Chemical Reactions

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$C_3H_8(g) + 5\,O_2(g) \rightleftharpoons 3\,CO_2(g) + 4\,H_2O(g) \quad \Delta H_{rxn} = -2044\,\frac{kJ}{mol}$

$N_2O_4(g) + O_3(g) \rightleftharpoons N_2O_5(g) + O_2(g) \quad \Delta H_{rxn} = -140.5\,\frac{kJ}{mol}$

$C(s) + H_2O(g) \rightleftharpoons CO(g) + H_2(g) \quad \Delta H_{rxn} = 131.3\,\frac{kJ}{mol} \quad K_C = 5.63 \times 10^{-4}$

$PCl_5(g) \rightleftharpoons PCl_3(g) + Cl_2(g) \quad K_C = 0.0160$

$H_2(g) + Br_2(g) \rightleftharpoons 2\,HBr(g) \quad \Delta H_{rxn} = -72.6\,\frac{kJ}{mol} \quad K_C = 62.5$

$H_2(g) + I_2(g) \rightleftharpoons 2\,HI(g) \quad K_C = 324$

$Cl_2(g) + Br_2(g) \rightleftharpoons 2\,BrCl(g) \quad K_C = 7.20$

$3\,H_2(g) + N_2(g) \rightleftharpoons 2\,NH_3(g) \quad K_{C,300\ K} = 2.7 \times 10^8$

$CO(g) + H_2O(g) \rightleftharpoons H_2(g) + CO_2(g) \quad K_C = 5.80$