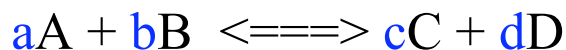


The Law of Mass Action

Mass action in science is the idea that a large number of small units, especially atoms or molecules, acting randomly by themselves can in fact have a larger pattern.

For the general chemical reaction:



$$K_c = \frac{[C]^c [D]^d}{[A]^a [B]^b} \text{ eq} = \frac{[\text{products}]^{\text{coefficients}}}{[\text{reactants}]^{\text{coefficients}}}$$

Where all are *equilibrium concentrations*.

Note: Since the concentrations of pure liquids and solids are constant, they are not written in the equilibrium constant expression.

$$K_p = \frac{P_C^c P_D^d}{P_A^a P_B^b} \text{ eq} = \frac{P_{\text{products}}^{\text{coefficients}}}{P_{\text{reactants}}^{\text{coefficients}}}$$