

Name: _____ Period: _____ Date: _____

SOLUTIONS NOTES ADVANCED CHEMISTRY

Directions: This packet will serve as your notes for this chapter. Follow along with the PowerPoint presentation and fill in the missing information. Important terms / ideas are in all capitals and bolded!

- **SOLUTION:**

- SOLUTE:**

- SOLVENT:**

- INSOLUBLE:**

- SOLUBLE:**

- What factors influence solubility?:

- **AQUEOUS SOLUTION:**

- _____ and _____ molecules dissolved best... WHY?

- MISCIBLE:**

- IMMISCIBLE:**

- Two Types:

- **ELECTROLYTES:**

- **NONELECTROLYTES:**

- DISSOCIATION:**

- SOLVATION:**

- **Classification of Solutions**

- 1) **SATURATED:** contains _____ quantity of _____ that dissolves at that temperature

- 2) **UNSATURATED:** contains _____ than the maximum amount of _____ that can be dissolved

- 3) **SUPERSATURATED:** contain _____ than is possible to be dissolved by warming or evaporating (_____ and _____)

- Concentration of Solutions

-Reactions take place when two _____ are _____

-In order to do stoichiometric calculations, the **CONCENTRATION** (_____)
_____ must be known

-A few ways to expression concentration...

- **MOLARITY (M):**

$$M =$$

-Example: Calculate the molarity of a solution when _____ moles of NaOH are dissolved in enough water to make 1.5 liters of solution.

-Practice:

- What is the concentration of _____ mL of solution containing 125 grams of LiBr?

- What is the concentration of a solution that has a volume of _____ L and contains 660 g of $\text{Ca}_3(\text{PO}_4)_2$?

- **MASS % or VOLUME %**

$$\% \text{ by Mass or Volume} =$$

-Example: What is the percent concentration of _____ g of NaCl dissolved in 350.0 g of water?