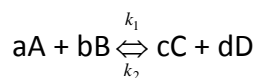


Answer on Question #63464 - Chemistry – General Chemistry

What is equilibrium?

Solution.

Chemical equilibrium is a state in which the rate of the forward reaction equals the rate of the backward reaction. In other words, there is no net change in concentrations of reactants and products. This kind of equilibrium is also called dynamic equilibrium.



$$\text{rate} = k_1[A]^a[B]^b = -k_2[C]^c[D]^d$$

Dynamic equilibrium is useful in predicting whether the forward or reverse reaction is spontaneous or nonspontaneous. The equilibrium constant, K

$$K = \frac{a_C^c a_D^d}{a_A^a a_B^b}$$