NO CALC Practice of Solution Concentration

1. A 0.750 L aqueous solution contains 69.0 g of ethanol, C2H5OH (molar mass 46.07g/mol). Calculate the molar concentration of the solution.

2. What mass of NaCl (MM = 58.44 g/mol) is dissolved in 250 mL of a solution if the concentration of the solution is 2.0 M?

3. What mass of dextrose, C6H12O6 (MM = 180.16 g/mol) is dissolved in 500mL of 5.0 M solution?

4. A mass of 98 g of sulfuric acid, H2SO4 (MM = 98.08 g/mol), is dissolved in water to prepare a 0.500 M solution. What is the volume?

5. A solution of sodium carbonate, Na2CO3 (MM = 105.99), contains 53.0 g of solute in 250 mL of solution. What is its molarity?

6. Iron (III) nitrate, Fe(NO3)3, has a solubility of 0.15M. Find the concentration of each ion in solution.

7. Calculate the concentration in a 2.00L solution containing 17.1g aluminum sulfate, Al2(SO4)3 (MM = 342.15 g/mol).

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