

3.2 Unsaturated Aldehydes

2-Propenal

[107-02-8]

 $\text{C}_3\text{H}_4\text{O}$

MW = 56.06

141

Table 1. Coefficients of the polynomial expansion equation. Standard deviations (see introduction):

$\sigma_{c,w} = 1.1664$ (combined temperature ranges, weighted), $\sigma_{c,uw} = 3.7475 \cdot 10^{-1}$ (combined temperature ranges, unweighted).

Coefficient	T = 273.15 to 322.15 K $\rho = A + BT + CT^2 + DT^3 + \dots$
A	$1.19252 \cdot 10^3$
B	-1.20773

Table 2. Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{cal}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)
273.15	862.05 ± 1.00	-0.58	1920-mou/bou-1(○)	299.15	831.88 ± 1.00	0.65	1920-mou/bou-1(○)
273.15	862.02 ± 1.00	-0.61	1920-mou/bou-1(○)	308.15	817.50 ± 1.00	-2.86	1920-mou/bou-1(○)
288.15	844.69 ± 1.00	0.18	1920-mou/bou-1(○)	310.15	818.75 ± 1.00	0.81	1920-mou/bou-1(○)
294.65	837.01 ± 1.00	0.35	1920-mou/bou-1(○)	322.15	803.56 ± 1.00	0.11	1920-mou/bou-1(○)
295.15	836.50 ± 1.00	0.44	1920-mou/bou-1(○)	293.15	840.00 ± 0.80	1.52	1969-sok/sev(□)

Further references: [1880-bru-3, 1953-ano-5, 1958-hil/hay, 1968-ano].

Table 3. Recommended values (fit to the reliable experimental values according to the equations

$$\rho = A + BT + CT^2 + DT^3 + \dots \text{ or } \rho = [1 + 1.75(1 - T/T_c)^{1/3} + 0.75(1 - T/T_c)][\rho_c + A(T_c - T) + B(T_c - T)^2 + C(T_c - T)^3 + D(T_c - T)^4]$$

$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$
270.00	866.43 ± 1.35	293.15	838.48 ± 0.90	310.00	818.13 ± 1.02
280.00	854.36 ± 1.12	298.15	832.44 ± 0.88	320.00	806.05 ± 1.38
290.00	842.28 ± 0.94	300.00	830.20 ± 0.88	330.00	793.97 ± 1.99

cont.

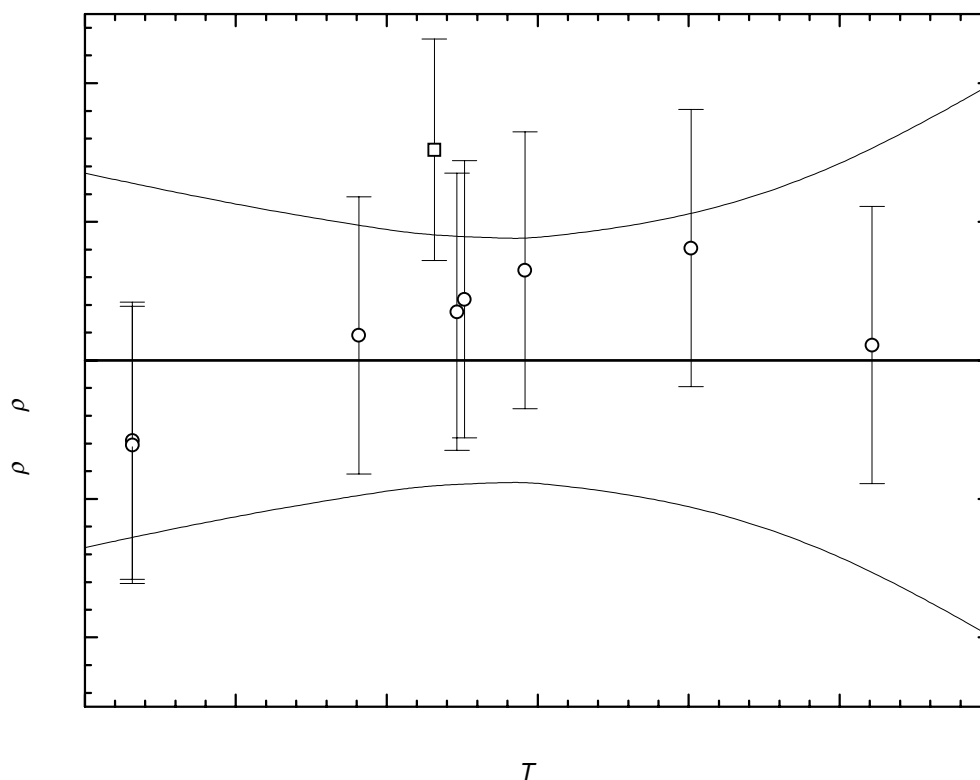
2-Propenal (cont.)

Fig. 1. The symbols show the deviation of the calculated from the experimental values from Table 2. The curves above and below the zero line indicate the calculated error region of the recommended values given in Table 3. The error bars represent the experimental errors. (Error bars smaller than the symbols are omitted for clarity of the figure.)

2-Butenal**[4170-30-3]****C₄H₆O****MW = 70.09****142**

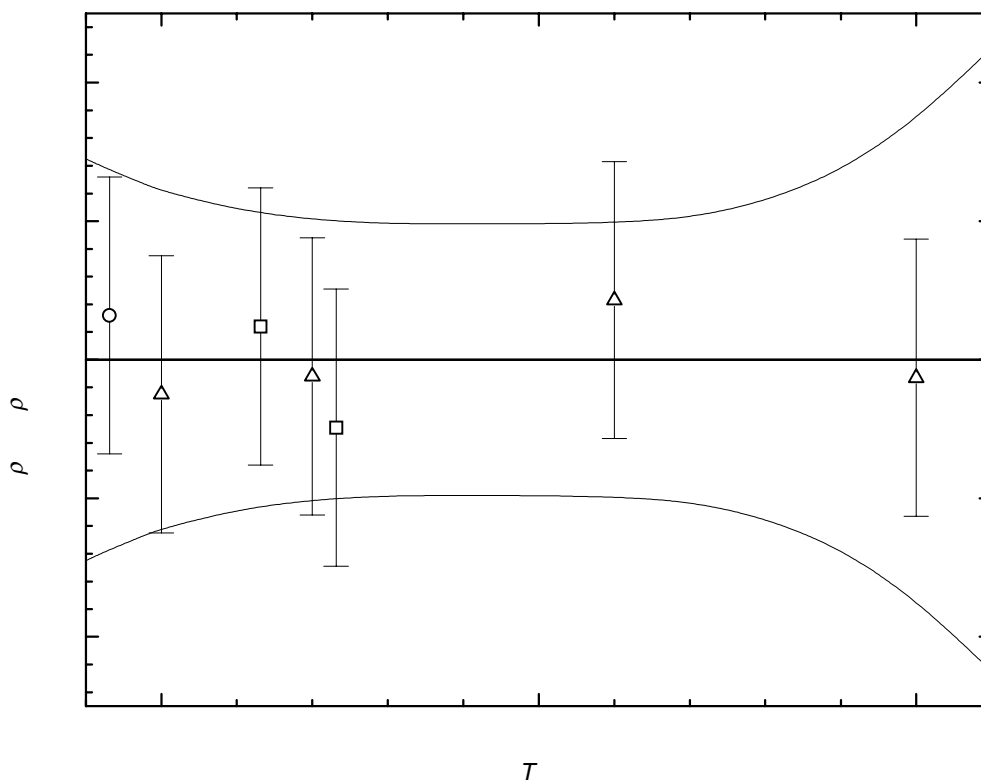
Table 1. Coefficients of the polynomial expansion equation. Standard deviations (see introduction): $\sigma_{c,w} = 3.0913 \cdot 10^{-1}$ (combined temperature ranges, weighted), $\sigma_{c,uw} = 1.3825 \cdot 10^{-1}$ (combined temperature ranges, unweighted).

Coefficient	T = 293.15 to 400.00 K
	$\rho = A + BT + CT^2 + DT^3 + \dots$
A	$1.08104 \cdot 10^3$
B	$-6.58888 \cdot 10^{-1}$
C	$-3.74706 \cdot 10^{-4}$

cont.

Table 2. Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)
293.15	856.00 ± 1.00	0.32	1944-sch(O)	293.15	859.20 ± 2.00	3.52	1988-bag/gur ¹⁾
300.00	849.40 ± 1.00	-0.25	1987-gur/kul(Δ)	303.15	850.90 ± 2.00	4.04	1988-bag/gur ¹⁾
320.00	831.70 ± 1.00	-0.12	1987-gur/kul(Δ)	313.15	838.20 ± 1.00	0.24	1988-bag/gur(\square)
360.00	795.70 ± 1.00	0.43	1987-gur/kul(Δ)	323.15	828.50 ± 1.00	-0.49	1988-bag/gur(\square)
400.00	757.40 ± 1.00	-0.13	1987-gur/kul(Δ)				

¹⁾ Not included in Fig. 1.**Further references:** [1950-gor, 1953-ano-5].**Fig. 1.** The symbols show the deviation of the calculated from the experimental values from Table 2. The curves above and below the zero line indicate the calculated error region of the recommended values given in Table 3. The error bars represent the experimental errors. (Error bars smaller than the symbols are omitted for clarity of the figure.)

cont.

2-Butenal (cont.)**Table 3.** Recommended values (fit to the reliable experimental values according to the equations

$$\rho = A + BT + CT^2 + DT^3 + \dots \text{ or } \rho = [1 + 1.75(1 - T/T_c)^{1/3} + 0.75(1 - T/T_c)][\rho_c + A(T_c - T) + B(T_c - T)^2 + C(T_c - T)^3 + D(T_c - T)^4].$$

$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$
290.00	858.45 \pm 1.45	320.00	831.82 \pm 1.01	370.00	785.95 \pm 1.02
293.15	855.68 \pm 1.37	330.00	822.80 \pm 0.98	380.00	776.55 \pm 1.14
298.15	851.28 \pm 1.26	340.00	813.70 \pm 0.98	390.00	767.08 \pm 1.36
300.00	849.65 \pm 1.22	350.00	804.52 \pm 0.98	400.00	757.53 \pm 1.73
310.00	840.77 \pm 1.08	360.00	795.27 \pm 0.99	410.00	747.90 \pm 2.25

(E)-2-Butenal

[123-73-9]

C4H6O

MW = 70.09

143

Table 1. Fit with estimated B coefficient for 4 accepted points. Deviation $\sigma_w = 0.454$.

Coefficient	$\rho = A + BT$
A	1139.44
B	-0.980

Table 2. Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
273.00	879.5 \pm 5.0	7.60	1886-hen ¹⁾	293.15	852.6 \pm 0.6	0.45	1960-tje
273.00	875.6 \pm 5.0	3.70	1886-hen ¹⁾	298.15	847.5 \pm 0.6	0.25	1960-tje
288.00	864.5 \pm 5.0	7.30	1886-hen ¹⁾	293.15	851.5 \pm 0.6	-0.65	1968-ano
288.00	860.7 \pm 5.0	3.50	1886-hen ¹⁾	293.15	852.0 \pm 1.0	-0.12	1986-nau/wag

¹⁾ Not included in calculation of linear coefficients.**Table 3.** Recommended values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$
290.00	855.2 \pm 0.7
293.15	852.2 \pm 0.6
298.15	847.3 \pm 0.7

2-Methyl-2-propenal [78-85-3] $\text{C}_4\text{H}_6\text{O}$ MW = 70.09 144

Table 1. Experimental and recommended values with uncertainties.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
298.15	813.8 ± 3.0	1947-rog ¹⁾
293.15	846.0 ± 1.0	1953-ano
293.15	845.8 ± 0.6	1968-ano
293.15	845.9 ± 0.6	Recommended

¹⁾ Not included in calculation of recommended value.

(E)-2-Methyl-2-butenal [497-03-0] $\text{C}_5\text{H}_8\text{O}$ MW = 84.12 145

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
298.15	862.2 ± 0.6	1947-rog

3-Pentenal [5604-55-7] $\text{C}_5\text{H}_8\text{O}$ MW = 84.12 146

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
287.15	858.0 ± 2.0	1951-gor

4-Pentenal [2100-17-6] $\text{C}_5\text{H}_8\text{O}$ MW = 84.12 147

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	847.1 ± 0.5	1954 -ano

2-Ethyl-2-butenal [19780-25-7] $\text{C}_6\text{H}_{10}\text{O}$ MW = 98.14 148

Table 1. Fit with estimated B coefficient for 2 accepted points. Deviation $\sigma_w = 0.510$.

Coefficient	$\rho = A + BT$
A	1146.43
B	-0.920

cont.

2-Ethyl-2-butenal (cont.)**Table 2.** Experimental values with uncertainties and deviation from calculated values.

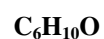
T K	$\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$ $\text{kg} \cdot \text{m}^{-3}$	$\rho_{\text{exp}} - \rho_{\text{calc}}$ $\text{kg} \cdot \text{m}^{-3}$	Ref.
296.65	873.0 ± 2.0	-0.51	1935-gre-2
290.15	880.0 ± 2.0	0.51	1937-tif/wei

Table 3. Recommended values.

T K	$\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$ $\text{kg} \cdot \text{m}^{-3}$
290.00	879.6 ± 1.9
293.15	876.7 ± 1.9
298.15	872.1 ± 1.9

2-Methyl-2-pentenal

[623-36-9]



MW = 98.14

149

Table 1. Experimental value with uncertainty.

T K	$\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$ $\text{kg} \cdot \text{m}^{-3}$	Ref.
293.15	855.2 ± 0.6	1955-ano-3

3-Methyl-4-pentenal

[1777-33-9]



MW = 98.14

150

Table 1. Experimental value with uncertainty.

T K	$\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$ $\text{kg} \cdot \text{m}^{-3}$	Ref.
298.15	846.1 ± 1.0	1961-web/duk

4-Methyl-4-pentenal

[3973-43-1]



MW = 98.14

151

Table 1. Experimental value with uncertainty.

T K	$\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$ $\text{kg} \cdot \text{m}^{-3}$	Ref.
298.15	851.9 ± 1.0	1961-web/duk

2-Ethyl-2-hexenal [645-62-5] $\text{C}_8\text{H}_{14}\text{O}$ MW = 126.2 152

Table 1. Fit with estimated B coefficient for 4 accepted points. Deviation $\sigma_w = 0.687$.

Coefficient	$\rho = A + BT$
A	1132.47
B	-0.960

Table 2. Experimental values with uncertainties and deviation from calculated values.

T K	$\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$ $\text{kg} \cdot \text{m}^{-3}$	$\rho_{\text{exp}} - \rho_{\text{calc}}$ $\text{kg} \cdot \text{m}^{-3}$	Ref.
293.15	850.4 ± 1.0	-0.65	1953-ano-15
293.15	852.2 ± 1.0	1.15	1960-tje
298.15	846.1 ± 1.0	-0.15	1960-tje
293.15	850.7 ± 1.0	-0.35	1961-dyk/sep

Table 3. Recommended values.

T K	$\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$ $\text{kg} \cdot \text{m}^{-3}$
290.00	854.1 ± 1.2
293.15	851.1 ± 1.1
298.15	846.3 ± 1.2

2-Ethyl-4-methyl-2-pentenal [28419-86-5] $\text{C}_8\text{H}_{14}\text{O}$ MW = 126.2 153

Table 1. Experimental value with uncertainty.

T K	$\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$ $\text{kg} \cdot \text{m}^{-3}$	Ref.
293.15	838.2 ± 1.0	1961-dyk/sep

2-Decenal [3913-71-1] $\text{C}_{10}\text{H}_{18}\text{O}$ MW = 154.25 154

Table 1. Experimental value with uncertainty.

T K	$\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$ $\text{kg} \cdot \text{m}^{-3}$	Ref.
288.15	857.0 ± 2.0	1951-gor

3-Decenal [58474-80-9] $\text{C}_{10}\text{H}_{18}\text{O}$ MW = 154.25 155

Table 1. Experimental value with uncertainty.

T K	$\rho_{\text{exp}} \pm 2\sigma_{\text{est}}$ $\text{kg} \cdot \text{m}^{-3}$	Ref.
288.15	851.0 ± 2.0	1951-gor

3,7-Dimethyl-6-octenal [106-23-0] $\text{C}_{10}\text{H}_{18}\text{O}$ MW = 154.25 156

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
17.00	853.5 ± 0.6	1970-kun

(R)-3,7-Dimethyl-6-octenal [2385-77-5] $\text{C}_{10}\text{H}_{18}\text{O}$ MW = 154.25 157

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	854.9 ± 1.5	1954-ari/jeg

3,7-Dimethyl-7-octenal [141-26-4] $\text{C}_{10}\text{H}_{18}\text{O}$ MW = 154.25 158

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
293.15	855.0 ± 2.0	1923-von/kai

2-Nonyl-2-butenal [6720-16-7] $\text{C}_{13}\text{H}_{24}\text{O}$ MW = 196.33 159

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
292.35	858.0 ± 1.0	1947-sto

2-Tridecenal [7774-82-5] $\text{C}_{13}\text{H}_{24}\text{O}$ MW = 196.33 160

Table 1. Experimental value with uncertainty.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref.
292.75	847.6 ± 1.0	1947-sto

2-(1,2-Dimethylpropyl)-5,6-dimethyl-2-heptenal [99914-84-8] $\text{C}_{14}\text{H}_{26}\text{O}$ MW = 210.36 161

Table 1. Coefficients of the polynomial expansion equation. Standard deviations (see introduction):

$\sigma_{c,w} = 2.0474 \cdot 10^{-1}$ (combined temperature ranges, weighted), $\sigma_{c,uw} = 1.3626 \cdot 10^{-1}$ (combined temperature ranges, unweighted).

Coefficient	T = 298.15 to 423.05 K $\rho = A + BT + CT^2 + DT^3 + \dots$
A	$1.08276 \cdot 10^3$
B	$-7.46791 \cdot 10^{-1}$

Table 2. Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)
298.15	860.00 ± 1.00	-0.10	1987-mil/fen(□)	373.10	804.00 ± 1.00	-0.13	1987-mil/fen(□)
323.16	842.00 ± 1.00	0.58	1987-mil/fen(□)	398.20	785.00 ± 1.00	-0.38	1987-mil/fen(□)
347.64	823.00 ± 1.00	-0.14	1987-mil/fen(□)	423.05	767.00 ± 1.00	0.17	1987-mil/fen(□)

Table 3. Recommended values (fit to the reliable experimental values according to the equations

$$\rho = A + BT + CT^2 + DT^3 + \dots \text{ or } \rho = [1 + 1.75(1 - T/T_c)^{1/3} + 0.75(1 - T/T_c)][\rho_c + A(T_c - T) + B(T_c - T)^2 + C(T_c - T)^3 + D(T_c - T)^4].$$

$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{\text{K}}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$
290.00	866.19 ± 1.59	330.00	836.31 ± 1.12	390.00	791.51 ± 0.98
293.15	863.83 ± 1.56	340.00	828.85 ± 1.00	400.00	784.04 ± 1.14
298.15	860.10 ± 1.50	350.00	821.38 ± 0.91	410.00	776.57 ± 1.35
300.00	858.72 ± 1.48	360.00	813.91 ± 0.85	420.00	769.10 ± 1.62
310.00	851.25 ± 1.37	370.00	806.44 ± 0.84	430.00	761.64 ± 1.96
320.00	843.78 ± 1.24	380.00	798.97 ± 0.88		

cont.

2-(1,2-Dimethylpropyl)-5,6-dimethyl-2-heptenal (cont.)

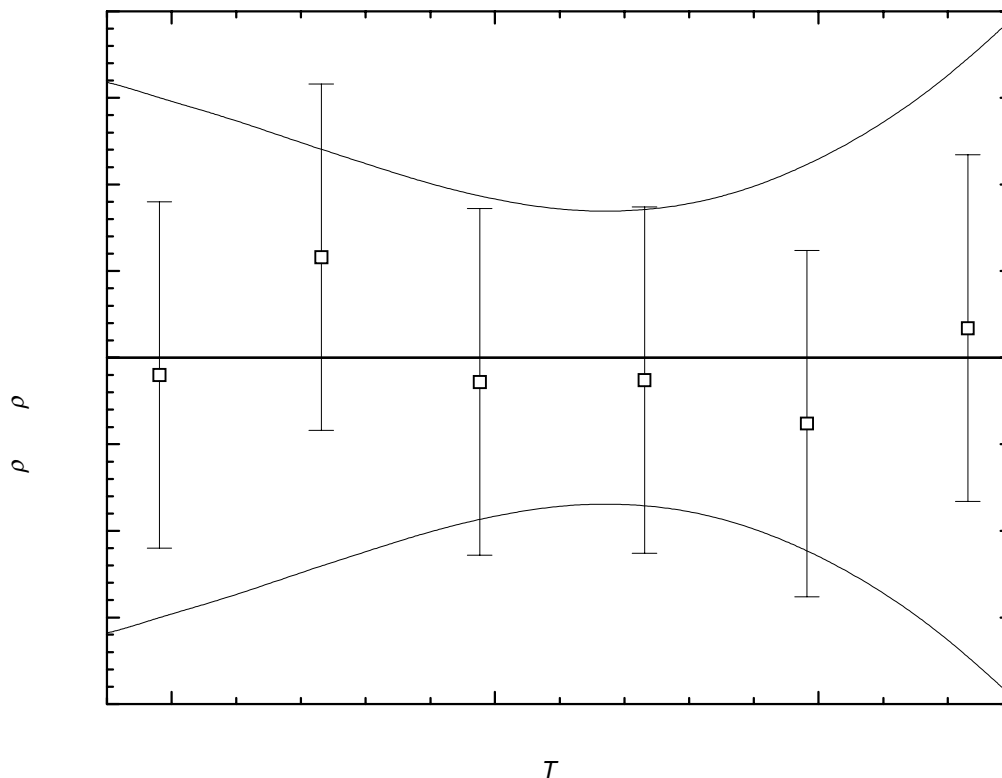


Fig. 1. The symbols show the deviation of the calculated from the experimental values from Table 2. The curves above and below the zero line indicate the calculated error region of the recommended values given in Table 3. The error bars represent the experimental errors. (Error bars smaller than the symbols are omitted for clarity of the figure.)

2-Pentyl-2-nonenal

[3021-89-4]

$C_{14}H_{26}O$

MW = 210.36

162

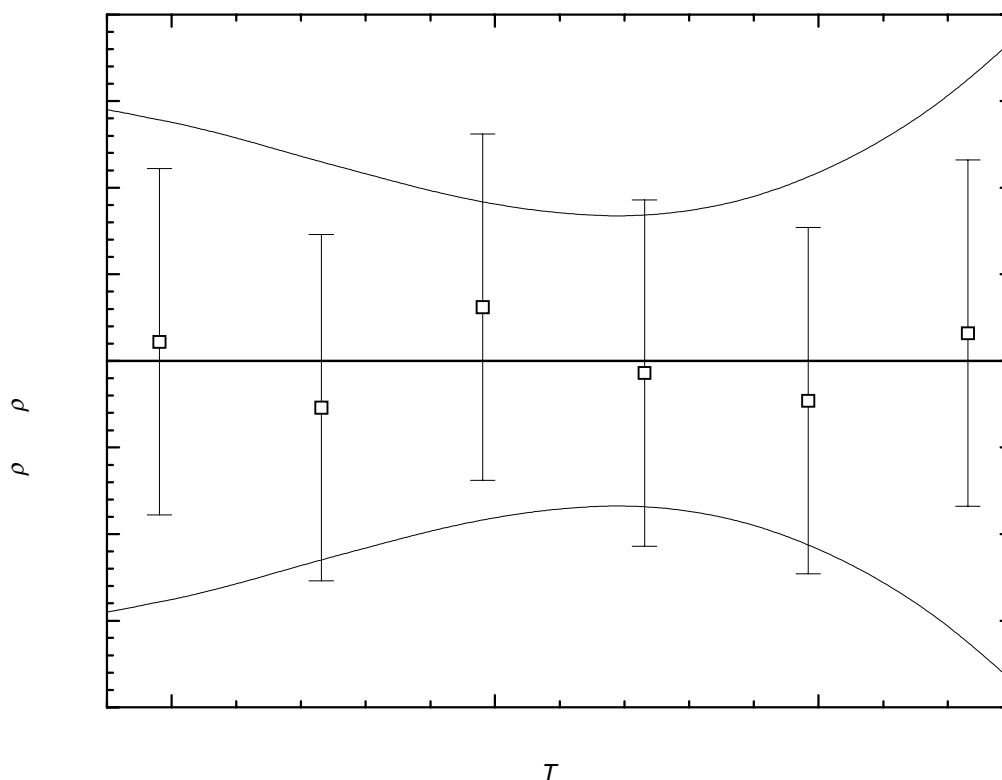
Table 1. Coefficients of the polynomial expansion equation. Standard deviations (see introduction): $\sigma_{c,w} = 2.1095 \cdot 10^{-1}$ (combined temperature ranges, weighted), $\sigma_{c,uw} = 9.4342 \cdot 10^{-2}$ (combined temperature ranges, unweighted).

Coefficient	T = 298.15 to 423.10 K
	$\rho = A + BT + CT^2 + DT^3 + \dots$
A	$1.06793 \cdot 10^3$
B	$-7.44724 \cdot 10^{-1}$

cont.

Table 2. Experimental values with uncertainties and deviation from calculated values.

$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)	$\frac{T}{\text{K}}$	$\frac{\rho_{\text{exp}} \pm 2\sigma_{\text{est}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{\rho_{\text{exp}} - \rho_{\text{calc}}}{\text{kg} \cdot \text{m}^{-3}}$	Ref. (Symbol in Fig. 1)
298.15	846.00 ± 1.00	0.11	1987-mil/fen(\square)	373.10	790.00 ± 1.00	-0.07	1987-mil/fen(\square)
323.15	827.00 ± 1.00	-0.27	1987-mil/fen(\square)	398.40	771.00 ± 1.00	-0.23	1987-mil/fen(\square)
348.10	809.00 ± 1.00	0.31	1987-mil/fen(\square)	423.10	753.00 ± 1.00	0.16	1987-mil/fen(\square)

**Fig. 1.** The symbols show the deviation of the calculated from the experimental values from Table 2. The curves above and below the zero line indicate the calculated error region of the recommended values given in Table 3. The error bars represent the experimental errors. (Error bars smaller than the symbols are omitted for clarity of the figure.)

cont.

2-Pentyl-2-nonenal (cont.)

Table 3. Recommended values (fit to the reliable experimental values according to the equations $\rho = A + BT + CT^2 + DT^3 + \dots$ or $\rho = [1 + 1.75(1 - T/T_c)^{1/3} + 0.75(1 - T/T_c)][\rho_c + A(T_c - T) + B(T_c - T)^2 + C(T_c - T)^3 + D(T_c - T)^4]$).

$\frac{T}{K}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{K}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$	$\frac{T}{K}$	$\frac{\rho \pm \sigma_{\text{fit}}}{\text{kg} \cdot \text{m}^{-3}}$
290.00	851.96 ± 1.45	330.00	822.17 ± 1.08	390.00	777.49 ± 0.94
293.15	849.61 ± 1.43	340.00	814.72 ± 0.98	400.00	770.04 ± 1.08
298.15	845.89 ± 1.39	350.00	807.28 ± 0.90	410.00	762.59 ± 1.27
300.00	844.51 ± 1.38	360.00	799.83 ± 0.85	420.00	755.15 ± 1.52
310.00	837.07 ± 1.29	370.00	792.38 ± 0.83	430.00	747.70 ± 1.85
320.00	829.62 ± 1.18	380.00	784.94 ± 0.86		