

# Chemical Equilibrium

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- 7.1 Equilibrium Systems
  - Chemical Equilibrium
  - Dynamic Equilibrium
- Equilibrium position
- Reversible position
- Graphing for reversible reaction
- Conditions for equilibrium
  - Closed system
  - Constant temperature
- 7.2 Laws of chemical equilibrium
- Equilibrium constant  $K_c$  or  $K_{eq}$
- Concentration quotient  $Q_c$
- Writing equilibrium expressions for homogenous and heterogeneous equilibria
- Calculation of equilibrium constant  $K_c$
- Calculation of concentration from equilibrium constant
- 7.4 Le Chatlier's principle
- Le Chatlier's principle and changes in concentration
- Collision theory and concentration changes
- Application of LeChatlier's principle and concentration changes (Graphing included too)
- LeChatliers principle and changes in gas volume (pressure)
- Effect of catalyst on equilibrium position
- Addition of inert gas to state of equilibrium
- Concentration quotient and Equilibrium constant  $Q_c$  and  $K_c$
- 7.6 Solubility, solubility product  $K_{sp}$
- Calculation of molar solubility
- Predicting precipitation
- Ion product Vs Solubility product ( $Q_{sp}$  Vs  $K_{sp}$  similar to  $Q_c$  and  $K_c$ )
- Predicting precipitation
- Common ion effect