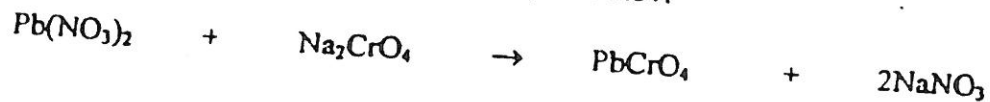


Percent Yield/Percent Error

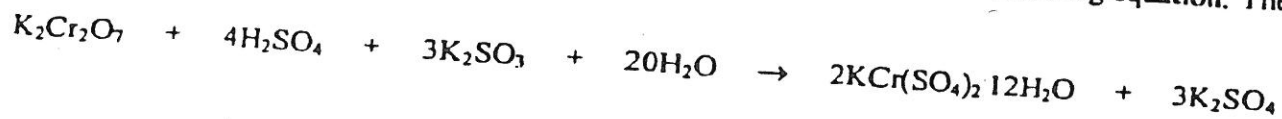
Name _____
Period _____ Date _____

Calculate (a) the theoretical yield, (b) percentage yield and (c) experimental error.

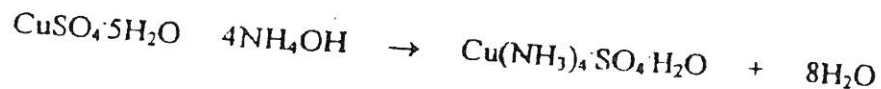
1. In preparing a paint pigment of chrome yellow, PbCrO_4 , a student used 6.94 grams of $\text{Pb}(\text{NO}_3)_2$ (Molar Mass = 323.2). His actual yield of PbCrO_4 (Molar Mass = 331.2) was 6.37.



2. Crystals of chrome alum, $\text{KCr}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$ (Molar Mass = 499.3), were prepared from 16.2 grams of potassium dichromate, $\text{K}_2\text{Cr}_2\text{O}_7$ (Molar Mass = 294.2), reacting according to the following equation. The actual yield was 53.3 grams.



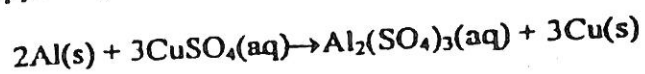
3. In preparing the ammonia complex of copper sulfate, $\text{Cu}(\text{NH}_3)_4 \cdot \text{SO}_4 \cdot \text{H}_2\text{O}$ (Molar Mass = 245.6), by reacting 25.0 grams of $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ (Molar Mass = 249.6) with NH_4OH , 22.2 grams of the product were formed.



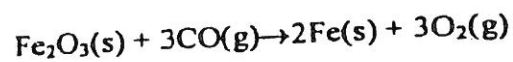
4. 24.8 g of calcium carbonate can be decomposed by heating to produce 13.1 g of CaO.



5. 3.74g. of copper is produced when 1.87g. of aluminum is reacted with an excess of copper(II)sulfate.



6. 84.8g. of iron(III) oxide reacts with an excess of carbon monoxide and 57.8g. of iron is produced.



7. 50.0g. of silicon dioxide is heated with an excess of carbon to produce 32.2g. of silicon carbide.

