

CALIFORNIA STATE SCIENCE FAIR 2010 PROJECT SUMMARY

Name(s)

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Project Number

J2025

Project Title

The Comparison of Chromatographic Results Between Deciduous and Evergreen Trees

Abstract

Objectives/Goals I will determine which type of tree, evergreen or deciduous, will have a thicker chromatographic result. Methods/Materials

I went to my local nursery and got about ten leaves of each evergreen and deciduous tree. I took some leaves, tore them up, placed them in a beaker, and poured 10 milliliters of alcohol into the beaker. Then after a day I put strips of coffee filter paper in barely touching the fluid and waited another day. Next I recorded the data by making measurements of the color thickness of the bands.

Results

My results show that the deciduous trees have a slightly thicker chromatography intensity demonstrated and measured by the color band thickness.

Conclusions/Discussion

I found that my hypothesis about the thickness of the chromatography bands for deciduous and non-deciduous trees was incorrect. The chromatography between these two groups of trees did not show much difference perhaps because all leaves were picked while they were still green on the tree. It would be interesting to test leaves which have completely changed their color while still on the tree. This information is important to the consumers who want to plan the perfect landscape. It allows people to decide if they want the greenest evergreen or color their world.

Summary Statement

My project was to show the difference between the chromatography of evergreen and deciduous trees.

Help Received

Mother helped with typing; dad helped with graphs; siblings helped with setting up board.