**Limiting Reactant and Percent Yield Practice**

Consider the reaction I2O5(g) + 5 CO(g) -------> 5 CO2(g) + I2(g)

a) 80.0 grams of iodine(V) oxide, I2O5, reacts with 28.0 grams of carbon monoxide, CO. Determine the mass of iodine I2, which could be produced?

b) If, in the above situation, only 0.160 moles, of iodine, I2 was produced.

i) what mass of iodine was produced?

ii) what percentage yield of iodine was produced.

Silver nitrate, AgNO3, reacts with iron(III) chloride, FeCl3, to give silver chloride, AgCl, and iron(III) nitrate, Fe(NO3)3. In a particular experiment, it was planned to mix a solution containing 25.0 g of AgNO3 with another solution containing 45.0 grams of FeCl3.

a) Balance the chemical equation for the reaction.



b) Which reactant is the limiting reactant?

c) What is the maximum number of moles of AgCl that could be obtained from this mixture?

d) What is the maximum number of grams of AgCl that could be obtained?

e) How many grams of the reactant in excess will remain after the reaction is over?

Practice Solution



