Extra Practice Questions: Solution Preparation

Communicate your problem-solving approach when answering the questions below.

1. Calculate the molar concentration of a solution made by dissolving 20.0 g of sodium hydroxide to make 300 mL of solution.

2. Pure sodium thiosulfate-5-water, $Na_2S_2O_3 \cdot 5H_2O_{(s)}$, is used to make 250 mL of 20.0 mmol/L solution. Find the mass of solute required.

3. What mass of copper(II) nitrate will be required to prepare 10.0 L of 0.100 mol/L solution?

4. What volume of 75 mmol/L solution can be prepared from 10 g of sodium carbonate?

5. Determine the volume of concentrated hydrochloric acid required to prepare 10.0 L of a 0.200 mol/L solution.

6. What volume of concentrated ammonia is required to prepare 2.0 L of a 1.0 mol/L solution?