2419.3 kJ·mol^{-1} [4] S^0_{450} = 230.4 J·mol^{-1}·K^{-1} [4]

C_p^0= 158.99 + 50.21 ·10^{-3}·T J·mol^{-1}·K^{-1} (450 ... 2050 K) [4]

O_5Ti_3 (s) Titanium Oxide **O_5Ti_3 (s)**

Ti_3O_5 (s) beta Ti_3O_5 (s)

ΔH^0_{298} = – 2446.2 kJ·mol^{-1} [1] S^0_{298} = 157.6 J·mol^{-1}·K^{-1} [1]

C_p^0= 158.99 + 50.21 ·10^{-3}·T J·mol^{-1}·K^{-1} (450 ... 2050 K) [4]

O_5Ti_3 (l) Titanium Oxide **O_5Ti_3 (l)**

Ti_3O_5 (l) Ti_3O_5 (l)

ΔH^0_{298} = – 2289.1 kJ·mol^{-1} [1] S^0_{298} = 232.5 J·mol^{-1}·K^{-1} [1]

C_p^0= 174 J·mol^{-1}·K^{-1} (298 K) [1]

O_5V_2 (s) Vanadium(V) Oxide **O_5V_2 (s)**

V_2O_5 (s) V_2O_5 (s)

mp = 952 K (679 °C)

ΔH^0_{298} = – 1550.2 kJ·mol^{-1} [4] S^0_{298} = 130.5 ± 2.1 J·mol^{-1}·K^{-1} [1]

C_p^0= 141 + 42.68 ·10^{-3}·T – 2.34 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 952 K) [4]

O_5V_2 (s) Vanadium(V) Oxide **O_5V_2 (s)**

V_2O_5 (s) V_2O_5 (s)

$\Delta H^0_{952} = -1445.9$ kJ·mol^{-1} [4] $S^0_{952} = 310.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 179.04$ J·mol^{-1}·K^{-1} (952 K) [4]

O_5V_2 (l) Vanadium(V) Oxide **O_5V_2 (l)**

V_2O_5 (l) V_2O_5 (l)

$\Delta H^0_{952} = -1379$ kJ·mol^{-1} [4] $S^0_{952} = 380.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 190.37$ J·mol^{-1}·K^{-1} (952 K) [4]

O_5V_2 (l) Vanadium(V) Oxide **O_5V_2 (l)**

V_2O_5 (l) V_2O_5 (l)

$\Delta H^0_{298} = -1491.2$ kJ·mol^{-1} [1] $S^0_{298} = 192$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 190.37$ J·mol^{-1}·K^{-1} (952 K) [4]

O_5V_3 (s) Vanadium Oxide **O_5V_3 (s)**

V_3O_5 (s) V_3O_5 (s)

$\Delta H^0_{298} = -1933$ kJ·mol^{-1} [4] $S^0_{298} = 163$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 176.46 + 34.78 \cdot 10^{-3} \cdot T - 2.46 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

O_6P_4 (l) Phosphorus(III) Oxide **O_6P_4 (l)**

P_4O_6 (l) P_4O_6 (l)

mp = 296 K (23 °C) bp = 446 K (173 °C)

$\Delta H^0_{298} = -2263.8$ kJ·mol^{-1} [4] $S^0_{298} = 229.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 238.49$ J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -3.73 \cdot 10^{3} \cdot T^{-1} - 8.93 \cdot \lg(T) + 32.03$ (298 ... 446 K) [4]

{Reaction: evaporation as P_4O_6(g)}

O_6P_4 (g) Phosphorus(III) Oxide **O_6P_4 (g)**

P_4O_6 (g) P_4O_6 (g)

$\Delta H^0_{298} = -2214.3 \pm 33.5$ kJ·mol^{-1} [1] $S^0_{298} = 345.6 \pm 33.5$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 216.36 + 8.67 \cdot 10^{-3} \cdot T - 6.8 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_6Pb_3S (s) Lead Oxide Sulfate **O_6Pb_3S (s)**

$2PbO \cdot PbSO_4$ (s) $2PbO \cdot PbSO_4$ (s)

mp = 1234 K (961 °C)

ΔH^0_{298} = – 1399.1 kJ·mol^{-1} [4] S^0_{298} = 274.5 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 175.13 + 118.71 $\cdot 10^{-3} \cdot T$ – 0.41 $\cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1234 K) [4]

O_6Pb_4Si (s) Lead Silicate **O_6Pb_4Si (s)**

$4PbO \cdot SiO_2$ (s) $4PbO \cdot SiO_2$ (s)

mp = 994 K (721 °C)

ΔH^0_{298} = – 1801.1 kJ·mol^{-1} [4] S^0_{298} = 331.1 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 222.67 + 87.45 $\cdot 10^{-3} \cdot T$ – 1.69 $\cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 994 K) [4]

O_6PuSr_3 (s) Strontium Plutonium Oxide **O_6PuSr_3 (s)**

$3SrO \cdot PuO_3$ (s) $3SrO \cdot PuO_3$ (s)

ΔH^0_{298} = – 3041.9 ± 8 kJ·mol^{-1} [171] S^0_{298} = [265.3] J·mol^{-1}·K^{-1} [177]

O_6SU (s) Uranyl Sulfate **O_6SU (s)**

UO_2SO_4 (s) UO_2SO_4 (s)

ΔH^0_{298} = – 1845.1 kJ·mol^{-1} [2] S^0_{298} = 154.8 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 112.47 + 108.78 $\cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1084 K) [4]

O_6Sb_4 (s) Antimony(III) Oxide **O_6Sb_4 (s)**

Sb_4O_6 (s) Sb_4O_6 (s)

mp = 928 K (655 °C)

ΔH^0_{298} = – 1417.5 kJ·mol^{-1} [4] S^0_{298} = 246 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 228.03 + 16.64 $\cdot 10^{-3} \cdot T$ – 2.69 $\cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 928 K) [4]

O_6Sb_4 (g) Antimony(III) Oxide **O_6Sb_4 (g)**

Sb_4O_6 (g) Sb_4O_6 (g)

ΔH^0_{298} = – 1215.5 kJ·mol^{-1} [2] S^0_{298} = 444.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 217.64 + 14.11 $\cdot 10^{-3} \cdot T$ – 3.47 $\cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_6W_2 (g) Tungsten(VI) Oxide **O_6W_2 (g)**

$(WO_3)_2$ (g) $(WO_3)_2$ (g)

$\Delta H^0_{298} = -1164 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 415.6$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 181.17 + 0.42 \cdot 10^{-3} \cdot T - 2.53 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2115 K) [4]

$\lg(p,K) = -28.26 \cdot 10^3 \cdot T^{-1} - 3.57 \cdot \lg(T) + 25.47$ (1300 ... 1745 K) [4]

{Reaction: evaporation of WO_3(s)}

O_7Pb_4S (s) Lead Oxide Sulfate **O_7Pb_4S (s)**

$3PbO \cdot PbSO_4$ (s) $3PbO \cdot PbSO_4$ (s)

$\Delta H^0_{298} = -1626.7$ kJ·mol^{-1} [4] $S^0_{298} = 340.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 220.41 + 131.51 \cdot 10^{-3} \cdot T - 0.72 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1168 K) [4]

O_7Re_2 (s) Rhenium(VII) Oxide **O_7Re_2 (s)**

Re_2O_7 (s) Re_2O_7 (s)

mp = 570 K (297 °C)

$\Delta H^0_{298} = -1241.4$ kJ·mol^{-1} [4] $S^0_{298} = 207.3$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 121.96 + 184.1 \cdot 10^{-3} \cdot T - 0.94 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 570 K) [4]

$\lg(p,K) = -8.14 \cdot 10^3 \cdot T^{-1} - 3.2 \cdot \lg(T) + 22.46$ (400 ... 570 K) [4]

{Reaction: evaporation as Re_2O_7(g)}

O_7Re_2 (s) Rhenium(VII) Oxide **O_7Re_2 (s)**

Re_2O_7 (s) Re_2O_7 (s)

$\Delta H^0_{570} = -1188$ kJ·mol^{-1} [4] $S^0_{570} = 332.5$ J·mol^{-1}·K^{-1} [4]

O_7Re_2 (l) Rhenium(VII) Oxide **O_7Re_2 (l)**

Re_2O_7 (l) Re_2O_7 (l)

$\Delta H^0_{570} = -1121.9$ kJ·mol^{-1} [4] $S^0_{570} = 448.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 297.48$ J·mol^{-1}·K^{-1} (570 K) [4]

O_7Re_2 (l) Rhenium(VII) Oxide **O_7Re_2 (l)**

Re_2O_7 (l) Re_2O_7 (l)

$\Delta H^0_{632} = -1103.4$ kJ·mol^{-1} [4] $S^0_{632} = 479.3$ J·mol^{-1}·K^{-1} [4]

O_7Re_2 (g) Rhenium(VII) Oxide **O_7Re_2 (g)**

Re_2O_7 (g) Re_2O_7 (g)

$\Delta H^0_{632} = -1036.3$ kJ·mol^{-1} [4] $S^0_{632} = 585.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 189.49 + 1.15 \cdot 10^{-3} \cdot T - 2.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (632 ... 2000 K) [4]

O_7Re_2 (g) Rhenium(VII) Oxide **O_7Re_2 (g)**

Re_2O_7 (g) Re_2O_7 (g)

$\Delta H^0_{298} = -1096.1$ kJ·mol^{-1} [4] $S^0_{298} = 451.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 189.49 + 1.15 \cdot 10^{-3} \cdot T - 2.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

O_7Si_2SrZr (s) Strontium Zirconium Silicate **O_7Si_2SrZr (s)**

$SrZrSi_2O_7$ (s) $SrZrSi_2O_7$ (s)

$\Delta H^0_{298} = -3640.8 \pm 4.2$ kJ·mol^{-1} [121] $S^0_{298} = [192.7]$ J·mol^{-1}·K^{-1} [125]

$C_p{}^0 = [190.57]$ J·mol^{-1}·K^{-1} (298 K) [271]

$O_7Si_2Y_2$ (s) Yttrium Silicate **$O_7Si_2Y_2$ (s)**

$Y_2Si_2O_7$ (s) $Y_2Si_2O_7$ (s)

$\Delta H^0_{298} = -3854.8 \pm 6.8$ kJ·mol^{-1} [128] $S^0_{298} = [185.9]$ J·mol^{-1}·K^{-1} [129]

$C_p{}^0 = [191.28]$ J·mol^{-1}·K^{-1} (298 K) [271]

$O_7Sm_2Zr_2$ (s) Samarium Zirconate **$O_7Sm_2Zr_2$ (s)**

$Sm_2O_3 \cdot 2ZrO_2$ (s) $Sm_2O_3 \cdot 2ZrO_2$ (s)

$\Delta H^0_{298} = -4130.4$ kJ·mol^{-1} [4] $S^0_{298} = 251.5$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 266.94 + 33.89 \cdot 10^{-3} \cdot T - 4.69 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

O_7Tc_2 (s) Technetium(VII) Oxide **O_7Tc_2 (s)**

Tc_2O_7 (s) Tc_2O_7 (s)

mp = 392 K (119 °C) bp = 583 K (310 °C)

$\Delta H^0_{298} = -1112.9$ kJ·mol^{-1} [4] $S^0_{298} = 184.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 104.6 + 355.64 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 392 K) [4]

O_7Tc_2 (s) Technetium(VII) Oxide **O_7Tc_2 (s)**

Tc_2O_7 (s) Tc_2O_7 (s)

$\Delta H^0_{392} = -1091.6$ kJ·mol^{-1} [4] $S^0_{392} = 246.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 244.01$ J·mol^{-1}·K^{-1} (392 K) [4]

O_7Tc_2 (l) Technetium(VII) Oxide **O_7Tc_2 (l)**

Tc_2O_7 (l) Tc_2O_7 (l)

$\Delta H^0_{392} = -1043.4$ kJ·mol^{-1} [4] $S^0_{392} = 368.9$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 280.33$ J·mol^{-1}·K^{-1} (392 K) [4]

O_7Tc_2 (g) Technetium(VII) Oxide **O_7Tc_2 (g)**

Tc_2O_7 (g) Tc_2O_7 (g)

$\Delta H^0_{298} = -982.4$ kJ·mol^{-1} [2] $S^0_{298} = 474.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 147.4$ J·mol^{-1}·K^{-1} (298 K) [2]

O_7Ti_4 (s) Titanium Oxide **O_7Ti_4 (s)**

Ti_4O_7 (s) Ti_4O_7 (s)

mp = 1950 K (1677 °C)

$\Delta H^0_{298} = -3404.5 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 198.7 \pm 12.6$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 281.58 + 19.25 \cdot 10^{-3} \cdot T - 7.04 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1950 K) [4]

O_7Ti_4 (l) Titanium Oxide **O_7Ti_4 (l)**

Ti_4O_7 (l) Ti_4O_7 (l)

$\Delta H^0_{298} = -3216$ kJ·mol^{-1} [1] $S^0_{298} = 291.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 208.5$ J·mol^{-1}·K^{-1} (298 K) [1]

O_7V_4 (s) Vanadium Oxide **O_7V_4 (s)**

V_4O_7 (s) V_4O_7 (s)

$\Delta H^0_{298} = -2640$ kJ·mol^{-1} [4] $S^0_{298} = 218$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 239.95 + 50.27 \cdot 10^{-3} \cdot T - 3.42 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

$O_7Y_2Zr_2$ (s) Yttrium Zirconium Oxide **$O_7Y_2Zr_2$ (s)**

$Y_2Zr_2O_7$ (s) $Y_2Zr_2O_7$ (s)

$\Delta H^0_{298} = -4122$ kJ·mol⁻¹ [2] $S^0_{298} = 200$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 215$ J·mol⁻¹·K⁻¹ (298 K) [2]

$O_8MgSi_2Sr_3$ (s) Strontium Magnesium Silicate **$O_8MgSi_2Sr_3$ (s)**

$3SrO \cdot MgO \cdot 2SiO_2$ (s) $3SrO \cdot MgO \cdot 2SiO_2$ (s)

$\Delta H^0_{298} = -4575.3 \pm 5.1$ kJ·mol⁻¹ [81] $S^0_{298} = 280.2 \pm 0.6$ J·mol⁻¹·K⁻¹ [81]

$C_p^0 = 257.35$ J·mol⁻¹·K⁻¹ (298 K) [81]

$O_8P_2Zn_3$ (s) Zinc Phosphate **$O_8P_2Zn_3$ (s)**

$Zn_3(PO_4)_2$ (s) $Zn_3(PO_4)_2$ (s)

$\Delta H^0_{298} = -2899.5$ kJ·mol⁻¹ [2] $S^0_{298} = 237$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 234.1$ J·mol⁻¹·K⁻¹ (298 K) [2]

O_8PuS_2 (s) Plutonium(IV) Sulfate **O_8PuS_2 (s)**

$Pu(SO_4)_2$ (s) $Pu(SO_4)_2$ (s)

$\Delta H^0_{298} = -2238.4$ kJ·mol⁻¹ [4] $S^0_{298} = 184.1$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 117.57 + 215.48 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 974 K) [4]

O_8S_2Sn (s) Tin(IV) Sulfate **O_8S_2Sn (s)**

$Sn(SO_4)_2$ (s) $Sn(SO_4)_2$ (s)

$\Delta H^0_{298} = -1648.5$ kJ·mol⁻¹ [2] $S^0_{298} = 149.8$ J·mol⁻¹·K⁻¹ [2]

$C_p^0 = 284.5$ J·mol⁻¹·K⁻¹ (298 K) [2]

O_8S_2Th (s) Thorium(IV) Sulfate **O_8S_2Th (s)**

$Th(SO_4)_2$ (s) $Th(SO_4)_2$ (s)

$\Delta H^0_{298} = -2542.6$ kJ·mol⁻¹ [2] $S^0_{298} = 148.5$ J·mol⁻¹·K⁻¹ [4]

$C_p^0 = 104.6 + 230.96 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 1162 K) [4]

O_8S_2U (s) Uranium(IV) Sulfate **O_8S_2U (s)**

$U(SO_4)_2$ (s) $U(SO_4)_2$ (s)

$\Delta H^0_{298} = -2318$ kJ·mol^{-1} [2] $S^0_{298} = 164$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 104.6 + 230.96 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 735 K) [4]

O_8U_3 (s) Uranium Oxide **O_8U_3 (s)**

U_3O_8 (s) U_3O_8 (s)

$\Delta H^0_{298} = -3574.8$ kJ·mol^{-1} [2] $S^0_{298} = 282.6$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 282.42 + 36.94 \cdot 10^{-3} \cdot T - 5 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1600 K) [4]

O_8W_3 (g) Tungsten Oxide **O_8W_3 (g)**

W_3O_8 (g) W_3O_8 (g)

$\Delta H^0_{298} = -1710 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 494$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 250 + 3.99 \cdot 10^{-3} \cdot T - 4.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2115 K) [4]

$O_9Rb_2Si_4$ (s) Rubidium Silicate **$O_9Rb_2Si_4$ (s)**

$Rb_2O \cdot 4SiO_2$ (s) $Rb_2O \cdot 4SiO_2$ (s)

mp = 1173 K (900 °C)

$\Delta H^0_{298} = -4318.2$ kJ·mol^{-1} [4] $S^0_{298} = 278.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 255.35 + 124.56 \cdot 10^{-3} \cdot T - 1.92 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1173 K) [4]

$O_9Rb_2Si_4$ (s) Rubidium Silicate **$O_9Rb_2Si_4$ (s)**

$Rb_2O \cdot 4SiO_2$ (s) $Rb_2O \cdot 4SiO_2$ (s)

$\Delta H^0_{1173} = -4019.5$ kJ·mol^{-1} [4] $S^0_{1173} = 726.9$ J·mol^{-1}·K^{-1} [4]

$O_9Rb_2Si_4$ (l) Rubidium Silicate **$O_9Rb_2Si_4$ (l)**

$Rb_2O \cdot 4SiO_2$ (l) $Rb_2O \cdot 4SiO_2$ (l)

$\Delta H^0_{1173} = -3973.5$ kJ·mol^{-1} [4] $S^0_{1173} = 766.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 397.48$ J·mol^{-1}·K^{-1} (1173 K) [4]

$O_9S_2Zn_3$ (s) Zinc Oxide Sulfate **$O_9S_2Zn_3$ (s)**

$ZnO \cdot 2ZnSO_4$ (s) $ZnO \cdot 2ZnSO_4$ (s)

$\Delta H^0_{298} = -2320.4$ kJ·mol^{-1} [4] $S^0_{298} = 264.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 201.71 + 157.4 \cdot 10^{-3} \cdot T - 0.91 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 778 K) [4]

O_9U_4 (s) Uranium Oxide **O_9U_4 (s)**

U_4O_9 (s) U_4O_9 (s)

$\Delta H^0_{298} = -4510.4$ kJ·mol^{-1} [4] $S^0_{298} = 334.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 356.27 + 35.44 \cdot 10^{-3} \cdot T - 6.64 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1396 K) [4]

O_9W_3 (g) Tungsten(VI) Oxide **O_9W_3 (g)**

$(WO_3)_3$ (g) $(WO_3)_3$ (g)

$\Delta H^0_{298} = -2023.4 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 504.7$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 274.48 + 4.23 \cdot 10^{-3} \cdot T - 4.81 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2115 K) [4]

$\lg(p,K) = -27.72 \cdot 10^3 \cdot T^{-1} - 4.44 \cdot \lg(T) + 28.87$ (1200 ... 1745 K) [4]

{Reaction: evaporation of WO_3(s)}

$O_{10}P_4$ (s) Phosphorus(V) Oxide **$O_{10}P_4$ (s)**

P_4O_{10} (s) P_4O_{10} (s)

bp = 631 K (358 °C)

$\Delta H^0_{298} = -3009.9 \pm 8.9$ kJ·mol^{-1} [1] $S^0_{298} = 228.8 \pm 0.4$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 149.8 + 324.7 \cdot 10^{-3} \cdot T - 3.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 631 K) [4]

$\lg(p,K) = -6.47 \cdot 10^3 \cdot T^{-1} - 6.12 \cdot \lg(T) + 27.39$ (400 ... 631 K) [4]

{Reaction: evaporation as P_4O_{10}(g)}

$O_{10}P_4$ (g) Phosphorus(V) Oxide **$O_{10}P_4$ (g)**

P_4O_{10} (g) P_4O_{10} (g)

$\Delta H^0_{298} = -2904.1 \pm 8.9$ kJ·mol^{-1} [1] $S^0_{298} = 404$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 292.83 + 19.19 \cdot 10^{-3} \cdot T - 10.72 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$O_{10}Sr_4Ti_3$ (s) Strontium Titanate **$O_{10}Sr_4Ti_3$ (s)**

$4SrO \cdot 3TiO_2$ (s) $4SrO \cdot 3TiO_2$ (s)

$\Delta H^0_{298} = -5648.8$ kJ·mol^{-1} [2] $S^0_{298} = 365.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 397.1 + 33.14 \cdot 10^{-3} \cdot T - 5.79 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1853 K) [4]

$O_{10}Sr_4Zr_3$ (s) Strontium Zirconate **$O_{10}Sr_4Zr_3$ (s)**

$4SrO \cdot 3ZrO_2$ (s) $4SrO \cdot 3ZrO_2$ (s)

$\Delta H^0_{298} = -5972.8$ kJ·mol^{-1} [82] $S^0_{298} = 394.2$ J·mol^{-1}·K^{-1} [82]

$C_p{}^0 = 357.33$ J·mol^{-1}·K^{-1} (298 K) [82]

$O_{12}Pr_7$ (s) Praseodymium Oxide **$O_{12}Pr_7$ (s)**

Pr_7O_{12} (s) Pr_7O_{12} (s)

$\Delta H^0_{298} = -6629.3$ kJ·mol^{-1} [4] $S^0_{298} = 562.3$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 426.14 + 103.97 \cdot 10^{-3} \cdot T - 30.46 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1184 K) [4]

$O_{12}S_3Sb_2$ (s) Antimony Sulfate **$O_{12}S_3Sb_2$ (s)**

$Sb_2(SO_4)_3$ (s) $Sb_2(SO_4)_3$ (s)

$\Delta H^0_{298} = -2402.5$ kJ·mol^{-1} [2] $S^0_{298} = 291.2$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 220.08 + 185.77 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 835 K) [4]

$O_{12}Tb_7$ (s) Terbium Oxide **$O_{12}Tb_7$ (s)**

Tb_7O_{12} (s) Tb_7O_{12} (s)

$\Delta H^0_{298} = -6653.5$ kJ·mol^{-1} [4] $S^0_{298} = 611.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 415.86 + 137.28 \cdot 10^{-3} \cdot T - 4 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1385 K) [4]

$O_{12}W_4$ (g) Tungsten(VI) Oxide **$O_{12}W_4$ (g)**

$(WO_3)_4$ (g) $(WO_3)_4$ (g)

$\Delta H^0_{298} = -2804.1 \pm 41.8$ kJ·mol^{-1} [1] $S^0_{298} = 605.3$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 371.96 + 5.02 \cdot 10^{-3} \cdot T - 5.89 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2115 K) [4]

$\lg(p,K) = -31.37 \cdot 10^{3} \cdot T^{-1} - 5.28 \cdot \lg(T) + 33.27$ (1300 ... 1745 K) [4]

{Reaction: evaporation of WO_3(s)}

$O_{18}Si_5Sr_6Zr$ (s) Strontium Zirconium Silicate **$O_{18}Si_5Sr_6Zr$ (s)**
$Sr_6ZrSi_5O_{18}$ (s) $Sr_6ZrSi_5O_{18}$ (s)

$\Delta H^0_{298} = -9667.9 \pm 8.6$ kJ·mol^{-1} [121] $S^0_{298} = [600.4]$ J·mol^{-1}·K^{-1} [124]
$C_p{}^0 = [551.24]$ J·mol^{-1}·K^{-1} (298 K) [271]

$O_{20}Tb_{11}$ (s) Terbium Oxide **$O_{20}Tb_{11}$ (s)**
$Tb_{11}O_{20}$ (s) $Tb_{11}O_{20}$ (s)

$\Delta H^0_{298} = -10617$ kJ·mol^{-1} [4] $S^0_{298} = 880.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 740.42 + 140.57 \cdot 10^{-3} \cdot T - 12.48 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 811 K) [4]

$O_{22}Pr_{12}$ (s) Praseodymium Oxide **$O_{22}Pr_{12}$ (s)**
$Pr_{12}O_{22}$ (s) alpha $Pr_{12}O_{22}$ (s)

$\Delta H^0_{298} = -12829.1$ kJ·mol^{-1} [4] $S^0_{298} = 959$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 761.96 + 384.09 \cdot 10^{-3} \cdot T - 10.09 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 760 K) [4]

$O_{22}Pr_{12}$ (s) Praseodymium Oxide **$O_{22}Pr_{12}$ (s)**
$Pr_{12}O_{22}$ (s) alpha $Pr_{12}O_{22}$ (s)

$\Delta H^0_{760} = -12403.9$ kJ·mol^{-1} [4] $S^0_{760} = 1801.3$ J·mol^{-1}·K^{-1} [4]

$O_{22}Pr_{12}$ (s) Praseodymium Oxide **$O_{22}Pr_{12}$ (s)**
$Pr_{12}O_{22}$ (s) beta $Pr_{12}O_{22}$ (s)

$\Delta H^0_{760} = -12384.9$ kJ·mol^{-1} [4] $S^0_{760} = 1826.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 598.43 + 595.16 \cdot 10^{-3} \cdot T - 3.11 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (760 ... 1100 K) [4]

Os (s) Osmium **Os (s)**

mp = 3300 K (3027 °C) bp = 5281 K (5008 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 32.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 23.57 + 3.81 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 3300 K) [4]
$\lg(p,K) = -41.14 \cdot 10^{3} \cdot T^{-1} - 0.27 \cdot \lg(T) + 8.98$ (2500 ... 3300 K) [4]
{Reaction: evaporation as Os(g)}

Os (s) Osmium **Os** (s)

ΔH^0_{3300} = 91.3 kJ·mol^{-1} [2] S^0_{3300} = 100.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 36.14 J·mol^{-1}·K^{-1} (3300 K) [4]

Os (l) Osmium **Os** (l)

ΔH^0_{3300} = 123.1 kJ·mol^{-1} [2] S^0_{3300} = 110.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 35.98 J·mol^{-1}·K^{-1} (3300 K) [4]
$\lg(p,K) = -38.92 \cdot 10^3 \cdot T^{-1} + 0.1 \cdot \lg(T) + 7.01$ (3300 ... 4000 K) [4]
{Reaction: evaporation as Os(g)}

Os (g) Osmium **Os** (g)

ΔH^0_{298} = 788.3 kJ·mol^{-1} [2] S^0_{298} = 192.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 20.8 J·mol^{-1}·K^{-1} (298 K) [2]

OsP_2 (s) Osmium Phosphide **OsP_2** (s)

ΔH^0_{298} = – 152.3 kJ·mol^{-1} [2] S^0_{298} = 82 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 71.1 J·mol^{-1}·K^{-1} (298 K) [2]

OsS_2 (s) Osmium(IV) Sulfide **OsS_2** (s)

ΔH^0_{298} = – 147.7 kJ·mol^{-1} [2] S^0_{298} = 54.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 68.53 + 11.84 \cdot 10^{-3} \cdot T - 0.88 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1391 K) [4]

$OsSe_2$ (s) Osmium(IV) Selenide **$OsSe_2$** (s)

ΔH^0_{298} = – 120.1 kJ·mol^{-1} [2] S^0_{298} = 81.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 73.64 + 11.09 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1374 K) [4]

$OsTe_2$ (s) Osmium(IV) Telluride **$OsTe_2$** (s)

ΔH^0_{298} = [– 79.5] kJ·mol^{-1} [5] S^0_{298} = [100.4] J·mol^{-1}·K^{-1} [5]

P (s) | Phosphorus black | **P** (s)

mp = 317 K (44 °C)
ΔH^0_{298} = – 12.9 kJ·mol^{-1} [1] | S^0_{298} = 22.6 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 21.5 J·mol^{-1}·K^{-1} (298 K) [1]

P (s) | Phosphorus red, IV | **P** (s)

ΔH^0_{298} = – 12.4 kJ·mol^{-1} [1] | S^0_{298} = 23.2 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 21.3 J·mol^{-1}·K^{-1} (298 K) [1]

P (s) | Phosphorus red | **P** (s)

bp = 703 K (430 °C)
ΔH^0_{298} = – 17.5 kJ·mol^{-1} [1] | S^0_{298} = 22.9 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 16.74 + 14.9 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 703 K) [4]
lg(p,K) = – 7.16 ·10^3·T^{-1} – 2.78 · lg(T) + 18.09 (400 ... 703 K) [4]
{Reaction: evaporation as P_4(g)}

P (s) | Phosphorus white | **P** (s)

mp = 317 K (44 °C) | bp = 552 K (279 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] | S^0_{298} = 41.1 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 13.9 + 33.13 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 317 K) [4]
lg(p,K) = – 3.53 ·10^3·T^{-1} – 3.43 · lg(T) + 16.02 (298 ... 317 K) [4]
{Reaction: evaporation as P_4(g)}

P (s) | Phosphorus white | **P** (s)

ΔH^0_{317} = 0.4 kJ·mol^{-1} [4] | S^0_{317} = 42.6 J·mol^{-1}·K^{-1} [4]

P (l) Phosphorus **P** (l)

ΔH^0_{317} = 1.1 kJ·mol^{-1} [4] S^0_{317} = 44.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 26.33 J·mol^{-1}·K^{-1} (317 K) [4]
$\lg(p,K) = -3.45 \cdot 10^3 \cdot T^{-1} - 3.86 \cdot \lg(T) + 16.84$ (317 ... 552 K) [4]
{Reaction: evaporation as P_4(g)}

P (l) Phosphorus **P** (l)

ΔH^0_{298} = 0.6 kJ·mol^{-1} [1] S^0_{298} = 43 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 26.33 J·mol^{-1}·K^{-1} (317 K) [4]

P (g) Phosphorus **P** (g)

ΔH^0_{298} = 333.9 kJ·mol^{-1} [4] S^0_{298} = 163.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 20.67 + 0.17 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

PPd_3 (s) Palladium Phosphide **PPd_3** (s)
Pd_3P (s) Pd_3P (s)

ΔH^0_{298} = – 198 ± 3 kJ·mol^{-1} [238]

PS (g) Phosphorus Sulfide **PS** (g)

ΔH^0_{298} = 138.6 ± 41.8 kJ·mol^{-1} [1] S^0_{298} = 234.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.03 + 0.5 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [3]

PSi (s) Silicon Phosphide **PSi** (s)
SiP (s) SiP (s)

mp = 1444 K (1171 °C)
ΔH^0_{298} = – 61.9 kJ·mol^{-1} [4] S^0_{298} = 32.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 42.89 + 10.88 \cdot 10^{-3} \cdot T - 0.57 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1450 K) [4]

PTh (s) Thorium Phosphide **PTh** (s)
ThP (s) ThP (s)

ΔH^0_{298} = – 348.1 kJ·mol^{-1} [2] S^0_{298} = 71.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 54.1 + 5.44 \cdot 10^{-3} \cdot T - 0.86 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

PTh (g) Thorium Phosphide **PTh (g)**

ThP (g) ThP (g)

ΔH^0_{298} = 536 kJ·mol^{-1} [4] S^0_{298} = 267.5 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 37.37 + 0.05 ·10^{-3}·T − 0.16 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2023 K) [4]

PU (s) Uranium Phosphide **PU (s)**

UP (s) UP (s)

mp = 2883 K (2610 °C)

ΔH^0_{298} = – 268 kJ·mol^{-1} [4] S^0_{298} = 78.2 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 57.38 − 5.77 ·10^{-3}·T − 0.54 ·10^6·T^{-2} + 8.77 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

P_2 (g) Phosphorus **P_2 (g)**

ΔH^0_{298} = 144.3 kJ·mol^{-1} [4] S^0_{298} = 218.1 ± 0.4 J·mol^{-1}·K^{-1} [1]

$C_p{}^0$= 36.3 + 0.8 ·10^{-3}·T − 0.41 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2023 K) [4]

P_2U (s) Uranium Phosphide **P_2U (s)**

UP_2 (s) UP_2 (s)

ΔH^0_{298} = – 305 kJ·mol^{-1} [4] S^0_{298} = 101.7 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 70.92 + 30.29 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

P_2Zn (s) Zinc Phosphide **P_2Zn (s)**

ZnP_2 (s) ZnP_2 (s)

ΔH^0_{298} = – 118.5 kJ·mol^{-1} [4] S^0_{298} = 74 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 71.25 + 16.74 ·10^{-3}·T − 0.27 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1103 K) [4]

P_2Zn_3 (s) Zinc Phosphide **P_2Zn_3 (s)**

Zn_3P_2 (s) Zn_3P_2 (s)

ΔH^0_{298} = – 176.1 kJ·mol^{-1} [4] S^0_{298} = 174.4 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 126.2 + 26.07 ·10^{-3}·T − 1.52 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1123 K) [4]

P_4 (g) Phosphorus **P_4 (g)**

$\Delta H^0_{298} = 59.1$ kJ·mol^{-1} [4] $S^0_{298} = 280 \pm 0.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 81.84 + 0.68 \cdot 10^{-3} \cdot T - 1.34 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

P_4S_3 (s) Phosphorus Sulfide **P_4S_3 (s)**

mp = 446 K (173 °C) bp = 680 K (407 °C)
$\Delta H^0_{298} = -224.6$ kJ·mol^{-1} [1] $S^0_{298} = 200.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 146.44$ J·mol^{-1}·K^{-1} (298 K) [4]

P_4S_3 (l) Phosphorus Sulfide **P_4S_3 (l)**

$\Delta H^0_{298} = -220.8$ kJ·mol^{-1} [1] $S^0_{298} = 207.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 184.1$ J·mol^{-1}·K^{-1} (298 K) [1]

P_4S_3 (g) Phosphorus Sulfide **P_4S_3 (g)**

$\Delta H^0_{298} = -149.8$ kJ·mol^{-1} [4] $S^0_{298} = 319.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 154.81$ J·mol^{-1}·K^{-1} (298 K) [4]

P_4S_5 (s) Phosphorus Sulfide **P_4S_5 (s)**

$\Delta H^0_{298} = -304.9$ kJ·mol^{-1} [2] $S^0_{298} = 252.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 211.1$ J·mol^{-1}·K^{-1} (298 K) [2]

P_4S_6 (s) Phosphorus Sulfide **P_4S_6 (s)**

mp = 503 K (230 °C)
$\Delta H^0_{298} = -242.7$ kJ·mol^{-1} [4] $S^0_{298} = 281.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 158.83 + 216.73 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 503 K) [4]

P_4S_6 (s) Phosphorus Sulfide **P_4S_6 (s)**

$\Delta H^0_{503} = -192.3$ kJ·mol^{-1} [4] $S^0_{503} = 409$ J·mol^{-1}·K^{-1} [4]

P_4S_6 (l) Phosphorus Sulfide **P_4S_6 (l)**

$\Delta H^0_{503} = -162.9$ kJ·mol^{-1} [4] $S^0_{503} = 467.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 334.72$ J·mol^{-1}·K^{-1} (503 K) [4]

P_4S_7 (s) Phosphorus Sulfide **P_4S_7 (s)**

mp = 581 K (308 °C)
$\Delta H^0_{298} = -253.6$ kJ·mol^{-1} [4] $S^0_{298} = 307.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 187.44 + 184.1 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 581 K) [4]

P_4S_7 (s) Phosphorus Sulfide **P_4S_7 (s)**

$\Delta H^0_{581} = -177.6$ kJ·mol^{-1} [4] $S^0_{581} = 484.7$ J·mol^{-1}·K^{-1} [4]

P_4S_7 (l) Phosphorus Sulfide **P_4S_7 (l)**

$\Delta H^0_{581} = -141$ kJ·mol^{-1} [4] $S^0_{581} = 547.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 368.19$ J·mol^{-1}·K^{-1} (581 K) [4]

P_4S_{10} (s) Phosphorus(V) Sulfide **P_4S_{10} (s)**

mp = 560 K (287 °C)
$\Delta H^0_{298} = -397.5$ kJ·mol^{-1} [4] $S^0_{298} = 381.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 212.3 + 280.58 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 560 K) [4]
$\lg(p,K) = -7.75 \cdot 10^3 \cdot T^{-1} - 2 \cdot \lg(T) + 16.94$ (400 ... 560 K) [4]
{Reaction: evaporation as P_4O_{10}(g)}

P_4S_{10} (s) Phosphorus(V) Sulfide **P_4S_{10} (s)**

$\Delta H^0_{560} = -310.4$ kJ·mol^{-1} [4] $S^0_{560} = 589$ J·mol^{-1}·K^{-1} [4]

P_4S_{10} (l) Phosphorus(V) Sulfide **P_4S_{10} (l)**

$\Delta H^0_{560} = -269.3$ kJ·mol^{-1} [4] $S^0_{560} = 662.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 418.4$ J·mol^{-1}·K^{-1} (560 K) [4]

P_4Th_3 (s) Thorium Phosphide **P_4Th_3 (s)**

Th_3P_4 (s) Th_3P_4 (s)

$\Delta H^0_{298} = -1142$ kJ·mol^{-1} [2] $S^0_{298} = 222$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 191.21 + 14.81 \cdot 10^{-3} \cdot T - 2.89 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1860 K) [4]

P_4U_3 (s) Uranium Phosphide **P_4U_3 (s)**

U_3P_4 (s) U_3P_4 (s)

$\Delta H^0_{298} = -837$ kJ·mol^{-1} [4] $S^0_{298} = 258.6$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 155.27 + 65.86 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

P_5S_3 (g) Phosphorus Sulfide **P_5S_3 (g)**

$\Delta H^0_{298} = -151$ kJ·mol^{-1} [1] $S^0_{298} = 319.3$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 154.8$ J·mol^{-1}·K^{-1} (298 K) [1]

Pa (s) Protactinium alpha **Pa (s)**

mp = 1845 K (1572 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 51.9$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 27.6$ J·mol^{-1}·K^{-1} (298 K) [2]

Pa (s) Protactinium alpha **Pa (s)**

$\Delta H^0_{1443} = 39.8$ kJ·mol^{-1} [2] $S^0_{1443} = 103.8$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 41.9$ J·mol^{-1}·K^{-1} (1443 K) [2]

Pa (s) Protactinium beta **Pa (s)**

$\Delta H^0_{1443} = 46.4$ kJ·mol^{-1} [2] $S^0_{1443} = 108.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 39.7$ J·mol^{-1}·K^{-1} (1443 K) [2]

Pa (s) | Protactinium beta | **Pa** (s)

$\Delta H^0_{1845} = 62.4$ kJ·mol^{-1} [2]
$S^0_{1845} = 118.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 39.7$ J·mol^{-1}·K^{-1} (1845 K) [2]

Pa (l) | Protactinium | **Pa** (l)

$\Delta H^0_{1845} = 74.7$ kJ·mol^{-1} [2]
$S^0_{1845} = 124.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 47.3$ J·mol^{-1}·K^{-1} (1845 K) [2]

Pa (g) | Protactinium | **Pa** (g)

$\Delta H^0_{298} = 606.7$ kJ·mol^{-1} [2]
$S^0_{298} = 198$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 22.9$ J·mol^{-1}·K^{-1} (298 K) [2]

Pb (s) | Lead | **Pb** (s)

mp = 601 K (328 °C)
bp = 2020 K (1747 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1]
$S^0_{298} = 64.8 \pm 0.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 24.22 + 8.71 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 601 K) [4]

Pb (s) | Lead | **Pb** (s)

$\Delta H^0_{601} = 8.5$ kJ·mol^{-1} [4]
$S^0_{601} = 84.4$ J·mol^{-1}·K^{-1} [4]

Pb (l) | Lead | **Pb** (l)

$\Delta H^0_{601} = 13.3$ kJ·mol^{-1} [4]
$S^0_{601} = 92.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 36.11 - 9.74 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^{6} \cdot T^{-2} + 3.24 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (601 ... 2020 K) [4]
$\lg(p,K) = -10.03 \cdot 10^{3} \cdot T^{-1} - 0.92 \cdot \lg(T) + 8.01$ (700 ... 2020 K) [4]
{Reaction: evaporation as Pb(g)}

Pb (l) | Lead | **Pb** (l)

$\Delta H^0_{298} = 4.3$ kJ·mol^{-1} [1]
$S^0_{298} = 71.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 36.11 - 9.74 \cdot 10^{-3} \cdot T - 0.28 \cdot 10^{6} \cdot T^{-2} + 3.24 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (601 ... 2020 K) [4]

Pb (g) Lead **Pb (g)**

$\Delta H^0_{298} = 195.2 \pm 0.8$ kJ·mol^{-1} [1] $S^0_{298} = 175.4$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 17.97 + 2.8 \cdot 10^{-3} \cdot T + 0.22 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2020 K) [4]

PbS (s) Lead(II) Sulfide **PbS (s)**

mp = 1387 K (1114 °C) bp = 1587 K (1314 °C)
$\Delta H^0_{298} = -98.3 \pm 2.1$ kJ·mol^{-1} [1] $S^0_{298} = 91.3 \pm 1.7$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 46.74 + 9.41 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1387 K) [4]

PbS (s) Lead(II) Sulfide **PbS (s)**

$\Delta H^0_{1387} = -38.8$ kJ·mol^{-1} [4] $S^0_{1387} = 173.4$ J·mol^{-1}·K^{-1} [4]

PbS (l) Lead(II) Sulfide **PbS (l)**

$\Delta H^0_{1387} = -20$ kJ·mol^{-1} [4] $S^0_{1387} = 187$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 66.94$ J·mol^{-1}·K^{-1} (1387 K) [4]

PbS (l) Lead(II) Sulfide **PbS (l)**

$\Delta H^0_{298} = -84.1$ kJ·mol^{-1} [1] $S^0_{298} = 100.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 49.4$ J·mol^{-1}·K^{-1} (298 K) [1]

PbS (g) Lead(II) Sulfide **PbS (g)**

$\Delta H^0_{298} = 131.8 \pm 6.3$ kJ·mol^{-1} [1] $S^0_{298} = 251.4 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 37.32 + 0.38 \cdot 10^{-3} \cdot T - 0.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -12.48 \cdot 10^3 \cdot T^{-1} - 2.4 \cdot \lg(T) + 15.62$ (800 ... 1387 K) [4]
{Reaction: evaporation of PbS(s)}

PbSe (s) Lead(II) Selenide **PbSe (s)**

mp = 1350 K (1077 °C) bp = 1600 K (1327 °C)
$\Delta H^0_{298} = -100$ kJ·mol^{-1} [2] $S^0_{298} = 102.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 47.24 + 10 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1350 K) [4]
$\lg(p,K) = -12.3 \cdot 10^3 \cdot T^{-1} - 2.49 \cdot \lg(T) + 15.97$ (700 ... 1350 K) [4]
{Reaction: evaporation as PbSe(g)}

PbSe (s) Lead(II) Selenide **PbSe (s)**

$\Delta H^0_{1350} = -41.6$ kJ·mol^{-1} [4] $S^0_{1350} = 184.4$ J·mol^{-1}·K^{-1} [4]

PbSe (l) Lead(II) Selenide **PbSe (l)**

$\Delta H^0_{1350} = 7.7$ kJ·mol^{-1} [4] $S^0_{1350} = 220.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 62.76$ J·mol^{-1}·K^{-1} (1350 K) [4]

PbSe (g) Lead(II) Selenide **PbSe (g)**

$\Delta H^0_{298} = 126.4$ kJ·mol^{-1} [2] $S^0_{298} = 263.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 37.41 - 0.11 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

PbTe (s) Lead(II) Telluride **PbTe (s)**

mp = 1197 K (924 °C) bp = 1620 K (1347 °C)
$\Delta H^0_{298} = -68.6$ kJ·mol^{-1} [2] $S^0_{298} = 110$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 47.2 + 11.26 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1197 K) [4]
$\lg(p,K) = -12.12 \cdot 10^3 \cdot T^{-1} - 2.61 \cdot \lg(T) + 16.21$ (700 ... 1197 K) [4]
{Reaction: evaporation as PbTe(g)}

PbTe (s) Lead(II) Telluride **PbTe (s)**

$\Delta H^0_{1197} = -18.6$ kJ·mol^{-1} [4] $S^0_{1197} = 185.8$ J·mol^{-1}·K^{-1} [4]

PbTe (l) Lead(II) Telluride **PbTe (l)**

$\Delta H^0_{1197} = 11.5$ kJ·mol^{-1} [4] $S^0_{1197} = 210.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 62.76$ J·mol^{-1}·K^{-1} (1197 K) [4]

PbTe (g) Lead(II) Telluride **PbTe (g)**

$\Delta H^0_{298} = 155.2$ kJ·mol^{-1} [2] $S^0_{298} = 271.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 37.41 - 0.59 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Pb_2 (g) Lead **Pb_2 (g)**

ΔH^0_{298} = 332.6 ± 19.2 kJ·mol^{-1} [1] S^0_{298} = 281.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 36.9 J·mol^{-1}·K^{-1} (298 K) [1]

Pb_2S_2 (g) Lead(II) Sulfide **Pb_2S_2 (g)**
$(PbS)_2$ (g) $(PbS)_2$ (g)

ΔH^0_{298} = 77.4 kJ·mol^{-1} [4] S^0_{298} = 350.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 83.09 + 0.01 \cdot 10^{-3} \cdot T - 0.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -15.14 \cdot 10^3 \cdot T^{-1} - 3.86 \cdot \lg(T) + 20.61$ (900 ... 1387 K) [4]
{Reaction: evaporation of PbS(s)}

Pb_2Se_2 (g) Lead(II) Selenide **Pb_2Se_2 (g)**
$(PbSe)_2$ (g) $(PbSe)_2$ (g)

ΔH^0_{298} = 66.9 kJ·mol^{-1} [5] S^0_{298} = [367.8] J·mol^{-1}·K^{-1} [5]

Pd (s) Palladium **Pd (s)**

mp = 1825 K (1552 °C) bp = 3234 K (2961 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 37.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 23.71 + 6.18 \cdot 10^{-3} \cdot T + 0.06 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1825 K) [4]
$\lg(p,K) = -19.62 \cdot 10^3 \cdot T^{-1} - 0.62 \cdot \lg(T) + 8.4$ (1300 ... 1825 K) [4]
{Reaction: evaporation as Pd(g)}

Pd (s) Palladium **Pd (s)**

ΔH^0_{1825} = 46.3 kJ·mol^{-1} [2] S^0_{1825} = 90.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 35 J·mol^{-1}·K^{-1} (1825 K) [4]

Pd (l) Palladium **Pd (l)**

ΔH^0_{1825} = 63.9 kJ·mol^{-1} [2] S^0_{1825} = 100.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 34.73 J·mol^{-1}·K^{-1} (1825 K) [4]
$\lg(p,K) = -18.05 \cdot 10^3 \cdot T^{-1} + 0.28 \cdot \lg(T) + 4.6$ (1825 ... 3234 K) [4]
{Reaction: evaporation as Pd(g)}

Pd (g) Palladium **Pd (g)**

ΔH^0_{298} = 376.8 kJ·mol^{-1} [4] S^0_{298} = 167.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 28.33 - 18.02 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2} + 11.23 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1825 K) [4]

PdS (s) Palladium(II) Sulfide **PdS (s)**

ΔH^0_{298} = – 70.7 kJ·mol^{-1} [2] S^0_{298} = 56.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 41.71 + 17.2 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]

PdS_2 (s) Palladium(IV) Sulfide **PdS_2 (s)**

mp = 1245 K (972 °C)
ΔH^0_{298} = – 78.2 kJ·mol^{-1} [2] S^0_{298} = 87.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 68.58 + 15.77 \cdot 10^{-3} \cdot T - 0.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 901 K) [4]

$PdSe_{0.889}$ (s) Palladium Selenide **$PdSe_{0.889}$ (s)**

ΔH^0_{298} = [– 48.1] kJ·mol^{-1} [5] S^0_{298} = [69.9] J·mol^{-1}·K^{-1} [5]

PdSe (s) Palladium(II) Selenide **PdSe (s)**

ΔH^0_{298} = [– 50.2] kJ·mol^{-1} [5] S^0_{298} = [73.2] J·mol^{-1}·K^{-1} [5]

$PdSe_2$ (s) Palladium(IV) Selenide **$PdSe_2$ (s)**

ΔH^0_{298} = [– 58.6] kJ·mol^{-1} [5] S^0_{298} = [123.4] J·mol^{-1}·K^{-1} [5]

PdSi (s) Palladium Silicide **PdSi (s)**

ΔH^0_{298} = – 52.4 kJ·mol^{-1} [181] S^0_{298} = 46.4 J·mol^{-1}·K^{-1} [181]

PdTe (s) Palladium(II) Telluride **PdTe (s)**

mp = 993 K (720 °C)
ΔH^0_{298} = – 37.7 kJ·mol^{-1} [2] S^0_{298} = 89.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 47.45 + 12.93 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 993 K) [4]

$PdTe_2$ (s) Palladium(IV) Telluride **$PdTe_2$ (s)**

mp = 1013 K (740 °C)
$\Delta H^0_{298} = -63.5$ kJ·mol^{-1} [4] $S^0_{298} = 126.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 70.63 + 20.08 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1013 K) [4]

Pd_2Si (s) Palladium Silicide **Pd_2Si (s)**

$\Delta H^0_{298} = -129$ kJ·mol^{-1} [181] $S^0_{298} = 46.2$ J·mol^{-1}·K^{-1} [181]

Pd_3Si (s) Palladium Silicide **Pd_3Si (s)**

$\Delta H^0_{298} = -154$ kJ·mol^{-1} [181] $S^0_{298} = 70$ J·mol^{-1}·K^{-1} [181]

Pd_4S (s) Palladium Sulfide **Pd_4S (s)**

mp = 1034 K (761 °C)
$\Delta H^0_{298} = -69$ kJ·mol^{-1} [2] $S^0_{298} = 180.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 100.42 + 48.79 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1034 K) [4]

Pd_4Se (s) Palladium Selenide **Pd_4Se (s)**

$\Delta H^0_{298} = [-58.6]$ kJ·mol^{-1} [5] $S^0_{298} = 200.1$ J·mol^{-1}·K^{-1} [5]
$C_p^0 = 137.02$ J·mol^{-1}·K^{-1} (298 K) [5]

Pd_5Si (s) Palladium Silicide **Pd_5Si (s)**

$\Delta H^0_{298} = -175.2$ kJ·mol^{-1} [181] $S^0_{298} = 129$ J·mol^{-1}·K^{-1} [181]

PmS (s) Promethium Sulfide **PmS (s)**

$\Delta H^0_{298} = [-451.9]$ kJ·mol^{-1} [5] $S^0_{298} = [77.4]$ J·mol^{-1}·K^{-1} [5]

PmSe (s) Promethium(II) Selenide **PmSe (s)**

$\Delta H^0_{298} = [-359.8]$ kJ·mol^{-1} [5] $S^0_{298} = [90]$ J·mol^{-1}·K^{-1} [5]

PmTe (s) Promethium(II) Telluride **PmTe** (s)

ΔH^0_{298} = [– 301.2] kJ·mol^{-1} [5] S^0_{298} = [97.1] J·mol^{-1}·K^{-1} [5]

Pm_2S_3 (s) Promethium(III) Sulfide **Pm_2S_3** (s)

ΔH^0_{298} = [– 1150.6] kJ·mol^{-1} [5] S^0_{298} = [184.1] J·mol^{-1}·K^{-1} [5]

Pm_2Se_3 (s) Promethium(III) Selenide **Pm_2Se_3** (s)

ΔH^0_{298} = [– 962.3] kJ·mol^{-1} [5] S^0_{298} = [221.8] J·mol^{-1}·K^{-1} [5]

Pm_2Te_3 (s) Promethium(III) Telluride **Pm_2Te_3** (s)

ΔH^0_{298} = [– 795] kJ·mol^{-1} [5] S^0_{298} = [242.7] J·mol^{-1}·K^{-1} [5]

Pr (s) Praseodymium alpha **Pr** (s)

mp = 1204 K (931 °C) bp = 3779 K (3506 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 73.9 J·mol^{-1}·K^{-1} [2]
$C_p^0 = 15.15 + 24.56 \cdot 10^{-3} \cdot T + 0.56 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1068 K) [4]

Pr (s) Praseodymium alpha **Pr** (s)

ΔH^0_{1068} = 25.9 kJ·mol^{-1} [2] S^0_{1068} = 115.1 J·mol^{-1}·K^{-1} [4]
C_p^0 = 41.86 J·mol^{-1}·K^{-1} (1068 K) [4]

Pr (s) Praseodymium beta **Pr** (s)

ΔH^0_{1068} = 29 kJ·mol^{-1} [2] S^0_{1068} = 118 J·mol^{-1}·K^{-1} [4]
C_p^0 = 38.45 J·mol^{-1}·K^{-1} (1068 K) [4]

Pr (s) | Praseodymium beta | **Pr** (s)

ΔH^0_{1204} = 34.3 kJ·mol^{-1} [2] S^0_{1204} = 122.6 J·mol^{-1}·K^{-1} [4]
C_p^0= 38.45 J·mol^{-1}·K^{-1} (1204 K) [4]

Pr (l) | Praseodymium | **Pr** (l)

ΔH^0_{1204} = 41.2 kJ·mol^{-1} [2] S^0_{1204} = 128.3 J·mol^{-1}·K^{-1} [4]
C_p^0= 42.97 J·mol^{-1}·K^{-1} (1204 K) [4]
$\lg(p,K) = -18.61 \cdot 10^3 \cdot T^{-1} - 1.82 \cdot \lg(T) + 11.44$ (1300 ... 2000 K) [4]
{Reaction: evaporation as Pr(g)}

Pr (g) | Praseodymium | **Pr** (g)

ΔH^0_{298} = 355.6 kJ·mol^{-1} [2] S^0_{298} = 189.8 J·mol^{-1}·K^{-1} [2]
$C_p^0 = 19.65 + 12.48 \cdot 10^{-3} \cdot T - 0.17 \cdot 10^6 \cdot T^{-2} - 4.33 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

PrS (s) | Praseodymium(II) Sulfide | **PrS** (s)

mp = 2500 K (2227 °C)
ΔH^0_{298} = – 451.9 kJ·mol^{-1} [2] S^0_{298} = 77.8 J·mol^{-1}·K^{-1} [2]
$C_p^0 = 51.97 + 4.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

PrS (g) | Praseodymium(II) Sulfide | **PrS** (g)

ΔH^0_{298} = 143.5 kJ·mol^{-1} [4] S^0_{298} = 262.4 J·mol^{-1}·K^{-1} [4]
$C_p^0 = 37.13 + 0.15 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

PrSe (s) | Praseodymium(II) Selenide | **PrSe** (s)

mp = 2370 K (2097 °C)
ΔH^0_{298} = [– 359.8] kJ·mol^{-1} [5] S^0_{298} = [90.3] J·mol^{-1}·K^{-1} [5]

PrSe (g) | Praseodymium(II) Selenide | **PrSe** (g)

ΔH^0_{298} = [194.1] kJ·mol^{-1} [5] S^0_{298} = [272.9] J·mol^{-1}·K^{-1} [5]

PrTe (s) Praseodymium(II) Telluride **PrTe (s)**

mp = 2200 K (1927 °C)
ΔH^0_{298} = [– 301.2] kJ·mol^{-1} [5] S^0_{298} = [97.5] J·mol^{-1}·K^{-1} [5]

PrTe (g) Praseodymium(II) Telluride **PrTe (g)**

ΔH^0_{298} = [258.2] kJ·mol^{-1} [5] S^0_{298} = [281.6] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.38] + [0.02] ·10^{-3}·T + [– 0.10] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

Pr_2S_3 (s) Praseodymium(III) Sulfide **Pr_2S_3 (s)**

ΔH^0_{298} = [– 1150.6] kJ·mol^{-1} [5] S^0_{298} = [198.7] J·mol^{-1}·K^{-1} [5]

Pr_2Se_3 (s) Praseodymium(III) Selenide **Pr_2Se_3 (s)**

ΔH^0_{298} = [– 941.4] kJ·mol^{-1} [5] S^0_{298} = [238.5] J·mol^{-1}·K^{-1} [5]

Pr_2Te_3 (s) Praseodymium(III) Telluride **Pr_2Te_3 (s)**

ΔH^0_{298} = [– 795] kJ·mol^{-1} [5] S^0_{298} = [263.6] J·mol^{-1}·K^{-1} [5]

Pr_3S_4 (s) Praseodymium Sulfide **Pr_3S_4 (s)**

ΔH^0_{298} = – 1554.4 kJ·mol^{-1} [2] S^0_{298} = 256.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 174.47 + 15.73 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Pt (s) Platinum **Pt (s)**

mp = 2042 K (1769 °C) bp = 4096 K (3823 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 41.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 24.39 + 5.26 ·10^{-3}·T – 0.01 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2042 K) [4]
lg(p,K) = – 30.21 ·10^3·T^{-1} – 1.51 · lg(T) + 13.07 (1800 ... 2042 K) [4]
{Reaction: evaporation as Pt(g)}

Pt (s) Platinum **Pt (s)**

$\Delta H^0_{2042} = 53.2$ kJ·mol^{-1} [4] $S^0_{2042} = 97.7$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 35.13$ J·mol^{-1}·K^{-1} (2042 K) [4]

Pt (l) Platinum **Pt (l)**

$\Delta H^0_{2042} = 72.9$ kJ·mol^{-1} [4] $S^0_{2042} = 107.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 34.73$ J·mol^{-1}·K^{-1} (2042 K) [4]
$\lg(p,K) = -28.16 \cdot 10^3 \cdot T^{-1} - 0.6 \cdot \lg(T) + 9.06$ (2042 ... 4089 K) [4]
{Reaction: evaporation as Pt(g)}

Pt (g) Platinum **Pt (g)**

$\Delta H^0_{298} = 564.8$ kJ·mol^{-1} [2] $S^0_{298} = 192.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 25.5$ J·mol^{-1}·K^{-1} (298 K) [2]

PtS (s) Platinum(II) Sulfide **PtS (s)**

$\Delta H^0_{298} = -81.7$ kJ·mol^{-1} [4] $S^0_{298} = 55.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 41.71 + 17.2 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1518 K) [4]

PtS_2 (s) Platinum(IV) Sulfide **PtS_2 (s)**

$\Delta H^0_{298} = -109.2$ kJ·mol^{-1} [4] $S^0_{298} = 74.7$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 68.58 + 15.77 \cdot 10^{-3} \cdot T - 0.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1005 K) [4]

$PtSe_2$ (s) Platinum(IV) Selenide **$PtSe_2$ (s)**

$\Delta H^0_{298} = [-79.5]$ kJ·mol^{-1} [5] $S^0_{298} = [102.5]$ J·mol^{-1}·K^{-1} [5]

PtTe (s) Platinum(II) Telluride **PtTe (s)**

$\Delta H^0_{298} = [-41.8]$ kJ·mol^{-1} [5] $S^0_{298} = 81.2$ J·mol^{-1}·K^{-1} [5]
$C_p^0 = 49.91$ J·mol^{-1}·K^{-1} (298 K) [5]

$PtTe_2$ (s) Platinum(IV) Telluride **$PtTe_2$ (s)**

ΔH^0_{298} = [– 58.6] kJ·mol^{-1} [5] S^0_{298} = 121 J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= 75.44 J·mol^{-1}·K^{-1} (298 K) [5]

Pt_5Se_4 (s) Platinum Selenide **Pt_5Se_4 (s)**

ΔH^0_{298} = – 241.7 kJ·mol^{-1} [4] S^0_{298} = 336.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 188.28 + 78.45 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1481 K) [4]

Pu (s) Plutonium alpha **Pu (s)**

mp = 913 K (640 °C) bp = 3500 K (3227 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 51.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 24.94 + 24.19 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 395 K) [4]

Pu (s) Plutonium alpha **Pu (s)**

ΔH^0_{395} = 3.2 kJ·mol^{-1} [2] S^0_{395} = 60.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 34.5 J·mol^{-1}·K^{-1} (395 K) [4]

Pu (s) Plutonium beta **Pu (s)**

ΔH^0_{395} = 6.6 kJ·mol^{-1} [2] S^0_{395} = 69.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 21.75 + 29.66 ·10^{-3}·T J·mol^{-1}·K^{-1} (395 ... 480 K) [4]

Pu (s) Plutonium beta **Pu (s)**

ΔH^0_{480} = 9.5 kJ·mol^{-1} [2] S^0_{480} = 76 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 35.98 J·mol^{-1}·K^{-1} (480 K) [4]

Pu (s) Plutonium gamma **Pu** (s)

ΔH^0_{480} = 10.1 kJ·mol^{-1} [2] S^0_{480} = 77.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 12.48 + 46.38 ·10^{-3}·T J·mol^{-1}·K^{-1} (480 ... 588 K) [4]

Pu (s) Plutonium gamma **Pu** (s)

ΔH^0_{588} = 14.1 kJ·mol^{-1} [2] S^0_{588} = 84.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 39.75 J·mol^{-1}·K^{-1} (588 K) [4]

Pu (s) Plutonium delta **Pu** (s)

ΔH^0_{588} = 14.7 kJ·mol^{-1} [2] S^0_{588} = 85.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 37.66 J·mol^{-1}·K^{-1} (588 K) [4]

Pu (s) Plutonium delta **Pu** (s)

ΔH^0_{753} = 20.9 kJ·mol^{-1} [4] S^0_{753} = 95.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 37.66 J·mol^{-1}·K^{-1} (753 K) [4]

Pu (s) Plutonium epsilon **Pu** (s)

ΔH^0_{753} = 22.8 kJ·mol^{-1} [2] S^0_{753} = 97.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 35.15 J·mol^{-1}·K^{-1} (753 K) [4]

Pu (s) Plutonium epsilon **Pu** (s)

ΔH^0_{913} = 28.4 kJ·mol^{-1} [2] S^0_{913} = 104.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 35.15 J·mol^{-1}·K^{-1} (913 K) [4]

Pu (l) Plutonium **Pu** (l)

$\Delta H^0_{913} = 31.3$ kJ·mol^{-1} [2] $S^0_{913} = 107.5$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 41.84$ J·mol^{-1}·K^{-1} (913 K) [4]

Pu (g) Plutonium **Pu** (g)

$\Delta H^0_{298} = 351.9$ kJ·mol^{-1} [2] $S^0_{298} = 177.2$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 4.1 + 35.14 \cdot 10^{-3} \cdot T + 0.62 \cdot 10^{6} \cdot T^{-2} - 6.77 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3500 K) [4]

PuS (s) Plutonium(II) Sulfide **PuS** (s)

mp = 2623 K (2350 °C)
$\Delta H^0_{298} = -436.4$ kJ·mol^{-1} [4] $S^0_{298} = 78.2$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 53.14 + 6.69 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Pu_2S_3 (s) Plutonium(III) Sulfide **Pu_2S_3** (s)

mp = 2000 K (1727 °C)
$\Delta H^0_{298} = -983.2$ kJ·mol^{-1} [4] $S^0_{298} = 192.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 127.61 + 16.74 \cdot 10^{-3} \cdot T - 3.77 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Rb (s) Rubidium **Rb** (s)

mp = 313 K (40 °C) bp = 970 K (697 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 76.8 \pm 0.3$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 3.52 + 92.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 313 K) [4]

Rb (s) Rubidium **Rb** (s)

$\Delta H^0_{313} = 0.5$ kJ·mol^{-1} [4] $S^0_{313} = 78.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 32.44$ J·mol^{-1}·K^{-1} (313 K) [4]

Rb (l) Rubidium **Rb** (l)

$\Delta H^0_{313} = 2.7$ kJ·mol^{-1} [4] $S^0_{313} = 85.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 35.49 - 12.87 \cdot 10^{-3} \cdot T + 8.54 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (313 ... 970 K) [4]
$\lg(p,K) = -4.28 \cdot 10^{3} \cdot T^{-1} - 1.31 \cdot \lg(T) + 8.33$ (313 ... 970 K) [4]
{Reaction: evaporation as Rb(g)}

Pu (l) Plutonium **Pu** (l)

ΔH^0_{913} = 31.3 kJ·mol^{-1} [2] S^0_{913} = 107.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 41.84 J·mol^{-1}·K^{-1} (913 K) [4]

Pu (g) Plutonium **Pu** (g)

ΔH^0_{298} = 351.9 kJ·mol^{-1} [2] S^0_{298} = 177.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 4.1 + 35.14 \cdot 10^{-3} \cdot T + 0.62 \cdot 10^6 \cdot T^{-2} - 6.77 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3500 K) [4]

PuS (s) Plutonium(II) Sulfide **PuS** (s)

mp = 2623 K (2350 °C)
ΔH^0_{298} = – 436.4 kJ·mol^{-1} [4] S^0_{298} = 78.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 53.14 + 6.69 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Pu_2S_3 (s) Plutonium(III) Sulfide **Pu_2S_3** (s)

mp = 2000 K (1727 °C)
ΔH^0_{298} = – 983.2 kJ·mol^{-1} [4] S^0_{298} = 192.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 127.61 + 16.74 \cdot 10^{-3} \cdot T - 3.77 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Rb (s) Rubidium **Rb** (s)

mp = 313 K (40 °C) bp = 970 K (697 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 76.8 ± 0.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 3.52 + 92.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 313 K) [4]

Rb (s) Rubidium **Rb** (s)

ΔH^0_{313} = 0.5 kJ·mol^{-1} [4] S^0_{313} = 78.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 32.44 J·mol^{-1}·K^{-1} (313 K) [4]

Rb (l) Rubidium **Rb** (l)

ΔH^0_{313} = 2.7 kJ·mol^{-1} [4] S^0_{313} = 85.3 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 35.49 - 12.87 \cdot 10^{-3} \cdot T + 8.54 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (313 ... 970 K) [4]
$\lg(p,K) = -4.28 \cdot 10^3 \cdot T^{-1} - 1.31 \cdot \lg(T) + 8.33$ (313 ... 970 K) [4]
{Reaction: evaporation as Rb(g)}

Rb (l) Rubidium **Rb (l)**

ΔH^0_{970} = 23.1 kJ·mol^{-1} [4]
S^0_{970} = 120.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 31.05 J·mol^{-1}·K^{-1} (970 K) [4]

Rb (g) Rubidium **Rb (g)**

ΔH^0_{970} = 98.8 kJ·mol^{-1} [4]
S^0_{970} = 194.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 20.82 J·mol^{-1}·K^{-1} (970 K) [4]

Rb (l) Rubidium **Rb (l)**

ΔH^0_{298} = 2.2 kJ·mol^{-1} [1]
S^0_{298} = 83.8 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 32.4 J·mol^{-1}·K^{-1} (298 K) [1]

Rb (g) Rubidium **Rb (g)**

ΔH^0_{298} = 80.9 ± 0.4 kJ·mol^{-1} [1]
S^0_{298} = 170.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 20.79 J·mol^{-1}·K^{-1} (298 K) [4]

Rb_2 (g) Rubidium **Rb_2 (g)**

ΔH^0_{298} = 113.3 kJ·mol^{-1} [1]
S^0_{298} = 271.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 38.1 J·mol^{-1}·K^{-1} (298 K) [1]

Rb_2S (s) Rubidium Sulfide **Rb_2S (s)**

ΔH^0_{298} = – 361.1 kJ·mol^{-1} [4]
S^0_{298} = 133.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 77.4 + 20.92 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 700 K) [4]

Rb_3P_7 (s) Rubidium Phosphide **Rb_3P_7 (s)**

ΔH^0_{298} = – 118 ± 8 kJ·mol^{-1} [10]
S^0_{298} = 689 J·mol^{-1}·K^{-1} [10]

Re (s) | Rhenium | **Re** (s)

mp = 3453 K (3180 °C) | bp = 5864 K (5591 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [2] | S^0_{298} = 36.5 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 23.75 + 5.41 \cdot 10^{-3} \cdot T - 0.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Re (s) | Rhenium | **Re** (s)

ΔH^0_{3453} = 107 kJ·mol^{-1} [2] | S^0_{3453} = 111.7 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 42.5 J·mol^{-1}·K^{-1} (3453 K) [2]

Re (l) | Rhenium | **Re** (l)

ΔH^0_{3453} = 140.2 kJ·mol^{-1} [2] | S^0_{3453} = 121.4 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 41.8 J·mol^{-1}·K^{-1} (3453 ... 5800 K) [2]

Re (g) | Rhenium | **Re** (g)

ΔH^0_{298} = 774.9 kJ·mol^{-1} [2] | S^0_{298} = 188.9 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 20.8 J·mol^{-1}·K^{-1} (298 K) [2]

ReS_2 (s) | Rhenium(IV) Sulfide | **ReS_2** (s)

ΔH^0_{298} = – 191.4 kJ·mol^{-1} [4] | S^0_{298} = 57.7 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 68.58 + 15.77 \cdot 10^{-3} \cdot T - 0.66 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1637 K) [4]

ReS_3 (s) | Rhenium(VI) Sulfide | **ReS_3** (s)

ΔH^0_{298} = [– 208.4] kJ·mol^{-1} [5] | S^0_{298} = [75.3] J·mol^{-1}·K^{-1} [5]

$ReSe_2$ (s) | Rhenium(IV) Selenide | **$ReSe_2$** (s)

ΔH^0_{298} = [– 142.3] kJ·mol^{-1} [5] | S^0_{298} = [85.8] J·mol^{-1}·K^{-1} [5]

ReSi (s) Rhenium Silicide **ReSi (s)**

mp = 2153 K (1880 °C)
$\Delta H^0_{298} = -52.7$ kJ·mol^{-1} [4] $S^0_{298} = 55.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 52.59 + 9.62 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$ReSi_2$ (s) Rhenium Silicide **$ReSi_2$ (s)**

mp = 2253 K (1980 °C)
$\Delta H^0_{298} = -90.4$ kJ·mol^{-1} [2] $S^0_{298} = 74.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 67.78 + 11.05 \cdot 10^{-3} \cdot T - 0.61 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$ReTe_2$ (s) Rhenium(IV) Telluride **$ReTe_2$ (s)**

mp = 1208 K (935 °C)
$\Delta H^0_{298} = [-100.4]$ kJ·mol^{-1} [5] $S^0_{298} = [100.4]$ J·mol^{-1}·K^{-1} [5]

Re_2S_7 (s) Rhenium(VII) Sulfide **Re_2S_7 (s)**

$\Delta H^0_{298} = -451.6$ kJ·mol^{-1} [4] $S^0_{298} = 167.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 184.1 + 50.21 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 918 K) [4]

Re_2Se_7 (s) Rhenium(VII) Selenide **Re_2Se_7 (s)**

$\Delta H^0_{298} = [-359.8]$ kJ·mol^{-1} [5] $S^0_{298} = [255.2]$ J·mol^{-1}·K^{-1} [5]

Re_2Te_5 (s) Rhenium Telluride **Re_2Te_5 (s)**

$\Delta H^0_{298} = -94.1$ kJ·mol^{-1} [2] $S^0_{298} = 251.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 175.6$ J·mol^{-1}·K^{-1} (298 K) [2]

Re_2Th (s) Thorium Rhenium **Re_2Th (s)**
$ThRe_2$ (s) $ThRe_2$ (s)

$\Delta H^0_{298} = -174.1$ kJ·mol^{-1} [2] $S^0_{298} = 123.6$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 78$ J·mol^{-1}·K^{-1} (298 K) [2]

Re_2Y (s) Yttrium Rhenium **Re_2Y (s)**

$\Delta H^0_{298} = -135.8$ kJ·mol^{-1} [2] $S^0_{298} = 110$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 76.2$ J·mol^{-1}·K^{-1} (298 K) [2]

Re_5Si_3 (s) Rhenium Silicide **Re_5Si_3 (s)**

mp = 2233 K (1960 °C)
$\Delta H^0_{298} = -157.3$ kJ·mol^{-1} [4] $S^0_{298} = 255.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 190.79 + 45.19 \cdot 10^{-3} \cdot T - 1.41 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1500 K) [4]

Rh (s) Rhodium **Rh (s)**

mp = 2233 K (1960 °C) bp = 3966 K (3693 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 31.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 25.38 + 6.65 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2233 K) [4]
$\lg(p,K) = -29.45 \cdot 10^3 \cdot T^{-1} - 1.34 \cdot \lg(T) + 12.49$ (1800 ... 2233 K) [4]
{Reaction: evaporation as Rh(g)}

Rh (s) Rhodium **Rh (s)**

$\Delta H^0_{2233} = 64.9$ kJ·mol^{-1} [2] $S^0_{2233} = 94.1$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 40.19$ J·mol^{-1}·K^{-1} (2233 K) [4]

Rh (l) Rhodium **Rh (l)**

$\Delta H^0_{2233} = 86.4$ kJ·mol^{-1} [2] $S^0_{2233} = 103.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 41.84$ J·mol^{-1}·K^{-1} (2233 K) [4]
$\lg(p,K) = -28.66 \cdot 10^3 \cdot T^{-1} - 1.68 \cdot \lg(T) + 13.27$ (2233 ... 3966 K) [4]
{Reaction: evaporation as Rh(g)}

Rh (g) Rhodium **Rh (g)**

$\Delta H^0_{298} = 553.1$ kJ·mol^{-1} [2] $S^0_{298} = 185.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 21$ J·mol^{-1}·K^{-1} (298 K) [2]

$RhS_{0.889}$ (s) Rhodium Sulfide **$RhS_{0.889}$ (s)**

mp = 1400 K (1127 °C)
$\Delta H^0_{298} = -83.7$ kJ·mol^{-1} [5] $S^0_{298} = [55.2]$ J·mol^{-1}·K^{-1} [5]

$RhS_{1.875}$ (s) Rhodium Sulfide **$RhS_{1.875}$ (s)**

$\Delta H^0_{298} = [-146.4]$ kJ·mol^{-1} [5] $S^0_{298} = [62.8]$ J·mol^{-1}·K^{-1} [5]

$RhS_{2.3}$ (s) Rhodium Sulfide **$RhS_{2.3}$ (s)**

$\Delta H^0_{298} = -166.1$ kJ·mol^{-1} [5] $S^0_{298} = 74.5$ J·mol^{-1}·K^{-1} [5]

$RhSe_2$ (s) Rhodium(IV) Selenide **$RhSe_2$ (s)**

$\Delta H^0_{298} = [-108.8]$ kJ·mol^{-1} [5] $S^0_{298} = [98.3]$ J·mol^{-1}·K^{-1} [5]

RhTe (s) Rhodium(II) Telluride **RhTe (s)**

$\Delta H^0_{298} = [-46]$ kJ·mol^{-1} [5] $S^0_{298} = [83.7]$ J·mol^{-1}·K^{-1} [5]

$RhTe_2$ (s) Rhodium(IV) Telluride **$RhTe_2$ (s)**

$\Delta H^0_{298} = [-79.5]$ kJ·mol^{-1} [5] $S^0_{298} = [123.4]$ J·mol^{-1}·K^{-1} [5]

Rh_2S_3 (s) Rhodium(III) Sulfide **Rh_2S_3 (s)**

$\Delta H^0_{298} = -262.5$ kJ·mol^{-1} [4] $S^0_{298} = 125.5$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 110.25 + 32.97 \cdot 10^{-3} \cdot T - 0.96 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1407 K) [4]

Rh_3S_4 (s) Rhodium Sulfide **Rh_3S_4 (s)**

$\Delta H^0_{298} = -357.7$ kJ·mol^{-1} [4] $S^0_{298} = 182$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 145.6 + 60.25 \cdot 10^{-3} \cdot T - 1.07 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1456 K) [4]

Rh_3U (s) Uranium Rhodium **Rh_3U (s)**

mp = 1973 K (1700 °C)
ΔH^0_{298} = – 259.4 kJ·mol^{-1} [2] S^0_{298} = 148.1 J·mol^{-1}·K^{-1} [2]
C_p^0= 102.6 J·mol^{-1}·K^{-1} (298 K) [2]

Rn (g) Radon **Rn (g)**

mp = 202 K (-71 °C) bp = 211 K (-62 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 176.2 J·mol^{-1}·K^{-1} [1]
C_p^0= 20.8 J·mol^{-1}·K^{-1} (298 K) [1]

Ru (s) Ruthenium **Ru (s)**

mp = 2523 K (2250 °C) bp = 4424 K (4151 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 28.5 J·mol^{-1}·K^{-1} [2]
$C_p^0 = 22.23 + 4.13 \cdot 10^{-3} \cdot T + 0.04 \cdot 10^{6} \cdot T^{-2} + 1.61 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2523 K) [4]
$\lg(p,K) = -34.95 \cdot 10^3 \cdot T^{-1} - 1.41 \cdot \lg(T) + 13.26$ (2000 ... 2523 K) [4]
{Reaction: evaporation as Ru(g)}

Ru (s) Ruthenium **Ru (s)**

ΔH^0_{2523} = 71.2 kJ·mol^{-1} [2] S^0_{2523} = 90.5 J·mol^{-1}·K^{-1} [2]
C_p^0= 42.89 J·mol^{-1}·K^{-1} (2523 K) [4]

Ru (l) Ruthenium **Ru (l)**

ΔH^0_{2523} = 95.5 kJ·mol^{-1} [2] S^0_{2523} = 100.1 J·mol^{-1}·K^{-1} [2]
C_p^0= 41.84 J·mol^{-1}·K^{-1} (2523 K) [4]
$\lg(p,K) = -33.61 \cdot 10^3 \cdot T^{-1} - 1.38 \cdot \lg(T) + 12.63$ (2523 ... 4424 K) [4]
{Reaction: evaporation as Ru(g)}

Ru (g) Ruthenium **Ru (g)**

ΔH^0_{298} = 651.4 kJ·mol^{-1} [2] S^0_{298} = 186.5 J·mol^{-1}·K^{-1} [2]
C_p^0= 21.52 J·mol^{-1}·K^{-1} (298 K) [2]

RuS_2 (s) Ruthenium(IV) Sulfide **RuS_2 (s)**

$\Delta H^0_{298} = -218$ kJ·mol^{-1} [4] $S^0_{298} = 46.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 68.53 + 11.84 \cdot 10^{-3} \cdot T - 0.88 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1731 K) [4]

$RuSe_2$ (s) Ruthenium(IV) Selenide **$RuSe_2$ (s)**

$\Delta H^0_{298} = -170.5$ kJ·mol^{-1} [4] $S^0_{298} = 74.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 73.64 + 11.09 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1634 K) [4]

$RuTe_2$ (s) Ruthenium(IV) Telluride **$RuTe_2$ (s)**

$\Delta H^0_{298} = [-108.8]$ kJ·mol^{-1} [5] $S^0_{298} = [100.4]$ J·mol^{-1}·K^{-1} [5]

Ru_3U (s) Uranium Ruthenium **Ru_3U (s)**

$\Delta H^0_{298} = -217.6$ kJ·mol^{-1} [2] $S^0_{298} = 108.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 99.8$ J·mol^{-1}·K^{-1} (298 K) [2]

S (s) Sulfur rhombic **S (s)**

mp = 388 K (115 °C) bp = 717 K (444 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 32.1 \pm 0.1$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 14.8 + 24.08 \cdot 10^{-3} \cdot T + 0.07 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 368 K) [4]

S (s) Sulfur rhombic **S (s)**

$\Delta H^0_{368} = 1.6$ kJ·mol^{-1} [4] $S^0_{368} = 37$ J·mol^{-1}·K^{-1} [4]

S (s) Sulfur monoclinic **S (s)**

$\Delta H^0_{368} = 2$ kJ·mol^{-1} [4] $S^0_{368} = 38.1$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 17.55 + 19.61 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (368 ... 388 K) [4]

RuS_2 (s) Ruthenium(IV) Sulfide **RuS_2 (s)**

$\Delta H^0_{298} = -218$ kJ·mol^{-1} [4] $S^0_{298} = 46.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 68.53 + 11.84 \cdot 10^{-3} \cdot T - 0.88 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1731 K) [4]

$RuSe_2$ (s) Ruthenium(IV) Selenide **$RuSe_2$ (s)**

$\Delta H^0_{298} = -170.5$ kJ·mol^{-1} [4] $S^0_{298} = 74.3$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 73.64 + 11.09 \cdot 10^{-3} \cdot T - 0.42 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1634 K) [4]

$RuTe_2$ (s) Ruthenium(IV) Telluride **$RuTe_2$ (s)**

$\Delta H^0_{298} = [-108.8]$ kJ·mol^{-1} [5] $S^0_{298} = [100.4]$ J·mol^{-1}·K^{-1} [5]

Ru_3U (s) Uranium Ruthenium **Ru_3U (s)**

$\Delta H^0_{298} = -217.6$ kJ·mol^{-1} [2] $S^0_{298} = 108.4$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 99.8$ J·mol^{-1}·K^{-1} (298 K) [2]

S (s) Sulfur rhombic **S (s)**

mp = 388 K (115 °C) bp = 717 K (444 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 32.1 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p^0 = 14.8 + 24.08 \cdot 10^{-3} \cdot T + 0.07 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 368 K) [4]

S (s) Sulfur rhombic **S (s)**

$\Delta H^0_{368} = 1.6$ kJ·mol^{-1} [4] $S^0_{368} = 37$ J·mol^{-1}·K^{-1} [4]

S (s) Sulfur monoclinic **S (s)**

$\Delta H^0_{368} = 2$ kJ·mol^{-1} [4] $S^0_{368} = 38.1$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 17.55 + 19.61 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (368 ... 388 K) [4]

S (s) | Sulfur monoclinic | **S** (s)

$\Delta H^0_{388} = 2.5$ kJ·mol^{-1} [4] | $S^0_{388} = 39.4$ J·mol^{-1}·K^{-1} [4]

S (l) | Sulfur | **S** (l)

$\Delta H^0_{388} = 4.3$ kJ·mol^{-1} [4] | $S^0_{388} = 43.8$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 45.03 - 16.64 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (388 ... 717 K) [4]

S (l) | Sulfur | **S** (l)

$\Delta H^0_{298} = 1.9$ kJ·mol^{-1} [1] | $S^0_{298} = 36.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 45.03 - 16.64 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (388 ... 717 K) [4]

S (g) | Sulfur | **S** (g)

$\Delta H^0_{298} = 277 \pm 0.3$ kJ·mol^{-1} [1] | $S^0_{298} = 167.8$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 24.23 - 4.11 \cdot 10^{-3} \cdot T + 0.06 \cdot 10^{6} \cdot T^{-2} + 1.34 \cdot 10^{-6} \cdot T^{2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SSb (g) | Antimony(II) Sulfide | **SSb** (g)

SbS (g) | SbS (g)

$\Delta H^0_{298} = -185.8$ kJ·mol^{-1} [2] | $S^0_{298} = 249.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 34.7$ J·mol^{-1}·K^{-1} (298 K) [2]

SSc (s) | Scandium(II) Sulfide | **SSc** (s)

ScS (s) | ScS (s)

$\Delta H^0_{298} = [-451.9]$ kJ·mol^{-1} [5] | $S^0_{298} = [56.5]$ J·mol^{-1}·K^{-1} [5]

SSc (g) | Scandium(II) Sulfide | **SSc** (g)

ScS (g) | ScS (g)

$\Delta H^0_{298} = 181.2$ kJ·mol^{-1} [4] | $S^0_{298} = 236.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 36.93 + 0.25 \cdot 10^{-3} \cdot T - 0.31 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SSe (g) Selenium Sulfide **SSe** (g)

ΔH^0_{298} = [142.3] kJ·mol^{-1} [5] S^0_{298} = [241.4] J·mol^{-1}·K^{-1} [5]

SSi (s) Silicon(II) Sulfide **SSi** (s)
SiS (s) SiS (s)

ΔH^0_{298} = – 160.7 kJ·mol^{-1} [5] S^0_{298} = [48.1] J·mol^{-1}·K^{-1} [5]

SSi (g) Silicon(II) Sulfide **SSi** (g)
SiS (g) SiS (g)

ΔH^0_{298} = 116.7 kJ·mol^{-1} [4] S^0_{298} = 223.8 ± 2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 35.9 + 0.92 \cdot 10^{-3} \cdot T - 0.35 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SSm (s) Samarium(II) Sulfide **SSm** (s)
SmS (s) SmS (s)

mp = 2213 K (1940 °C)
ΔH^0_{298} = – 430.9 kJ·mol^{-1} [4] S^0_{298} = 81.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 59.33 + 3.18 \cdot 10^{-3} \cdot T - 0.19 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SSm (g) Samarium(II) Sulfide **SSm** (g)
SmS (g) SmS (g)

ΔH^0_{298} = 92.5 kJ·mol^{-1} [4] S^0_{298} = 267.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.13 + 0.15 \cdot 10^{-3} \cdot T - 0.26 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SSn (s) Tin(II) Sulfide **SSn** (s)
SnS (s) alpha SnS (s)

mp = 1153 K (880 °C) bp = 1477 K (1204 °C)
ΔH^0_{298} = – 107.9 kJ·mol^{-1} [2] S^0_{298} = 77 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 35.69 + 31.3 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 875 K) [4]
$\lg(p,K) = -11.89 \cdot 10^{3} \cdot T^{-1} - 2.75 \cdot \lg(T) + 17.11$ (700 ... 875 K) [4]
{Reaction: evaporation as SnS(g)}

SSn (s) | Tin(II) Sulfide alpha | **SSn** (s)
SnS (s) | | SnS (s)

$\Delta H^0_{875} = -77.6$ kJ·mol^{-1} [4] $S^0_{875} = 131.6$ J·mol^{-1}·K^{-1} [4]

SSn (s) | Tin(II) Sulfide beta | **SSn** (s)
SnS (s) | | SnS (s)

$\Delta H^0_{875} = -76.9$ kJ·mol^{-1} [4] $S^0_{875} = 132.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 40.92 + 15.65 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (875 ... 1153 K) [4]

$\lg(p,K) = -11.71 \cdot 10^3 \cdot T^{-1} - 2.37 \cdot \lg(T) + 15.78$ (875 ... 1153 K) [4]

{Reaction: evaporation as SnS(g)}

SSn (s) | Tin(II) Sulfide beta | **SSn** (s)
SnS (s) | | SnS (s)

$\Delta H^0_{1153} = -61.1$ kJ·mol^{-1} [4] $S^0_{1153} = 148$ J·mol^{-1}·K^{-1} [4]

SSn (l) | Tin(II) Sulfide | **SSn** (l)
SnS (l) | | SnS (l)

$\Delta H^0_{1153} = -29.6$ kJ·mol^{-1} [4] $S^0_{1153} = 175.4$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 74.89$ J·mol^{-1}·K^{-1} (1153 K) [4]

$\lg(p,K) = -11.14 \cdot 10^3 \cdot T^{-1} - 4.53 \cdot \lg(T) + 21.9$ (1153 ... 1477 K) [4]

{Reaction: evaporation as SnS(g)}

SSn (g) | Tin(II) Sulfide | **SSn** (g)
SnS (g) | | SnS (g)

$\Delta H^0_{298} = 109$ kJ·mol^{-1} [4] $S^0_{298} = 242.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 36.94 + 0.33 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SSr (s) | Strontium Sulfide | **SSr** (s)
SrS (s) | | SrS (s)

mp = 2275 K (2002 °C)

$\Delta H^0_{298} = -468.6 \pm 17$ kJ·mol^{-1} [1] $S^0_{298} = 68.4 \pm 0.8$ J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 54.31 + 5.27 \cdot 10^{-3} \cdot T - 0.65 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SSr (g) Strontium Sulfide **SSr** (g)

SrS (g) SrS (g)

ΔH^0_{298} = 108.2 ± 8.4 kJ·mol^{-1} [1] S^0_{298} = 243.1 ± 0.4 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 24.59 + 13.18 \cdot 10^{-3} \cdot T + 0.82 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

STa (g) Tantalum(II) Sulfide **STa** (g)

TaS (g) TaS (g)

ΔH^0_{298} = 514.6 kJ·mol^{-1} [2] S^0_{298} = 258.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 33.2 J·mol^{-1}·K^{-1} (298 K) [2]

STb (s) Terbium(II) Sulfide **STb** (s)

TbS (s) TbS (s)

ΔH^0_{298} = [– 460.2] kJ·mol^{-1} [5] S^0_{298} = [77.4] J·mol^{-1}·K^{-1} [5]

STb (g) Terbium(II) Sulfide **STb** (g)

TbS (g) TbS (g)

ΔH^0_{298} = 157.7 kJ·mol^{-1} [2] S^0_{298} = 267.1 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 34.3 J·mol^{-1}·K^{-1} (298 K) [2]

STe (g) Tellurium(II) Sulfide **STe** (g)

TeS (g) TeS (g)

ΔH^0_{298} = [159] kJ·mol^{-1} [5] S^0_{298} = [247.3] J·mol^{-1}·K^{-1} [5]

STh (s) Thorium(II) Sulfide **STh** (s)

ThS (s) ThS (s)

mp = 2600 K (2327 °C)

ΔH^0_{298} = – 395.4 kJ·mol^{-1} [2] S^0_{298} = 69.8 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 50.12 + 5.46 \cdot 10^{-3} \cdot T - 0.36 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

STi (s) Titanium(II) Sulfide **STi (s)**
TiS (s) TiS (s)

mp = 2053 K (1780 °C)
ΔH^0_{298} = – 272 kJ·mol^{-1} [2] S^0_{298} = 56.5 J·mol^{-1}·K^{-1} [2]
C_p^0= 45.9 + 7.36 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 2053 K) [4]

STi (g) Titanium(II) Sulfide **STi (g)**
TiS (g) TiS (g)

ΔH^0_{298} = 330.5 kJ·mol^{-1} [2] S^0_{298} = 246.5 J·mol^{-1}·K^{-1} [2]
C_p^0= 37 + 0.22 ·10^{-3}·T – 0.3 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

STi_2 (s) Titanium Sulfide **STi_2 (s)**
Ti_2S (s) Ti_2S (s)

ΔH^0_{298} = [– 280.3] kJ·mol^{-1} [5] S^0_{298} = [100.4] J·mol^{-1}·K^{-1} [5]

STl (s) Thallium(II) Sulfide **STl (s)**
TlS (s) TlS (s)

ΔH^0_{298} = [– 62.8] kJ·mol^{-1} [5] S^0_{298} = [89.9] J·mol^{-1}·K^{-1} [5]

STl_2 (s) Thallium(I) Sulfide **STl_2 (s)**
Tl_2S (s) Tl_2S (s)

mp = 730 K (457 °C) bp = 1515 K (1242 °C)
ΔH^0_{298} = – 95 kJ·mol^{-1} [2] S^0_{298} = 159 J·mol^{-1}·K^{-1} [2]
C_p^0= 71.55 + 29.29 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 730 K) [4]
lg(p,K) = – 11.06 ·10^{3}·T^{-1} – 3.95 · lg(T) + 20.81 (600 ... 730 K) [4]
{Reaction: evaporation as Tl_2S(g)}

STl_2 (s) Thallium(I) Sulfide **STl_2 (s)**
Tl_2S (s) Tl_2S (s)

ΔH^0_{730} = – 57.6 kJ·mol^{-1} [4] S^0_{730} = 235.7 J·mol^{-1}·K^{-1} [4]

STl_2 (l) Thallium(I) Sulfide **STl_2 (l)**

Tl_2S (l) Tl_2S (l)

$\Delta H^0_{730} = -34.6$ kJ·mol^{-1} [4] $S^0_{730} = 267.2$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 99.58$ J·mol^{-1}·K^{-1} (730 K) [4]

$\lg(p,K) = -10.18 \cdot 10^3 \cdot T^{-1} - 4.98 \cdot \lg(T) + 22.56$ (730 ... 1515 K) [4]

{Reaction: evaporation as Tl_2S(g)}

STl_2 (g) Thallium(I) Sulfide **STl_2 (g)**

Tl_2S (g) Tl_2S (g)

$\Delta H^0_{298} = 105$ kJ·mol^{-1} [4] $S^0_{298} = 332.6$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 58.16$ J·mol^{-1}·K^{-1} (298 K) [4]

STm (s) Thulium(II) Sulfide **STm (s)**

TmS (s) TmS (s)

$\Delta H^0_{298} = [-460.2]$ kJ·mol^{-1} [5] $S^0_{298} = [77.4]$ J·mol^{-1}·K^{-1} [5]

STm (g) Thulium(II) Sulfide **STm (g)**

TmS (g) TmS (g)

$\Delta H^0_{298} = [161.1]$ kJ·mol^{-1} [5] $S^0_{298} = [258.6]$ J·mol^{-1}·K^{-1} [5]

SU (s) Uranium(II) Sulfide **SU (s)**

US (s) US (s)

mp = 2735 K (2462 °C)

$\Delta H^0_{298} = -318$ kJ·mol^{-1} [2] $S^0_{298} = 78$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 52.84 + 6.5 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

SU (g) Uranium(II) Sulfide **SU (g)**

US (g) US (g)

$\Delta H^0_{298} = 305$ kJ·mol^{-1} [2] $S^0_{298} = 264$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 33.8$ J·mol^{-1}·K^{-1} (298 K) [2]

SV (g) Vanadium(II) Sulfide **SV (g)**
VS (g) VS (g)

ΔH^0_{298} = 345.2 kJ·mol^{-1} [5] S^0_{298} = [248.7] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [36.86] + [0.29] ·10^{-3}·T + [– 0.33] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

SY (s) Yttrium(II) Sulfide **SY (s)**
YS (s) YS (s)

ΔH^0_{298} = – 451.9 kJ·mol^{-1} [5] S^0_{298} = [66.9] J·mol^{-1}·K^{-1} [5]

SY (g) Yttrium(II) Sulfide **SY (g)**
YS (g) YS (g)

ΔH^0_{298} = 172.4 kJ·mol^{-1} [5] S^0_{298} = [244.9] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.09] + [0.17] ·10^{-3}·T + [– 0.27] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

SYb (s) Ytterbium(II) Sulfide **SYb (s)**
YbS (s) YbS (s)

ΔH^0_{298} = [– 451.9] kJ·mol^{-1} [5] S^0_{298} = [69] J·mol^{-1}·K^{-1} [5]

SYb (g) Ytterbium(II) Sulfide **SYb (g)**
YbS (g) YbS (g)

ΔH^0_{298} = [263.6] kJ·mol^{-1} [5] S^0_{298} = [257.3] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.28] + [0.07] ·10^{-3}·T + [– 0.19] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

SZn (s) Zinc Sulfide **SZn (s)**
ZnS (s) beta, Sphalerite ZnS (s)

mp = 1995 K (1722 °C)
ΔH^0_{298} = – 205 kJ·mol^{-1} [4] S^0_{298} = 57.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 49.25 + 5.27 ·10^{-3}·T – 0.49 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1293 K) [4]

SZn (s) Zinc Sulfide **SZn (s)**
ZnS (s) beta, Sphalerite ZnS (s)

ΔH^0_{1293} = – 153.1 kJ·mol^{-1} [4] S^0_{1293} = 132.6 J·mol^{-1}·K^{-1} [4]

SZn (s) Zinc Sulfide **SZn** (s)
ZnS (s) alpha, Wurtzite ZnS (s)

$\Delta H^0_{1293} = -139.8$ kJ·mol^{-1} [4] $S^0_{1293} = 143$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 49.46 + 4.44 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1293 ... 1907 K) [4]

SZn (g) Zinc Sulfide **SZn** (g)
ZnS (g) ZnS (g)

$\Delta H^0_{298} = 202.1$ kJ·mol^{-1} [2] $S^0_{298} = 237.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.28 + 0.07 \cdot 10^{-3} \cdot T - 0.27 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SZr (g) Zirconium(II) Sulfide **SZr** (g)
ZrS (g) ZrS (g)

$\Delta H^0_{298} = 309.6$ kJ·mol^{-1} [2] $S^0_{298} = 247$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 34$ J·mol^{-1}·K^{-1} (298 K) [2]

$S_{1.043}V$ (s) Vanadium Sulfide **$S_{1.043}V$** (s)
$VS_{1.043}$ (s) $VS_{1.043}$ (s)

$\Delta H^0_{298} = -230.3 \pm 2.2$ kJ·mol^{-1} [114] $S^0_{298} = [56.5]$ J·mol^{-1}·K^{-1} [5]

$S_{1.7}Th$ (s) Thorium Sulfide **$S_{1.7}Th$** (s)
$ThS_{1.7}$ (s) $ThS_{1.7}$ (s)

mp = 2040 K (1767 °C)
$\Delta H^0_{298} = -594.1$ kJ·mol^{-1} [5] $S^0_{298} = 91.6$ J·mol^{-1}·K^{-1} [5]

S_2 (g) Sulfur **S_2** (g)

$\Delta H^0_{298} = 128.6 \pm 0.3$ kJ·mol^{-1} [1] $S^0_{298} = 228.2 \pm 0.1$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 35.06 + 2.58 \cdot 10^{-3} \cdot T - 0.29 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -7.15 \cdot 10^3 \cdot T^{-1} - 4.39 \cdot \lg(T) + 21.03$ (388 ... 717 K) [4]
{Reaction: evaporation of S(l)}

S_2Sb_3 (g) Antimony Sulfide **S_2Sb_3 (g)**

Sb_3S_2 (g) Sb_3S_2 (g)

$\Delta H^0_{298} = 28.8$ kJ·mol^{-1} [2] $S^0_{298} = 406.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 98.2$ J·mol^{-1}·K^{-1} (298 K) [2]

S_2Si (s) Silicon(IV) Sulfide **S_2Si (s)**

SiS_2 (s) SiS_2 (s)

mp = 1363 K (1090 °C) bp = 2100 K (1827 °C)

$\Delta H^0_{298} = -213.4 \pm 20.9$ kJ·mol^{-1} [1] $S^0_{298} = 80.3 \pm 4.2$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 74.14 + 12.38 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1363 K) [4]

$\lg(p,K) = -15.97 \cdot 10^3 \cdot T^{-1} - 3.76 \cdot \lg(T) + 20.21$ (900 ... 1363 K) [4]

{Reaction: evaporation as SiS_2(g)}

S_2Si (s) Silicon(IV) Sulfide **S_2Si (s)**

SiS_2 (s) SiS_2 (s)

$\Delta H^0_{1363} = -123.5$ kJ·mol^{-1} [4] $S^0_{1363} = 206.2$ J·mol^{-1}·K^{-1} [4]

S_2Si (l) Silicon(IV) Sulfide **S_2Si (l)**

SiS_2 (l) SiS_2 (l)

$\Delta H^0_{1363} = -115.1$ kJ·mol^{-1} [4] $S^0_{1363} = 212.3$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 91$ J·mol^{-1}·K^{-1} (1363 K) [4]

S_2Si (l) Silicon(IV) Sulfide **S_2Si (l)**

SiS_2 (l) SiS_2 (l)

$\Delta H^0_{298} = -206.9$ kJ·mol^{-1} [1] $S^0_{298} = 84.7$ J·mol^{-1}·K^{-1} [1]

$C_p^0 = 77.5$ J·mol^{-1}·K^{-1} (298 K) [1]

S_2Si (g) Silicon(IV) Sulfide **S_2Si (g)**

SiS_2 (g) SiS_2 (g)

$\Delta H^0_{298} = 79.5$ kJ·mol^{-1} [4] $S^0_{298} = 251.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 57.3 + 0.56 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

S_2Sn (s) Tin(IV) Sulfide **S_2Sn (s)**

SnS_2 (s) SnS_2 (s)

$\Delta H^0_{298} = -153.6$ kJ·mol^{-1} [4] $S^0_{298} = 87.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 64.89 + 17.57 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1033 K) [4]

S_2Sn_2 (g) Tin Sulfide **S_2Sn_2 (g)**

Sn_2S_2 (g) Sn_2S_2 (g)

$\Delta H^0_{298} = 20.5$ kJ·mol^{-1} [5] $S^0_{298} = [313.8]$ J·mol^{-1}·K^{-1} [5]

S_2Ta (s) Tantalum(IV) Sulfide **S_2Ta (s)**

TaS_2 (s) TaS_2 (s)

$\Delta H^0_{298} = -354$ kJ·mol^{-1} [2] $S^0_{298} = 75.3$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 69.9$ J·mol^{-1}·K^{-1} (298 K) [2]

S_2Tc (s) Technetium(IV) Sulfide **S_2Tc (s)**

TcS_2 (s) TcS_2 (s)

$\Delta H^0_{298} = [-223.8]$ kJ·mol^{-1} [5] $S^0_{298} = [71.1]$ J·mol^{-1}·K^{-1} [5]

S_2Th (s) Thorium(IV) Sulfide **S_2Th (s)**

ThS_2 (s) ThS_2 (s)

mp = 2178 K (1905 °C)

$\Delta H^0_{298} = -626$ kJ·mol^{-1} [2] $S^0_{298} = 92.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 67.03 + 11 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2178 K) [4]

S_2Ti (s) Titanium(IV) Sulfide **S_2Ti (s)**

TiS_2 (s) TiS_2 (s)

$\Delta H^0_{298} = -407.1$ kJ·mol^{-1} [2] $S^0_{298} = 78.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 33.81 + 114.39 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 -420 K) [4]

S_2Tl (s) Thallium(IV) Sulfide **S_2Tl (s)**

TlS_2 (s) TlS_2 (s)

ΔH^0_{298} = [– 62.8] kJ·mol⁻¹ [5] S^0_{298} = [102.5] J·mol⁻¹·K⁻¹ [5]

S_2U (s) Uranium(IV) Sulfide **S_2U (s)**

US_2 (s) beta US_2 (s)

mp = 2120 K (1847 °C)

ΔH^0_{298} = – 527 kJ·mol⁻¹ [4] S^0_{298} = 110.4 J·mol⁻¹·K⁻¹ [4]

$C_p{}^0 = 71.8 + 9.62 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

S_2U (g) Uranium(IV) Sulfide **S_2U (g)**

US_2 (g) US_2 (g)

ΔH^0_{298} = 125.5 kJ·mol⁻¹ [5] S^0_{298} = [328.4] J·mol⁻¹·K⁻¹ [5]

S_2W (s) Tungsten(IV) Sulfide **S_2W (s)**

WS_2 (s) WS_2 (s)

mp = 2073 K (1800 °C)

ΔH^0_{298} = – 259.4 kJ·mol⁻¹ [2] S^0_{298} = 64.9 J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 68.63 + 15.61 \cdot 10^{-3} \cdot T - 0.87 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2073 K) [4]

S_2Zr (s) Zirconium(IV) Sulfide **S_2Zr (s)**

ZrS_2 (s) ZrS_2 (s)

mp = 1823 K (1550 °C)

ΔH^0_{298} = – 577.4 kJ·mol⁻¹ [2] S^0_{298} = 78.2 J·mol⁻¹·K⁻¹ [2]

$C_p{}^0 = 62.72 + 21.51 \cdot 10^{-3} \cdot T$ J·mol⁻¹·K⁻¹ (298 ... 1823 K) [4]

S_3 (g) Sulfur **S_3 (g)**

ΔH^0_{298} = 138.9 kJ·mol⁻¹ [4] S^0_{298} = 269.5 ± 4 J·mol⁻¹·K⁻¹ [1]

$C_p{}^0 = 53.78 + 4.35 \cdot 10^{-3} \cdot T - 0.65 \cdot 10^{6} \cdot T^{-2}$ J·mol⁻¹·K⁻¹ (298 ... 2000 K) [4]

$\lg(p,K) = -7.89 \cdot 10^{3} \cdot T^{-1} - 6.51 \cdot \lg(T) + 27.5$ (500 ... 717 K) [4]

{Reaction: evaporation of S(l)}

S_3Sb_2 (s) Antimony(III) Sulfide **S_3Sb_2 (s)**

Sb_2S_3 (s) Sb_2S_3 (s)

mp = 823 K (550 °C)

ΔH^0_{298} = – 205 kJ·mol^{-1} [4] S^0_{298} = 182 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 101.84 + 60.54 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 823 K) [4]

S_3Sb_2 (s) Antimony(III) Sulfide **S_3Sb_2 (s)**

Sb_2S_3 (s) Sb_2S_3 (s)

ΔH^0_{823} = – 133.7 kJ·mol^{-1} [4] S^0_{823} = 317.2 J·mol^{-1}·K^{-1} [4]

S_3Sb_2 (l) Antimony(III) Sulfide **S_3Sb_2 (l)**

Sb_2S_3 (l) Sb_2S_3 (l)

ΔH^0_{823} = – 85.8 kJ·mol^{-1} [4] S^0_{823} = 375.4 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 167.36 J·mol^{-1}·K^{-1} (823 K) [4]

S_3Sb_2 (g) Antimony(III) Sulfide **S_3Sb_2 (g)**

Sb_2S_3 (g) Sb_2S_3 (g)

ΔH^0_{298} = – 119.7 kJ·mol^{-1} [2] S^0_{298} = 409.8 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 99.5 J·mol^{-1}·K^{-1} (298 K) [2]

S_3Sb_4 (g) Antimony Sulfide **S_3Sb_4 (g)**

Sb_4S_3 (g) Sb_4S_3 (g)

ΔH^0_{298} = – 35.4 kJ·mol^{-1} [2] S^0_{298} = 483.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 147.6 J·mol^{-1}·K^{-1} (298 K) [2]

S_3Sc_2 (s) Scandium(III) Sulfide **S_3Sc_2 (s)**

Sc_2S_3 (s) Sc_2S_3 (s)

ΔH^0_{298} = – 1171.5 kJ·mol^{-1} [4] S^0_{298} = 123.4 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 102.17 + 36.07 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

S_3Sm_2 (s) Samarium(III) Sulfide **S_3Sm_2 (s)**
Sm_2S_3 (s) Sm_2S_3 (s)

mp = 2050 K (1777 °C)
ΔH^0_{298} = [– 1192.4] kJ·mol^{-1} [5] S^0_{298} = [200.8] J·mol^{-1}·K^{-1} [5]

S_3Sn_2 (s) Tin Sulfide **S_3Sn_2 (s)**
Sn_2S_3 (s) Sn_2S_3 (s)

mp = 1033 K (760 °C)
ΔH^0_{298} = – 263.6 kJ·mol^{-1} [2] S^0_{298} = 164.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 107.03 + 43.93 $\cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1033 K) [4]

S_3Ta (s) Tantalum Sulfide **S_3Ta (s)**
TaS_3 (s) TaS_3 (s)

ΔH^0_{298} = – 376.6 kJ·mol^{-1} [5] S^0_{298} = [92] J·mol^{-1}·K^{-1} [5]

S_3Tb_2 (s) Terbium(III) Sulfide **S_3Tb_2 (s)**
Tb_2S_3 (s) Tb_2S_3 (s)

ΔH^0_{298} = [– 1213.4] kJ·mol^{-1} [5] S^0_{298} = [205] J·mol^{-1}·K^{-1} [5]

S_3Tc (s) Technetium Sulfide **S_3Tc (s)**
TcS_3 (s) TcS_3 (s)

ΔH^0_{298} = [– 276.1] kJ·mol^{-1} [5] S^0_{298} = [83.7] J·mol^{-1}·K^{-1} [5]

S_3Th_2 (s) Thorium(III) Sulfide **S_3Th_2 (s)**
Th_2S_3 (s) Th_2S_3 (s)

mp = 2120 K (1847 °C)
ΔH^0_{298} = – 1086.1 kJ·mol^{-1} [4] S^0_{298} = 180 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 121.96 + 15.06 $\cdot 10^{-3} \cdot T$ – 0.38 $\cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2120 K) [4]

S_3Ti (s) Titanium Sulfide **S_3Ti (s)**

TiS_3 (s) TiS_3 (s)

$\Delta H^0_{298} = -429.7$ kJ·mol^{-1} [5] $S^0_{298} = [90.8]$ J·mol^{-1}·K^{-1} [5]

S_3Tl_4 (s) Thallium Sulfide **S_3Tl_4 (s)**

Tl_4S_3 (s) Tl_4S_3 (s)

$\Delta H^0_{298} = [-219.7]$ kJ·mol^{-1} [5] $S^0_{298} = [211.3]$ J·mol^{-1}·K^{-1} [5]

S_3Tm_2 (s) Thulium(III) Sulfide **S_3Tm_2 (s)**

Tm_2S_3 (s) Tm_2S_3 (s)

$\Delta H^0_{298} = [-1242.6]$ kJ·mol^{-1} [5] $S^0_{298} = [194.6]$ J·mol^{-1}·K^{-1} [5]

S_3U (s) Uranium Sulfide **S_3U (s)**

US_3 (s) US_3 (s)

$\Delta H^0_{298} = -544.2$ kJ·mol^{-1} [4] $S^0_{298} = 138.5$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 87.03 + 29.29 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 999 K) [4]

S_3U_2 (s) Uranium Sulfide **S_3U_2 (s)**

U_2S_3 (s) U_2S_3 (s)

mp = 2300 K (2027 °C)

$\Delta H^0_{298} = -854$ kJ·mol^{-1} [2] $S^0_{298} = 199.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 140.83 + 16.11 \cdot 10^{-3} \cdot T - 0.38 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

S_3W (s) Tungsten(VI) Sulfide **S_3W (s)**

WS_3 (s) WS_3 (s)

$\Delta H^0_{298} = [-292.9]$ kJ·mol^{-1} [5] $S^0_{298} = [77.4]$ J·mol^{-1}·K^{-1} [5]

S_3Y_2 (s) Yttrium(III) Sulfide **S_3Y_2 (s)**

Y_2S_3 (s) Y_2S_3 (s)

$\Delta H^0_{298} = [-1255.2]$ kJ·mol^{-1} [5] $S^0_{298} = [142.3]$ J·mol^{-1}·K^{-1} [5]

S_3Yb_2 (s) Ytterbium(III) Sulfide **S_3Yb_2 (s)**

Yb_2S_3 (s) Yb_2S_3 (s)

ΔH^0_{298} = [– 1171.5] kJ·mol^{-1} [5] S^0_{298} = [161.1] J·mol^{-1}·K^{-1} [5]

S_3Zr (s) Zirconium Sulfide **S_3Zr (s)**

ZrS_3 (s) ZrS_3 (s)

ΔH^0_{298} = – 627.6 kJ·mol^{-1} [5] S^0_{298} = [90.8] J·mol^{-1}·K^{-1} [5]

S_4 (g) Sulfur **S_4 (g)**

ΔH^0_{298} = 145.8 ± 8 kJ·mol^{-1} [1] S^0_{298} = 310.6 ± 4 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 79.88 + 3.28 \cdot 10^{-3} \cdot T - 1.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -8.38 \cdot 10^3 \cdot T^{-1} - 8.03 \cdot \lg(T) + 32.27$ (500 ... 717 K) [4]

{Reaction: evaporation of S(l)}

S_4Sb_2 (g) Antimony Sulfide **S_4Sb_2 (g)**

Sb_2S_4 (g) Sb_2S_4 (g)

ΔH^0_{298} = – 93.7 kJ·mol^{-1} [2] S^0_{298} = 432.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 122.7 J·mol^{-1}·K^{-1} (298 K) [2]

S_4Sn_3 (s) Tin Sulfide **S_4Sn_3 (s)**

Sn_3S_4 (s) Sn_3S_4 (s)

mp = 983 K (710 °C)

ΔH^0_{298} = – 370.3 kJ·mol^{-1} [2] S^0_{298} = 243.5 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 150.96 + 62.34 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 983 K) [4]

S_4V (s) Vanadium Sulfide **S_4V (s)**

VS_4 (s) VS_4 (s)

ΔH^0_{298} = [– 313.8] kJ·mol^{-1} [5] S^0_{298} = [106.7] J·mol^{-1}·K^{-1} [5]

S_5 (g) Sulfur **S_5 (g)**

ΔH^0_{298} = 109.4 ± 8 kJ·mol^{-1} [1] S^0_{298} = 308.6 ± 4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 106.94 + 1.06 ·10^{-3}·T – 1.58 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
lg(p,K) = – 6.59 ·10^3·T^{-1} – 9.44 · lg(T) + 34.39 (388 ... 717 K) [4]
{Reaction: evaporation of S(l)}

S_6 (g) Sulfur **S_6 (g)**

ΔH^0_{298} = 101.9 ± 8 kJ·mol^{-1} [1] S^0_{298} = 354.1 ± 4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 132.13 + 0.5 ·10^{-3}·T – 1.84 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]
lg(p,K) = – 5.58 ·10^3·T^{-1} – 3.65 · lg(T) + 18.78 (298 ... 388 K) [4]
{Reaction: evaporation of S(l)}

S_7 (g) Sulfur **S_7 (g)**

ΔH^0_{298} = 113.7 ± 8 kJ·mol^{-1} [1] S^0_{298} = 407.7 ± 4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 155.12 + 2.45 ·10^{-3}·T – 2.04 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]
lg(p,K) = – 6.95 ·10^3·T^{-1} – 12.38 · lg(T) + 44.45 (388 ... 717 K) [4]
{Reaction: evaporation of S(l)}

S_7Tc_2 (s) Technetium(VII) Sulfide **S_7Tc_2 (s)**
Tc_2S_7 (s) Tc_2S_7 (s)

ΔH^0_{298} = [– 307.5] kJ·mol^{-1} [5] S^0_{298} = [87.9] J·mol^{-1}·K^{-1} [5]

S_7Th_3 (s) Thorium Sulfide **S_7Th_3 (s)**
Th_3S_7 (s) Th_3S_7 (s)

ΔH^0_{298} = – 1917.9 kJ·mol^{-1} [5] S^0_{298} = [322.6] J·mol^{-1}·K^{-1} [5]

S_8 (g) Sulfur **S_8 (g)**

ΔH^0_{298} = 100.4 ± 0.6 kJ·mol^{-1} [1] S^0_{298} = 430.3 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 180.32 + 1.72 ·10^{-3}·T – 2.24 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1200 K) [4]
lg(p,K) = – 5.58 ·10^3·T^{-1} – 4.15 · lg(T) + 20.78 (298 ... 388 K) [4]
{Reaction: evaporation of S(l)}

Sb (s) Antimony **Sb** (s)

mp = 904 K (631 °C) bp = 1858 K (1585 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 45.5 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 30.51 - 15.5 \cdot 10^{-3} \cdot T - 0.2 \cdot 10^6 \cdot T^{-2} + 18.02 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 904 K) [4]

$\lg(p,K) = -11.14 \cdot 10^3 \cdot T^{-1} - 2.84 \cdot \lg(T) + 17.03$ (700 ... 904 K) [4]

{Reaction: evaporation (total pressure)}

Sb (s) Antimony **Sb** (s)

ΔH^0_{904} = 16.7 kJ·mol^{-1} [2] S^0_{904} = 75.5 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 30.99 J·mol^{-1}·K^{-1} (904 K) [4]

Sb (l) Antimony **Sb** (l)

ΔH^0_{904} = 36.5 kJ·mol^{-1} [2] S^0_{904} = 97.5 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 31.38 J·mol^{-1}·K^{-1} (904 K) [4]

$\lg(p,K) = -8.69 \cdot 10^3 \cdot T^{-1} - 4 \cdot \lg(T) + 17.75$ (904 ... 1858 K) [4]

{Reaction: evaporation (total pressure)}

Sb (g) Antimony **Sb** (g)

ΔH^0_{298} = 265.5 kJ·mol^{-1} [4] S^0_{298} = 180.3 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 20.79 J·mol^{-1}·K^{-1} (298 K) [4]

$\lg(p,K) = -13.1 \cdot 10^3 \cdot T^{-1} - 1.23 \cdot \lg(T) + 9.69$ (904 ... 1858 K) [4]

{Reaction: evaporation of Sb(l)}

SbSe (g) Antimony Selenide **SbSe** (g)

ΔH^0_{298} = 212.1 kJ·mol^{-1} [2] S^0_{298} = 255.9 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 36.7 J·mol^{-1}·K^{-1} (298 K) [2]

SbTe (g) Antimony Telluride **SbTe** (g)

ΔH^0_{298} = 202.1 kJ·mol^{-1} [5] S^0_{298} = [262.4] J·mol^{-1}·K^{-1} [5]

SbZn (s) Zinc Antimonide **SbZn (s)**
ZnSb (s) ZnSb (s)

mp = 820 K (547 °C)
$\Delta H^0_{298} = -19$ kJ·mol^{-1} [4] $S^0_{298} = 82.6$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 44.69 + 17.32 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 820 K) [4]

SbZn (s) Zinc Antimonide **SbZn (s)**
ZnSb (s) ZnSb (s)

$\Delta H^0_{820} = 9.3$ kJ·mol^{-1} [4] $S^0_{820} = 136.9$ J·mol^{-1}·K^{-1} [4]

SbZn (l) Zinc Antimonide **SbZn (l)**
ZnSb (l) ZnSb (l)

$\Delta H^0_{820} = 40.1$ kJ·mol^{-1} [4] $S^0_{820} = 174.4$ J·mol^{-1}·K^{-1} [4]
$C_p^0 = 62.76$ J·mol^{-1}·K^{-1} (820 K) [4]

Sb_2 (g) Antimony **Sb_2 (g)**

$\Delta H^0_{298} = 231.2$ kJ·mol^{-1} [2] $S^0_{298} = 254.9$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 37.41 - 0.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -12.55 \cdot 10^3 \cdot T^{-1} - 2.63 \cdot \lg(T) + 16.49$ (700 ... 904 K) [4]
{Reaction: evaporation of Sb(l)}

Sb_2Se_3 (s) Antimony(III) Selenide **Sb_2Se_3 (s)**

mp = 888 K (615 °C) bp = 1304 K (1031 °C)
$\Delta H^0_{298} = -127.6$ kJ·mol^{-1} [2] $S^0_{298} = 212.1$ J·mol^{-1}·K^{-1} [2]
$C_p^0 = 118.74 + 20.92 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 888 K) [4]

Sb_2Se_3 (s) Antimony(III) Selenide **Sb_2Se_3 (s)**

$\Delta H^0_{888} = -50.3$ kJ·mol^{-1} [4] $S^0_{888} = 354.1$ J·mol^{-1}·K^{-1} [4]

Sb_2Se_3 (l) Antimony(III) Selenide **Sb_2Se_3 (l)**

ΔH^0_{888} = 3.5 kJ·mol^{-1} [4] S^0_{888} = 414.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 171.54 J·mol^{-1}·K^{-1} (888 K) [4]

Sb_2Te_3 (s) Antimony(III) Telluride **Sb_2Te_3 (s)**

ΔH^0_{298} = – 56.5 kJ·mol^{-1} [2] S^0_{298} = 246.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 112.88 + 53.14 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 892 K) [4]

Sb_2Te_3 (s) Antimony(III) Telluride **Sb_2Te_3 (s)**

ΔH^0_{892} = 29.3 kJ·mol^{-1} [4] S^0_{892} = 401.7 J·mol^{-1}·K^{-1} [4]

Sb_2Te_3 (l) Antimony(III) Telluride **Sb_2Te_3 (l)**

ΔH^0_{892} = 128.3 kJ·mol^{-1} [4] S^0_{892} = 512.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 196.65 J·mol^{-1}·K^{-1} (892 K) [4]

Sb_2U (s) Uranium Antimonide **Sb_2U (s)**
USb_2 (s) USb_2 (s)

ΔH^0_{298} = – 176 kJ·mol^{-1} [4] S^0_{298} = 141.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 69.96 + 34.23 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Sb_4 (g) Antimony **Sb_4 (g)**

ΔH^0_{298} = 206.5 kJ·mol^{-1} [2] S^0_{298} = 350.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 83.09 + 0.01 ·10^{-3}·T – 0.21 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
lg(p,K) = – 11.59 ·10^{3}·T^{-1} – 4.26 · lg(T) + 21.72 (700 ... 904 K) [4]
{Reaction: evaporation of Sb(l)}

Sb_4U_3 (s) Uranium Antimonide **Sb_4U_3 (s)**
U_3Sb_4 (s) U_3Sb_4 (s)

ΔH^0_{298} = – 452 kJ·mol^{-1} [4] S^0_{298} = 349.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 163.39 + 83.14 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1000 K) [4]

Sc (s) Scandium alpha **Sc (s)**

mp = 1812 K (1539 °C) bp = 3101 K (2828 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 34.6 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 24.81 + 1.22 \cdot 10^{-3} \cdot T + 0.03 \cdot 10^{6} \cdot T^{-2} + 5.15 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1608 K) [4]

$\lg(p,K) = -20.45 \cdot 10^3 \cdot T^{-1} - 2.01 \cdot \lg(T) + 13.9$ (1300 ... 1608 K) [4]

{Reaction: evaporation as Sc(g)}

Sc (s) Scandium alpha **Sc (s)**

ΔH^0_{1608} = 41.2 kJ·mol^{-1} [2] S^0_{1608} = 84.6 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 40.09 J·mol^{-1}·K^{-1} (1608 K) [4]

Sc (s) Scandium beta **Sc (s)**

ΔH^0_{1608} = 45.2 kJ·mol^{-1} [2] S^0_{1608} = 87.1 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 44.22 J·mol^{-1}·K^{-1} (1608 ... 1812 K) [4]

$\lg(p,K) = -20.78 \cdot 10^3 \cdot T^{-1} - 2.79 \cdot \lg(T) + 16.61$ (1608 ... 1812 K) [4]

{Reaction: evaporation as Sc(g)}

Sc (s) Scandium beta **Sc (s)**

ΔH^0_{1812} = 54.2 kJ·mol^{-1} [2] S^0_{1812} = 92.3 J·mol^{-1}·K^{-1} [2]

Sc (l) Scandium **Sc (l)**

ΔH^0_{1812} = 68.3 kJ·mol^{-1} [2] S^0_{1812} = 100.1 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 44.22 J·mol^{-1}·K^{-1} (1812 K) [4]

$\lg(p,K) = -20.03 \cdot 10^3 \cdot T^{-1} - 2.77 \cdot \lg(T) + 16.13$ (1812 ... 2000 K) [4]

{Reaction: evaporation as Sc(g)}

Sc (g) Scandium **Sc (g)**

ΔH^0_{298} = 378 kJ·mol^{-1} [4] S^0_{298} = 174.8 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 21.39 - 1.14 \cdot 10^{-3} \cdot T + 0.12 \cdot 10^{6} \cdot T^{-2} + 0.53 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

ScSe (s) Scandium Selenide **ScSe** (s)

ΔH^0_{298} = [– 355.6] kJ·mol^{-1} [5] S^0_{298} = [69] J·mol^{-1}·K^{-1} [5]

ScSe (g) Scandium Selenide **ScSe** (g)

ΔH^0_{298} = 236.4 kJ·mol^{-1} [5] S^0_{298} = [248.8] J·mol^{-1}·K^{-1} [5]

$C_p{}^0$= [37.28] + [0.07] $\cdot 10^{-3} \cdot T$ + [– 0.19] $\cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

ScTe (s) Scandium Telluride **ScTe** (s)

ΔH^0_{298} = [– 301.2] kJ·mol^{-1} [5] S^0_{298} = [76.1] J·mol^{-1}·K^{-1} [5]

ScTe (g) Scandium Telluride **ScTe** (g)

ΔH^0_{298} = 293.7 kJ·mol^{-1} [5] S^0_{298} = [256.9] J·mol^{-1}·K^{-1} [5]

$C_p{}^0$= [37.34] + [0.04] $\cdot 10^{-3} \cdot T$ + [– 0.14] $\cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

Sc_2 (g) Scandium **Sc_2** (g)

ΔH^0_{298} = 610.9 kJ·mol^{-1} [93] S^0_{298} = 255.2 J·mol^{-1}·K^{-1} [93]

Sc_2Se_3 (s) Scandium(III) Selenide **Sc_2Se_3** (s)

ΔH^0_{298} = [– 941.4] kJ·mol^{-1} [5] S^0_{298} = [161.1] J·mol^{-1}·K^{-1} [5]

Sc_2Te_3 (s) Scandium(III) Telluride **Sc_2Te_3** (s)

ΔH^0_{298} = [– 711.3] kJ·mol^{-1} [5] S^0_{298} = [182] J·mol^{-1}·K^{-1} [5]

Sc_5Si_3 (s) Scandium Silicide **Sc_5Si_3** (s)

ΔH^0_{298} = – 552 kJ·mol^{-1} [181] S^0_{298} = 209.6 J·mol^{-1}·K^{-1} [181]

Se (s) Selenium **Se** (s)

mp = 493 K (220 °C) bp = 957 K (684 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 42.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 17.89 + 25.1 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 493 K) [4]
lg(p,K) = – 9.09 ·10^3·T^{-1} – 4.22 · lg(T) + 24.68 (298 ... 493 K) [4]
{Reaction: evaporation (total pressure)}

Se (s) Selenium **Se** (s)

ΔH^0_{493} = 5.4 kJ·mol^{-1} [2] S^0_{493} = 56.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 30.27 J·mol^{-1}·K^{-1} (493 K) [4]

Se (l) Selenium **Se** (l)

ΔH^0_{493} = 11.3 kJ·mol^{-1} [2] S^0_{493} = 68 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 35.15 J·mol^{-1}·K^{-1} (493 K) [4]
lg(p,K) = – 7.1 ·10^3·T^{-1} – 6.46 · lg(T) + 26.68 (493 ... 957 K) [4]
{Reaction: evaporation (total pressure)}

Se (g) Selenium **Se** (g)

ΔH^0_{298} = 235.4 kJ·mol^{-1} [2] S^0_{298} = 176.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 21.46 + 1.51 ·10^{-3}·T – 0.09 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
lg(p,K) = – 12.25 ·10^3·T^{-1} – 1.54 · lg(T) + 11.05 (800 ... 957 K) [4]
{Reaction: evaporation of Se(s)}

SeSi (g) Silicon(II) Selenide **SeSi** (g)
SiSe (g) SiSe (g)

ΔH^0_{298} = 202.9 kJ·mol^{-1} [2] S^0_{298} = 235.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 33.6 J·mol^{-1}·K^{-1} (298 K) [2]

SeSm (s) Samarium Selenide **SeSm** (s)
SmSe (s) SmSe (s)

ΔH^0_{298} = – 443.5 kJ·mol^{-1} [4] S^0_{298} = 94.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 59.83 + 3.22 ·10^{-3}·T – 0.18 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SeSm (g) Samarium Selenide **SeSm** (g)
SmSe (g) SmSe (g)

ΔH^0_{298} = 128.9 kJ·mol^{-1} [4] S^0_{298} = 278.4 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.29 + 0.07 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SeSn (s) Tin(II) Selenide alpha **SeSn** (s)
SnSe (s) SnSe (s)

mp = 1153 K (880 °C)
ΔH^0_{298} = – 88.7 kJ·mol^{-1} [2] S^0_{298} = 89.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 46.65 + 19.96 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 813 K) [4]
$\lg(p,K) = -11.74 \cdot 10^3 \cdot T^{-1} - 2.96 \cdot \lg(T) + 17.46$ (700 ... 813 K) [4]
{Reaction: evaporation as SnSe(g)}

SeSn (s) Tin(II) Selenide alpha **SeSn** (s)
SnSe (s) SnSe (s)

ΔH^0_{813} = – 59 kJ·mol^{-1} [4] S^0_{813} = 146.6 J·mol^{-1}·K^{-1} [4]

SeSn (s) Tin(II) Selenide beta **SeSn** (s)
SnSe (s) SnSe (s)

ΔH^0_{813} = – 54.8 kJ·mol^{-1} [4] S^0_{813} = 151.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 47.11 + 11.72 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (813 ... 1153 K) [4]
$\lg(p,K) = -11.39 \cdot 10^3 \cdot T^{-1} - 2.58 \cdot \lg(T) + 15.93$ (813 ... 1153 K) [4]
{Reaction: evaporation as SnSe(g)}

SeSn (l) Tin(II) Selenide **SeSn** (l)
SnSe (l) SnSe (l)

ΔH^0_{298} = – 12.1 kJ·mol^{-1} [160] S^0_{298} = 189.9 J·mol^{-1}·K^{-1} [160]

SeSn (g) Tin(II) Selenide **SeSn** (g)
SnSe (g) SnSe (g)

ΔH^0_{298} = 126.8 kJ·mol^{-1} [2] S^0_{298} = 254.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 37.36 - 0.13 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SeSr (s) Strontium Selenide **SeSr** (s)

SrSe (s) SrSe (s)

$\Delta H^0_{298} = -397.5$ kJ·mol^{-1} [5] $S^0_{298} = [80.8]$ J·mol^{-1}·K^{-1} [5]

SeSr (g) Strontium Selenide **SeSr** (g)

SrSe (g) SrSe (g)

$\Delta H^0_{298} = 120.5$ kJ·mol^{-1} [5] $S^0_{298} = [254.3]$ J·mol^{-1}·K^{-1} [5]

$C_p^0 = [37.38] + [0.02] \cdot 10^{-3} \cdot T + [-0.10] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

SeTb (s) Terbium Selenide **SeTb** (s)

TbSe (s) TbSe (s)

$\Delta H^0_{298} = [-368.2]$ kJ·mol^{-1} [5] $S^0_{298} = [90]$ J·mol^{-1}·K^{-1} [5]

SeTb (g) Terbium Selenide **SeTb** (g)

TbSe (g) TbSe (g)

$\Delta H^0_{298} = 205$ kJ·mol^{-1} [2] $S^0_{298} = 277.7$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 35.2$ J·mol^{-1}·K^{-1} (298 K) [2]

SeTe (g) Tellurium Selenide **SeTe** (g)

TeSe (g) TeSe (g)

$\Delta H^0_{298} = 151.5$ kJ·mol^{-1} [5] $S^0_{298} = [256.9]$ J·mol^{-1}·K^{-1} [5]

SeTh (s) Thorium Selenide **SeTh** (s)

ThSe (s) ThSe (s)

mp = 2150 K (1877 °C)

$\Delta H^0_{298} = [-355.6]$ kJ·mol^{-1} [5] $S^0_{298} = [87.9]$ J·mol^{-1}·K^{-1} [5]

SeTi (s) Titanium Selenide **SeTi** (s)

TiSe (s) TiSe (s)

$\Delta H^0_{298} = [-221.8]$ kJ·mol^{-1} [5] $S^0_{298} = [73.2]$ J·mol^{-1}·K^{-1} [5]

SeTi (g) Titanium Selenide **SeTi (g)**

TiSe (g) TiSe (g)

ΔH^0_{298} = 339.7 kJ·mol^{-1} [5] S^0_{298} = [258.6] J·mol^{-1}·K^{-1} [5]

SeTl (s) Thallium Selenide **SeTl (s)**

TlSe (s) TlSe (s)

mp = 603 K (330 °C)

ΔH^0_{298} = – 61.3 kJ·mol^{-1} [2] S^0_{298} = 102.5 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 39.75 + 34.85 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 603 K) [4]

SeTl$_2$ (s) Thallium Selenide **SeTl$_2$ (s)**

Tl$_2$Se (s) Tl$_2$Se (s)

mp = 663 K (390 °C)

ΔH^0_{298} = – 94.1 kJ·mol^{-1} [2] S^0_{298} = 173.6 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 69.75 + 32.64 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 663 K) [4]

SeTl$_2$ (g) Thallium Selenide **SeTl$_2$ (g)**

Tl$_2$Se (g) Tl$_2$Se (g)

ΔH^0_{298} = [138.1] kJ·mol^{-1} [5] S^0_{298} = [343.1] J·mol^{-1}·K^{-1} [5]

SeTm (s) Thulium Selenide **SeTm (s)**

TmSe (s) TmSe (s)

ΔH^0_{298} = [– 368.2] kJ·mol^{-1} [5] S^0_{298} = [90] J·mol^{-1}·K^{-1} [5]

SeTm (g) Thulium Selenide **SeTm (g)**

TmSe (g) TmSe (g)

ΔH^0_{298} = [208.8] kJ·mol^{-1} [5] S^0_{298} = [269.2] J·mol^{-1}·K^{-1} [5]

$C_p{}^0$= [37.29] + [0.07] ·10^{-3}·T + [– 0.18] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

SeU (s) Uranium Selenide **SeU (s)**
USe (s) USe (s)

mp = 2192 K (1919 °C)
$\Delta H^0_{298} = -276$ kJ·mol^{-1} [4] $S^0_{298} = 96.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 52.89 + 6.4 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 2192 K) [4]

SeU (g) Uranium Selenide **SeU (g)**
USe (g) USe (g)

$\Delta H^0_{298} = 373.6$ kJ·mol^{-1} [4] $S^0_{298} = 275$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.3 + 0.06 \cdot 10^{-3} \cdot T - 0.18 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2192 K) [4]

SeV (g) Vanadium Selenide **SeV (g)**
VSe (g) VSe (g)

$\Delta H^0_{298} = 404.6$ kJ·mol^{-1} [5] $S^0_{298} = [260.8]$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.25] + [0.09] \cdot 10^{-3} \cdot T + [-0.21] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

SeY (s) Yttrium Selenide **SeY (s)**
YSe (s) YSe (s)

$\Delta H^0_{298} = [-359.8]$ kJ·mol^{-1} [5] $S^0_{298} = [79.5]$ J·mol^{-1}·K^{-1} [5]

SeY (g) Yttrium Selenide **SeY (g)**
YSe (g) YSe (g)

$\Delta H^0_{298} = [223.8]$ kJ·mol^{-1} [5] $S^0_{298} = [256.9]$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [35.56]$ J·mol^{-1}·K^{-1} (298 K) [5]

SeYb (s) Ytterbium Selenide **SeYb (s)**
YbSe (s) YbSe (s)

$\Delta H^0_{298} = [-359.8]$ kJ·mol^{-1} [5] $S^0_{298} = [81.6]$ J·mol^{-1}·K^{-1} [5]

SeYb (g) Ytterbium Selenide **SeYb (g)**
YbSe (g) YbSe (g)

$\Delta H^0_{298} = [200.8]$ kJ·mol^{-1} [5] $S^0_{298} = [267.4]$ J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.33] + [0.04] \cdot 10^{-3} \cdot T + [-0.15] \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

SeZn (s) Zinc Selenide **SeZn (s)**
ZnSe (s) ZnSe (s)

mp = 1799 K (1526 °C)
$\Delta H^0_{298} = -170.3$ kJ·mol^{-1} [4] $S^0_{298} = 77.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 50.17 + 5.77 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1799 K) [4]

SeZn (g) Zinc Selenide **SeZn (g)**
ZnSe (g) ZnSe (g)

$\Delta H^0_{298} = 237.2$ kJ·mol^{-1} [2] $S^0_{298} = 249.9$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 37.38 + 0.02 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$Se_{1.7}Th$ (s) Thorium Selenide **$Se_{1.7}Th$ (s)**
$ThSe_{1.7}$ (s) $ThSe_{1.7}$ (s)

$\Delta H^0_{298} = [-502.1]$ kJ·mol^{-1} [5] $S^0_{298} = [113]$ J·mol^{-1}·K^{-1} [5]

$Se_{1.94}Si$ (s) Silicon Selenide **$Se_{1.94}Si$ (s)**
$SiSe_{1.94}$ (s) $SiSe_{1.94}$ (s)

$\Delta H^0_{298} = -176.7 \pm 4.5$ kJ·mol^{-1} [101] $S^0_{298} = [100.9]$ J·mol^{-1}·K^{-1} [102, 8]

Se_2 (g) Selenium **Se_2 (g)**

$\Delta H^0_{298} = 136.7$ kJ·mol^{-1} [4] $S^0_{298} = 243.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 44.6 - 2.66 \cdot 10^{-3} \cdot T - 0.25 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -7.12 \cdot 10^3 \cdot T^{-1} - 3.41 \cdot \lg(T) + 17.39$ (500 ... 957 K) [4]
{Reaction: evaporation of Se(s)}

Se_2Si (s) Silicon(IV) Selenide **Se_2Si (s)**
$SiSe_2$ (s) $SiSe_2$ (s)

$\Delta H^0_{298} = -178.4 \pm 3.1$ kJ·mol^{-1} [101] $S^0_{298} = [103.4]$ J·mol^{-1}·K^{-1} [102, 8]

Se_2Si (g) Silicon(IV) Selenide **Se_2Si (g)**

$SiSe_2$ (g) $SiSe_2$ (g)

ΔH^0_{298} = 164.4 kJ·mol^{-1} [5] S^0_{298} = [276.1] J·mol^{-1}·K^{-1} [5]

Se_2Sn (s) Tin(IV) Selenide **Se_2Sn (s)**

$SnSe_2$ (s) $SnSe_2$ (s)

mp = 930 K (657 °C)

ΔH^0_{298} = – 121.3 kJ·mol^{-1} [4] S^0_{298} = 112.6 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 62.05 + 31.63 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 930 K) [4]

Se_2Sn_2 (g) Tin Selenide **Se_2Sn_2 (g)**

Sn_2Se_2 (g) Sn_2Se_2 (g)

ΔH^0_{298} = [58.2] kJ·mol^{-1} [5] S^0_{298} = [332.2] J·mol^{-1}·K^{-1} [5]

Se_2Th (s) Thorium Selenide **Se_2Th (s)**

$ThSe_2$ (s) $ThSe_2$ (s)

ΔH^0_{298} = [– 543.9] kJ·mol^{-1} [5] S^0_{298} = [125.5] J·mol^{-1}·K^{-1} [5]

Se_2Ti (s) Titanium Selenide **Se_2Ti (s)**

$TiSe_2$ (s) $TiSe_2$ (s)

ΔH^0_{298} = – 384.9 kJ·mol^{-1} [5] S^0_{298} = [100.4] J·mol^{-1}·K^{-1} [5]

Se_2U (s) Uranium Selenide **Se_2U (s)**

USe_2 (s) USe_2 (s)

ΔH^0_{298} = [– 426.8] kJ·mol^{-1} [5] S^0_{298} = 133.8 J·mol^{-1}·K^{-1} [5]

Se_2W (s) Tungsten Selenide **Se_2W (s)**

WSe_2 (s) WSe_2 (s)

ΔH^0_{298} = – 185.3 ± 5.5 kJ·mol^{-1} [120] S^0_{298} = [90] J·mol^{-1}·K^{-1} [5]

Se_2Zr (s) Zirconium Selenide **Se_2Zr (s)**

$ZrSe_2$ (s) $ZrSe_2$ (s)

ΔH^0_{298} = [– 426.8] kJ·mol^{-1} [5] S^0_{298} = [94.6] J·mol^{-1}·K^{-1} [5]

Se_3 (g) Selenium **Se_3 (g)**

ΔH^0_{298} = 173.5 kJ·mol^{-1} [4] S^0_{298} = 315 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 58.14 + 3.04 \cdot 10^{-3} \cdot T - 0.22 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -9.06 \cdot 10^{3} \cdot T^{-1} - 5.49 \cdot \lg(T) + 24.48$ (500 ... 957 K) [4]

{Reaction: evaporation of Se(s)}

Se_3Sm_2 (s) Samarium Selenide **Se_3Sm_2 (s)**

Sm_2Se_3 (s) Sm_2Se_3 (s)

ΔH^0_{298} = [– 878.6] kJ·mol^{-1} [5] S^0_{298} = [240.6] J·mol^{-1}·K^{-1} [5]

Se_3Tb_2 (s) Terbium Selenide **Se_3Tb_2 (s)**

Tb_2Se_3 (s) Tb_2Se_3 (s)

ΔH^0_{298} = [– 962.3] kJ·mol^{-1} [5] S^0_{298} = [242.7] J·mol^{-1}·K^{-1} [5]

Se_3Th_2 (s) Thorium Selenide **Se_3Th_2 (s)**

Th_2Se_3 (s) Th_2Se_3 (s)

ΔH^0_{298} = – 937.2 kJ·mol^{-1} [5] S^0_{298} = [213.4] J·mol^{-1}·K^{-1} [5]

Se_3Tl_2 (s) Thallium Selenide **Se_3Tl_2 (s)**

Tl_2Se_3 (s) Tl_2Se_3 (s)

ΔH^0_{298} = – 114.6 kJ·mol^{-1} [5] S^0_{298} = [259.4] J·mol^{-1}·K^{-1} [5]

Se_3Tm_2 (s) Thulium Selenide **Se_3Tm_2 (s)**

Tm_2Se_3 (s) Tm_2Se_3 (s)

ΔH^0_{298} = [– 962.3] kJ·mol^{-1} [5] S^0_{298} = [232.2] J·mol^{-1}·K^{-1} [5]

Se_3U (s) Uranium Selenide **Se_3U (s)**

USe_3 (s) USe_3 (s)

ΔH^0_{298} = [– 418.4] kJ·mol^{-1} [5] S^0_{298} = [177] J·mol^{-1}·K^{-1} [5]

Se_3U_2 (s) Uranium Selenide **Se_3U_2 (s)**

U_2Se_3 (s) U_2Se_3 (s)

ΔH^0_{298} = [– 711.3] kJ·mol^{-1} [5] S^0_{298} = [233.5] J·mol^{-1}·K^{-1} [5]

Se_3Y_2 (s) Yttrium Selenide **Se_3Y_2 (s)**

Y_2Se_3 (s) Y_2Se_3 (s)

ΔH^0_{298} = [– 941.4] kJ·mol^{-1} [5] S^0_{298} = [179.9] J·mol^{-1}·K^{-1} [5]

Se_3Yb_2 (s) Ytterbium Selenide **Se_3Yb_2 (s)**

Yb_2Se_3 (s) Yb_2Se_3 (s)

ΔH^0_{298} = [– 962.3] kJ·mol^{-1} [5] S^0_{298} = [198.7] J·mol^{-1}·K^{-1} [5]

Se_3Zr (s) Zirconium Selenide **Se_3Zr (s)**

$ZrSe_3$ (s) $ZrSe_3$ (s)

ΔH^0_{298} = [– 418.4] kJ·mol^{-1} [5] S^0_{298} = [100.4] J·mol^{-1}·K^{-1} [5]

Se_4 (g) Selenium **Se_4 (g)**

ΔH^0_{298} = 180.6 kJ·mol^{-1} [4] S^0_{298} = 379.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 83.08 + 0.03 \cdot 10^{-3} \cdot T - 0.25 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$\lg(p,K) = -9.4 \cdot 10^{3} \cdot T^{-1} - 6.99 \cdot \lg(T) + 29.59$ (500 ... 957 K) [4]

{Reaction: evaporation of Se(s)}

Se_4U_3 (s) Uranium Selenide **Se_4U_3 (s)**

U_3Se_4 (s) U_3Se_4 (s)

ΔH^0_{298} = – 982.8 kJ·mol^{-1} [5] S^0_{298} = [338.5] J·mol^{-1}·K^{-1} [5]

Se_5 (g) Selenium **Se_5 (g)**

$\Delta H^0_{298} = 135.4$ kJ·mol^{-1} [4] $S^0_{298} = 385.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 107.93 + 0.09 \cdot 10^{-3} \cdot T - 0.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -6.97 \cdot 10^3 \cdot T^{-1} - 8.33 \cdot \lg(T) + 31.14$ (493 ... 957 K) [4]
{Reaction: evaporation of Se(s)}

Se_5U_3 (s) Uranium Selenide **Se_5U_3 (s)**
U_3Se_5 (s) U_3Se_5 (s)

$\Delta H^0_{298} = [-1129.7]$ kJ·mol^{-1} [5] $S^0_{298} = [364]$ J·mol^{-1}·K^{-1} [5]

Se_6 (g) Selenium **Se_6 (g)**

$\Delta H^0_{298} = 132.5$ kJ·mol^{-1} [4] $S^0_{298} = 433.6$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 132.91 + 0.07 \cdot 10^{-3} \cdot T - 0.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -6.75 \cdot 10^3 \cdot T^{-1} - 9.56 \cdot \lg(T) + 34.61$ (493 ... 957 K) [4]
{Reaction: evaporation of Se(s)}

Se_7 (g) Selenium **Se_7 (g)**

$\Delta H^0_{298} = 141.3$ kJ·mol^{-1} [4] $S^0_{298} = 486.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 157.76 + 0.11 \cdot 10^{-3} \cdot T - 0.83 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -7.13 \cdot 10^3 \cdot T^{-1} - 10.87 \cdot \lg(T) + 38.52$ (493 ... 957 K) [4]
{Reaction: evaporation of Se(s)}

Se_8 (g) Selenium **Se_8 (g)**

$\Delta H^0_{298} = 152.2$ kJ·mol^{-1} [4] $S^0_{298} = 531.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 182.74 + 0.09 \cdot 10^{-3} \cdot T - 0.49 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
$\lg(p,K) = -7.63 \cdot 10^3 \cdot T^{-1} - 11.99 \cdot \lg(T) + 41.52$ (493 ... 957 K) [4]
{Reaction: evaporation of Se(s)}

Si (s) Silicon **Si (s)**

mp = 1685 K (1412 °C) bp = 3536 K (3263 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 18.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 22.81 + 3.87 \cdot 10^{-3} \cdot T - 0.36 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1685 K) [4]

Si (s) | Silicon | **Si** (s)

$\Delta H^0_{1685} = 36$ kJ·mol^{-1} [4] $S^0_{1685} = 61.8$ J·mol^{-1}·K^{-1} [4]

Si (l) | Silicon | **Si** (l)

$\Delta H^0_{1685} = 86.2$ kJ·mol^{-1} [4] $S^0_{1685} = 91.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 27.2$ J·mol^{-1}·K^{-1} (1685 K) [4]
$\lg(p,K) = -21.06 \cdot 10^3 \cdot T^{-1} - 0.38 \cdot \lg(T) + 7.28$ (1685 ... 2500 K) [4]
{Reaction: evaporation as Si(g)}

Si (l) | Silicon | **Si** (l)

$\Delta H^0_{298} = 48.5$ kJ·mol^{-1} [1] $S^0_{298} = 44.5$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 27.2$ J·mol^{-1}·K^{-1} (1685 K) [4]

Si (g) | Silicon | **Si** (g)

$\Delta H^0_{298} = 450 \pm 8$ kJ·mol^{-1} [1] $S^0_{298} = 168$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 19.8 + 1.01 \cdot 10^{-3} \cdot T + 0.21 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

$SiTa_2$ (s) | Tantalum Silicide | **$SiTa_2$** (s)
Ta_2Si (s) Ta_2Si (s)

mp = 2690 K (2417 °C)
$\Delta H^0_{298} = -125.5$ kJ·mol^{-1} [2] $S^0_{298} = 105.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 72.38 + 10.88 \cdot 10^{-3} \cdot T - 0.59 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SiTe (g) | Silicon(II) Telluride | **SiTe** (g)

$\Delta H^0_{298} = 219.7$ kJ·mol^{-1} [4] $S^0_{298} = 245.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 37.03 + 0.25 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$SiTe_2$ (g) | Silicon(IV) Telluride | **$SiTe_2$** (g)

$\Delta H^0_{298} = 216.3$ kJ·mol^{-1} [5] $S^0_{298} = [290.8]$ J·mol^{-1}·K^{-1} [5]

SiTh (s) Thorium Silicide **SiTh (s)**
ThSi (s) ThSi (s)

mp = 2053 K (1780 °C)
ΔH^0_{298} = – 128 kJ·mol^{-1} [2] S^0_{298} = 58.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 49.41 + 10.29 \cdot 10^{-3} \cdot T - 0.46 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2053 K) [4]

SiTi (s) Titanium Silicide **SiTi (s)**
TiSi (s) TiSi (s)

ΔH^0_{298} = – 129.7 kJ·mol^{-1} [2] S^0_{298} = 49 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 48.12 + 11.42 \cdot 10^{-3} \cdot T - 0.54 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1843 K) [4]

SiU (s) Uranium Silicide **SiU (s)**
USi (s) USi (s)

mp = 1848 K (1575 °C)
ΔH^0_{298} = – 80.3 kJ·mol^{-1} [4] S^0_{298} = 66.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 64.56 + 1.63 \cdot 10^{-3} \cdot T - 1.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1848 K) [4]

SiU_3 (s) Uranium Silicide **SiU_3 (s)**
U_3Si (s) U_3Si (s)

ΔH^0_{298} = – 134.7 kJ·mol^{-1} [4] S^0_{298} = 173.8 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 142.97 - 3.14 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1203 K) [4]

SiV_3 (s) Vanadium Silicide **SiV_3 (s)**
V_3Si (s) V_3Si (s)

mp = 2198 K (1925 °C)
ΔH^0_{298} = – 150.6 kJ·mol^{-1} [4] S^0_{298} = 101.5 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 93.76 + 18.28 \cdot 10^{-3} \cdot T - 0.7 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

SiZr (s) Zirconium Silicide **SiZr (s)**
ZrSi (s) ZrSi (s)

ΔH^0_{298} = – 154.8 kJ·mol^{-1} [2] S^0_{298} = 58.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 44.5$ J·mol^{-1}·K^{-1} (298 K) [2]

$SiZr_2$ (s) Zirconium Silicide **$SiZr_2$ (s)**
Zr_2Si (s) Zr_2Si (s)

$\Delta H^0_{298} = -208.4$ kJ·mol^{-1} [2] $S^0_{298} = 100.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 68.8$ J·mol^{-1}·K^{-1} (298 K) [2]

Si_2 (g) Silicon **Si_2 (g)**

$\Delta H^0_{298} = 589.9 \pm 13$ kJ·mol^{-1} [1] $S^0_{298} = 229.8$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 34.5$ J·mol^{-1}·K^{-1} (298 K) [1]

Si_2Ta (s) Tantalum Silicide **Si_2Ta (s)**
$TaSi_2$ (s) $TaSi_2$ (s)

mp = 2470 K (2197 °C)
$\Delta H^0_{298} = -119.1$ kJ·mol^{-1} [2] $S^0_{298} = 75.3$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 73.26 + 7.7 \cdot 10^{-3} \cdot T - 0.91 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Si_2Te_3 (s) Silicon Telluride **Si_2Te_3 (s)**

mp = 1158 K (885 °C)
$\Delta H^0_{298} = -77.4$ kJ·mol^{-1} [4] $S^0_{298} = 167.4$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 125.52 + 24.56 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1158 K) [4]

Si_2Th (s) Thorium Silicide **Si_2Th (s)**
$ThSi_2$ (s) $ThSi_2$ (s)

mp = 2173 K (1900 °C)
$\Delta H^0_{298} = -174.1$ kJ·mol^{-1} [2] $S^0_{298} = 82$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 73.35 + 12.76 \cdot 10^{-3} \cdot T - 0.88 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Si_2Th_3 (s) Thorium Silicide **Si_2Th_3 (s)**
Th_3Si_2 (s) Th_3Si_2 (s)

mp = 2173 K (1900 °C)
$\Delta H^0_{298} = -284.9$ kJ·mol^{-1} [2] $S^0_{298} = 163.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 124.27 + 28.45 \cdot 10^{-3} \cdot T - 0.98 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2173 K) [4]

Si_2Ti (s) Titanium Silicide **Si_2Ti (s)**
$TiSi_2$ (s) $TiSi_2$ (s)

mp = 1773 K (1500 °C)
$\Delta H^0_{298} = -133.9$ kJ·mol^{-1} [4] $S^0_{298} = 61.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 70.42 + 17.57 \cdot 10^{-3} \cdot T - 0.9 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1773 K) [4]

Si_2U (s) Uranium Silicide **Si_2U (s)**
USi_2 (s) USi_2 (s)

mp = 1973 K (1700 °C)
$\Delta H^0_{298} = -130.5$ kJ·mol^{-1} [4] $S^0_{298} = 82$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 89.62 + 4.06 \cdot 10^{-3} \cdot T - 1.68 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1973 K) [4]

Si_2U_3 (s) Uranium Silicide **Si_2U_3 (s)**
U_3Si_2 (s) U_3Si_2 (s)

mp = 1938 K (1665 °C)
$\Delta H^0_{298} = -169.5$ kJ·mol^{-1} [4] $S^0_{298} = 197.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 169.37 + 2.43 \cdot 10^{-3} \cdot T - 3.52 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1938 K) [4]

Si_2V (s) Vanadium Silicide **Si_2V (s)**
VSi_2 (s) VSi_2 (s)

mp = 1950 K (1677 °C)
$\Delta H^0_{298} = -125.5$ kJ·mol^{-1} [4] $S^0_{298} = 58.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 71.46 + 11.63 \cdot 10^{-3} \cdot T - 0.94 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1950 K) [4]

Si_2W (s) Tungsten Silicide **Si_2W (s)**
WSi_2 (s) WSi_2 (s)

mp = 2437 K (2164 °C)
$\Delta H^0_{298} = -92.9$ kJ·mol^{-1} [4] $S^0_{298} = 64$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 67.82 + 11.05 \cdot 10^{-3} \cdot T - 0.61 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Si_2Zr (s) Zirconium Silicide **Si_2Zr (s)**
$ZrSi_2$ (s) $ZrSi_2$ (s)

$\Delta H^0_{298} = -159.4$ kJ·mol^{-1} [2] $S^0_{298} = 71.5$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 64.6$ J·mol^{-1}·K^{-1} (298 K) [2]

Si_3 (g) Silicon **Si_3 (g)**

$\Delta H^0_{298} = 636 \pm 42$ kJ·mol^{-1} [1] $S^0_{298} = 267.9$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 55.1$ J·mol^{-1}·K^{-1} (298 K) [1]

Si_3Ta_5 (s) Tantalum Silicide **Si_3Ta_5 (s)**
Ta_5Si_3 (s) Ta_5Si_3 (s)

mp = 2770 K (2497 °C)
$\Delta H^0_{298} = -334.7$ kJ·mol^{-1} [2] $S^0_{298} = 280.7$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 179.7 + 39.12 \cdot 10^{-3} \cdot T - 0.89 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Si_3Ti_5 (s) Titanium Silicide **Si_3Ti_5 (s)**
Ti_5Si_3 (s) Ti_5Si_3 (s)

mp = 2403 K (2130 °C)
$\Delta H^0_{298} = -579.5$ kJ·mol^{-1} [4] $S^0_{298} = 218$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 196.44 + 44.77 \cdot 10^{-3} \cdot T - 2.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Si_3U (s) Uranium Silicide **Si_3U (s)**
USi_3 (s) USi_3 (s)

mp = 1783 K (1510 °C)
$\Delta H^0_{298} = -132.2$ kJ·mol^{-1} [2] $S^0_{298} = 106.3$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 113.18 + 6.44 \cdot 10^{-3} \cdot T - 2.07 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1783 K) [4]

Si_3V_5 (s) Vanadium Silicide **Si_3V_5 (s)**
V_5Si_3 (s) V_5Si_3 (s)

mp = 2283 K (2010 °C)
$\Delta H^0_{298} = -462.3$ kJ·mol^{-1} [4] $S^0_{298} = 208.8$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 188.45 + 118.83 \cdot 10^{-3} \cdot T - 1.73 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Si_3W_5 (s) Tungsten Silicide **Si_3W_5 (s)**

W_5Si_3 (s) W_5Si_3 (s)

mp = 2597 K (2324 °C)

$\Delta H^0_{298} = -135.2$ kJ·mol^{-1} [2] $S^0_{298} = 229.7$ J·mol^{-1}·K^{-1} [4]

$C_p^0 = 179.66 + 39.16 \cdot 10^{-3} \cdot T - 0.89 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Si_3Zr_5 (s) Zirconium Silicide **Si_3Zr_5 (s)**

Zr_5Si_3 (s) Zr_5Si_3 (s)

$\Delta H^0_{298} = -575.7$ kJ·mol^{-1} [2] $S^0_{298} = 263.2$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 181.3$ J·mol^{-1}·K^{-1} (298 K) [2]

Si_4 (g) Silicon **Si_4 (g)**

$\Delta H^0_{298} = 646 \pm 22$ kJ·mol^{-1} [251] $S^0_{298} = [292.8]$ J·mol^{-1}·K^{-1} [15]

Si_5Th_3 (s) Thorium Silicide **Si_5Th_3 (s)**

Th_3Si_5 (s) Th_3Si_5 (s)

mp = 2023 K (1750 °C)

$\Delta H^0_{298} = -486.2$ kJ·mol^{-1} [2] $S^0_{298} = 213.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 196.1 + 35.82 \cdot 10^{-3} \cdot T - 2.23 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1993 K) [4]

Si_5U_3 (s) Uranium Silicide **Si_5U_3 (s)**

U_3Si_5 (s) U_3Si_5 (s)

$\Delta H^0_{298} = -354.4$ kJ·mol^{-1} [2] $S^0_{298} = 231.4$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 192.7$ J·mol^{-1}·K^{-1} (298 K) [2]

Sm (s) Samarium alpha **Sm (s)**

mp = 1345 K (1072 °C) bp = 2061 K (1788 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 69.5$ J·mol^{-1}·K^{-1} [2]

$C_p^0 = 36.57 + 10.25 \cdot 10^{-3} \cdot T - 0.95 \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1190 K) [4]

$\lg(p,K) = -11.23 \cdot 10^{3} \cdot T^{-1} - 1.85 \cdot \lg(T) + 11.79$ (800 ... 1190 K) [4]

{Reaction: evaporation as Sm(g)}

Sm (s) | Samarium alpha | **Sm** (s)

$\Delta H^0_{1190} = 37$ kJ·mol^{-1} [4] $S^0_{1190} = 124.2$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 48.09$ J·mol^{-1}·K^{-1} (1190 K) [4]

Sm (s) | Samarium beta | **Sm** (s)

$\Delta H^0_{1190} = 40.1$ kJ·mol^{-1} [4] $S^0_{1190} = 126.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 46.94$ J·mol^{-1}·K^{-1} (1190 K) [4]
$\lg(p,K) = -11.19 \cdot 10^3 \cdot T^{-1} - 2.1 \cdot \lg(T) + 12.52$ (1190 ... 1345 K) [4]
{Reaction: evaporation as Sm(g)}

Sm (s) | Samarium beta | **Sm** (s)

$\Delta H^0_{1345} = 47.4$ kJ·mol^{-1} [4] $S^0_{1345} = 132.6$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 46.94$ J·mol^{-1}·K^{-1} (1345 K) [4]

Sm (l) | Samarium | **Sm** (l)

$\Delta H^0_{1345} = 56$ kJ·mol^{-1} [4] $S^0_{1345} = 139$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 50.21$ J·mol^{-1}·K^{-1} (1345 K) [4]
$\lg(p,K) = -11.11 \cdot 10^3 \cdot T^{-1} - 2.71 \cdot \lg(T) + 14.37$ (1345 ... 2061 K) [4]
{Reaction: evaporation as Sm(g)}

Sm (g) | Samarium | **Sm** (g)

$\Delta H^0_{298} = 206.3$ kJ·mol^{-1} [4] $S^0_{298} = 183$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 32.15 - 0.49 \cdot 10^{-3} \cdot T - 0.16 \cdot 10^6 \cdot T^{-2} - 1.18 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2100 K) [4]

SmTe (s) | Samarium Telluride | **SmTe** (s)

$\Delta H^0_{298} = [-309.6]$ kJ·mol^{-1} [5] $S^0_{298} = [97.1]$ J·mol^{-1}·K^{-1} [5]

SmTe (g) Samarium Telluride **SmTe (g)**

ΔH^0_{298} = [184.9] kJ·mol^{-1} [5] S^0_{298} = [287] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.37] + [0.02] ·10^{-3}·T + [– 0.10] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

Sm$_2$Te$_3$ (s) Samarium Telluride **Sm$_2$Te$_3$ (s)**

ΔH^0_{298} = [– 795] kJ·mol^{-1} [5] S^0_{298} = [265.7] J·mol^{-1}·K^{-1} [5]

Sn (s) Tin beta **Sn (s)**

mp = 505 K (232 °C) bp = 2878 K (2605 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 51.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 21.59 + 18.16 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 505 K) [4]

Sn (s) Tin beta **Sn (s)**

ΔH^0_{505} = 6 kJ·mol^{-1} [2] S^0_{505} = 66.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 30.76 J·mol^{-1}·K^{-1} (505 K) [4]

Sn (l) Tin **Sn (l)**

ΔH^0_{505} = 13 kJ·mol^{-1} [2] S^0_{505} = 80.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 21.69 + 6.15 ·10^{-3}·T + 1.29 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (505 ... 700 K) [4]
lg(p,K) = – 15.27 ·10^3·T^{-1} + 0.25 · lg(T) + 4.46 (1100 ... 2000 K) [4]
{Reaction: evaporation as Sn(g)}

Sn (g) Tin **Sn (g)**

ΔH^0_{298} = 301.5 kJ·mol^{-1} [4] S^0_{298} = 168.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 31.59 + 2.03 ·10^{-3}·T – 1.13 ·10^6·T^{-2} – 1.37 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

SnTe (s) Tin(II) Telluride **SnTe (s)**

mp = 1079 K (806 °C)
$\Delta H^0_{298} = -60.7$ kJ·mol^{-1} [4] $S^0_{298} = 98.7$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 47.95 + 11.8 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1079 K) [4]
$\lg(p,K) = -11.74 \cdot 10^3 \cdot T^{-1} - 2.55 \cdot \lg(T) + 16.19$ (700 ... 1079 K) [4]
{Reaction: evaporation as SnTe(g)}

SnTe (s) Tin(II) Telluride **SnTe (s)**

$\Delta H^0_{1079} = -16.9$ kJ·mol^{-1} [4] $S^0_{1079} = 169.6$ J·mol^{-1}·K^{-1} [4]

SnTe (l) Tin(II) Telluride **SnTe (l)**

$\Delta H^0_{1079} = 20.8$ kJ·mol^{-1} [4] $S^0_{1079} = 204.5$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 61.92$ J·mol^{-1}·K^{-1} (1079 K) [4]
$\lg(p,K) = -9.95 \cdot 10^3 \cdot T^{-1} - 2.96 \cdot \lg(T) + 15.78$ (1079 ... 1577 K) [4]
{Reaction: evaporation as SnTe(g)}

SnTe (g) Tin(II) Telluride **SnTe (g)**

$\Delta H^0_{298} = 155.8$ kJ·mol^{-1} [4] $S^0_{298} = 262.4$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 37.41 - 0.09 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

$SnTe_2$ (g) Tin(IV) Telluride **$SnTe_2$ (g)**

$\Delta H^0_{298} = 171.5$ kJ·mol^{-1} [5] $S^0_{298} = [333.9]$ J·mol^{-1}·K^{-1} [5]

Sn_2Te_2 (g) Tin(II) Telluride **Sn_2Te_2 (g)**

$\Delta H^0_{298} = 123.8$ kJ·mol^{-1} [5] $S^0_{298} = 350.2$ J·mol^{-1}·K^{-1} [5]

Sr (s) Strontium alpha **Sr** (s)

mp = 1050 K (777 °C) bp = 1685 K (1412 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 55.7 ± 0.1 J·mol^{-1}·K^{-1} [1]

$C_p^0 = 22.22 + 13.89 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 820 K) [4]

$\lg(p,K) = -8.78 \cdot 10^3 \cdot T^{-1} - 1.36 \cdot \lg(T) + 9.79$ (600 ... 820 K) [4]

{Reaction: evaporation as Sr(g)}

Sr (s) Strontium alpha **Sr** (s)

ΔH^0_{820} = 15.6 kJ·mol^{-1} [4] S^0_{820} = 85.4 J·mol^{-1}·K^{-1} [4]

C_p^0 = 33.61 J·mol^{-1}·K^{-1} (820 K) [4]

Sr (s) Strontium beta **Sr** (s)

ΔH^0_{820} = 16.5 kJ·mol^{-1} [4] S^0_{820} = 86.4 J·mol^{-1}·K^{-1} [4]

$C_p^0 = -59.76 + 62.99 \cdot 10^{-3} \cdot T + 27.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (820 ... 1050 K) [4]

$\lg(p,K) = -8.71 \cdot 10^3 \cdot T^{-1} - 1.29 \cdot \lg(T) + 9.51$ (820 ... 1050 K) [4]

{Reaction: evaporation as Sr(g)}

Sr (s) Strontium beta **Sr** (s)

ΔH^0_{1050} = 23.5 kJ·mol^{-1} [4] S^0_{1050} = 94 J·mol^{-1}·K^{-1} [4]

C_p^0 = 30.9 J·mol^{-1}·K^{-1} (1050 K) [4]

Sr (l) Strontium **Sr** (l)

ΔH^0_{1050} = 30.9 kJ·mol^{-1} [4] S^0_{1050} = 101.1 J·mol^{-1}·K^{-1} [4]

C_p^0 = 39.46 J·mol^{-1}·K^{-1} (1050 K) [4]

$\lg(p,K) = -8.77 \cdot 10^3 \cdot T^{-1} - 2.25 \cdot \lg(T) + 12.46$ (1050 ... 1685 K) [4]

{Reaction: evaporation as Sr(g)}

Sr (l) Strontium **Sr** (l)

ΔH^0_{1685} = 56 kJ·mol^{-1} [4] S^0_{1685} = 119.7 J·mol^{-1}·K^{-1} [4]

C_p^0 = 39.46 J·mol^{-1}·K^{-1} (1685 K) [4]

Sr (g) Strontium **Sr (g)**

ΔH^0_{1685} = 192.3 kJ·mol^{-1} [4] S^0_{1685} = 200.6 J·mol^{-1}·K^{-1} [4]
C_p^0= 20.79 J·mol^{-1}·K^{-1} (1685 K) [4]

Sr (s) Strontium beta **Sr (s)**

ΔH^0_{298} = 1.2 kJ·mol^{-1} [1] S^0_{298} = 57.2 J·mol^{-1}·K^{-1} [1]
C_p^0= 27.6 J·mol^{-1}·K^{-1} (298 K) [1]

Sr (l) Strontium **Sr (l)**

ΔH^0_{298} = 0.9 kJ·mol^{-1} [1] S^0_{298} = 50.9 J·mol^{-1}·K^{-1} [1]
C_p^0= 39.5 J·mol^{-1}·K^{-1} (298 K) [1]

Sr (g) Strontium **Sr (g)**

ΔH^0_{298} = 164 ± 1.7 kJ·mol^{-1} [1] S^0_{298} = 164.6 J·mol^{-1}·K^{-1} [1]
C_p^0= 20.79 J·mol^{-1}·K^{-1} (298 K) [4]

SrTe (s) Strontium Telluride **SrTe (s)**

ΔH^0_{298} = [– 313.8] kJ·mol^{-1} [5] S^0_{298} = [87.9] J·mol^{-1}·K^{-1} [5]

Ta (s) Tantalum **Ta (s)**

mp = 3258 K (2985 °C) bp = 5778 K (5505 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 41.5 ± 0.2 J·mol^{-1}·K^{-1} [1]
C_p^0= 24.97 + 3.06 ·10^{-3}·T – 0.05 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
lg(p,K) = – 41.1 ·10^{3}·T^{-1} – 0.17 · lg(T) + 8 (298 ... 3258 K) [4]
{Reaction: evaporation as Ta(g)}

Ta (l) Tantalum **Ta (l)**

ΔH^0_{298} = 30.8 kJ·mol^{-1} [1] S^0_{298} = 50.4 J·mol^{-1}·K^{-1} [1]
C_p^0= 41.84 J·mol^{-1}·K^{-1} (3250 ... 4000 K) [3]
lg(p,K) = – 39.39 ·10^{3}·T^{-1} – 0.25 · lg(T) + 7.76 (3258 ... 5778 K) [4]
{Reaction: evaporation as Ta(g)}

Sr (g) Strontium **Sr** (g)

ΔH^0_{1685} = 192.3 kJ·mol^{-1} [4] S^0_{1685} = 200.6 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 20.79 J·mol^{-1}·K^{-1} (1685 K) [4]

Sr (s) Strontium beta **Sr** (s)

ΔH^0_{298} = 1.2 kJ·mol^{-1} [1] S^0_{298} = 57.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 27.6 J·mol^{-1}·K^{-1} (298 K) [1]

Sr (l) Strontium **Sr** (l)

ΔH^0_{298} = 0.9 kJ·mol^{-1} [1] S^0_{298} = 50.9 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 39.5 J·mol^{-1}·K^{-1} (298 K) [1]

Sr (g) Strontium **Sr** (g)

ΔH^0_{298} = 164 ± 1.7 kJ·mol^{-1} [1] S^0_{298} = 164.6 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 20.79 J·mol^{-1}·K^{-1} (298 K) [4]

SrTe (s) Strontium Telluride **SrTe** (s)

ΔH^0_{298} = [– 313.8] kJ·mol^{-1} [5] S^0_{298} = [87.9] J·mol^{-1}·K^{-1} [5]

Ta (s) Tantalum **Ta** (s)

mp = 3258 K (2985 °C) bp = 5778 K (5505 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 41.5 ± 0.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 24.97 + 3.06 ·10^{-3}·T – 0.05 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
lg(p,K) = – 41.1 ·10^{3}·T^{-1} – 0.17 · lg(T) + 8 (298 ... 3258 K) [4]
{Reaction: evaporation as Ta(g)}

Ta (l) Tantalum **Ta** (l)

ΔH^0_{298} = 30.8 kJ·mol^{-1} [1] S^0_{298} = 50.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 41.84 J·mol^{-1}·K^{-1} (3250 ... 4000 K) [3]
lg(p,K) = – 39.39 ·10^{3}·T^{-1} – 0.25 · lg(T) + 7.76 (3258 ... 5778 K) [4]
{Reaction: evaporation as Ta(g)}

Ta (g) Tantalum **Ta (g)**

ΔH^0_{298} = 782 kJ·mol^{-1} [1] S^0_{298} = 186.6 J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 22.38 + 5.86 \cdot 10^{-3} \cdot T - 0.44 \cdot 10^{6} \cdot T^{-2} - 0.41 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Tb (s) Terbium alpha **Tb (s)**

mp = 1630 K (1357 °C) bp = 3492 K (3219 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 73.3 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 20.82 + 11.39 \cdot 10^{-3} \cdot T + 0.39 \cdot 10^{6} \cdot T^{-2} + 3.23 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 1560 K) [4]

$\lg(p,K) = -21.05 \cdot 10^3 \cdot T^{-1} - 2.05 \cdot \lg(T) + 13.54$ (1400 ... 1560 K) [4]

{Reaction: evaporation as Tb(g)}

Tb (s) Terbium alpha **Tb (s)**

ΔH^0_{1560} = 44.8 kJ·mol^{-1} [2] S^0_{1560} = 128.1 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 46.61 J·mol^{-1}·K^{-1} (1560 K) [4]

Tb (s) Terbium beta **Tb (s)**

ΔH^0_{1560} = 49.8 kJ·mol^{-1} [2] S^0_{1560} = 131.3 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 27.74 J·mol^{-1}·K^{-1} (1560 K) [4]

$\lg(p,K) = -19.35 \cdot 10^3 \cdot T^{-1} + 0.08 \cdot \lg(T) + 5.65$ (1560 ... 1630 K) [4]

{Reaction: evaporation as Tb(g)}

Tb (s) Terbium beta **Tb (s)**

ΔH^0_{1630} = 51.7 kJ·mol^{-1} [2] S^0_{1630} = 132.5 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 27.74 J·mol^{-1}·K^{-1} (1630 K) [4]

Tb (l) Terbium **Tb (l)**

ΔH^0_{1630} = 62.5 kJ·mol^{-1} [2] S^0_{1630} = 139.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$ = 46.48 J·mol^{-1}·K^{-1} (1630 K) [4]

$\lg(p,K) = -20.32 \cdot 10^3 \cdot T^{-1} - 2.07 \cdot \lg(T) + 13.15$ (1630 ... 2000 K) [4]

{Reaction: evaporation as Tb(g)}

Tb (g) Terbium **Tb** (g)

ΔH^0_{298} = 388.7 kJ·mol^{-1} [2] S^0_{298} = 203.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 21.08 + 4.54 ·10^{-3}·T + 0.2 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

TbTe (s) Terbium Telluride **TbTe** (s)

ΔH^0_{298} = [– 313.8] kJ·mol^{-1} [5] S^0_{298} = [97.1] J·mol^{-1}·K^{-1} [5]

TbTe (g) Terbium Telluride **TbTe** (g)

ΔH^0_{298} = 268.6 kJ·mol^{-1} [2] S^0_{298} = 286.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 36.3 J·mol^{-1}·K^{-1} (298 K) [2]

Tb_2Te_3 (s) Terbium Telluride **Tb_2Te_3** (s)

ΔH^0_{298} = [– 795] kJ·mol^{-1} [5] S^0_{298} = [263.6] J·mol^{-1}·K^{-1} [5]

Tc (s) Technetium **Tc** (s)

mp = 2473 K (2200 °C) bp = 4535 K (4262 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 33.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 23.75 + 5.41 ·10^{-3}·T – 0.01 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2473 K) [4]
lg(p,K) = – 36.1 ·10^{3}·T^{-1} – 0.76 · lg(T) + 10.29 (2200 ... 2473 K) [4]
{Reaction: evaporation as Tc(g)}

Tc (s) Technetium **Tc** (s)

ΔH^0_{2473} = 72.5 kJ·mol^{-1} [2] S^0_{2473} = 97.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 42.5 J·mol^{-1}·K^{-1} (2473 K) [2]

Tc (l) Technetium **Tc** (l)

ΔH^0_{2473} = 96.4 kJ·mol^{-1} [2] S^0_{2473} = 107.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 41.8 J·mol^{-1}·K^{-1} (2473 ... 4900 K) [2]

Tc (g) Technetium **Tc** (g)

ΔH^0_{298} = 681.1 kJ·mol^{-1} [4] S^0_{298} = 181 J·mol^{-1}·K^{-1} [4]

C_p^0= 8.39 + 26.9 ·10^{-3}·T + 0.44 ·10^{6}·T^{-2} – 7.64 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (298 ... 2473 K) [4]

Te (s) Tellurium **Te** (s)

mp = 723 K (450 °C) bp = 1262 K (989 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 49.7 J·mol^{-1}·K^{-1} [4]

C_p^0= 19.12 + 22.09 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 723 K) [4]

Te (s) Tellurium **Te** (s)

ΔH^0_{723} = 12.9 kJ·mol^{-1} [2] S^0_{723} = 76 J·mol^{-1}·K^{-1} [4]

C_p^0= 35.09 J·mol^{-1}·K^{-1} (723 K) [4]

Te (l) Tellurium **Te** (l)

ΔH^0_{723} = 29.5 kJ·mol^{-1} [4] S^0_{723} = 100 J·mol^{-1}·K^{-1} [4]

C_p^0= 37.66 J·mol^{-1}·K^{-1} (723 K) [4]

Te (g) Tellurium **Te** (g)

ΔH^0_{298} = 211.7 kJ·mol^{-1} [2] S^0_{298} = 182.7 J·mol^{-1}·K^{-1} [2]

C_p^0= 19.41 + 1.84 ·10^{-3}·T + 0.08 ·10^{6}·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

lg(p,K) = – 10.59 ·10^{3}·T^{-1} – 1.96 · lg(T) + 11.78 (723 ... 1262 K) [4]

{Reaction: evaporation of Te(l)}

TeTh (s) Thorium Telluride **TeTh** (s)

ThTe (s) ThTe (s)

ΔH^0_{298} = [– 242.7] kJ·mol^{-1} [5] S^0_{298} = [96.2] J·mol^{-1}·K^{-1} [5]

TeTi (s) Titanium Telluride **TeTi** (s)

TiTe (s) TiTe (s)

ΔH^0_{298} = – 120.9 kJ·mol^{-1} [5] S^0_{298} = [83.7] J·mol^{-1}·K^{-1} [5]

TeTi (g) Titanium Telluride **TeTi (g)**
TiTe (g) TiTe (g)

ΔH^0_{298} = 395.4 kJ·mol^{-1} [5] S^0_{298} = [266.6] J·mol^{-1}·K^{-1} [5]

TeTi$_2$ (s) Titanium Telluride **TeTi$_2$ (s)**
Ti$_2$Te (s) Ti$_2$Te (s)

ΔH^0_{298} = – 112.1 kJ·mol^{-1} [5] S^0_{298} = [128] J·mol^{-1}·K^{-1} [5]

TeTl (s) Thallium Telluride **TeTl (s)**
TlTe (s) TlTe (s)

ΔH^0_{298} = – 43.9 kJ·mol^{-1} [5] S^0_{298} = 110.9 J·mol^{-1}·K^{-1} [5]

TeTl$_2$ (s) Thallium Telluride **TeTl$_2$ (s)**
Tl$_2$Te (s) Tl$_2$Te (s)

mp = 726 K (453 °C)
ΔH^0_{298} = – 80.3 kJ·mol^{-1} [2] S^0_{298} = 174.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 67.99 + 27.2 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 726 K) [4]

TeTm (s) Thulium Telluride **TeTm (s)**
TmTe (s) TmTe (s)

ΔH^0_{298} = [– 313.8] kJ·mol^{-1} [5] S^0_{298} = [97.1] J·mol^{-1}·K^{-1} [5]

TeTm (g) Thulium Telluride **TeTm (g)**
TmTe (g) TmTe (g)

ΔH^0_{298} = [272.8] kJ·mol^{-1} [5] S^0_{298} = [277.8] J·mol^{-1}·K^{-1} [5]
$C_p{}^0 = [37.38] + [0.02] \cdot 10^{-3} \cdot T + [-0.10] \cdot 10^{6} \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

TeU (s) Uranium Telluride **TeU (s)**
UTe (s) UTe (s)

ΔH^0_{298} = – 182.4 kJ·mol^{-1} [5] S^0_{298} = [107.5] J·mol^{-1}·K^{-1} [5]

TeU (g) Uranium Telluride **TeU** (g)
UTe (g) UTe (g)

ΔH^0_{298} = [437.6] kJ·mol^{-1} [5] S^0_{298} = [282.1] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.35] + [0.03] ·10^{-3}·T + [– 0.13] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

TeV (g) Vanadium Telluride **TeV** (g)
VTe (g) VTe (g)

ΔH^0_{298} = [434.3] kJ·mol^{-1} [5] S^0_{298} = [268.9] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.33] + [0.05] ·10^{-3}·T + [– 0.16] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

TeY (s) Yttrium Telluride **TeY** (s)
YTe (s) YTe (s)

ΔH^0_{298} = [– 301.2] kJ·mol^{-1} [5] S^0_{298} = [86.6] J·mol^{-1}·K^{-1} [5]

TeY (g) Yttrium Telluride **TeY** (g)
YTe (g) YTe (g)

ΔH^0_{298} = [292.9] kJ·mol^{-1} [5] S^0_{298} = [264.6] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.37] + [0.02] ·10^{-3}·T + [– 0.12] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

TeYb (s) Ytterbium Telluride **TeYb** (s)
YbTe (s) YbTe (s)

ΔH^0_{298} = [– 301.2] kJ·mol^{-1} [5] S^0_{298} = [88.7] J·mol^{-1}·K^{-1} [5]

TeYb (g) Ytterbium Telluride **TeYb** (g)
YbTe (g) YbTe (g)

ΔH^0_{298} = [263.6] kJ·mol^{-1} [5] S^0_{298} = [275.7] J·mol^{-1}·K^{-1} [5]
$C_p{}^0$= [37.39] + [0.01] ·10^{-3}·T + [– 0.08] ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [5]

TeZn (s) Zinc Telluride **TeZn** (s)
ZnTe (s) ZnTe (s)

mp = 1570 K (1297 °C)
ΔH^0_{298} = – 119.2 kJ·mol^{-1} [2] S^0_{298} = 77.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 44.1 + 18.74 ·10^{-3}·T J·mol^{-1}·K^{-1} (298 ... 1570 K) [4]

TeZn (g) Zinc Telluride **TeZn (g)**
ZnTe (g) ZnTe (g)

ΔH^0_{298} = 255.2 kJ·mol^{-1} [2] S^0_{298} = 257.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 37.39 + 0.01 ·10^{-3}·T – 0.08 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Te$_2$ (g) Tellurium **Te$_2$ (g)**

ΔH^0_{298} = 160.4 kJ·mol^{-1} [2] S^0_{298} = 262.2 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 34.64 + 6.62 ·10^{-3}·T – 0.03 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]
lg(p,K) = – 7.42 ·10^3·T^{-1} – 4.11 · lg(T) + 18.63 (723 ... 1262 K) [4]
{Reaction: evaporation of Te(l)}

Te$_2$Th (s) Thorium Telluride **Te$_2$Th (s)**
ThTe$_2$ (s) ThTe$_2$ (s)

ΔH^0_{298} = [– 364] kJ·mol^{-1} [5] S^0_{298} = [138.1] J·mol^{-1}·K^{-1} [5]

Te$_2$Ti (s) Titanium Telluride **Te$_2$Ti (s)**
TiTe$_2$ (s) TiTe$_2$ (s)

ΔH^0_{298} = – 212.9 kJ·mol^{-1} [5] S^0_{298} = [117.2] J·mol^{-1}·K^{-1} [5]

Te$_2$U (s) Uranium Telluride alpha **Te$_2$U (s)**
UTe$_2$ (s) UTe$_2$ (s)

ΔH^0_{298} = [– 318] kJ·mol^{-1} [5] S^0_{298} = [150.6] J·mol^{-1}·K^{-1} [5]

Te$_2$W (s) Tungsten Telluride **Te$_2$W (s)**
WTe$_2$ (s) WTe$_2$ (s)

ΔH^0_{298} = [– 133.9] kJ·mol^{-1} [5] S^0_{298} = [104.6] J·mol^{-1}·K^{-1} [5]

Te$_2$Zr (s) Zirconium Telluride **Te$_2$Zr (s)**
ZrTe$_2$ (s) ZrTe$_2$ (s)

ΔH^0_{298} = [– 301.2] kJ·mol^{-1} [5] S^0_{298} = [108.8] J·mol^{-1}·K^{-1} [5]

Te_3Th_2 (s) Thorium Telluride **Te_3Th_2 (s)**

Th_2Te_3 (s) Th_2Te_3 (s)

ΔH^0_{298} = – 627.6 kJ·mol⁻¹ [5] S^0_{298} = [234.3] J·mol⁻¹·K⁻¹ [5]

Te_3Tl_2 (s) Thallium Telluride **Te_3Tl_2 (s)**

Tl_2Te_3 (s) Tl_2Te_3 (s)

ΔH^0_{298} = – 89.9 kJ·mol⁻¹ [5] S^0_{298} = 114.2 J·mol⁻¹·K⁻¹ [5]

Te_3Tm_2 (s) Thulium Telluride **Te_3Tm_2 (s)**

Tm_2Te_3 (s) Tm_2Te_3 (s)

ΔH^0_{298} = [– 815.9] kJ·mol⁻¹ [5] S^0_{298} = [253.1] J·mol⁻¹·K⁻¹ [5]

Te_3U (s) Uranium Telluride **Te_3U (s)**

UTe_3 (s) UTe_3 (s)

ΔH^0_{298} = [– 272] kJ·mol⁻¹ [5] S^0_{298} = [191.2] J·mol⁻¹·K⁻¹ [5]

Te_3U_2 (s) Uranium Telluride **Te_3U_2 (s)**

U_2Te_3 (s) U_2Te_3 (s)

ΔH^0_{298} = [– 523] kJ·mol⁻¹ [5] S^0_{298} = [265.3] J·mol⁻¹·K⁻¹ [5]

Te_3Y_2 (s) Yttrium Telluride **Te_3Y_2 (s)**

Y_2Te_3 (s) Y_2Te_3 (s)

ΔH^0_{298} = [– 795] kJ·mol⁻¹ [5] S^0_{298} = [200.8] J·mol⁻¹·K⁻¹ [5]

Te_3Zr (s) Zirconium Telluride **Te_3Zr (s)**

$ZrTe_3$ (s) $ZrTe_3$ (s)

ΔH^0_{298} = [– 292.9] kJ·mol⁻¹ [5] S^0_{298} = [138.1] J·mol⁻¹·K⁻¹ [5]

Te_4U_3 (s) Uranium Telluride **Te_4U_3 (s)**

U_3Te_4 (s) U_3Te_4 (s)

$\Delta H^0_{298} = -684.1$ kJ·mol^{-1} [5] $S^0_{298} = [377.8]$ J·mol^{-1}·K^{-1} [5]

Te_4Zr_5 (s) Zirconium Telluride **Te_4Zr_5 (s)**

Zr_5Te_4 (s) Zr_5Te_4 (s)

$\Delta H^0_{298} = -829 \pm 44$ kJ·mol^{-1} [80] $S^0_{298} = 330 \pm 0.4$ J·mol^{-1}·K^{-1} [80]

Te_5U_3 (s) Uranium Telluride **Te_5U_3 (s)**

U_3Te_5 (s) U_3Te_5 (s)

$\Delta H^0_{298} = [-669.4]$ kJ·mol^{-1} [5] $S^0_{298} = [399.6]$ J·mol^{-1}·K^{-1} [5]

Te_7U_3 (s) Uranium Telluride **Te_7U_3 (s)**

U_3Te_7 (s) U_3Te_7 (s)

$\Delta H^0_{298} = [-795]$ kJ·mol^{-1} [5] $S^0_{298} = [481.2]$ J·mol^{-1}·K^{-1} [5]

Th (s) Thorium alpha **Th (s)**

mp = 2023 K (1750 °C) bp = 5056 K (4783 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] $S^0_{298} = 53.4$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 25.35 + 7.92 \cdot 10^{-3} \cdot T - 0.03 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1633 K) [4]

Th (s) Thorium alpha **Th (s)**

$\Delta H^0_{1633} = 43.9$ kJ·mol^{-1} [4] $S^0_{1633} = 106.9$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 38.27$ J·mol^{-1}·K^{-1} (1633 K) [4]

Th (s) Thorium beta **Th (s)**

$\Delta H^0_{1633} = 47.6$ kJ·mol^{-1} [4] $S^0_{1633} = 109.1$ J·mol^{-1}·K^{-1} [4]

$C_p{}^0 = 15.94 + 11.87 \cdot 10^{-3} \cdot T - 0.23 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1633 ... 2023 K) [4]

Th (s) | Thorium beta | **Th** (s)

$\Delta H^0_{2023} = 62.2$ kJ·mol^{-1} [4] $S^0_{2023} = 117.1$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 39.89$ J·mol^{-1}·K^{-1} (2023 K) [4]

Th (l) | Thorium | **Th** (l)

$\Delta H^0_{2023} = 76$ kJ·mol^{-1} [4] $S^0_{2023} = 123.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 46.02$ J·mol^{-1}·K^{-1} (2023 K) [4]
$\lg(p,K) = -29.03 \cdot 10^3 \cdot T^{-1} - 1.08 \cdot \lg(T) + 9.74$ (2023 ... 2500 K) [4]
{Reaction: evaporation as Th(g)}

Th (g) | Thorium | **Th** (g)

$\Delta H^0_{298} = 577.4$ kJ·mol^{-1} [4] $S^0_{298} = 190.2$ J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 13.64 + 12.76 \cdot 10^{-3} \cdot T + 0.3 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

Ti (s) | Titanium alpha | **Ti** (s)

mp = 1939 K (1666 °C) bp = 3631 K (3358 °C)
$\Delta H^0_{298} = 0$ kJ·mol^{-1} [1] $S^0_{298} = 30.8 \pm 0.2$ J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 22.24 + 10.21 \cdot 10^{-3} \cdot T - 0.01 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1166 K) [4]

Ti (s) | Titanium alpha | **Ti** (s)

$\Delta H^0_{1166} = 25.8$ kJ·mol^{-1} [4] $S^0_{1166} = 69.9$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 34.13$ J·mol^{-1}·K^{-1} (1166 K) [4]

Ti (s) | Titanium beta | **Ti** (s)

$\Delta H^0_{1166} = 26.8$ kJ·mol^{-1} [4] $S^0_{1166} = 70.8$ J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 17.41 + 10.31 \cdot 10^{-3} \cdot T - 0.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1166 ... 1939 K) [4]
$\lg(p,K) = -25.11 \cdot 10^3 \cdot T^{-1} - 1.43 \cdot \lg(T) + 12.35$ (1500 ... 1939 K) [4]
{Reaction: evaporation as Ti(g)}

Ti (s) | Titanium beta | **Ti** (s)

ΔH^0_{1939} = 52.6 kJ·mol^{-1} [4] | S^0_{1939} = 87.6 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 37.38 J·mol^{-1}·K^{-1} (1939 K) [4]

Ti (l) | Titanium | **Ti** (l)

ΔH^0_{1939} = 66.7 kJ·mol^{-1} [4] | S^0_{1939} = 94.8 J·mol^{-1}·K^{-1} [4]

$C_p{}^0$= 47.24 J·mol^{-1}·K^{-1} (1939 K) [4]

$\lg(p,K) = -24.91 \cdot 10^3 \cdot T^{-1} - 2.52 \cdot \lg(T) + 15.83$ (1939 ... 2500 K) [4]

{Reaction: evaporation as Ti(g)}

Ti (s) | Titanium beta | **Ti** (s)

ΔH^0_{298} = 6.9 kJ·mol^{-1} [1] | S^0_{298} = 38.1 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 17.41 + 10.31 \cdot 10^{-3} \cdot T - 0.1 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1166 ... 1939 K) [4]

Ti (g) | Titanium | **Ti** (g)

ΔH^0_{298} = 473.6 ± 16.7 kJ·mol^{-1} [1] | S^0_{298} = 180.3 J·mol^{-1}·K^{-1} [1]

$C_p{}^0 = 23.33 - 5.03 \cdot 10^{-3} \cdot T + 0.21 \cdot 10^6 \cdot T^{-2} + 2.81 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

Tl (s) | Thallium alpha | **Tl** (s)

mp = 577 K (304 °C) | bp = 1744 K (1471 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [2] | S^0_{298} = 64.2 J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 28.39 - 20.34 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 507 K) [4]

Tl (s) | Thallium alpha | **Tl** (s)

ΔH^0_{507} = 5.8 kJ·mol^{-1} [2] | S^0_{507} = 78.8 J·mol^{-1}·K^{-1} [2]

$C_p{}^0$= 29.63 J·mol^{-1}·K^{-1} (507 K) [4]

Tl (s) Thallium beta **Tl** (s)

ΔH^0_{507} = 6.1 kJ·mol^{-1} [2] S^0_{507} = 79.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 27.15 + 9.58 ·10^{-3}·T J·mol^{-1}·K^{-1} (507 ... 577 K) [4]

Tl (s) Thallium beta **Tl** (s)

ΔH^0_{577} = 8.4 kJ·mol^{-1} [2] S^0_{577} = 83.7 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 32.68 J·mol^{-1}·K^{-1} (577 K) [4]

Tl (l) Thallium **Tl** (l)

ΔH^0_{577} = 12.6 kJ·mol^{-1} [2] S^0_{577} = 90.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 29.71 J·mol^{-1}·K^{-1} (577 ... 1744 K) [4]
lg(p,K) = – 9.32 ·10^3·T^{-1} – 1.01 · lg(T) + 8.62 (700 ... 1744 K) [4]
{Reaction: evaporation as Tl(g)}

Tl (g) Thallium **Tl** (g)

ΔH^0_{298} = 181 kJ·mol^{-1} [2] S^0_{298} = 181 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 19.73 + 1.12 ·10^{-3}·T + 0.08 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Tm (s) Thulium **Tm** (s)

mp = 1818 K (1545 °C) bp = 2217 K (1944 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 74 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 22.87 + 8.18 ·10^{-3}·T + 0.13 ·10^6·T^{-2} J·mol^{-1}·K^{-1} (298 ... 1818 K) [4]
lg(p,K) = – 12.54 ·10^3·T^{-1} – 1.65 · lg(T) + 11.27 (900 ... 1818 K) [4]
{Reaction: evaporation as Tm(g)}

Tm (s) Thulium **Tm** (s)

ΔH^0_{1818} = 48.3 kJ·mol^{-1} [2] S^0_{1818} = 128.5 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 37.77 J·mol^{-1}·K^{-1} (1818 K) [4]

Tm (l) Thulium **Tm** (l)

ΔH^0_{1818} = 65.1 kJ·mol^{-1} [2] S^0_{1818} = 137.8 J·mol^{-1}·K^{-1} [2]

C_p^0= 41.38 J·mol^{-1}·K^{-1} (1818 K) [4]

Tm (g) Thulium **Tm** (g)

ΔH^0_{298} = 232.2 kJ·mol^{-1} [2] S^0_{298} = 190.1 J·mol^{-1}·K^{-1} [2]

C_p^0= 22.52 – 2.24 ·10^{-3}·T – 0.32 ·10^6·T^{-2} + 0.83 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (298 ... 2217 K) [4]

U (s) Uranium alpha **U** (s)

mp = 1405 K (1132 °C) bp = 4440 K (4167 °C)

ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 50.3 J·mol^{-1}·K^{-1} [2]

C_p^0= 27.59 – 4.04 ·10^{-3}·T – 0.11 ·10^6·T^{-2} + 27.49 ·10^{-6}·T^2 J·mol^{-1}·K^{-1} (298 ... 941 K) [4]

U (s) Uranium alpha **U** (s)

ΔH^0_{941} = 23.3 kJ·mol^{-1} [2] S^0_{941} = 89.8 J·mol^{-1}·K^{-1} [2]

C_p^0= 48.01 J·mol^{-1}·K^{-1} (941 K) [4]

U (s) Uranium beta **U** (s)

ΔH^0_{941} = 26.1 kJ·mol^{-1} [2] S^0_{941} = 92.8 J·mol^{-1}·K^{-1} [2]

C_p^0= 42.93 J·mol^{-1}·K^{-1} (941 K) [4]

U (s) Uranium beta **U** (s)

ΔH^0_{1048} = 30.7 kJ·mol^{-1} [2] S^0_{1048} = 97.4 J·mol^{-1}·K^{-1} [2]

C_p^0= 42.93 J·mol^{-1}·K^{-1} (1048 K) [4]

Tm (l) | Thulium | **Tm** (l)

ΔH^0_{1818} = 65.1 kJ·mol^{-1} [2] | S^0_{1818} = 137.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 41.38 J·mol^{-1}·K^{-1} (1818 K) [4]

Tm (g) | Thulium | **Tm** (g)

ΔH^0_{298} = 232.2 kJ·mol^{-1} [2] | S^0_{298} = 190.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 22.52 - 2.24 \cdot 10^{-3} \cdot T - 0.32 \cdot 10^{6} \cdot T^{-2} + 0.83 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2217 K) [4]

U (s) | Uranium alpha | **U** (s)

mp = 1405 K (1132 °C) | bp = 4440 K (4167 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] | S^0_{298} = 50.3 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 27.59 - 4.04 \cdot 10^{-3} \cdot T - 0.11 \cdot 10^{6} \cdot T^{-2} + 27.49 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 941 K) [4]

U (s) | Uranium alpha | **U** (s)

ΔH^0_{941} = 23.3 kJ·mol^{-1} [2] | S^0_{941} = 89.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 48.01 J·mol^{-1}·K^{-1} (941 K) [4]

U (s) | Uranium beta | **U** (s)

ΔH^0_{941} = 26.1 kJ·mol^{-1} [2] | S^0_{941} = 92.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 42.93 J·mol^{-1}·K^{-1} (941 K) [4]

U (s) | Uranium beta | **U** (s)

ΔH^0_{1048} = 30.7 kJ·mol^{-1} [2] | S^0_{1048} = 97.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 42.93 J·mol^{-1}·K^{-1} (1048 K) [4]

U (s) Uranium gamma **U** (s)

ΔH^0_{1048} = 35.4 kJ·mol^{-1} [2] S^0_{1048} = 101.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 38.28 J·mol^{-1}·K^{-1} (1048 K) [4]

U (s) Uranium gamma **U** (s)

ΔH^0_{1405} = 49.1 kJ·mol^{-1} [2] S^0_{1505} = 113.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 38.28 J·mol^{-1}·K^{-1} (1405 K) [4]

U (l) Uranium **U** (l)

ΔH^0_{1405} = 57.6 kJ·mol^{-1} [2] S^0_{1405} = 119.2 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 47.91 J·mol^{-1}·K^{-1} (1405 K) [4]
$\lg(p,K) = -26.45 \cdot 10^3 \cdot T^{-1} - 1.54 \cdot \lg(T) + 11.58$ (1700 ... 3000 K) [4]
{Reaction: evaporation as U(g)}

U (g) Uranium **U** (g)

ΔH^0_{298} = 521.2 kJ·mol^{-1} [4] S^0_{298} = 199.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 13.6 + 11.88 \cdot 10^{-3} \cdot T + 0.71 \cdot 10^6 \cdot T^{-2} - 1.11 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3000 K) [4]

V (s) Vanadium **V** (s)

mp = 2190 K (1917 °C) bp = 3690 K (3417 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 28.9 ± 0.4 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 26.81 - 0.13 \cdot 10^{-3} \cdot T - 0.19 \cdot 10^6 \cdot T^{-2} + 3.64 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2190 K) [4]
$\lg(p,K) = -27.89 \cdot 10^3 \cdot T^{-1} - 1.84 \cdot \lg(T) + 14.38$ (1600 ... 2190 K) [4]
{Reaction: evaporation as V(g)}

V (l) Vanadium **V** (l)

ΔH^0_{298} = 17.3 kJ·mol^{-1} [1] S^0_{298} = 36.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 47.49 J·mol^{-1}·K^{-1} (2190 ... 2600 K) [3]

V (g) Vanadium **V** (g)

ΔH^0_{298} = 515.5 ± 8 kJ·mol^{-1} [1] S^0_{298} = 182.3 ± 0.8 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 20.36 + 6.7 \cdot 10^{-3} \cdot T + 0.34 \cdot 10^6 \cdot T^{-2} - 2.44 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

W (s) Tungsten **W** (s)

mp = 3680 K (3407 °C) bp = 5828 K (5555 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 32.7 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 24.49 + 2.74 \cdot 10^{-3} \cdot T - 0.08 \cdot 10^6 \cdot T^{-2} + 0.17 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3680 K) [4]
$\lg(p,K) = -42.99 \cdot 10^3 \cdot T^{-1} + 0.46 \cdot \lg(T) + 5.75$ (2700 ... 3680 K) [4]
{Reaction: evaporation as W(g)}

W (l) Tungsten **W** (l)

ΔH^0_{298} = 46.9 kJ·mol^{-1} [1] S^0_{298} = 45.7 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$ = 24.3 J·mol^{-1}·K^{-1} (298 K) [1]

W (g) Tungsten **W** (g)

ΔH^0_{298} = 829 kJ·mol^{-1} [4] S^0_{298} = 174 ± 0.1 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 27.65 + 1.43 \cdot 10^{-3} \cdot T - 0.55 \cdot 10^6 \cdot T^{-2} + 0.64 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 3680 K) [4]

Xe (g) Xenon **Xe** (g)

mp = 161 K (-112 °C) bp = 165 K (-108 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 169.7 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$ = 20.8 J·mol^{-1}·K^{-1} (298 K) [1]

Y (s) Yttrium alpha **Y** (s)

mp = 1799 K (1526 °C) bp = 3607 K (3334 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [2] S^0_{298} = 44.4 J·mol^{-1}·K^{-1} [2]
$C_p{}^0 = 23.39 + 7.95 \cdot 10^{-3} \cdot T + 0.12 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1752 K) [4]
$\lg(p,K) = -22.82 \cdot 10^3 \cdot T^{-1} - 1.75 \cdot \lg(T) + 12.84$ (1400 ... 1752 K) [4]
{Reaction: evaporation as Y(g)}

Y (s) — Yttrium alpha — **Y** (s)

$\Delta H^0_{1752} = 46.2$ kJ·mol^{-1} [2] — $S^0_{1752} = 98$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 37.36$ J·mol^{-1}·K^{-1} (1752 K) [4]

Y (s) — Yttrium beta — **Y** (s)

$\Delta H^0_{1752} = 51.2$ kJ·mol^{-1} [2] — $S^0_{1752} = 100.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 35.02$ J·mol^{-1}·K^{-1} (1752 K) [4]

$\lg(p,K) = -22.45 \cdot 10^3 \cdot T^{-1} - 1.62 \cdot \lg(T) + 12.21$ (1752 ... 1799 K) [4]

{Reaction: evaporation as Y(g)}

Y (s) — Yttrium beta — **Y** (s)

$\Delta H^0_{1799} = 52.8$ kJ·mol^{-1} [2] — $S^0_{1799} = 101.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 35.02$ J·mol^{-1}·K^{-1} (1799 K) [4]

Y (l) — Yttrium — **Y** (l)

$\Delta H^0_{1799} = 64.2$ kJ·mol^{-1} [2] — $S^0_{1799} = 108.1$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 39.79$ J·mol^{-1}·K^{-1} (1799 K) [4]

$\lg(p,K) = -22.29 \cdot 10^3 \cdot T^{-1} - 2.17 \cdot \lg(T) + 13.91$ (1799 ... 2000 K) [4]

{Reaction: evaporation as Y(g)}

Y (g) — Yttrium — **Y** (g)

$\Delta H^0_{298} = 424.7$ kJ·mol^{-1} [2] — $S^0_{298} = 179.5$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 27.18 - 7.87 \cdot 10^{-3} \cdot T + 0.08 \cdot 10^6 \cdot T^{-2} + 2.63 \cdot 10^{-6} \cdot T^2$ J·mol^{-1}·K^{-1} (298 ... 2000 K) [4]

Yb (s) — Ytterbium alpha — **Yb** (s)

mp = 1097 K (824 °C) — bp = 1465 K (1192 °C)

$\Delta H^0_{298} = 0$ kJ·mol^{-1} [2] — $S^0_{298} = 59.8$ J·mol^{-1}·K^{-1} [2]

$C_p{}^0 = 25.65 + 6.84 \cdot 10^{-3} \cdot T$ J·mol^{-1}·K^{-1} (298 ... 1033 K) [4]

$\lg(p,K) = -8.16 \cdot 10^3 \cdot T^{-1} - 1.26 \cdot \lg(T) + 9.69$ (600 ... 1033 K) [4]

{Reaction: evaporation as Yb(g)}

Yb (s) Ytterbium alpha **Yb** (s)

ΔH^0_{1033} = 22.3 kJ·mol^{-1} [2] S^0_{1033} = 96.9 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 32.71 J·mol^{-1}·K^{-1} (1033 K) [4]

Yb (s) Ytterbium beta **Yb** (s)

ΔH^0_{1033} = 24.1 kJ·mol^{-1} [2] S^0_{1033} = 98.6 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 36.11 J·mol^{-1}·K^{-1} (1033 K) [4]

Yb (s) Ytterbium beta **Yb** (s)

ΔH^0_{1097} = 26.4 kJ·mol^{-1} [2] S^0_{1097} = 100.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 36.11 J·mol^{-1}·K^{-1} (1097 K) [4]

Yb (l) Ytterbium **Yb** (l)

ΔH^0_{1097} = 34 kJ·mol^{-1} [2] S^0_{1097} = 107.8 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 36.78 J·mol^{-1}·K^{-1} (1097 K) [4]
$\lg(p,K) = -7.96 \cdot 10^3 \cdot T^{-1} - 1.92 \cdot \lg(T) + 11.51$ (1097 ... 1465 K) [4]
{Reaction: evaporation as Yb(g)}

Yb (g) Ytterbium **Yb** (g)

ΔH^0_{298} = 152.1 kJ·mol^{-1} [2] S^0_{298} = 173.1 J·mol^{-1}·K^{-1} [2]
$C_p{}^0$= 20.79 J·mol^{-1}·K^{-1} (298 K) [4]

Zn (s) Zinc **Zn** (s)

mp = 693 K (420 °C) bp = 1179 K (906 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] S^0_{298} = 41.7 ± 0.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= $21.33 + 11.65 \cdot 10^{-3} \cdot T + 0.05 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 693 K) [4]
$\lg(p,K) = -6.96 \cdot 10^3 \cdot T^{-1} - 0.92 \cdot \lg(T) + 8.97$ (500 ... 693 K) [4]
{Reaction: evaporation as Zn(g)}

Zn (l) | Zinc | **Zn** (l)

ΔH^0_{298} = 6.5 kJ·mol^{-1} [1] | S^0_{298} = 50.8 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 31.38 J·mol^{-1}·K^{-1} (693 K) [4]
$\lg(p,K) = -6.68 \cdot 10^3 \cdot T^{-1} - 1.27 \cdot \lg(T) + 9.56$ (693 ... 1179 K) [4]
{Reaction: evaporation as Zn(g)}

Zn (g) | Zinc | **Zn** (g)

ΔH^0_{298} = 130.4 ± 0.2 kJ·mol^{-1} [1] | S^0_{298} = 161 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 20.79 J·mol^{-1}·K^{-1} (298 K) [4]

Zr (s) | Zirconium alpha | **Zr** (s)

mp = 2125 K (1852 °C) | bp = 4630 K (4357 °C)
ΔH^0_{298} = 0 kJ·mol^{-1} [1] | S^0_{298} = 38.9 ± 0.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 22.86 + 8.97 \cdot 10^{-3} \cdot T - 0.07 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 1136 K) [4]

Zr (s) | Zirconium alpha | **Zr** (s)

ΔH^0_{1136} = 24.4 kJ·mol^{-1} [4] | S^0_{1136} = 76.7 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 32.99 J·mol^{-1}·K^{-1} (1136 K) [4]

Zr (s) | Zirconium beta | **Zr** (s)

ΔH^0_{1136} = 28.3 kJ·mol^{-1} [4] | S^0_{1136} = 80.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0 = 21.49 + 6.57 \cdot 10^{-3} \cdot T + 3.67 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (1136 ... 2125 K) [4]
$\lg(p,K) = -31.52 \cdot 10^3 \cdot T^{-1} - 0.79 \cdot \lg(T) + 9.92$ (2000 ... 2125 K) [4]
{Reaction: evaporation as Zr(g)}

Zr (s) | Zirconium beta | **Zr** (s)

ΔH^0_{2125} = 61.6 kJ·mol^{-1} [4] | S^0_{2125} = 101.1 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 36.27 J·mol^{-1}·K^{-1} (2125 K) [4]

Zr (l)	Zirconium	**Zr (l)**

ΔH^0_{2125} = 80.3 kJ·mol^{-1} [4] S^0_{2125} = 109.9 J·mol^{-1}·K^{-1} [4]
$C_p{}^0$= 33.47 J·mol^{-1}·K^{-1} (2125 K) [4]
$\lg(p,K) = -29.79 \cdot 10^3 \cdot T^{-1} - 0.12 \cdot \lg(T) + 6.87$ (2125 ... 2500 K) [4]
{Reaction: evaporation as Zr(g)}

Zr (s)	Zirconium beta	**Zr (s)**

ΔH^0_{298} = 4.8 kJ·mol^{-1} [1] S^0_{298} = 43.2 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 25.2 J·mol^{-1}·K^{-1} (298 K) [1]

Zr (l)	Zirconium	**Zr (l)**

ΔH^0_{298} = 17.4 kJ·mol^{-1} [1] S^0_{298} = 47.6 J·mol^{-1}·K^{-1} [1]
$C_p{}^0$= 25.2 J·mol^{-1}·K^{-1} (298 K) [1]

Zr (g)	Zirconium	**Zr (g)**

ΔH^0_{298} = 610 ± 8.4 kJ·mol^{-1} [1] S^0_{298} = 181.3 J·mol^{-1}·K^{-1} [1]
$C_p{}^0 = 23 + 3.05 \cdot 10^{-3} \cdot T + 0.36 \cdot 10^6 \cdot T^{-2}$ J·mol^{-1}·K^{-1} (298 ... 2500 K) [4]

6 References

[1] Chase, M. W.;
Nist-JANAF Thermochemical Tables, 4rd Ed. (1998), by American Chemical Society, American Institute of Physics, National Bureau of Standards, New York

[2] Barin, I.;
Thermochemical Data of Pure Substances, 2nd, VCH, Weinheim (1992)

[3] Kubaschewski, O., Alcock, C. B.;
Metallurgical Thermochemistry, Pergamon Press, Oxford (1983)

[4] Knacke, O., Kubaschewski, O., Hesselmann, K.;
Thermochemical Properties of Inorganic Substances,
Springer, Berlin (1991)

[5] Mills, K. C.;
Thermodynamic Data for Inorganic Sulphides, Selenides and Tellurides,
London, Butterworths, Redwood Press Limited, Trowbridge, Wiltshire (1974)

[6] Kelley, K. K.;
Contributions on the Data on Theoretical Metallurgy, Bull. 584, Bureau of Mines, Washington (1960)

[7] Aylward, G. H., Findlay, T. J. V.;
Datensammlung Chemie in SI-Einheiten, 3rd Ed., Wiley-VCH, Weinheim,
New York (1999)

[8] Binnewies, M., Milke, E.;
Thermochemical Data of Elements and Compounds, 1rd Ed., Wiley-VCH, Weinheim,
New York, (1999)

[9] Cubicciotti, D.;
High Temp. Sci. **1970**, *2*, 389

[10] Santandrea, R. P., Mensing, C., v. Schnering, HG.;
Thermochim. Acta, **1986,** *98,* 301

[11] Wahlbeck, P. G.;
J. Chem. Phys. **1987**, *87*, 654

[12] Cordfunke, E. H. P.;
Thermochim. Acta **1986**, *108*, 45

[13] Estimated using the entropy of dimerisation of KI(g) and the entropy of monomeric CsI(g)

[14] Gaudiakas, J., Jemine, X., Fuger, J.;
J. Chem. Thermodyn. **1991**, *23*, 513

[15] Estimated using the formulas for the calculation of molare heats and entropies given in [3]

[16] Oppermann, H., Schmidt, M., Brückner, H., Schnelle, W., Gmelin, E.;
Z. Anorg. Allg. Chem. **2000**, *626*, 937

[17] Oppermann, H., Schmidt, M., Brückner, H.;
Z. Anorg. Allg. Chem. **1996**, *622*, 2107

[18] Schmidt, M., Oppermann, H., Brückner, H., Binnewies, M.;
Z. Anorg. Allg. Chem. **1997**, *623*, 1945

[19] Morgenstern, A., Oppermann, H.;
Z. Naturforsch. **1997**, *52b*, 696

[20] Oppermann, H., Huong, D. Q.;
Z. Anorg. Allg. Chem. **1995**, *621*, 665

[21] Oppermann, H., Huong, D. Q., Teresiak, A., Meyer, G., Möller, A.; *Z. Anorg. Allg. Chem.* **1996**, *622*, 1612

[22] Oppermann, H., Herrera, S., Huong, D. Q., Ehrlich, S.; *Z. Anorg. Allg. Chem.* **1995**, *621*, 1808

[23] Herrera, S., Oppermann, H., Ehrlich, S., Mattausch, Hj., Simon, A.; *Z. Anorg. Allg. Chem.* **1995**, *621*, 1414

[24] Oppermann, H., Huong, D. Q.; *Z. Anorg. Allg. Chem.* **1995**, *621*, 659

[25] Oppermann, H., Herrera, S., Huong, D. Q.; *Z. Naturforsch.* **1998**, *53b*, 361

[26] Oppermann, H., Huong, D. Q., Morgenstern, A.; *Z. Naturforsch.* **1999**, *54b*, 1410

[27] Oppermann, H., Zhang, M., Hennig, C.; *Z. Naturforsch.* **1998**, *53b*, 1343

[28] Hennig, C., Oppermann, H.; *Z. Naturforsch.* **1998**, *53b*, 175

[29] Hennig, C., Oppermann, H.; *Z. Naturforsch.* **2000**, *55b*, 65

[30] Hennig, C., Oppermann, H.; *Z. Naturforsch.* **1999**, *54b*, 1283

[31] Hennig, C., Oppermann, H.; *Z. Naturforsch.* **1997**, *52b*, 1517

[32] Hennig, C., Oppermann, H., Blonska, A.;
Z. Naturforsch. **1998**, *53b*, 1169

[33] Steiner, U., Reichelt, W., Oppermann, H.;
Z. Anorg. Allg. Chem. **1996**, *622*, 1428

[34] Oppermann, H., Göbel, H., Schadow, H., Schmidt P., Hennig, C., Vassilev, V., Markova-Deneva, I.;
Z. Naturforsch. **1999**, *54b*, 239

[35] Oppermann, H., Göbel, H., Schmidt, P., Schadow, H., Vassilev, V., Markova-Deneva, I.;
Z. Naturforsch. **1999**, *54b*, 261

[36] Schmidt, P., Oppermann, H.;
Z. Naturforsch. **2000**, *55b*, 627

[37] Schmidt, P., Hennig, C., Oppermann, H.;
Z. Naturforsch. **1999**, *54b*, 252

[38] Petasch, U., Oppermann, H.;
Z. Naturforsch. **1999**, *54b*, 487

[39] Schmidt, M., Oppermann, H., Binnewies, M.;
Z. Anorg. Allg. Chem. **1999**, *625*, 1001

[40] Fechter, St., Oppermann, H.;
Z. Anorg. Allg. Chem. **1992**, *615*, 54

[41] Wiesner, U., Reichelt, W., Krabbes, G.;
Z. Anorg. Allg. Chem. **1987**, *551*, 67

[42] Söhnel, T., Reichelt, W., Oppermann, H.;
Z. Anorg. Allg. Chem. **1997**, *623*, 1190

[43] Petasch, U., Hennig, C., Oppermann, H.;
Z. Naturforsch. **1999**, *54b*, 234

[44] Lexa, D., Kematick, R. J., Myers, C. E.;
Chem. Mater. **1996**, *8*, 2636

[45] Oppermann, H., Schadow, H., Funke, K., Schmidt, P.;
Z. Anorg. Allg. Chem. **2001**, *627*, 326

[46] Petasch, U., Oppermann, H.;
Z. Anorg. Allg. Chem. **1997**, *623*, 169

[47] Schmidt, P., Oppermann, H.;
Z. Naturforsch. **2000**, *55b*, 603

[48] Petasch, U., Göbel, H., Oppermann, H.;
Z. Anorg. Allg. Chem. **1998**, *624*, 1767

[49] Rabeneck, H., Rinke, K., Schäfer, H.;
Z. Anorg. Allg. Chem. **1973**, *397*, 112

[50] Feller, J., Oppermann, H., Binnewies, M., Milke, E.;
Z. Naturforsch. **1998**, *54b*, 184

[51] Armbruster, M., Ludwig, Th., Rotter, H. W., Thiele, G., Oppermann, H.;
Z. Anorg. Allg. Chem. **2000**, *626*, 187

[52] Oppermann, H.;
Z. Anorg. Allg. Chem. **1977**, *434*, 239

[53] Oppermann, H., Stöver, G., Wolf, E.;
Z. Anorg. Allg. Chem. **1976**, *419*, 200

[54] Oppermann, H., Titov, V. A., Kunze, G., Kokovin, G. A., Wolf, E.;
Z. Anorg. Allg. Chem. **1978**, *439*, 13

[55] Oppermann, H., Hanke, U., Krabbes, G.;
Z. Anorg. Allg. Chem. **1986**, *542*, 89

[56] Oppermann, H., Witte, K., Zacher, K., Brückner, H.;
Z. Anorg. Allg. Chem. **1991**, *601*, 83

[57] Oppermann, H., Toschew, A.;
Z. Anorg. Allg. Chem. **1980**, *463*, 45

[58] Oppermann, H., Krausze, R.;
J. Less Common Metals **1988**, *137*, 217

[59] Glathe, F., Oppermann, H., Reichelt, W.;
Z. Anorg. Allg. Chem. **1991**, *606*, 41

[60] Oppermann, H., Marklein, B.;
Z. Naturforsch. **1998**, *53b*, 1352

[61] Hackert, A., Plies, V.;
Z. Anorg. Allg. Chem. **1998**, *624*, 74

[62] Hackert, A., Plies, V., Gruehn, R.;
Z. Anorg. Allg. Chem. **1996**, *622*, 1651

[63] Dageförde, F., Gruehn, R.;
Z. Anorg. Allg. Chem. **1992**, *611*, 103

[64] Nocker, K., Gruehn, R.;
Z. Anorg. Allg. Chem. **1994**, *620*, 1953

[65] Plies, V.;
Z. Anorg. Allg. Chem. **1991**, *602*, 97

[66] Pausch, N., Burggraf, J., Gruehn, R.;
Z. Anorg. Allg. Chem. **1997**, *623*, 1835

[67] Oppermann, H., Ritschel, M.;
Kristall Techn. **1975**, *10*, 485

[68] Görzel, H., Glaum R.;
Z. Anorg. Allg. Chem. **1996**, *622*, 1773

[69] Predel, B., Vogelbein W.;
Thermochim. Acta **1979**, *30*, 201

[70] Binnewies, M., Rinke, K., Schäfer, H.;
Z. Anorg. Allg. Chem. **1973**, *395*, 50

[71] Binnewies, M., Schäfer H.;
Z. Anorg. Allg. Chem. **1973**, *395*, 63

[72] Kana'an, A. S., Kanamueller, J. M.;
High Temp. Sci. **1979**, *11*, 23

[73] Schäfer, H.;
Z. Anorg. Allg. Chem. **1975**, *415*, 217

[74] Schäfer, H., Wosiewitz, U.;
Z. Anorg. Allg. Chem. **1975**, *415*, 202

[75] Wosiewitz, U., Schäfer, H.;
J. Less Common Metals **1973**, *32*, 389

[76] Landsberg, A., Schaller, J. L.;
J. Less Common Metals **1971**, *23*, 195

[77] Krabbes, G., Oppermann, H.;
Z. Anorg. Allg. Chem. **1978**, *444*, 125

[78] Oppermann, H.;
Z. Anorg. Allg. Chem. **1996**, *622*, 262

[79] O'Hare, P. A. G., Curtiss, L. A.;
J. Chem. Thermodyn. **1995**, *27*, 643

[80] De Boer, R., Cordfunke, E. H. P.;
J. Chem. Thermodyn. **1998**, *30*, 87

[81] Huntelaar, M. E., Booij, A. S., Cordfunke, E. H. P., v. d. Laan, R. R.;
J. Chem. Thermodyn. **1998**, *30*, 497

[82] Dash, S., Singh, Z., Prasad, R., Venugopal, V.;
J. Chem. Thermodyn. **1998**, *30*, 473

[83] Zarembo, S., Kematick, R. J., Myers, C. E., Cotts, E. J.;
J. Alloys Compd. **2000**, *306*, 78

[84] Shukla, N. K., Prasad, R., Roy, K. N., Sood, D. D.,
J. Chem. Thermodyn. **1992**, *24*, 897

[85] Estimated using the entropy increment for CrO_4^{2-} (114 $J \cdot mol^{-1} \cdot K^{-1}$)

[86] Estimated using the entropy increments for Li^+ (14.6 $J \cdot mol^{-1} \cdot K^{-1}$)

[87] Estimated using the entropy increments for La^{3+} (57.7 $J \cdot mol^{-1} \cdot K^{-1}$),
OH^- (12.6 $J \cdot mol^{-1} \cdot K^{-1}$) and O^{2-} (2.1 $J \cdot mol^{-1} \cdot K^{-1}$)

[88] Estimated using $S^0_{298}(BaCuO_2) = S^0_{298}(BaO) + S^0_{298}(CuO)$

[89] Estimated using $S^0_{298}(Y_2BaO_4) = S^0_{298}(Y_2O_3) + S^0_{298}(BaO)$

[90] Efimov, M. E., Prokopenko, I. V., Medvedev, V. A., Tsirelnikov, V. I.;
J. Chem. Thermodyn. **1989**, *21*, 677

[91] Lösking, O., Willner, H.;
Z. Anorg. Allg. Chem. **1985**, *530*, 169

[92] Knauth, R., Schwitzgebel, G.;
J. Chem. Thermodyn. **1990**, *22*, 481

[93] Travers, J. G., Dellien, I., Hepler, L. G.;
Thermochim. Acta **1976**, *15*, 89

[94] Cordfunke, E. H. P., Konings, R. J. M., v. d. Laan, R. R., Ouweltjes, W.;
J. Chem. Thermodyn. **1993**, *25*, 343

[95] Cordfunke, E. H. P., Konings, R. J. M., Ouweltjes, W.;
J. Chem. Thermodyn. **1990**, *22*, 449

[96] Hepler, L. G., Singh, P. P.;
Thermochim. Acta **1976**, *16*, 95

[97] Estimated using $S^0_{298}(Cs_2NaLaCl_6) = 2 \cdot S^0_{298}(CsCl) + S^0_{298}(NaCl) + S^0_{298}(LaCl_3)$

[98] Estimated using the entropy increments for La^{3+} (57.7 $J \cdot mol^{-1} \cdot K^{-1}$) and
SO_4^{2-} (57.3 $J \cdot mol^{-1} \cdot K^{-1}$)

[99] Konings, R. J. M., Cordfunke, E. H. P., Ouweltjes, W.;
J. Chem. Thermodyn. **1993**, *25*, 271

[100] Estimated using $S^0_{298}(Cs_2CdI_4) = 2 \cdot S^0_{298}(CsI) + S^0_{298}(CdI_2)$

[101] Tomaszkiewicz, I., Susman, S., Volin, K. J., O'Hare, P. A. G.; *J. Chem. Thermodyn.* **1994**, *26*, 1081

[102] Estimated using $S^0_{298}(SiSe_n) = S^0_{298}(Si) + n \cdot S^0_{298}(Se)$

[103] Bolech, M., Janssen, F. J. J. G., Booij, A. S., Cordfunke, E. H. P.; *J. Chem. Thermodyn.* **1996**, *28*, 1319

[104] Estimated using $S^0_{298}(Ce_2Si_2O_7) = S^0_{298}(\beta\text{-}Ce_2O_3) + 2 \cdot S^0_{298}(SiO_2, \alpha\text{-quartz})$

[105] Estimated using $S^0_{298}(\beta\text{-}La_2Si_2O_7) = S^0_{298}(La_2O_3) + 2 \cdot S^0_{298}(SiO_2, \alpha\text{-quartz})$

[106] Mishra, R., Bharadwaj, S. R., Kerkar, A. S., Dharwadkar, S. R.; *J. Chem. Thermodyn.* **1998**, *30*, 879

[107] Estimated using $S^0_{298}(SrTeO_3) = S^0_{298}(SrO) + S^0_{298}(TeO_2)$

[108] Estimated using $S^0_{298}(SrTe_2O_5) = S^0_{298}(SrO) + 2 \cdot S^0_{298}(TeO_2)$

[109] Cordfunke, E. H. P., Booij, A. S., Huntellar, M. E.; *J. Chem. Thermodyn.* **1998**, *30*, 199

[110] Estimated using $S^0_{298}(BaCeO_3) = S^0_{298}(BaO) + S^0_{298}(CeO_2)$

[111] Estimated using $S^0_{298}(SrCeO_3) = S^0_{298}(SrO) + S^0_{298}(CeO_2)$

[112] Badtiev, E. B., Chilingarov, N. S., Korobov, M. V., Sidorov, I. D., Sorokin, I. D.; *High Temp. Sci.* **1982**, *15*, 93

[113] O'Hare, P. A. G., Johnson, G. K., Tasker, I. R., Flotow, H. F., Struck, C. W.; *J. Chem. Thermodyn.* **1987**, *19*, 77

[114] Lewis, B. M., O'Hare, P. A. G., Mukdecprom, P., Edwards J. G.; *J. Chem. Thermodyn.* **1987**, *19*, 1325

[115] Korokov, M. V., Nikulin, V. V., Chilingarov, N. S., Sidorov, L. N.; *J. Chem. Thermodyn.* **1986**, *18*, 235

[116] Assumed to be equal to the standard entropy of WF_6(g)

[117] Shinmei, M., Imai, T., Yokokawa, T.; *J. Chem. Thermodyn.* **1986**, *18*, 241

[118] O'Hare, P. A. G., Johnson, G. K.; *J. Chem. Thermodyn.* **1985**, *17*, 391

[119] Schmidt, M., Oppermann, H., Hennig, C., Henn, R. W., Gmelin, E.; *Z. Anorg. Allg. Chem.* **2000**, *626*, 125

[120] O'Hare, P. A. G., Lewis, B. M., Parkinson, B. A.; *J. Chem. Thermodyn.* **1988**, *20*, 681

[121] Huntelaar, M. E., Cordfunke, E. H. P., Ouweltjes, W.; *J. Chem. Thermodyn.* **1993**, *25*, 1211

[122] Estimated using $S^0{}_{298}(K_2SeO_3) = S^0{}_{298}(K_2O) + S^0{}_{298}(SeO_2)$

[123] Estimated using $S^0{}_{298}(Na_2TeO_3) = S^0{}_{298}(Na_2O) + S^0{}_{298}(TeO_2)$

[124] Estimated using $S^0{}_{298}(Sr_6ZrSi_5O_{18}) = 6 \cdot S^0{}_{298}(SrO) + S^0{}_{298}(ZrO_2) + 5 \cdot S^0{}_{298}(SiO_2, \alpha\text{-quartz})$

[125] Estimated using $S^0{}_{298}(SrZrSi_2O_7) = S^0{}_{298}(SrO) + S^0{}_{298}(ZrO_2) + 2 \cdot S^0{}_{298}(SiO_2, \alpha\text{-quartz})$

[126] Gramsch, S. A., Morss, L. R.;
J. Chem. Thermodyn. **1995**, *27*, 551

[127] Estimated using $S^0_{298}(SrPrO_3) = S^0_{298}(SrO) + S^0_{298}(PrO_2)$

[128] Cordfunke, E. H. P., Boij, A. S., v. d. Laan, R. R.;
J. Chem. Thermodyn. **1998**, *30*, 199

[129] Estimated using $S^0_{298}(Y_2Si_2O_7) = S^0_{298}(Y_2O_3) + 2 \cdot S^0_{298}(SiO_2)$

[130] Estimated using the entropy-increments for Pb^{2+} (64.9 $J \cdot mol^{-1} \cdot K^{-1}$) and OH^- (18.8 $J \cdot mol^{-1} \cdot K^{-1}$)

[131] Hilpert, K., Ruthardt, K.;
Ber. Bunsenges. **1987**, *91*, 724

[132] Schäfer, H., Flörke, U.;
Z. Anorg. Allg. Chem. **1981**, *478*, 57

[133] Schäfer, H., Lenhard, W.;
Z. Anorg. Allg. Chem. **1981**, *482*, 163

[134] Schäfer, H., Flörke, U., Trenkel, M.;
Z. Anorg. Allg. Chem. **1981**, *478*, 191

[135] Wang, Z.-C., Wang, L.-S.;
Inorg. Chem. **1997**, *36*, 1536

[136] Lavat, E. G., Chelowskaya, N. V., Anokhina, E. V., Demin, N. V., Zlomanov, V. P.;
J. Chem. Thermodyn. **1995**, 27, 1337

[137] Estimated using $S^0_{298}(In_4Te_3) = 4 \cdot S^0_{298}(In) + 3 \cdot S^0_{298}(Te)$

[138] Estimated using the entropy increments for Pb^{2+} (64.9 $J{\cdot}mol^{-1}{\cdot}K^{-1}$) and CrO_4^{2-} (114 $J{\cdot}mol^{-1}{\cdot}K^{-1}$)

[139] Cordfunke, E. H. P., Ouweltjes, W.;
J. Chem. Thermodyn. **1993**, *25*, 1011

[140] Estimated using the entropy increments for Cs^{+} (57 $J{\cdot}mol^{-1}{\cdot}K^{-1}$) and MnO_4^{-} (133 $J{\cdot}mol^{-1}{\cdot}K^{-1}$)

[141] Estimated using the entropy increments for Cs^{+} (57 $J{\cdot}mol^{-1}{\cdot}K^{-1}$) and PO_4^{3-} (96 $J{\cdot}mol^{-1}{\cdot}K^{-1}$)

[142] Konings, R. J. M., Cordfunke, E. H. P., Ouweltjes, W.;
J. Chem. Thermodyn. **1987**, *19*, 201

[143] Estimated using $S^0_{298}(CsBO_2) = 0.5{\cdot}S^0_{298}(Cs_2O) + 0.5{\cdot}S^0_{298}(B_2O_3)$

[144] Cordfunke, E. H. P., Ouweltjes, W., Prins, G.;
J. Chem. Thermodyn. **1988**, *20*, 569

[145] Estimated using $S^0_{298}(Cs_2TeO_3) = S^0_{298}(Cs_2O) + S^0_{298}(TeO_2)$

[146] Estimated using $S^0_{298}(Cs_2Te_2O_5) = S^0_{298}(Cs_2O) + 2{\cdot}S^0_{298}(TeO_2)$

[147] Estimated using $S^0_{298}(Cs_2Te_4O_9) = S^0_{298}(Cs_2O) + 4{\cdot}S^0_{298}(TeO_2)$

[148] Cordfunke, E. H. P., Ouweltjes, W., v. Vlaanderen, P.;
J. Chem. Thermodyn. **1987**, *19*, 1117

[149] Estimated using $S^0_{298}(Cs_2ZrO_3) = S^0_{298}(Cs_2O) + S^0_{298}(ZrO_2)$

[150] Cordfunke, E. H. P., Ouweltjes, W., Prins, G.;
J. Chem. Thermodyn. **1985**, *17*, 19

[151] Estimated using $S^0_{298}(Li_4UO_5) = 2 \cdot S^0_{298}(Li_2O) + S^0_{298}(UO_3)$

[152] Estimated using $S^0_{298}(Li_2U_3O_{10}) = S^0_{298}(Li_2O) + 3 \cdot S^0_{298}(UO_3)$

[153] Estimated using $S^0_{298}(Li_2UO_4) = S^0_{298}(Li_2O) + S^0_{298}(UO_3)$

[154] Iger, V. S., Venugopal, V., Mohapatra, S., Singh, S., Roy, K. N., Prasad, B., Sood, D. D.;
J. Chem. Thermodyn. **1988**, *20*, 781

[155] Estimated using $S^0_{298}(Na_2ZrO_3) = S^0_{298}(Na_2O) + S^0_{298}(ZrO_2)$

[156] Lin-Shan, W., Rong-Jie, G., Zhi-Chang, W.;
J. Chem. Thermodyn. **1988**, *28*, 1093

[157] Hilpert, K., Bencivenni, L., Saha, B.;
Ber. Bunsenges. **1985**, *89*, 1292

[158] Hilpert, K., Miller, M., Venugopal, V.;
Ber. Bunsenges. **1991**, *95*, 474

[159] Hilpert, K., Gerads, H., Kobertz, D., Miller, M.;
Ber. Bunsenges. **1987**, *91*, 200

[160] Blachnik, R., Kluge; W.;
Thermochim. Acta **1972**, *3*, 317

[161] Hilpert, K.;
Ber. Bunsenges. **1984**, *88*, 37

[162] Estimated using $S^0_{298}(Mg_3Hg) = 3 \cdot S^0_{298}(Mg) + S^0_{298}(Hg)$

[163] Estimated using $S^0_{298}(Mg_5Hg_2) = 5\cdot S^0_{298}(Mg) + 2\cdot S^0_{298}(Hg)$

[164] Estimated using $S^0_{298}(Mg_2Hg) = 2\cdot S^0_{298}(Mg) + S^0_{298}(Hg)$

[165] Estimated using $S^0_{298}(Mg_5Hg_3) = 5\cdot S^0_{298}(Mg) + 3\cdot S^0_{298}(Hg)$

[166] Estimated using $S^0_{298}(MgHg) = S^0_{298}(Mg) + S^0_{298}(Hg)$

[167] Estimated using $S^0_{298}(MgHg_2) = S^0_{298}(Mg) + 2\cdot S^0_{298}(Hg)$

[168] Schäfer, H., Trenkel, M.;
Z. Anorg. Allg. Chem. **1977**, *437*, 10

[169] Schäfer, H.;
Z. Anorg. Allg. Chem. **1975**, *414*, 151

[170] Lenhard, W., Schäfer, H.;
Z. Anorg. Allg. Chem. **1981**, *482*, 167

[171] Gens, R., Fuger, J., Morss, L. R., Williams, C. W.;
J. Chem. Thermodyn. **1985**, *17*, 561

[172] Estimated using $S^0_{298}(Ba_2CaUO_6) = 2\cdot S^0_{298}(BaO) + S^0_{298}(CaO) + S^0_{298}(UO_3)$

[173] Estimated using $S^0_{298}(Ba_2SrUO_6) = 2\cdot S^0_{298}(BaO) + S^0_{298}(SrO) + S^0_{298}(UO_3)$

[174] Estimated using $S^0_{298}(Ba_2SrPuO_6)$ and $S^0_{298}(Ba_2SrNpO_6)$ to be equal to $S^0_{298}(Ba_2SrUO_6)$

[175] Estimated using $S^0_{298}(Ba_2CaPuO_6)$ and $S^0_{298}(Ba_2CaNpO_6)$ to be equal to $S^0_{298}(Ba_2CaUO_6)$

[176] Estimated using $S^0_{298}(Ba_2MgPuO_6) = 2\cdot S^0_{298}(BaO) + S^0_{298}(MgO) + S^0_{298}(UO_3)$

[177] Estimated using $S^0_{298}(Sr_3PuO_6) = 3 \cdot S^0_{298}(SrO) + S^0_{298}(UO_3)$

[178] Estimated using $S^0_{298}(Ba_3PuO_6) = 3 \cdot S^0_{298}(BaO) + S^0_{298}(UO_3)$

[179] Gaudiakas, J., Haire, R. G., Fuger, J.;
J. Chem. Thermodyn. **1990**, *22*, 577

[180] Estimated using $S^0_{298}(BaMoO_3) = S^0_{298}(BaO) + S^0_{298}(MoO_2)$

[181] Pretorius, R., Marais, T. K., Theron, C. C.;
Materials Science & Engineering R-Reports **1993**, *10*, 1

[182] Sarin, V. N., Jain, Y. S., Bist, H. D.;
Thermochim. Acta **1973**, *6*, 39

[183] Estimated using $S^0_{298}(BaPrO_3) = S^0_{298}(BaO) + S^0_{298}(PrO_2)$

[184] Estimated using $S^0_{298}(BaTbO_3) = S^0_{298}(BaO) + S^0_{298}(TbO_2)$

[185] Estimated using $S^0_{298}(BaPuO_3) = S^0_{298}(BaO) + S^0_{298}(PuO_2)$

[186] Estimated using the entropy increments for Na^+ (31.4 $J \cdot mol^{-1} \cdot K^{-1}$) and $Cr_2O_7^{2-}$ (214 $J \cdot mol^{-1} \cdot K^{-1}$)

[187] Estimated using $S^0_{298}(BaUO_3) = S^0_{298}(BaO) + S^0_{298}(UO_2)$

[188] Estimated using the increments given in [3]

[189] Estimated using $S^0_{298}(SrMoO_3) = S^0_{298}(SrO) + S^0_{298}(MoO_2)$

[190] Edwards, J. J.;
High Temp. Sci. **1985**, *19*, 93

[191] Estimated using $S^0_{298}(CdGa_8S_{13}) = S^0_{298}(CdS) + 4 \cdot S^0_{298}(Ga_2S_3)$

[192] Estimated using $S^0_{298}(SrTbO_3) = S^0_{298}(SrO) + S^0_{298}(TbO_2)$

[193] Estimated using $S^0_{298}(CdIn_2S_4) = S^0_{298}(CdS) + S^0_{298}(In_2S_3)$

[194] Estimated using $S^0_{298}(PbGa_2S_4) = S^0_{298}(PbS) + S^0_{298}(Ga_2S_3)$

[195] Estimated using $S^0_{298}(Pb_2Ga_6S_{11}) = 2 \cdot S^0_{298}(PbS) + 3 \cdot S^0_{298}(Ga_2S_3)$

[196] Estimated using $S^0_{298}(Pb_4Ga_6S_{16}) = 4 \cdot S^0_{298}(PbS) + 3 \cdot S^0_{298}(Ga_2S_3)$

[197] Estimated using $S^0_{298}(Pb_2Ga_2S_5) = 2 \cdot S^0_{298}(PbS) + S^0_{298}(Ga_2S_3)$

[198] Estimated using $S^0_{298}(PbIn_2S_4) = S^0_{298}(PbS) + S^0_{298}(In_2S_3)$

[199] Estimated using $S^0_{298}(MnGa_2S_4) = S^0_{298}(MnS) + S^0_{298}(Ga_2S_3)$

[200] Estimated using $S^0_{298}(Mn_3Ga_2S_6) = 3 \cdot S^0_{298}(MnS) + S^0_{298}(Ga_2S_3)$

[201] Estimated using $S^0_{298}(MnIn_2S_4) = S^0_{298}(MnS) + S^0_{298}(In_2S_3)$

[202] Estimated using $S^0_{298}(ZnGa_2S_4) = S^0_{298}(ZnS) + S^0_{298}(Ga_2S_3)$

[203] Estimated using $S^0_{298}(ZnGa_8S_{13}) = S^0_{298}(ZnS) + 4 \cdot S^0_{298}(Ga_2S_3)$

[204] Estimated using $S^0_{298}(ZnIn_2S_4) = S^0_{298}(ZnS) + S^0_{298}(In_2S_3)$

[205] Estimated using $S^0_{298}(CdGa_2S_4) = S^0_{298}(CdS) + S^0_{298}(Ga_2S_3)$

[206] Thiel, G., Seifert, H. J.;
Thermochim. Acta **1978**, *22*, 363

[207] Estimated using $S^0_{298}(CsMg_4Cl_9) = S^0_{298}(CsCl) + 4 \cdot S^0_{298}(MgCl_2)$

[208] Estimated using $S^0_{298}(CsMgCl_3) = S^0_{298}(CsCl) + S^0_{298}(MgCl_2)$

[209] Estimated using $S^0_{298}(Cs_2MgCl_4) = 2 \cdot S^0_{298}(CsCl) + S^0_{298}(MgCl_2)$

[210] Estimated using $S^0_{298}(Cs_3MgCl_5) = 3 \cdot S^0_{298}(CsCl) + S^0_{298}(MgCl_2)$

[211] Estimated using $S^0_{298}(KMgCl_3) = S^0_{298}(KCl) + S^0_{298}(MgCl_2)$

[212] Estimated using $S^0_{298}(K_3Mg_2Cl_7) = 3 \cdot S^0_{298}(KCl) + 2 \cdot S^0_{298}(MgCl_2)$

[213] Estimated using $S^0_{298}(K_2MgCl_4) = 2 \cdot S^0_{298}(KCl) + S^0_{298}(MgCl_2)$

[214] Estimated using $S^0_{298}(K_4MgCl_6) = 4 \cdot S^0_{298}(KCl) + S^0_{298}(MgCl_2)$

[215] Estimated using $S^0_{298}(RbMgCl_3) = S^0_{298}(RbCl) + S^0_{298}(MgCl_2)$

[216] Estimated using $S^0_{298}(Rb_3Mg_2Cl_7) = 3 \cdot S^0_{298}(RbCl) + 2 \cdot S^0_{298}(MgCl_2)$

[217] Estimated using $S^0_{298}(Rb_2MgCl_4) = 2 \cdot S^0_{298}(RbCl) + S^0_{298}(MgCl_2)$

[218] Estimated using $S^0_{298}(Na_2Mg_3Cl_8) = 2 \cdot S^0_{298}(NaCl) + 3 \cdot S^0_{298}(MgCl_2)$

[219] Estimated using $S^0_{298}(NaMgCl_3) = S^0_{298}(NaCl) + S^0_{298}(MgCl_2)$

[220] Estimated using $S^0_{298}(Na_2MgCl_4) = 2 \cdot S^0_{298}(NaCl) + S^0_{298}(MgCl_2)$

[221] Estimated using $S^0_{298}(Na_6MgCl_8) = 6 \cdot S^0_{298}(NaCl) + S^0_{298}(MgCl_2)$

[222] Cordfunke, E. H. P., Ouweltjes, W.;
J. Chem. Thermodyn. **1988**, *20*, 235

[223] Estimated using $S^0_{298}(BaU_2O_7) = S^0_{298}(BaO) + 2 \cdot S^0_{298}(UO_3)$

[224] Estimated using $S^0_{298}(Ba_2U_2O_7) = 2 \cdot S^0_{298}(BaO) + S^0_{298}(UO_2) + S^0_{298}(UO_3)$

[225] Asher, R. L., Appelman, E. H., Ruscic, B.;
J. Chem. Phys. **1996**, *105*, 9781

[226] Kleinschmidt, P. D., Lau, K. H., Hildenbrand, D. L.;
J. Chem. Phys. **1992**, *97*, 1950

[227] Kleinschmidt, P. D., Lau, K. H., Hildenbrand, D. L.;
J. Chem. Phys. **1992**, *97*, 2417

[228] Estimated using $S^0_{298}(Li_2NpO_4) = S^0_{298}(Li_2O) + S^0_{298}(UO_3)$

[229] Estimated using $S^0_{298}(\alpha\text{-}Na_2NpO_4) = S^0_{298}(Na_2O) + S^0_{298}(UO_3)$

[230] Estimated using $S^0_{298}(\beta\text{-}Na_2NpO_4) = S^0_{298}(Na_2O) + S^0_{298}(UO_3)$

[231] Estimated using $S^0_{298}(\beta\text{-}Na_4NpO_5) = 2 \cdot S^0_{298}(Na_2O) + S^0_{298}(UO_3)$

[232] Estimated using $S^0_{298}(K_2NpO_4) = S^0_{298}(K_2O) + S^0_{298}(UO_3)$

[233] Estimated using $S^0_{298}(Cs_2NpO_4) = S^0_{298}(Cs_2O) + S^0_{298}(UO_3)$

[234] Estimated using $S^0_{298}(AlAu) = S^0_{298}(Al) + S^0_{298}(Au)$

[235] Estimated using $S^0_{298}(Al_2Au_4) = 2 \cdot S^0_{298}(Al) + 4 \cdot S^0_{298}(Au)$

[236] Cordfunke, E. H. P., Konings, R. J. M., Ouweltjes, W., v. Vlaanderen, P.;
J. Chem. Thermodyn. **1990**, *22*, 285

[237] Estimated using $S^0_{298}(Cs_2RuO_4) = S^0_{298}(Cs_2O) + S^0_{298}(MoO_3)$

[238] Boone, S., Kleppa, O. J.;
J. Chem. Thermodyn. **1991**, *23*, 1147

[239] Crouch-Baker, S., Davies, P. K., Dickens, P. G.;
J. Chem. Thermodyn. **1984**, *16*, 273

[240] Estimated using $S^0{}_{298}(K_2Mo_nO_{3n+1}) = S^0{}_{298}(K_2O) + n{\cdot}S^0{}_{298}(MoO_3)$

[241] Hilpert, K., Bencivenni, L., Scha, B.;
J. Chem. Phys. **1985**, *83*, 5227

[242] Cristol, B., Houriez, J., Balesdent, D.;
J. Chem. Thermodyn. **1984**, *16*, 1191

[243] Estimated using $S^0{}_{298}(KCdCl_3) = S^0{}_{298}(KCl) + S^0{}_{298}(CdCl_2)$

[244] Estimated using $S^0{}_{298}(K_4CdCl_6) = 4{\cdot}S^0{}_{298}(KCl) + S^0{}_{298}(CdCl_2)$

[245] O´Hare, P. A. G., Malm, J. G.;
J. Chem. Thermodyn. **1984**, *16*, 753

[246] Estimated using $S^0{}_{298}(AgUF_6) = S^0{}_{298}(AgF) + S^0{}_{298}(UF_5)$

[247] Estimated using $S^0{}_{298}(NaUF_6) = S^0{}_{298}(NaF) + S^0{}_{298}(UF_5)$

[248] Estimated using $S^0{}_{298}(KUF_6) = S^0{}_{298}(KF) + S^0{}_{298}(UF_5)$

[249] Estimated using $S^0{}_{298}(RbUF_6) = S^0{}_{298}(RbF) + S^0{}_{298}(UF_5)$

[250] Estimated using $S^0{}_{298}(CsUF_6) = S^0{}_{298}(CsF) + S^0{}_{298}(UF_5)$

[251] Schmude, R. W., Rau, Jr. Q., Gingerich, K. A.;
J. Chem. Phys. **1993**, *99*, 7998

[252] Hildenbrand, D. L., Lau, K. H.;
J. Chem. Phys. 1994, 101, 6076

[253] Guido, M., Balducci, G.;
J. Chem. Phys. **1991**, *95*, 5373

[254] Skudlarski, K., Kapala, J.;
J. Chem. Thermodyn. **1984**, *16*, 91

[255] Barten, H.;
Thermochim. Acta **1987**, *118*, 109

[256] Barten, H.;
Thermochim. Acta **1988**, *126*, 385

[257] Parker, V. B., Wagman, D. D., Evans, W. H.;
Natl. Bur. Stand. U. S. Tech. Note **1971**, 270-6

[258] Defoort, F., Chatillon, C., Bernard, C.;
J. Chem. Thermodyn. **1988**, *20*, 1443

[259] Estimated assuming $\Delta_R S^0_{298}(InCl(g) + InCl_3(g) = In_2Cl_4(g))$ to be $-146\ J{\cdot}mol^{-1}{\cdot}K^{-1}$ according to [260]

[260] Schäfer, H., Binnewies, M.;
Z. Anorg. Allg. Chem. **1974**, *410*, 251

[261] Estimated assuming $\Delta_R S^0_{298}(2\ InCl(g) = In_2Cl_2(g))$ to be $-134\ J{\cdot}mol^{-1}{\cdot}K^{-1}$ according to [260]

[262] Ait-Hou, A., Hillel, R., Chatillon, C.;
J. Chem. Thermodyn. **1988**, *20*, 993

[263] Bernard, C., Chatillon, C., Ait-Hou, A., Hillel, R., Monteil, Y., Bouix, J.;
J. Chem. Thermodyn. **1988**, *20*, 129

[264] Bolech, M., Cordfunke, E. H. P., Janssen, F. J. J. G., Navrotsky, A.; *J. Am. Ceram. Soc.* **1995**, *78*, 2257

[265] Estimated using $S^0_{298}(La_2Zr_2O_7) = S^0_{298}(La_2O_3) + 2 \cdot S^0_{298}(ZrO_2)$

[266] Cordfunke, E. H. P., Konings, R. J. M.; *Thermochim. Acta* **2001**, *375*, 17

[267] Estimated using the increments for Ln^{3+}, Cl^-, Br^- and I^- given in [3]

[268] Liu, S., Chen, Q., Zhang, P.; *Thermochim. Acta* **2001**, *371*, 7

[269] Cordfunke, E. H. P., Konings, R. J. M.; *Thermochim. Acta* **2001**, *375*, 65

[270] Estimated assuming $S^0_{298}(Pm_2O_3)$ to be equal to $S^0_{298}(Nd_2O_3)$

[271] Estimated assuming C_p^0 to be equal to the sum of C_p^0-values of the binary compounds

[272] Estimated using $S^0_{298}(Bi_2Se) = 2 \cdot S^0_{298}(Bi) + S^0_{298}(Se)$

[273] Estimated using $S^0_{298}(In_2Te_5) = 2 \cdot S^0_{298}(In) + 5 \cdot S^0_{298}(Te)$

[274] Beckhaus, H.-D., Rüchardt, C., Kao, M., Diederich, F., Foote, C. S.; *Angew. Chem. Int. Ed.* **1992**, *31*, 63

[275] Zubkov, A. A., Fujino, T., Waseda, Y., Sato, N., Yamada, K.; *Thermochim. Acta* **1998**, *316*, 21

[276] Estimated using $S^0_{298}(BaPdS_2) = S^0_{298}(BaS) + S^0_{298}(PdS)$

[277] Estimated using $S^0_{298}(LaPd_3S_4) = 0.5 \cdot S^0_{298}(La_2S_3) + 2.5 \cdot S^0_{298}(PdS) + 0.5 \cdot S^0_{298}(Pd)$

[278] Hildenbrand, D. L., Lau, K. H.;
J. Chem. Phys. **1988**, *89*, 5825

[279] Hirayama, C., Straw, R. D.;
Thermochim. Acta **1984**, *80*, 297

[280] Estimated to be the mean value between $S^0_{298}(SnBr_2)$ = $S^0_{298}(SnI_2)$

[281] Oppermann, H., Kunze, G., Kokovin, G. A.;
Z. Anorg. Allg. Chem. **1996**, *622*, 153

[282] Oppermann, H., Deichsel, J., Milke, E., Binnewies, M.;
Z. Anorg. Allg. Chem. **1996**, *622*, 914

[283] Krausze, R., Oppermann, H.;
Z. Anorg. Allg. Chem. **1996**, *622*, 153

[284] Schiefenhövel, N., Binnewies, M., Janetzko, F., Jug, K.;
Z. Anorg. Allg. Chem. **2001**, *627*, 1513

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