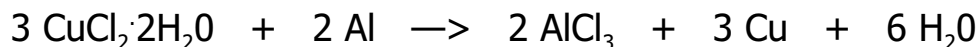
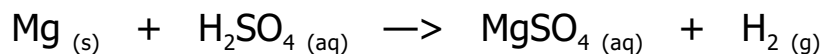


Solution Stoichiometry

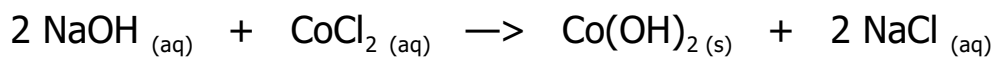
1. 50 mL of an unknown concentration of $\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$ reacts with excess Al to produce 0.56 g of Cu. Determine the initial $[\text{CuCl}_2 \cdot 2\text{H}_2\text{O}]$. The balanced chemical equation is:



2. What volume of 0.15 mol/L H_2SO_4 is required to completely consume 0.62 g of Mg. Use the following balanced chemical equation:

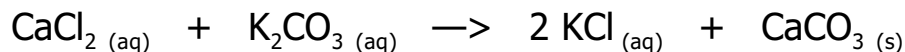


3. 10.0 mL of 1.25 mol/L NaOH reacts with aqueous CoCl_2 according to the following equation:



Determine the mass of Co(OH)_2 that will precipitate.

4. An unknown volume of 0.75 mol/L CaCl_2 reacts with aqueous K_2CO_3 according to the following balanced equation:



If 12.0 g of CaCO_3 are produced, what volume of 0.75 mol/L CaCl_2 must have reacted?