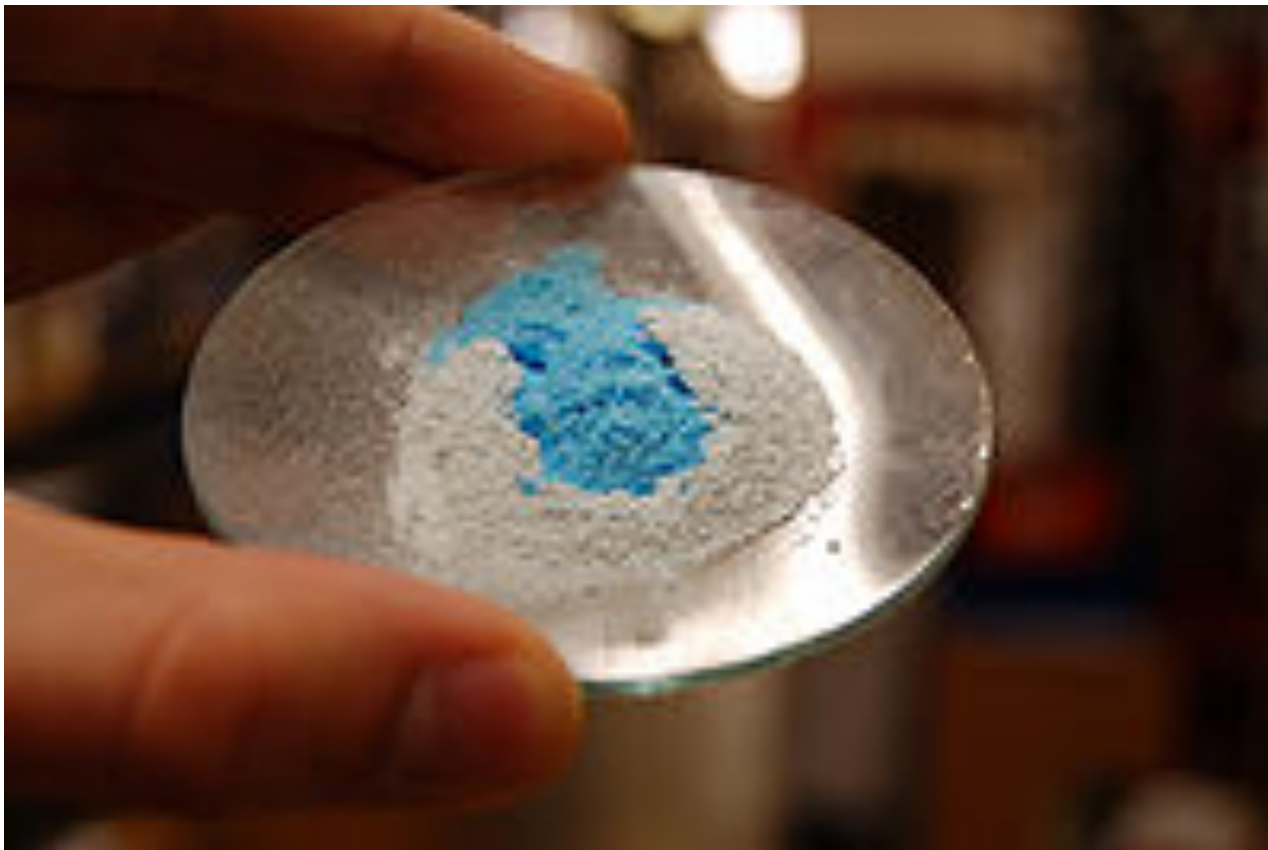


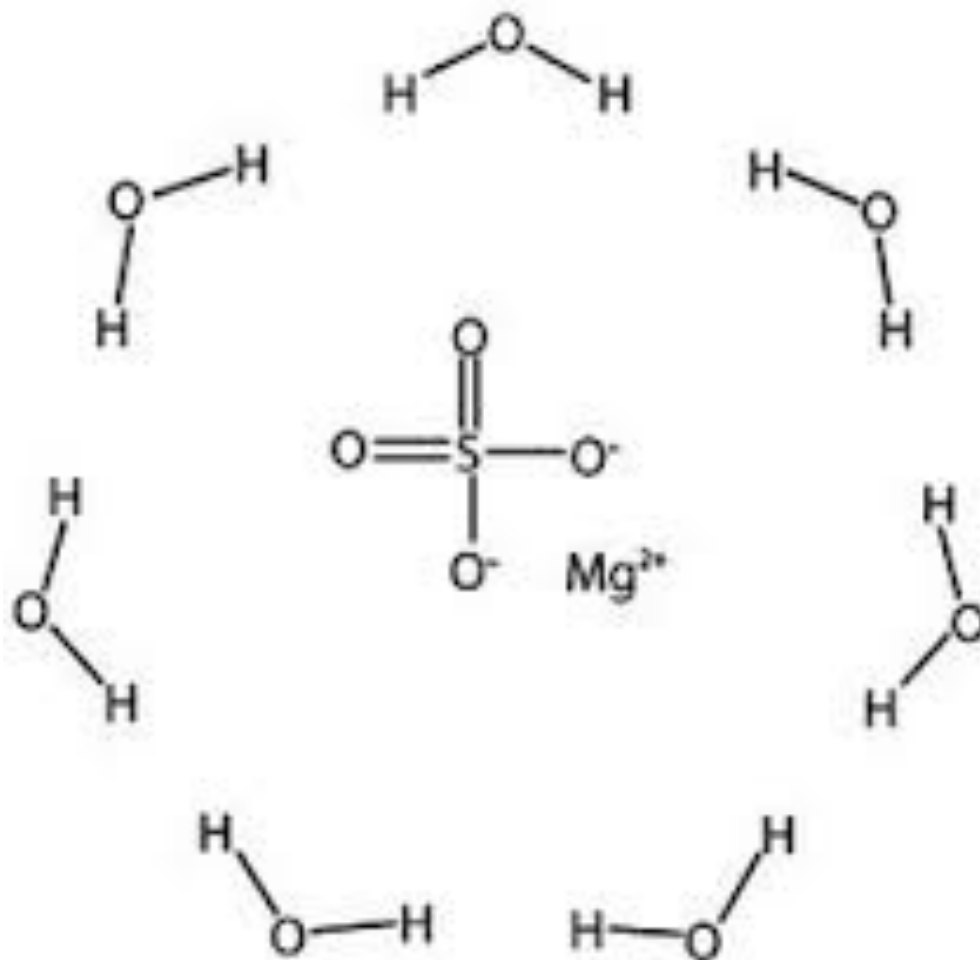
Pre-Lab Water of Hydration

Objective: The formula of the hydrate of copper (II) sulfate will be determined using gravimetric analysis.

Water of Hydration



Magnesium Sulfate Hydrate



Gravimetric Analysis

Analysis based on measurement of mass.



Water of Hydration

The process can be represented as follows:



0.1774 g
Initial mass
 $\text{CuSO}_4 \cdot x\text{H}_2\text{O}$

9 g
Final mass

00 Minutes

Click to start heating

Reset timer

←

Calculations

- Objective – what is “n”
- $\text{CuSO}_4 \cdot n\text{H}_2\text{O}$

Calculations

- Using lab data:

Mass of hydrate

- Mass anhydrate (what is left after heating)

Mass water

Calculations

- Convert mass of anhydrate to moles
- Convert mass of water to moles
- Divide moles of water by moles of anhydrate
- Resulting number is “n”
- For more help review homework worksheet
“Determining the Formula of a Hydrate”