

Quiz
Chemistry 121/100

Name_____

1. For the reaction: $3\text{C} + 2\text{SO}_2 \rightarrow \text{CS}_2 + \text{CO}_2$, how many grams of carbon dioxide are formed from the reaction of 4.0 grams of carbon with excess sulfur dioxide?

2. For the reaction: $2\text{Al} + 3\text{Br}_2 \rightarrow 2\text{AlBr}_3$, if 8.0 grams of aluminum are combined with 5.0 grams of bromine:
 - a. How many grams of aluminum bromide are produced?

 - b. Which reactant is the limiting reactant?

3. For the reaction: $\text{CO}(\text{g}) + 2\text{H}_2(\text{g}) \rightarrow \text{CH}_3\text{OH}(\text{l})$

12.0 grams of methanol (CH_3OH) are produced from 14.0 grams of carbon monoxide reacting with excess hydrogen gas. What is the percent yield for this reaction?

4. For the reaction: $3\text{CaCl}_2 + 2\text{H}_3\text{PO}_4 \rightarrow \text{Ca}_3(\text{PO}_4)_2 + 6\text{HCl}$

How many grams of calcium phosphate would theoretically be produced from 20.0 g of calcium chloride and 20.0 g of phosphoric acid?