CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)
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Project Number
22201

Project Title
Can Paper Chromatography be Used to Identify Different Species of Plants?

Abstract

Objectives/Goals
The objective is to determine if plant pigments were distinctive for each species.

Methods/Materials
Leaves of different plants were obtained. Residue from leaves was applied onto strips of chromatography paper by placing the leaf on top of the strip of paper and rolling a pin back and forth on top of the leaf.€ This step was repeated around ten times for each leaf. Once the strips were prepared, chromatographs were run with a solvent containing 9 parts ether to 1 part acetone. The test ran for 30 minutes on the shorter strips and up to an hour and a half on the longer strips.

Results
The results on the same kind of leaves did not remain constant. Multiple test were performed and the pigments did not deposit at the same spot.

Conclusions/Discussion
Using chromatography to recognize plant pigments is not possible. The test produced differnt results every time the same leaf was run.

Summary Statement
Using paper chromatography on plant leaves to see if a recognizable pattern would appear every time.

Help Received
Mr. Jones gave me the name of the speices of plants that I used.