

I. Elements

Element (State)	C_p° (cal. deg ⁻¹ . mole ⁻¹)				Temp. Range from 298 °K to °K	Mean Dev. per cent	ΔG_f° (kcal .mole ⁻¹)	ΔC_p° (kcal .mole ⁻¹)	S° (cal .deg ⁻¹ .mole ⁻¹)
	Constants of the Equation $C_p^\circ = a + bT + cT^2 + dT^{-2}$								
	<i>a</i>	<i>b</i> × 10 ³	<i>c</i> × 10 ⁶	<i>d</i> × 10 ⁻⁵					
Ag (s)	5.73	1.263	—	-0.006	1234	0.5	0.000	0.000	10.206
Al (s)	4.94	2.96	—	—	931.7	0.5	0.000	0.000	6.769
As (s)	5.23	2.22	—	—	1100	3	0.000	0.000	8.4
Au (s)	5.66	1.24	—	—	1336	0.5	0.000	0.000	11.32
B (s)	1.54	4.40	—	—	1200	3	0.000	0.000	1.56
Ba (s)							0.000	0.000	16.0
Be (s)	3.40	2.90	—	—	1173	1	0.000	0.000	2.28
Bi (s)	4.49	5.40	—	—	544	1	0.000	0.000	13.6
Br (g)							26.71	19.69	41.805
Br ₂ (g)	8.89	0.165	—	-0.284	1600	0.5	7.34	0.751	58.639
Br ₂ (l)							0.000	0.000	36.4
C (s), diamond . .	2.18	3.16	—	-1.48	1200	2.5	0.453	0.685	0.568
C (s), graphite . .	4.10	1.02	—	-2.10	2300	2.5	0.000	0.000	1.361

Element (State)	C_p° (cal. deg ⁻¹ . mole ⁻¹)				Temp. Range from 298 °K to °K	Mean Dev. per cent	ΔG_f° (kcal .mole ⁻¹)	ΔC_p° (kcal .mole ⁻¹)	S° (cal .deg ⁻¹ .mole ⁻¹)
	Constants of the Equation $C_p^\circ = a + bT + cT^2 + dT^{-2}$								
	<i>a</i>	<i>b</i> × 10 ³	<i>c</i> × 10 ⁶	<i>d</i> × 10 ⁻⁵					
Ca (s)	5.24	3.50	—	—	673	1	0.000	0.000	9.95
Cl (g)							29.012	25.192	39.457
Cl ₂ (g)	8.77	0.25	—	-0.603	1500	1	0.000	0.000	53.286
Co (s)	4.72	4.30	—	—	718	1	0.000	0.000	6.8
Cr (s)	5.84	2.36	—	-0.88	1823	2	0.000	0.000	5.68
Cu (s)	5.41	1.50	—	—	1357	0.5	0.000	0.000	7.96
D (g)							52.982	49.358	29.456
D ₂ (g)	6.830	0.210	0.468	—	1500	0.4	0.000	0.000	34.602
F (g)							18.3	14.2	37.917
F ₂ (g)	8.94	0.30	—	-0.90	2000	1.5	0.000	0.000	48.6
Fe (s) — α	3.37	7.10	—	-0.43	1033	1	0.000	0.000	6.49
Ge (s)	4.62	2.27	—	—	713	5	0.000	0.000	10.14
H (g)							52.089	48.575	27.393
H ₂ (g)	6.85	0.28	-0.22	—	2500	1.5	0.000	0.000	31.211
Hg (l)	6.61	—	—	—	634	1	0.000	0.000	18.5
I (g)							25.482	16.766	43.184
I ₂ (g)	9.00	—	—	—	2000	5	14.876	4.63	62.280
I ₂ (s)	5.42	0.47	—	—	200-386.7	2	0.000	0.000	27.9
K (s)	6.04	3.12	—	—	336.6	1	0.000	0.000	15.262
Mg (s)	6.14	1.50	—	-0.78	923	1	0.000	0.000	7.77
N (g)							85.565	81.471	36.615

Element (State)	C_P^0 (cal. deg ⁻¹ . mole ⁻¹)				Temp. Range from 298 °K to °K	Mean Dev. per cent	ΔG_f^0 (kcal . mole ⁻¹)	ΔG_f^0 (kcal . mole ⁻¹)	S^0 (cal . deg ⁻¹ . mole ⁻¹)
	Constants of the Equation $C_P^0 = a + bT + cT^2 + dT^{-2}$								
	a	$b \times 10^3$	$c \times 10^6$	$d \times 10^{-5}$					
at 298.15 °K									
N ₂ (g)	6.65	1.00	—	—	2500	2	0.000	0.000	45.767
Na (s)	5.00	5.36	—	—	371	1	0.000	0.000	12.289
Ni (s) — α	4.06	7.04	—	—	633	0.5	0.000	0.000	7.12
Ni (s) — β	6.00	1.80	—	—	633-1725	0.5	0.000	0.000	
O (g)							59.159	54.994	38.469
O ₂ (g)	8.643	0.202	—	-1.030	1500	0.1	0.000	0.000	49.003
O ₃ (g)	9.86	2.46	—	1.32	2000	1	34.0	39.06	56.8
P (s), white	5.50	—	—	—	317	5	0.000	0.000	10.6
P (s), red	4.74	3.90	—	—	800	5	-4.4	2.0	15.1
Pb (s)	6.17	1.60	—	—	600	1	0.000	0.000	15.49
Pt (s)	5.74	1.34	—	1.10	1800	0.5	0.000	0.000	10.0
S (s), monoclinic	3.56	6.94	—	—	368.6-392	0.5	0.071	0.023	7.78
S (s), rhombic	3.58	6.24	—	—	368.6	0.5	0.000	0.000	7.62
S (g)	8.54	0.28	—	-0.79	2000	0.5	53.25	43.57	40.085
Sb (s)	5.51	1.74	—	—	903	1	0.000	0.000	10.5
Si (s)	5.55	0.878	—	-0.907	1600	1	0.000	0.000	4.47
Sn (s), white	4.42	6.80	—	—	505	1	0.6	1.1	10.7
Sn (s), grey							0.000	0.000	12.3
Ti (s)	5.25	2.52	—	-4.33	1150	3	0.000	0.000	7.334
U (s) — α	3.39	8.02	—	0.70	935	0.5	0.000	0.000	12.03
Zn (s)	5.35	2.40	—	—	692.7	0.5	0.000	0.000	9.95

II. Inorganic Compounds

Compound (State)	C_P^0 (cal. deg ⁻¹ . mole ⁻¹)				Temp. Range from 298 °K to °K	Mean Dev. per cent	ΔG_f^0 (kcal . mole ⁻¹)	ΔG_f^0 (kcal . mole ⁻¹)	S^0 (cal . deg ⁻¹ . mole ⁻¹)
	Constants of the Equation $C_P^0 = a + bT + cT^2 + dT^{-2}$								
	a	$b \times 10^3$	$c \times 10^6$	$d \times 10^{-5}$					
at 298.15 °K									
AgBr (s)	7.93	15.40	—	—	703	5	-23.78	-22.93	25.60
AgCl (s)	14.88	1.00	—	-2.70	728	1	-30.362	-26.224	22.97
AgF (s)							-48.5	-44.2	20
AgI (s)	5.82	24.10	—	—	423	5	-14.91	-15.85	27.3
AgNO ₃ (s)	18.83	16.0	—	—	433	2	-29.43	-7.69	33.68
Ag ₂ O (s)							-7.306	-2.586	29.09
Ag ₂ S (s) — α	10.13	26.40	—	—	452	2	-7.60	-9.62	34.8
AlCl ₃ (s)	13.25	28.00	—	—	465.6	2	-166.2	-152.2	40.0
Al ₂ O ₃ (s) — α , corundum	27.43	3.06	—	-8.47	1800	0.5	-399.09	-376.77	12.186
AsCl ₃ (g)	19.62	0.24	—	-1.42	1100	1.0	-71.5	-68.5	78.2
AsH ₃ (g)	10.03	5.44	—	-2.17	2000	2	41.0	39	
As ₂ O ₃ (s)	8.37	48.6	—	—			-148	-128.6	25.6
As ₂ O ₅ (s)							-218.6	-184.6	25.2
B ₂ O ₃ (s)	8.73	25.40	—	-1.31	723	1	-302.0	-283.0	12.87
BaCl ₂ (s)	17.0	3.34	—	—	1198		-205.56	-193.8	30
BaCO ₃ (s) witherite	26.29	2.10	-5.80	—	1083	2.5	-291.3	-272.2	26.8
BaO (s)							-133.4	-126.3	16.8
BaSO ₄ (s)	33.80	—	—	-8.43	1300	2.5	-350.2	-323.4	31.6
BeO (s)	8.45	4.0	—	-3.17	1200	3	-143.1	-136.1	3.37
Bi ₂ O ₃ (s)	24.74	8.00	—	—	800	2	-137.9	-118.7	36.2
Bi ₂ S ₃ (s)							-43.8	-39.4	35.3

Compound (State)	C_p^0 (cal. deg ⁻¹ . mole ⁻¹)					ΔH_f^0 (kcal .mole ⁻¹)	ΔG_f^0 (kcal .mole ⁻¹)	S^0 (cal .deg ⁻¹ .mole ⁻¹)	
	Constants of the Equation $C_p^0 = a + bT + cT^2 + dT^{-2}$				Temp. Range from 298 °K to °K				Mean Dev. per cent
	<i>a</i>	<i>b</i> × 10 ³	<i>c</i> × 10 ⁶	<i>d</i> × 10 ⁻⁵					
							at 298.15 °K		
CN (g)	6.60	1.24	—	—	2000	1		48.40	
C ₂ N ₂ (g)	14.90	3.20	—	-2.04	2000	1	73.60	57.86	
CO (g)	6.79	0.98	—	-0.11	2500	1	-26.416	47.301	
CO ₂ (g)	10.55	2.16	—	-2.04	2500	1.5	-94.052	51.061	
COCl ₂ (g)	16.051	2.894	—	-2.159	1000	0.5	-53.30	69.13	
CS ₂ (g)	12.45	1.60	—	-1.80	1800	1	27.55	56.84	
CaCO ₃ (s) — calcite	24.98	5.24	—	-6.20	1200	2	-288.45	22.2	
CaCl ₂ (s)	17.18	3.04	—	-0.60	1055	1	-190.0	27.2	
CaO (s)	11.67	1.08	—	1.56	1800	1	-151.9	9.5	
Ca(OH) ₂ (s)	21.4	—	—	—	373	?	-235.80	18.2	
CaS (s)	—	—	—	—	—	—	-115.3	13.5	
CaSO ₄ (s)	18.52	21.97	—	-1.568	1373	5	-342.42	25.5	
CaSO ₄ · 2H ₂ O (s)	—	—	—	—	—	—	-483.06	46.36	
CoCl ₂ (s)	14.41	14.60	—	—	1000	3	-77.8	25.4	
CrCl ₃ (s)	—	—	—	—	—	—	-94.56	27.4	
Cr ₂ O ₃ (s)	23.53	2.20	—	-3.74	1800	0.5	-269.7	19.4	
CuBr (s)	—	—	—	—	—	—	-25.1	22.969	
CuCl (s)	10.50	9.70	—	—	695	3	-32.2	20	
CuCl ₂ (s)	16.80	8.50	—	—	773	5	-53.4	15.6	
CuO (s)	9.27	4.80	—	—	1250	1	-37.1	10.2	
CuS (s)	10.6	2.64	—	—	1273	—	-11.6	15.9	
CuSO ₄ (s)	25.70	4.30	—	-2.15	873	5	-184.00	27.1	
CuSO ₄ · 5H ₂ O (s)	—	—	—	—	—	—	-544.45	73.0	

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	Constants of the Equation $C_p^0 = a + bT + cT^2 + dT^{-2}$				Temp. Range from 298 °K to °K				Mean Dev. per cent
	<i>a</i>	<i>b</i> × 10 ³	<i>c</i> × 10 ⁶	<i>d</i> × 10 ⁻⁵					
							at 298.15 °K		
Cu ₂ O (s)	14.90	5.70	—	—	1200	1	-39.84	22.436	
Cu ₂ S (s)	9.38	31.2	—	—	376	3	-19.0	28.9	
D ₂ O (g)	—	—	—	—	—	—	-59.563	47.379	
D ₂ O (l)	—	—	—	—	—	—	-70.413	18.162	
FeCO ₃ (s)	11.63	26.8	—	—	885	—	-178.70	22.2	
FeCl ₂ (s)	18.94	2.08	—	-1.17	950	1	-81.5	28.6	
FeO (s)	38.00	1.62	—	-0.738	1200	1	-63.7	14.2	
FeS (s) — α	2.03	39.0	—	—	412	5	-22.72	16.1	
FeS (s) — β	10.95	3.80	—	—	412-1468	2	-21.35	—	
FeS ₂ (s)	10.70	13.36	—	—	773	—	-42.52	12.7	
FeSO ₄ (s)	—	—	—	—	—	—	-221.3	25.7	
Fe ₂ O ₃ (s)	23.36	17.24	—	-3.08	1100	2	-196.5	21.5	
Fe ₃ O ₄ (s)	39.92	18.86	—	-10.01	1100	2	-267.0	35.0	
HBr (g)	6.76	0.606	0.13	—	2500	1.5	-8.66	47.437	
HCN (g)	8.92	3.10	—	-1.12	2000	1	31.2	48.23	
HCl (g)	6.76	0.606	0.13	—	2500	1.5	-22.063	44.617	
HF (g)	6.43	0.82	—	—	2000	0.5	-64.2	41.47	
HI (g)	6.76	0.606	0.13	—	2500	1.5	6.20	49.314	
HNO ₃ (l)	—	—	—	—	—	—	-41.404	37.19	
H ₂ O (g)	7.20	2.70	—	—	2000	1	-57.798	45.106	
H ₂ O (l)	—	—	—	—	—	—	-68.317	16.716	
H ₂ O ₂ (l)	—	—	—	—	—	—	-45.20	24.44	
H ₂ S (g)	7.02	3.68	—	—	1800	0.5	-4.815	49.15	

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	Constants of the Equation $C_p^\circ = a + bT + cT^2 + dT^{-2}$								
	a	b × 10 ³	c × 10 ⁶	d × 10 ⁻⁵					
H ₂ SO ₄ (l)							-193.91	-164.2	37.49
HgCl (s)	11.05	3.70	—	—	798		-31.6	-17.2	23.5
HgCl ₂ (s)	15.3	10.3	—	—	553		-53.4	-42.2	34.5
HgO (s) — red							-21.68	-13.99	16.8
HgS (s) — red							-13.90	-11.67	18.6
Hg ₂ Cl ₂ (s)							-63.32	-50.35	46.8
KAl(SO ₄) ₂ (s)	55.96	19.68	—	-13.96	1100	2	-589.24	-534.29	48.9
KBr (s)	11.56	3.32	—	—	1000	2	-93.73	-90.63	23.05
KCl (s)	9.89	5.20	—	0.77	1043	2	-104.175	-97.592	19.76
KF (s)	12.70	1.11	—	-1.214	1130	2	-134.46	-127.42	15.91
KI (s)							-78.31	-77.03	24.94
KNO ₃ (s)	14.55	28.40	—	—	401	3	-117.76	-93.96	31.77
K ₂ SO ₄ (s)	28.77	23.80	—	-4.26	856	0.5	-342.66	-314.62	42.0
MgCO ₃ (s), magnesite	18.62	13.80	—	-4.16	750	0.5	-266	-246	15.7
MgCl ₂ (s)	18.90	1.42	—	-2.06	927	0.5	-153.40	-141.57	21.4
MgO (s)	10.18	1.74	—	-1.48	2100	2	-143.84	-136.13	6.4
Mg(OH) ₂ (s)	10.40	27.00	—	—	500	2	-221.0	-199.27	15.09
MgSO ₄ (s)							-305.5	-278.5	22.8
MnCO ₃ (s)	21.99	9.30	—	-4.69	700	0.5	-213.9	-195.4	20.5
MnO (s)	11.11	1.94	—	-0.88	1800	0.5	-92.0	-86.7	14.27
MnO ₂ (s)	16.60	2.44	—	-3.88	800	0.5	-124.5	-111.4	12.7
NH ₃ (g)	7.12	6.09	—	-0.398	1400	1	-11.04	-3.976	46.01
NH ₄ Cl (s)	9.8	36.8	—	—	457.6	5	-75.38	-48.73	22.6

Compound (State)	C_p° (cal. deg ⁻¹ . mole ⁻¹)				Temp. Range from 298 °K to °K	Mean Dev. per cent	ΔG_f° (kcal . mole ⁻¹)	ΔG_f° (kcal . mole ⁻¹)	S° (cal . deg ⁻¹ . mole ⁻¹)
	Constants of the Equation $C_p^\circ = a + bT + cT^2 + dT^{-2}$								
	a	b × 10 ³	c × 10 ⁶	d × 10 ⁻⁵					
NH ₄ NO ₃ (s)							-87.27		
(NH ₄) ₂ SO ₄ (s)	24.77	67.20	—	—	600	1	-281.86	-215.19	52.65
NO (g)	7.03	0.92	—	-0.14	2500	1	21.600	20.719	50.339
NO ₂ (g)	10.26	2.04	—	-1.61	2000	1.5	8.091	12.390	50.47
NOCl (g)	10.73	1.84	—	-1.66	2000	3	12.57	15.86	63.0
N ₂ O ₄ (g)	20.05	9.50	—	-3.56	1000	1	2.309	23.491	72.73
N ₂ O ₅ (g)							3.6		
NaBr (s)	11.74	2.33	—	—	543	2	-86.03	-83.5	21.8
NaCl (s)	10.98	3.90	—	—	1073	1	-98.232	-91.785	17.30
NaF (s)	9.75	4.38	—	—	1265	3	-136.0	-129.3	14.0
NaHCO ₃ (s)							-226.5	-203.6	24.4
NaI (s)	12.5	1.62	—	—	936	?	-68.84	-68.2	24.0
NaNO ₃ (s)	6.14	54.00	—	—	583	3	-111.54	-87.45	27.8
NaOH (s)	19.2	—	—	—	593	5	-102.0	-91.0	15.34
Na ₂ CO ₃ (s)							-271.02	-251.11	32.5
Na ₂ SO ₄ (s)							-330.90	-302.78	35.73
Na ₂ SiO ₃ (s)	31.4	9.60	—	-6.47	1361	1	-363	-341	27.2
NiCO ₃ (s)							-164.7	-146.7	21.6
NiO (s)	11.3	2.15	—	—	1273	?	-58.4	-51.7	9.22
NiS (s)	9.25	3.40	—	—	597	3	-18.6	-18.2	
NiSO ₄ (s)							-213.0	-184.0	18.6
PCl ₃ (g)	20.063	0.289	—	-2.706	1000	0.2	-73.22	-68.42	74.49
PCl ₅ (g)	4.739	107.328	-119.20	—	500	?	-95.35	-77.59	84.3

Compound (State)	C_p° (cal. deg ⁻¹ . mole ⁻¹)				Temp. Range from 298 °K to °K	Mean Dev. per cent	ΔG_f° (kcal .mole ⁻¹)	ΔG_f° (kcal .mole ⁻¹)	ΔG_f° (cal .deg ⁻¹ .mole ⁻¹)
	Constants of the Equation $C_p^{\circ} = a + bT + cT^2 + dT^{-2}$								
	a	b × 10 ³	c × 10 ⁶	d × 10 ⁻⁵					
at 298.15 °K									
PH ₃ (g)	4.496	14.372	40.72	—	1500	0.1	2.21	4.36	50.2
P ₄ O ₁₀ (s)	16.75	108.0	—	—	631	1	-720.0	-652	
PbCO ₃ (s), cerussite . .	12.39	28.6	—	—	800	1	-167.3	-149.7	31.3
PbCl ₂ (s)	15.96	8.00	—	—	771	2	-85.85	-75.04	32.6
PbO (s), yellow	9.05	6.40	—	—	1000	1	-52.07	-45.05	16.6
PbO (s) — red	10.60	4.00	—	—	900	1	-52.40	-45.25	16.2
PbO ₂ (s)	12.7	7.8	—	—	?	?	-66.12	-52.34	18.3
PbS (s)	10.66	3.92	—	—	900	3	-22.54	-22.15	21.8
PbSO ₄ (s)	10.96	31.00	—	4.20	1100	5	-219.50	-193.89	35.2
Pb ₂ O ₄ (s)							-175.6	-147.6	50.5
SO (g)	7.89	0.60	—	-0.80	1500	2	19.02	12.78	53.04
SO ₂ (g)	11.40	1.714	—	-2.045	2000	2	-70.96	-71.79	59.40
SO ₂ Cl ₂ (g)	12.84	19.00	—	—	500	1	-82.04	-74.06	74.6
SO ₃ (g)	13.70	6.42	—	-3.12	1200	1	-94.45	-88.52	61.24
Sb ₂ O ₃ (s)							-234.4	-200.5	29.9
Sb ₂ O ₄ (s)	19.1	17.1	—	—	929	1	-336.8	-298.0	58.8
Sb ₂ S ₃ (s), orange . . .	24.2	13.2	—	—	821	1	-36.0		
SiBr ₄ (g)	25.19	0.64	—	-1.94	1000	0.5			
SiC (s) — cubic	8.93	3.00	—	-3.07	1700	3	-26.7	-26.1	3.97
SiCH ₃ (g)	4.238	30.37	-13.4	—	1000	0.4			59.83
SiCl ₂ H ₂ (g)	6.877	31.69	-16.72	—	800	1			68.06
SiCl ₃ H (g)	11.166	28.29	-16.48	—	800	1	-112		75.00
SiCl ₄ (g)	16.022	23.34	-15.04	—	800	1	-145.7	-136.2	79.06

Compound (State)	C_p° (cal. deg ⁻¹ . mole ⁻¹)				Temp. Range from 298 °K to °K	Mean Dev. per cent	ΔG_f° (kcal .mole ⁻¹)	ΔG_f° (kcal .mole ⁻¹)	ΔG_f° (cal .deg ⁻¹ .mole ⁻¹)
	Constants of the Equation $C_p^{\circ} = a + bT + cT^2 + dT^{-2}$								
	a	b × 10 ³	c × 10 ⁶	d × 10 ⁻⁵					
at 298.15 °K									
SiF ₄ (g)	22.95	2.65	—	-4.72	2000	1	-370	-360	68.0
SiH ₄ (g)	11.05	8.78	—	-3.05	1800	2	7.8		48.79
SiO ₂ (s), α-quartz . . .	11.22	8.20	—	-2.70	848	0.5	-205.4	-192.4	10.00
SiO ₂ (s), β-quartz . . .	14.41	1.94	—	—	848-2000	0.5			
SiO ₂ (s), α-cristoballite	4.28	21.06	—	—	523	1	-205.0	-192.1	10.19
SiO ₂ (s), β-cristoballite	14.40	2.04	—	—	523-2000	0.5			
SiO ₂ (s), α-tridymite .	3.27	24.80	—	—	390	1			
SiO ₂ (s), β-tridymite .	13.64	2.64	—	—	390-2000	2	-204.8	-191.9	10.36
SiO ₂ (s), amorphous . .	13.38	3.68	—	-3.45	2000	2	-202.5	-190.9	11.2
SnCl ₂ (s)	16.2	9.26	—	—	520		-83.6	-73.9	
SnCl ₄ (l)	25.25	0.72	—	-1.67	773	1	-130.3	-113.3	61.8
SnO (s)	9.40	3.62	—	—	1273		-68.4	-61.5	13.5
SnO ₂ (s)	17.66	2.40	—	-5.16	1500	3	-138.8	-124.5	12.5
SnS (s)	12.1	1.65	—	—	1153		-18.6	-19.7	23.6
TiC (s)	11.83	0.80	—	-3.58	1800	0.5	-54	-53	5.8
TiO (s)	10.57	3.60	—	-1.86	1264	1			8.31
TiO ₂ (s), rutile	17.97	0.28	—	-4.35	1800	1	-218	-203.8	12.01
UO ₂ (s)							-259.2	-246.6	18.63
ZnCO ₃ (s), smithsonite .							-194.2	-174.8	19.7
ZnCl ₂ (s)							-99.40	-88.26	25.9
ZnO (s)	11.71	1.22	-2.18	—	1600	1	-83.17	-76.05	10.5
ZnSO ₄ (s)	17.07	20.80	—	—	1000	5	-233.88	-208.31	29.8

III. Organic Compounds

Compound (State)	C_p^0 (cal. deg ⁻¹ . mole ⁻¹)				Temp. Range from 298°K to °K	Mean Dev. per cent	ΔH_f^0 (kcal .mole ⁻¹)	ΔG_f^0 (kcal .mole ⁻¹)	C_p^0 (cal .deg ⁻¹ .mole ⁻¹)
	Constants of the Equation $C_p^0 = a + bT + cT^2 + dT^{-2}$								
	a	$b \times 10^3$	$c \times 10^5$	$d \times 10^{-5}$					
							at 298.15 °K		
CH ₄ (g), methane . .	3.422	17.845	-4.165	—	1500	0.4	-17.889	-12.140	44.50
C ₂ H ₂ (g), acetylene . .	12.13	3.84	—	-2.46	2000	1	54.194	50.000	47.997
C ₂ H ₄ (g), ethylene . .	2.705	29.160	-9.059	—	1500	0.7	12.496	16.282	52.45
C ₂ H ₆ (g), ethane . . .	1.375	41.852	-13.827	—	1000	0.4	-20.236	-7.860	54.85
C ₂ H ₄ (g), methyl- acetylene . . .	4.41	37.61	14.38	—			44.319	46.313	59.30
C ₃ H ₄ (g), propadiene . .	3.62	36.17	-12.16	—			45.92	48.37	58.30
C ₃ H ₆ (g), propylene . .	2.974	45.024	-11.376	—	510	0.1	4.879	14.990	63.80
C ₃ H ₈ (g), propane . . .	0.410	64.71	-22.582	—	1500	0.4	-24.820	-5.614	64.51
C ₄ H ₆ (g), 1,3-buta- diene . . .	2.31	58.28	20.95	—			26.33	36.01	66.62
C ₄ H ₈ (g), 1-butene . . .	5.132	61.760	-19.322	—	1500	2.2	-0.03	17.09	73.04
C ₄ H ₈ (g), <i>cis</i> -2-butene	2.047	64.311	19.834	—	1500	0.8	-1.67	15.74	71.90
C ₄ H ₈ (g), <i>trans</i> -2- butene . . .	4.967	59.961	-18.147	—	1500	0.6	-2.67	15.05	70.86
C ₄ H ₈ (g), 2-methyl- propylene . . .	5.331	60.246	-18.140	—	1500	0.8	-4.04	13.88	70.17
C ₄ H ₁₀ (g), <i>n</i> -butane . .	4.357	72.552	-22.145	—	1500	0.9	-30.15	-4.10	74.12
C ₄ H ₁₀ (g), <i>iso</i> -butane . .	2.296	82.407	-38.792	—	1500	0.3	-32.15	-5.00	70.42
C ₄ H ₁₀ (g), 2-methyl- butane . . .	-0.283	47.936	-26.26	—	1500	2.5	-36.92	-3.50	82.12

Compound (State)	C_p^0 (cal. deg ⁻¹ . mole ⁻¹)				Temp. Range from 298 °K to °K	Mean Dev. per cent	ΔH_f^0 (kcal .mole ⁻¹)	ΔG_f^0 (kcal .mole ⁻¹)	C_p^0 (cal .deg ⁻¹ .mole ⁻¹)
	Constants of the Equation $C_p^0 = a + bT + cT^2 + dT^{-2}$								
	a	$b \times 10^3$	$c \times 10^5$	$d \times 10^{-5}$					
							at 298.15 °K		
C ₅ H ₁₂ (g), 2,2-dimethyl- propane . . .	6.076	98.954	-35.369	—	1500	0.1	-39.67	-3.64	73.23
C ₅ H ₁₂ (g), <i>n</i> -pentane . .	3.140	100.532	-35.560	—	1500	0.2	-35.00	-2.00	83.40
C ₆ H ₆ (g), benzene . . .	-5.04	95.63	-40.6	—			19.820	30.989	64.34
C ₆ H ₁₂ (g), cyclohexane . .	-7.701	125.675	-41.548	—	1500	2.7	-29.43	7.59	71.28
C ₆ H ₁₄ (g), <i>n</i> -hexane . .	7.313	104.906	-32.397	—	1500	0.9	-39.96	-0.07	92.83
C ₇ H ₈ (g), toluene . . .	4.74	113.46	-46.7	—			11.950	29.228	76.42
C ₇ H ₈ (g), styrene . . .	-3.17	130.4	-52.9	—			35.22	51.10	82.48
C ₈ H ₁₀ (g), ethylbenzene							7.120	31.208	86.15
C ₈ H ₁₀ (g), 1,2-dime- thylbenzene . . .	4.603	104.476	-33.616	—	1500	1.3	4.540	29.177	84.31
C ₈ H ₁₀ (g), 1,3-dime- thylbenzene . . .	1.956	109.147	-35.583	—	1500	1.6	4.120	28.405	85.49
C ₈ H ₁₀ (g), 1,4-dime- thylbenzene . . .	1.846	108.594	-35.200	—	1500	1.4	4.290	28.952	84.23
C ₁₀ H ₈ (s), naphthalene							18.03	47.95	39.9
CH ₃ O (l), methyl alcohol . . .							-57.02	-39.73	30.3
CH ₃ O (g), methyl alcohol . . .	4.88	24.78	-5.889	—	700		-48.08	-38.69	56.8
C ₂ H ₅ O (l), ethyl alcohol							-66.356	-41.77	38.4
C ₂ H ₅ O (g), ethyl alcohol	3.578	49.847	16.991	—	1000	0.1	-56.24	-40.30	67.4

Compound (State)	C_P^0 (cal. deg ⁻¹ . mole ⁻¹)						$\Delta\mathcal{H}_f^0$ (kcal .mole ⁻¹)	$\Delta\mathcal{G}_f^0$ (kcal .mole ⁻¹)	\mathcal{S}^0 (cal .deg ⁻¹ .mole ⁻¹)
	Constants of the Equation $C_P^0 = a + bT + cT^2 + dT^{-3}$				Temp. Range from 298 °K to °K	Mean Dev. per cent			
	a	$b \times 10^3$	$c \times 10^6$	$d \times 10^{-5}$			at 298.15 °K		
C ₃ H ₈ O (g), <i>n</i> -propyl alcohol . . .	-0.62	74.67	25.22	—			-62.5	-40.9	46.1
C ₃ H ₈ O (l), <i>i</i> -propyl alcohol . . .							-76.4	-44	43.0
C ₃ H ₈ O (g), <i>i</i> -propyl alcohol . . .							-64.2	-41.91	73.2
C ₄ H ₁₀ O (l), ethyl ether.							-65.13	-28.3	
C ₄ H ₁₀ O (g) ethyl ether.							-45.60	-28.1	
CH ₂ O (g), formaldehyde . . .	4.498	13.953	-3.730	—	1500	0.9	-27.7	-26.3	52.26
C ₂ H ₄ O (g), acetaldehyde . . .	7.422	29.029	-8.742	—	1500	1	-39.76	-31.96	63.5
C ₃ H ₆ O (g), acetone . . .	5.371	48.227	-15.182	—	1500	0.9	-51.79	-36.5	72.7
CH ₂ O ₂ (l), formic acid							-97.8	-82.7	30.82
CH ₂ O ₂ (g), formic acid	7.33	21.32	-8.255	—	700		-86.67	-80.24	60.0
C ₂ H ₄ O ₂ (l), acetic acid .							-116.4	-93.8	38.2
C ₂ H ₄ O ₂ (g), acetic acid .	5.20	46.16	-18.35	—	700		-104.3	-91.2	70.1
CBr ₄ (g)							12	8.6	85.6
CCl ₄ (g)							-25.5	-15.3	73.95
CF ₄ (g)							-162.5	-151.8	62.7
CHBr ₃ (g)	18.00	6.20	—	-2.50	600	1	6	3.8	79.18
CHCl ₃ (g)	7.052	35.598	-21.686	—	773	0.3	-24	-16	70.86

Compound (State)	C_P^0 (cal. deg ⁻¹ . mole ⁻¹)						$\Delta\mathcal{H}_f^0$ (kcal .mole ⁻¹)	$\Delta\mathcal{G}_f^0$ (kcal .mole ⁻¹)	\mathcal{S}^0 (cal .deg ⁻¹ .mole ⁻¹)
	Constants of the Equation $C_P^0 = a + bT + cT^2 + dT^{-2}$				Temp. Range from 298 °K to °K	Mean Dev. per cent			
	a	$b \times 10^3$	$c \times 10^6$	$d \times 10^{-5}$			at 298.15 °K		
CHF ₃ (g)	3.616	18.239	-2.035	—	600	0.4			53.50
CH ₂ Br ₂ (g)	14.80	7.60	—	-2.50	600	1	-1	-1.4	70.16
CH ₂ Cl ₂ (g)							-21	-14	64.68
CH ₂ F ₂ (g)	4.203	21.633	4.088	—	600	0.5			
CH ₃ Br (g)	10.70	8.50	—	-2.70	1200	2	-8.5	-6.2	58.74
CH ₃ Cl (g)	3.562	22.998	-7.541	—	773	0.3	-19.6	-14.0	55.97
CH ₃ F (g)									53.30
CH ₃ I (g)	4.105	24.487	-9.733	—	600	0.1	4.9	5.3	60.85
C ₂ H ₅ Cl (g), ethyl chloride							-25.1	-12.7	65.90
C ₆ H ₅ Cl (l), chlorobenzene							27.80		47.2
C ₆ H ₅ NO ₂ (l), nitrobenzene . . .							5.3	34.95	53.6
C ₆ H ₅ O (s), phenol							-37.26	-9.74	34.0