

Chemistry

Chapter 16 – Properties of Solutions

Name _____

Date _____ Block _____

Solutions

- A solution is a _____ mixture.
- A _____ (either gas or solid) is *dissolved* into a liquid.
- “Like Dissolves Like”
 - _____ solutes dissolve best in _____ solvents.
 - Fats, steroids, waxes into benzene, hexane, toluene.
 - _____ and ionic solutes dissolve best into _____ solvents.
 - Inorganic salts and sugars into water.
- Solutions are considered _____.
- _____ refers to the maximum amount of solute that can _____ in a certain quantity of solvent.

Dissociation

- _____ compounds break down into their ions.
 - NaCl to Na⁺ and Cl⁻
 - PbCl₂ to Pb²⁺ and Cl⁻

Solubility Trends

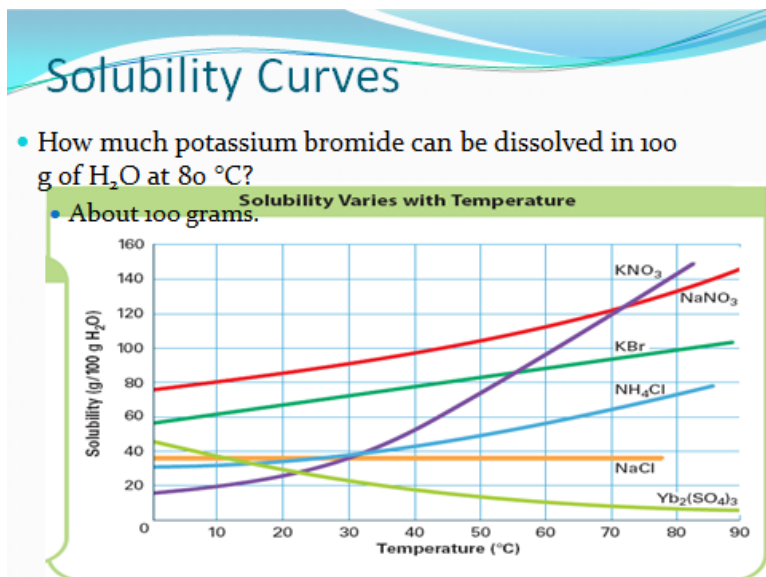
- Solubility of most _____ increases with:
 - Increase in _____.
 - Increase in _____.
- Solubility of _____ increases with:
 - Decrease in _____.
 - Increase in _____.
- **Conclusions**
 - Solids dissolve best when:
 - Heated
 - Stirred
 - Ground into small particles
 - Gases dissolve best when
 - Chilled
 - Under high pressure

Describing Solutions

- A _____ solution is full of solute.
- An _____ solution is not full of solute; it can have *some*, just not the *maximum*.
- A _____ solution contains more solute than can dissolve (all dissolved); typically these solution have been heated.
 - *Oversaturated* means having more solute than can dissolve, but the solute is left in the bottom and not all dissolved in solution.

Solubility Curves

- Represent a point at which a given quantity of _____ is _____ at a given _____.
- **Example 1**



- **Example 2**

