

Pre-Lab Questions

1. Explain the difference between the water of hydration and a sample being wet.
2. Do you include the water of hydration when you calculate the molar mass of a hydrate?
3. Desiccants are very hygroscopic materials used to dry wet samples. When they are spent and can no longer absorb moisture they need to be replaced. Knowing that the anhydrous CoCl_2 is blue, and the hydrate, $\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$, is pink, why do you think the anhydrous CoCl_2 can be used as an "indicator" in desiccants to show when they need to be replaced?
4. Would you consider the losing of water of hydration a physical, a chemical process, or both? Explain.
5. In the procedure, why do you think you may have to heat the crucible initially, maybe more than once?