Gas chromatography lab report assignment

Gas chromatography separates the component of a sample based on the ease with which they evaporate into a gas, also known as the volatility. The chemical mixture being analyzed is injected into the injection point and carried through the instrument by an inert gas, in this case Helium. The temperature of the injection point is approximately ICC and the oven temperature is around ICC. There is a column in the oven that makes it Seibel to separate the chemicals based on how quickly they travel through it.

The column is filled with packing materials that is usually made of some kind of solid support like ceramics, firebrick, or glass beads. Within the packing material contains the stationary phase that is usually some kind of liquid like DDCD or carbon. Gas Chromatography can also analyze and identify the components in the sample. As the component is been passed thru the oven, a reading is shown on the monitor that shows the area under the curve and also the retention time f the gas(sees) in the column.

The percent under the area tells us how purify the component is. For the Simple Distillation sample, we originally recovered 9. Ml of Detach. The gas chromatography tells us that it is only 99. 348 percent pure therefore we realistically only recovered only 95 percent. Using the sample calculation method for Fractional Distillation, we were only able to recover 26 percent of Detach in fraction 1 and 68 percent of Boca in fraction 3.