Commonly Used Thermodynamic Data

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Formula and phase	ΔH° kJ/mol	ΔS° J/molK	ΔG° kJ/mol
Al (s)	0	28.3	0
Al_2O_3 (l)	-1581.13	89.58	-1499.25
$AlCl_3$ (s)	-705.63	109.3	-630.07
C (s)graphite	0	5.7	0
C_2H_4 (g)	52.30	219.20	68.24
C_2H_5OH (l)	-276.98	161.04	-174.18
C_2H_6 (g)	-84.68	229.12	-32.80
C_3H_8 (*l*)	-103.8	269.9	-23.5
Ca (s)	0.00	41.42	0.00
Ca^{2+} (aq)	-542.83	-53.14	-553.54
$CaCl_2$ (s)	-795	114	-750.2
$CaCO_3$ (s)	-1206.92	92.88	-1128.84
CaO (s)	-635.13	38.20	-603.54
$CaSO_4$ (s)	-1434.11	106.69	-1321.85
CH_3Cl (g)	-83.7	234	-60.2
CH_3OH (l)	-239.03	127.24	-166
CH_4 (g)	-74.85	186.27	-50.84
Cl_2 (g)	0	223.1	0
CO(g)	-110.54	197.90	-137
CO_2 (g)	-393.5	213.7	-394.4
$COCl_2$ (g)	-220	283.76	-206
CS_2 (l)	87.9	151.34	63.6
Cu (s)	0	33.15	0
Cu^{2+} (aq)	64.39	-98.7	64.98
F_2 (g)	0	202.8	0
Fe (s)	0	27.28	0
Fe_2O_3 (s)	-824.25	87.40	-742.24
H^+ (aq)	0	0	0
H_2 (g)	0	130.7	0
H_2O (g)	-241.8	188.8	-228.6

Formula and phase	ΔH° kJ/mol	ΔS° J/molK	ΔG° kJ/mol
H_2O (l)	-285.8	69.4	-237.0
H_2O_2 (l)	-187.6	109.5	-120.2
H_2S (g)	-20.17	205.77	-33.05
H_2SO_4 (l)	-814.00	156.90	-690.07
HCl (g)	-92.5	186.77	-95.31
HCN (g)	135.14	201.67	124.68
HCO_3^- (aq)	-691.11	95.0	-587.06
HF (g)	-273.3	173.8	-275.4
K_2SO_4 (s)	-1437.8	175.6	-1321.4
KCl (s)	-436.69	82.55	-436.69
Li (s)	0	29.12	0
Li^+ (aq)	-278.5	13.4	-293.3
Mg (s)	0	32.69	0
Mg^{2+} (aq)	-461.96	-118	-456.01
$Mg(OH)_2$ (aq)	-924.54	63.18	-833.51
N_2 (g)	0	191.50	0
N_2H_4 (g)	95.40	238.5	159.28
N_2H_4 (l)	50.63	121.2	149.24
Na^+ (aq)	-240.1	59.0	-261.9
Na_2CO_3 (s)	-1130.94	135.98	-1047.67
NH_3 (aq)	-80.89	111	-26.6
NH_3 (g)	-46.11	192.8	-16.48
NH_4^+ (aq)	-132.51	113.39	-79.37
NH_4Cl (s)	-314.4	94.56	-202.97
NO (g)	91.3	210.8	87.6
NO_2 (g)	34.0	240.5	51.84
NOCl (g)	51.7	261.7	66.4
O_2 (g)	0	205.1	0
OH- (aq)	-229.99	-10.75	-157.28
Pb (s)	0	64.77	0

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Formula and phase	**ΔH°** kJ/mol	**ΔS°** J/molK	**ΔG°** kJ/mol
PbO (s)	-218.99	66.53	-189.24
SO_2 (g)	-296.83	248.11	-300.19
SO_3 (g)	-395.72	256.65	-371.08
$TiCl_4$ (*l*)	-804.2	252.3	-737.2
TiO_2 (s)	-939.7	49.9	-884.5
Zn (s)	0.00	41.63	0.00
Zn^{2+} (aq)	-152.4	-106.5	-147.21

Formula and phase	**ΔH°** kJ/mol	**ΔS°** J/molK	**ΔG°** kJ/mol

Please tell me if anything looks really wrong, not just slight variation between sources!
I was cutting and pasting so many numbers…something is bound to be wrong! Ha!