

HW - LIMITING REACTANTS III

NAME _____

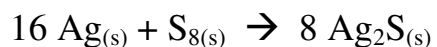
1. When copper is heated with an excess of sulfur, copper (I) sulfide is the product. When 1.50g of copper was heated with excess sulfur, 1.76g of copper (I) sulfide was isolated.

a. Write the formula equation for this reaction and balance it.

b. How many grams of copper(I) sulfide should you get?

c. What is the actual percent yield of this reaction?

2. When silver metal is heated with sulfur, silver sulfide is formed by the following equation:



If you react 2.00 g of silver with 2.00 g of sulfur:

a. What is the limiting reactant? What is the excess reactant?

b. How many grams of silver sulfide should you get?

c. How many grams of the excess reactant will be left over?

HW - LIMITING REACTANTS III

NAME _____

3. Hydrogen cyanide is produced industrially from the reaction of gaseous ammonia, oxygen, and methane:



If 5.00×10^3 kg each of ammonia, oxygen, and methane are reacted, what mass of HCN and H_2O would be produced? (This is a limiting reactant problem)