

Chemistry 2

Factors Affecting Solubility

Solubility- refers to the maximum quantity of solute that can dissolve in a given quantity of solvent at a given temperature.

Trivia:

- Solids are not the only thing that can dissolve in water
- Gas can also dissolve in water (air)
- Water contains a lot of dissolved substances (minerals, vitamins)

4 Factors Affecting Solubility

- ❖ Stirring
- ❖ Temperature
- ❖ Particle size
- ❖ Pressure

Concentration of solutions

Mole Fraction- is defined as the amount of the solution expressed in moles per solution

X - represent the mole fraction

i - denotes the solution component in question

XA - mole fraction of solute

XB - mole fraction of solvent

NA - Number of moles of solute

NB - Number of moles of solvent

- The sum of the mole fractions of each component of the solution is always equal to 1
- Mole percent is mole fraction multiplied by 100%