Reaction Types & Moles Lab

Purpose

Observe and identify several reaction types. Calculate the number of moles and molecule or atoms or each reactant

Procedure

Reaction 1

1. Weigh a 3-4 cm piece of Mg ribbon
2. Light in Bunsen Burner
3. Without looking, hold burning Mg over watch glass
4. Weigh product

Reaction 2

1. Put about 2 mL of HCl in a test tube
2. Weigh a 2-3 cm piece of Mg ribbon and add to test tube

Reaction 3

1. Weigh a small piece of ammonium carbonate
2. Put in a test tube and heat over the Bunsen burner in the fume hood.
3. Heat until its all gone
4. While heating, test gas with a burning splint
5. Test gas with a moistened piece of pH paper

Reaction 4

1. Weigh a small amount of calcium carbonate (about the size of a jelly bean)
2. Add about 1 mL HCl to a test tube
3. Add the calcium carbonate to the HCl
4. Test the gas with a burning splint

Reaction 5

1. Weigh a small piece of "mossy" zinc
2. Put about 2 mL of Copper (II) Chloride solution in a test tube
3. Add the zinc to the solution

Reaction 6

1. Put about 2 mL Copper (II) Chloride solution in a test tube
2. Add about 25 drops of sodium phosphate solution to the test tube

Reaction 7 (Demo)

1. Light a small measured amount of Ethyl Alcohol (C_2H_5OH) on fire and observe the reaction.

Safety

1. Wear goggles
2. Be careful of fire
3. Acids and other chemicals may cause skin irritation.
4. Ammonium carbonate can be very irritating when inhaled. Smell very carefully.

Post Lab Questions

1. Write the balanced equation for each reaction
2. State the reaction type for each reaction
3. Calculate the number of moles and atoms or molecules of each weighed reactant.