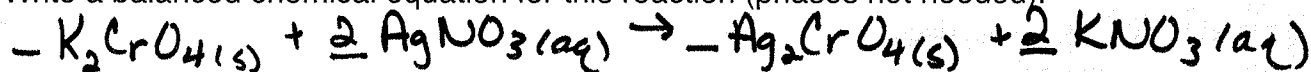


1. When excess potassium chromate is added to a solution containing 0.500 g silver nitrate, solid silver chromate forms. At the reaction's completion, 0.455 grams of silver chromate was obtained.

a. Write a balanced chemical equation for this reaction (phases not needed).



b. Mass of limiting reactant: 0.500 g Mass of actual yield: 0.455 g

c. Calculate the theoretical yield and percent yield of silver chromate.

$$\frac{0.500g AgNO_3}{1} \left(\frac{\quad}{\quad} \right) \left(\frac{\quad}{\quad} \right) \left(\frac{\quad}{\quad} \right) = \overset{\text{theo yield}}{\downarrow} \boxed{0.488g Ag_2CrO_4}$$

$$\% \text{ yield} = \frac{0.455g Ag_2CrO_4}{0.488g Ag_2CrO_4} \times 100 = \boxed{93.2\% \text{ yield } Ag_2CrO_4}$$

2. When 10.0 grams of magnesium metal reacts with excess hydrochloric acid, 29.5 grams of magnesium chloride was produced.

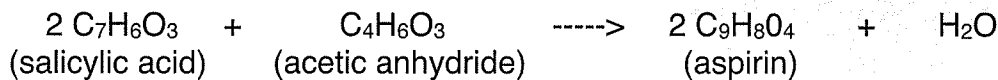
a. Write a balanced chemical equation for this reaction (phases not needed).

b. Mass of limiting reactant: _____ Mass of actual yield: _____

c. Calculate the theoretical yield and percent yield of magnesium chloride.

$$= \boxed{75.3\% \text{ yield } MgCl_2}$$

3. When 13.2 grams of salicylic acid reacts with excess acetic anhydride, 5.9 grams of aspirin is produced. Chemical equation for this reaction:



b. Mass of limiting reactant: _____ Mass of actual yield: _____

c. Calculate the theoretical yield and percent yield of aspirin.

$$= \boxed{34\%}$$