

# % of Water in Copper(II) Sulfate Pentahydrate

6th Period

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## 1 Purpose

Our reasons for doing this lab was to determine the % of water in a hydrate. Copper(II) Sulfate Pentahydrate was used in this lab

## 2 Methods/Materials

Refer to the lab printout for the procedure and materials.

## 3 Data

The data for this lab can be found on the printout.

## 4 Conclusion

The percent error for the percentage of water in our sample was a notably high amount. While we were heating the material, it is likely it was removed from the heat before all of the water had been vaporized. A faint blue color was observed in the material even after it was removed from the heat. This small amount of water is likely the reason for our high percent error. In future labs, being sure that a reaction is completed before the mass is measured will keep this type of error from occurring again.

## 5 Lab Questions

1. Copper(II) sulfate pentahydrate is a fine powder with a light blue color.
2. The water vaporizing from the heat is likely the cause of this sound.
3. The compound has the same fine powder look as before, but the blue color has changed to a white.
4. The formation of the anhydrous compound is a chemical change, because the compound was heated to cause the change.
5. When the drops of water were added, a slight sizzling was heard, most likely because the material had been recently heated.
6. The two masses of the compound had a difference of around 1.17 grams. I would expect these two masses to be almost the same.
7. Our conclusions on this lab may be found in the conclusion section.