Heats of Formation and Entropies

substance	ΔH_f^o (kJ/mol$_{\text{rxn}}$)	ΔS^o (J/K $\bullet$ mol$_{\text{rxn}}$)
H*(g)*	218.2	114.6
C*(g)*	716.682	158.096
N*(g)*	470.4	153.3
O*(g)*	249.4	160.95
C*(s, graphite)*	0	5.69
C*(s, diamond)*	1.90	2.4
H^+*(aq)*	0	0
OH^-*(aq)*	–229.94	–10.5
H_2*(g)*	0	131.0
N_2*(g)*	0	191.5
O_2*(g)*	0	205.0
CH_4*(g)*	–74.85	186.2
CO_2*(g)*	–393.5	213.6
H_2O*(g)*	–241.8	188.7
H_2O*(l)*	–285.5	69.9
NH_3*(g)*	–46.3	193.0
NO_2*(g)*	33.85	240.6
N_2O_4*(g)*	9.66	304.3