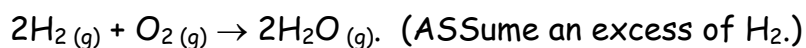


Chemistry 11

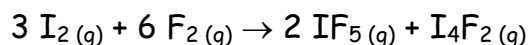
Stoichiometry Worksheet #1

Directions: Answer in the space provided. Be sure to show ALL your work. Please highlight your answer for each question. Watch for sig figs...and enemy fighters ;)

1. How many moles of $\text{H}_2\text{O}_{(g)}$ are produced when 9.6 mol of $\text{O}_2_{(g)}$ react according to the equation:

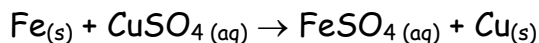


2. Consider the equation:



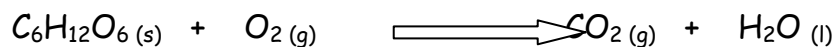
- a. How many moles of $\text{I}_4\text{F}_2_{(g)}$ are produced by 5.4 mol of $\text{F}_2_{(g)}$? ASSume an excess of I_2 .
- b. How many moles of $\text{F}_2_{(g)}$ are required to produce 4.5 mol of $\text{IF}_5_{(g)}$? ASSume an excess of I_2 .
- c. How many moles of $\text{I}_2_{(g)}$ are required to react with exactly 7.6 mol of $\text{F}_2_{(g)}$?

3. Consider the equation:

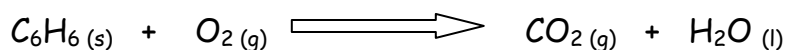


- a. If 14.3 g of Iron (II) sulphate is produced, how many grams of Iron are required? ASSume an excess of CuSO_4 .

4. What mass (in kg) of CO_2 is produced by burning 556 moles of glucose ($C_6H_{12}O_6$) in air? What mass of oxygen is required?

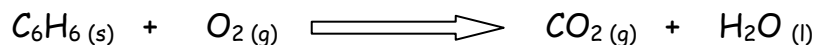


5. When 66.80 g of benzene, C_6H_6 , is added to excess oxygen and ignited, carbon dioxide and water are produced.

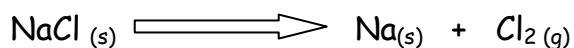


- a. What mass of $CO_2 (g)$ is produced?

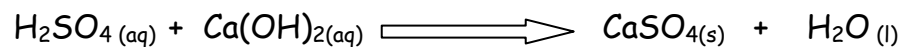
- b. What mass of $H_2O (l)$ is produced?



6. What is the mass of $NaCl$ that will decompose to yield 355 g of Cl_2 ?



7. For the neutralization of calcium hydroxide and sulphuric acid,



1. How many grams of calcium hydroxide will react with 29.4 g of sulphuric acid?

2. What mass of CaSO_4 will be produced?

8. How is chemistry 11 going so far? What do you like? What's not so good?

9. Pick three (3) students in the class, and write something POSITIVE about them:

1.

2.

3.