

3. 2 Molar Solubility

1. Think of molar solubility as molarity of a saturated solution!!

Example: 0.49 g of AgBrO_3 is required to saturate 250 mL of water. What is the molar solubility of AgBrO_3 ?

Example: AlF_3 has a molar solubility of 0.0665 M. How many grams of AlF_3 will dissolve in 1 L?

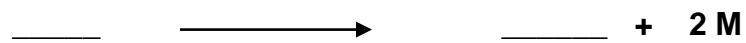
2. Dilution Calculations

Use the formula: $C_1V_1 = C_2V_2$
(initial conc.) x (initial volume) = (final conc.) x (final volume)

Example: Suppose you have 300.0 mL of 1.2 M HCl. How much water do you need to add to dilute it to 0.50 M HCl?

Example: You have 145 mL of a 8 M HNO_3 solution. What is final concentration after adding 650 mL H_2O ?

3. Concentration of Individual Ions



Example: What are the concentrations of ions in a 1.5 M Fe_2O_3 solution?

Example: 8.5g of MgCl_2 is dissolved in 2.0L. What is $[\text{Mg}^{+2}]$ and $[\text{Cl}^-]$?

Example: 500 mL of 0.8 M Li_2CO_3 is mixed with 500 mL of 0.5 M BeF_2 . Find concentration of all ions!