

Name: _____

20 Pts.

Honors Chemistry Lab: Determining an Empirical Formula

III. Prelab:

a.) Write a balanced equation (including phase notation) for the three reactions that occur in this lab.

b.) What is the formula of the theoretical oxide of magnesium?

IV. Analysis

Observations and Data: (Proper units)

Mass of empty crucible:	
Mass of cover:	
Mass of crucible and cover:	
Mass of crucible, cover and magnesium:	
Mass of crucible, cover and magnesium oxide:	
Odor vapor from step #6	

V. Calculations: (you must show your work with proper sig figs and units!)

a.) Mass of magnesium:

b.) Mass of oxygen:

c.) Moles of magnesium:

e.) moles of oxygen : O

c.) Mole ratio of Mg : O:

f.) Mass ratio of Mg : O

VI. Conclusion Questions:

a.) Based on your results write the empirical formula of your magnesium oxide.

b.) How do your results compare to the theoretical formula?

c.) Contrast the mole : mole ratio and the mass : mass ratio for magnesium oxide. Why are they different?

d.) Show the percent composition of YOUR product (for magnesium and oxygen).