Selected Thermodynamic Data

	ΔH_f^0 (kJ/mol)	ΔG_f^0 (kJ/mol)	S^0 (J/mol K)
Ag (cr)	0	0	42.55
AgCl(cr)	-127.068	-109.789	96.2
AgCN(cr)	146	156.9	107.19
Ag_2SO_4(aq)	-698	-590	33.1
Al(cr)	0	0	28.33
Al_2O_3(cr)	-1675.7	-1582.3	50.92
$BaCl_2$(aq)	-871.95	-823.21	122.6
$BaSO_4$(cr)	-1473.2	-1362.2	132.2
Be(cr)	0	0	9.5
BeO(cr)	-609.6	-580.3	-
Bi(cr)	0	0	56.74
$BiCl_3$(cr)	-379.1	-315	177
Bi_2S_3(cr)	-143.1	-140.6	200.4
Br_2(g)	30.9	3.1	245.4
Br_2(l)	0	0	152.231
CH_4(g)	-74.81	-50.72	186.264
C_2H_2(g)	226.73	209.2	200.94
C_2H_4(g)	52.26	68.15	219.56
C_2H_6(g)	-84.68	-32.82	229.6
C_2H_{10}(g)	-125	15.7	310
CO(g)	-110.525	-137.168	197.674
CO_2(g)	-393.509	-394.359	213.74
CS_2(l)	89.7	65.27	151.34
Ca(cr)	0	0	41.42
$CaCl_2$(aq)	-878	-815	54.8
CaO(cr)	-635	-604	38.2
$Ca(OH)_2$(cr)	-986.09	-898.49	-
Cl_2(g)	0	0	223.066
Co_3O_4(cr)	-891	-774	-
CoO(cr)	-237.94	-214.2	52.97
Cr_2O_3(cr)	-1139.7	-1058.1	81.2
CsCl(cr)	-443.04	-414.53	101.17
Cs_2SO_4(cr)	-1443.02	-1323.58	211.92
Cu(cr)	0	0	33.1
CuI(cr)	-67.8	-69.5	96.7
$Cu(NO_3)_2$(aq)	-350	-157	193
CuS(cr)	-53.1	-53.6	66.5
Cu_2S(cr)	-79.5	-86.2	120.9
$CuSO_4$(cr)	-771.36	-661.8	109
F_2(g)	0	0	202.78
Fe(cr)	0	0	27.3
$FeCl_3$(cr)	-399.49	-	-
FeO(cr)	-272	-	-
Fe_2O_3(cr)	-824.2	-742.2	87.4
Fe_3O_4(cr)	-1118.4	-1015.4	146.4

	ΔH_f^0 (kJ/mol)	ΔG_f^0 (kJ/mol)	S^0 (J/mol K)
H(g)	217.965	-	114.713
H_2(g)	0	0	130.684
HBr(g)	-36.4	-53.45	198.695
HCl(g)	-92.307	-95.299	186.908
HCl(aq)	-167.159	-131.228	56.5
HCN(aq)	150.6	172.4	94.1
HCHO(g)	-108.57	-102.53	218.77
HCOOH(l)	-424.72	-361.35	128.95
HF(g)	-271.1	-273.2	173.779
HI(g)	26.48	1.7	206.594
HNO_2(aq)	-245	-119	162
HNO_3(aq)	-207	-111	146
H_2O(l)	-285.83	-237.129	69.91
H_2O(g)	-241.818	-228.572	188.825
H_2O_2(l)	-	-120.35	109.6
H_3PO_2(l)	-595.4	-	-
H_3PO_3(aq)	-964.4	-	-
H_3PO_4(aq)	-1279	-1119.1	110.5
H_2S(g)	-20.63	-33.56	205.79
H_2SO_3(aq)	-608.81	-537.81	232.2
H_2SO_4(aq)	-909.27	-744.53	20.1
H_2SO_4(l)	-814	-690	139
$HgCl_2$(cr)	-224.3	-178.6	-
Hg_2Cl_2(cr)	-265.22	-210.745	192.5
Hg_2SO_4(cr)	-265.22	-210.745	192.5
Hg_2SO_4(cr)	-743.12	-625.815	200.66
I_2(cr)	0	0	116.135
K(cr)	0	0	64.18
KBr(cr)	-393.798	-380.66	95.9
K_2SO_4(cr)	-342.66	-	42
K_2SO_4(aq)	-1409	-	-
$KMnO_4$(cr)	-837.2	-737.6	171.71
KOH(cr)	-424.764	-	-
LiBr(cr)	-351.213	-	-
LiOH(cr)	-484.93	-438.95	42.8
Mg(cr)	0	0	33
Mg_3N_2(cr)	-461	-401	882
$Mg(NO_3)_2$(aq)	-875.08	-	175
$Mg(OH)_2$(cr)	-221	-	15.09
Mn(cr)	0	0	32.01
$MnCl_2$(aq)	-555.05	-490.8	38.9
$Mn(NO_3)_2$(aq)	-635.5	-450.9	218
MnO_2(cr)	-520.03	-465.14	53.05
MnS(cr)	-214.2	-	-
N_2(g)	0	0	191.61

Selected Thermodynamic Data

	ΔH_f^0 (kJ/mol)	ΔG_f^0 (kJ/mol)	S^0 (J/mol K)
$NH_3(g)$	-46.11	-16.45	192.45
$NH_4Br(cr)$	-270.83	-175.2	113
$NH_4Cl(aq)$	-300	-211	170
$NH_4NO_3(cr)$	-87.27	-	-
$NH_4NO_3(aq)$	-81.11	-	-
NO(g)	90.25	86.55	210.761
$NO_2(g)$	33.18	51.31	240.06
$N_2O(g)$	82.05	104.2	219.85
Na(cr)	0	0	51.21
NaBr(cr)	-361.062	-	-
NaCl(cr)	-411.153	-384.138	72.13
$NaNO_3(aq)$	-447.48	-	-
NaOH(cr)	-425.609	-	-
NaOH(aq)	-469.61	-	49.8
$Na_2S(aq)$	-447.3	-	-
$Na_2SO_4(aq)$	-1387.08	-1270.16	149.58
$O_2(g)$	0	0	205.138
$P_4O_6(cr)$	-1640.1	-	-
$P_4O_{10}(cr)$	-2984	-2697.7	228.86
$PbBr_2(cr)$	-278.7	-261.92	161.5
$PbCl_2(cr)$	-359.41	-314.1	136
S(cr)	0	0	31.8
$SO_2(g)$	-296.83	-300.194	248.22
$SO_3(g)$	-454.51	-374.21	70.7
SrO(cr)	-592	-561.9	54.4
Ti(cr)	0	0	30.63
TiO_2	-939.7	-884.5	49.92
TlI(cr)	-123.8	-125.39	127.64
$UCl_4(cr)$	-1019.2	-930	197.1
$UCl_5(cr)$	-1059	-950	242.7
Zn(cr)	0	0	41.63
$ZnCl_2(aq)$	-488.19	-409.5	0.8
$Zn(NO_3)_2(aq)$	-481.66	-	-
ZnO (cr)	-348.28	-318.3	43.64
$Zn(OH)_2(cr)$	-642.2	-	-
$ZnSO_4(aq)$	-1063.15	-891.59	-92