Preparation of Cyclohexene

November 13, 2012

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Purpose: Using Cyclohexanol, I will create Cyclohexene by distillation.



20.0140 g

Experiment: Into a 100mL round flask, I added 20.0140g of Cyclohexanol, 5mL of Phosphoric Acid, and boiling chips. Immediately heated up when combined. I then performed a simple distillation. At 97 degrees Celsius, first drops of Cyclohexene is recorded. With a total of 15mL of the newly obtained Cyclohexene, I added 15mL of Sodium Chloride into a seperatory funnel, and washed it; we kept the aqueous solution, which was the product. Added some Calcium Chloride chips into the product so the excess liquid would be soaked in the chips. I knew the excess liquid was gone when the product became clear. Afterward, I weighed the product, came out to be 8.02g, which is a 4.07% yield. I took and IR scan of the product, and as I compared my sheet to the normal sheet given to us by Dr. Nachtigall, I concluded there was much human error to account towards this experiment since my sheet was a combination of the Cyclohexanol and Cyclohexene IR scan (as seen on the next page). This lab was important because unlike last week, we are dealing with an elimination process.

