

Reactions review.

### OBJECTIVE:

In a first experiment we are going to review the law of conservation of mass.

In a second experiment we want to check the differences when we add the same chemical substance ( $\text{AgNO}_3$ ) to different salts, like  $\text{KBr}$  (Potassium Bromine- Bromuro de potasio) and  $\text{KI}$  (Potassium iodide - Yoduro de potasio)

In the end, we are going to review an exothermic reaction,

### MATERIALS:

- Scale, beaker, 2 test tubes, solutions of  $\text{NaOH}$  (Sodium hydroxide) and  $\text{CuSO}_4$  (Copper Sulfate).
- 2 test tubes ( $\text{KI}$  and  $\text{KBr}$ ), Pasteur pipette for  $\text{AgNO}_3$  (Silver Nitrate), pipette.
- Magnesium and burner.

### PROCEDURE:

1. Use the scale and measure the mass of the beaker with both test tubes. You can tare to zero. Then add a small amount of  $\text{NaOH}$  and  $\text{CuSO}_4$  solutions into the test tubes ( $1/3$  of the test tube each) use a pipette. Weigh again the beaker and test tubes, now containing the chemical components.

**This amount is m1:** \_\_\_\_\_

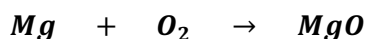
Then mix both solutions into the same test tube and weigh again the beaker and test tubes.

**This amount is m2:** \_\_\_\_\_

2. Add a small amount (2-3 mL) of  $\text{KI}$  and  $\text{KBr}$  solutions into two test tubes. Then add two or three drops (use the pasteur pipette) of  $\text{AgNO}_3$  to each tube.

**Check the differences:**

3. The teacher is going to use the tweezers to burn a small amount of Magnesium. Balance the reaction:



**Name the components.**

**Indicate the mass of Mg and calculate the mass of MgO that we should get.**

**Explain your observations.**