Pre-Lab Assignment

Name_____John Putkey_____ Exp # 2

Magnesium and Aluminum, Reactivity Comparison

Brief description of tasks

This experiment is implimented in order to observe reactions of mercury as well as aluminum with a H_2O, HCL, NaOH, HNO_3, and other reactants. It will be important to impliment proper safety procedures as $HgCl_2$ is toxic.

Outline of the experiment (major steps), and an example of Calculations

Perform the following calculations

1) Calculate the amount of NAOH to dissolve in water

2) Prepare 5% HCL by adding calculated amt of 35% HCL into water

3) Place Mg under water and add add a tiny amount of $HgCl_2$

4) Place aluminium in a solution of 20% NaOH

5) place aluminum foil in a solution of 5% HCL_{excess}

6) Place aluminum foil into concentrated HNO_3

7) Place aluminum foil in H_2O and add a tiny amount of solid $HgCl_2$

If the reactions that occur are vigorous we will repeat the experiment in a Schlenk tube. We will then collect and measure the volume of gas produced in a buret that is flipped upside down into a beaker with water.

- in this instance, do not use more than 0.001 mole of metals because the buret may be over filled.

- do not chose reactions involving $HgCl_2$ because of its high toxicity.

Turn overÆ

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Table of the Reagents

Chemical name	Formula	Molecular wt	Physical State	Amount to use