CHEMISTRY

DETERMINE THE FORMULA OF A HYDRATED COMPOUND.

NAME

**GOGGLES ARE TO BE WORN AT ALL TIMES DURING THIS EXERCISE!**

CAUTION: EQUIPMENT WILL BE VERY HOT. EXERCISE CAUTION WHEN MOVING OR CLEANING UP. MAKE SURE EQUIPMENT HAS COOLED PROPERLY.

PROCEDURE:

1. Clean and weigh a dry crucible. Record weight.
2. Obtain sample from the teacher and weigh crucible again (hydrate). Record weight.
3. Heat over high heat for 10-12 minutes.
4. Let cool for 5-10 minutes.
5. Weigh heated sample (anhydrate). Record weight.
6. Heat for 5 minutes, cool, weigh again. Record weight.
7. Repeat until weights are constant.

Weight table:

1. Weight of crucible

1. Weight of crucible and hydrate sample

3. Calculate the weight of hydrate

(# 2 – # 1)

4. Weight of heated crucible and sample #1

1. Calculate the weight of heated sample (anhydrate)

(# 4 – # 1)

1. Weight of heated crucible and sample #2
2. Calculate the weight of heated sample (anhydrate)

(# 6 – # 1)

8. Calculate the weight of water

(# 3 – # 7)

CALCULATIONS:

1. Calculate the moles of anhydrous sample.
2. Calculate the moles of water.

3. Determine the formula for the hydrate.