

Paper chromatography experiment report

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The experiment involved using the simple paper chromatography technique in the separation of a black marker ink as described in the science project lab's website (Science Project Lab, 2014).

Materials Used

Coffee filter

1-liter glass jar

Paperclip.

Pencil

Water soluble black marker

Scissors.

Vinegar and glass cleaner

Procedure

The chromatography strip was obtained from coffee filter and cut into a piece that can fit into the jar. A line was drawn one inch from the bottom of the strip. A line was drawn using the black marker along the marked line.

The solvent (glass cleaner mixed with white vinegar in a ratio of 10: 1) was poured into the chromatography chamber enough to cover the bottom of the strip with the start line just above the solvent. The solvent was allowed to go up the strip until the solvent front was about an inch from the upper end of the strip and the solvent front.

Observation

The black color of the marker was separated into different colors on the chromatography paper. The order of color separation was yellow, red and blue from the point of application to the solvent front.

Figure 1: A photo of the results of paper chromatography of black marker

<https://assignbuster.com/paper-chromatography-experiment-report/>

Conclusion

Paper chromatography works by separating compounds based on the rate of their movement in a given solvent. The compounds that have a better solubility in the solvent being used as the mobile phase migrate faster compared to the insoluble ones. In this experiment, a mixture of vinegar and glass cleaner were used as the mobile phase to separate the colors making up the black color of a black marker. The experiment successfully separated the color into three major colors, yellow, red and blue.

References

Science Project Lab. (2014). Paper Chromatography Experiment. Retrieved June 28, 2015, from Science Project Lab: <http://www.scienceprojectlab.com/paper-chromatography-experiment.html>