

Properties of Solutions

I. Types of solutions

- terms: solvent, solute, soluble, insoluble, miscible, immiscible

II. The dissolving process

- solubility and saturation
- predicting relative solubility

III. Factors that influence solubility

- temperature
- pressure
 Henry's Law
- structure

IV. Concentration

- molarity (M)
- mole fraction (X)
- percent (%)
- molality (m)
- parts per million (ppm), parts per billion (ppb)

V. Vapor pressures of solutions

VI. Colligative properties

- boiling point elevation (ΔT_b)
- freezing point depression (ΔT_f)
- osmotic pressure (π)
- electrolyte solutions

VII. Colloids