Chemistry 65 NAME:_____

EXPERIMENT # 13

EMPRICAL FORMULA OF MAGNESIUM OXIDE
REPORT FORM

Purpose:

Data & Observation:
(All data should be recorded with the proper units and number of significant digits)

Mass of empty crucible + lid: _____

Mass of crucible + lid + Mg ribbon: _____
(before heating)

Mass of crucible + lid + Mg product: _____
(after heating; 1st massing)

Mass of crucible + lid + Mg product: _____
(after heating; 2nd massing)

Mass of crucible + lid + Mg product: _____
(after heating; 3rd massing)

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Calculations:

Calculate the following quantities from data collected. Show all calculations clearly with proper units and significant figures.

1. Mass of magnesium ribbon used: _____

2. Mass of magnesium product: _____

3. Mass of oxygen used: _____

4. Moles of magnesium used: _____

5. Moles of oxygen used: _____

6. Determine the empirical formula of the magnesium product:

Empirical Formula:_____

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Questions:

1. The analysis of a salt showed that it contained 56.58% potassium, 8.68% carbon, and 34.73% oxygen. Calculate the empirical formula for this salt.

2. A sulfide of iron was formed by combining 2.233 g of iron with 1.926 g of sulfur. What is the empirical formula for this compound?

3. The hydrocarbon propylene has a molar mass of 42.00 g and contains 14.3 % hydrogen and 85.7 % carbon. What is its molecular formula?