

Hydrate lab conclusion essay



**ASSIGN
BUSTER**

In this first lab we attempted to discover which of the materials given to us were hydrates by heating them and then dissolving them in water. Our results showed that all of our substances were hydrates besides the sucrose, sucrose if the only one which did not both bring condensation when heated and dissolve in water, which agreed with our hypothesis because we also thought that sucrose was going to be the only one that wasn't a hydrate.

The only error that we may have encountered in this lab was that when heating, the flame was not always the same temperature, but I feel as though this did not affect our data much because we didn't need a set temperature, we were only seeing if the substance brought condensation. We could have improved our data by comparing our data with other groups and talk about our data if we got different answers. Further questions I could ask are, are there some hydrates that release water faster than others?

Conclusion 2: In the second lab we tried to find out if the dehydration of cobalt (II) chloride was reversible or not by heating up the substance, dissolving it, and cooling it. Our results showed that from heating it, to cooling it gave a color change, which means that there was a chemical change, bringing a new substance, this does not agree with our hypothesis because we thought that it would be reversible, but since we now have a new substance, we find that it is not reversible. This means that through hydration and dehydration you can make new substances by releasing the water molecules.

A problem we encountered in this lab may have been adding too much water when trying to boil the substance. I feel that this did not significantly affect

our data because either way, we were trying to dissolve the substance in water, then boil it. We could have improved our data by not heating the substance so intensely, but instead let it burn slowly so we didn't overheat any of the substance. Further questions we could investigate here are, what was the new substance that was made after we cooled the residue from Cobalt (II) Chloride and it was a new color.