Solutions and Phases of matter test review

Solutions

Solute:

Solvent:

Solution:

Solvation:

Know what factors effect solvation:

Know these terms:

Saturated

Unsaturated

Super saturated

What is Molarity?

Why is Molarity important?

If I have a 3M solution of 300mL of HCl, how many moles of HCl do I have?

Molarity=Moles solute/Liters solution .3L x 3M =(x moles/.3L) x .3L moles = .9

If I have 56grams of NaCl in a 45mL solution what is the concentration of the solution?

56 grams NaCl	1 mole NaCl
	58g NaCl

= .97 moles NaCl Molarity= .97 molesNaCl/.3L = 3.23M

If I have a 15M HCl solution and I want 300 mL of a what would be the new Molarity if I added 50mL?

$M_1V_1=M_2V_2$ (15M)(300mL) = (3M)(V_2) = 1500mL

What are colligative properties?

Why does salt water boil at a higher temperature compared to pure water?

Why does salt water freeze at a lower temperature than pure water?