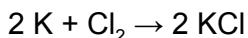


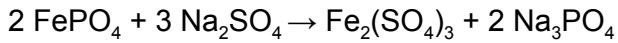
Stoichiometry Test Review



1. How many moles of oxygen are made if 12.0 moles of potassium chlorate react?
 2. Copper(II) chloride reacts with sodium nitrate to produce copper(II) nitrate and sodium chloride.
 - a) Write the balanced equation for the reaction.
 - b) If 20.0 g of copper(II) chloride react with 20.0 g of sodium nitrate, what mass of sodium chloride is formed?
 - c) What is the limiting reactant? d) How many moles of copper(II) nitrate are formed?



3. How many grams of potassium chloride are produced from 2.50 g of potassium and excess chlorine?



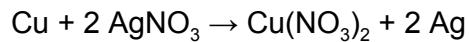
4. a) If 25.0 g of iron(III) phosphate react with excess sodium sulfate, how many grams of iron(III) sulfate can be made?

b) If 18.5 grams of iron(III) sulfate are actually produced in Q4A, what is the percent yield?

c) Now, a different trial of the reaction is done, starting with 15.0 grams of sodium sulfate and excess iron(III) phosphate. If that trial achieves a 65.0% yield, how many grams of sodium phosphate were made?



5. a) What volume of oxygen is produced from 19.4 moles of sodium chlorate?
- b) How many molecules of oxygen are produced when 80.0 grams of sodium chloride are produced?



6. a) How many moles of copper react with 3.50 moles of silver nitrate?
- b) If 89.5 grams of silver were produced, how many grams of copper reacted?
7. If 284.7g of $\text{Al}(\text{NO}_3)_3$ react with 162.8g of CaO in a double replacement reaction, how much of the excess reactant remains?

8. Assuming we start with 100 grams of calcium chlorate and 45 grams of iron (III) sulfate, how many grams of the excess are left over?
9. The combustion of methane produces carbon dioxide and water. Assume that 2.0 mol of CH_4 burned in the presence of excess air. What is the percentage yield if the reaction produces 87.0 g of CO_2 ?