

CALIFORNIA STATE SCIENCE FAIR 2004 PROJECT SUMMARY

Name(s)

Gary K. Suvagian

Project Number

J0725

Project Title

Kirlian Photography

Abstract

Objectives/Goals

Do extreme temperatures applied to a plant leaf affect the Kirlian photo of that plant leaf?

Methods/Materials

Five manzanita leaves, each 3 to 4 inches long were gathered. The first leaf was placed in the oven for 5 minutes, the second leaf was placed in the oven for 10 minutes, the third leaf was placed in the freezer for 5 minutes, the fourth leaf was placed in the freezer for 10 minutes and the fifth leaf was left in a room of average temperature. Each leaf's ohms were measured and their Kirlian photo was taken.

Results

On average, the leaf that was in the oven for 5 minutes had a corona of .17cm, while the leaf that was in the oven for 10 minutes had no corona. On average, the leaf that was in the freezer for 5 minutes had a corona of .25cm, while the leaf that was in the freezer for 10 minutes had a corona of .26cm. On average the control leaf had a corona of .24cm.

Conclusions/Discussion

My results support my hypothesis that extreme temperatures applied to a leaf do affect the Kirlian photo of that leaf. My results taught me that the Kirlian device can show if an organism has been exposed to extreme temperatures.

Summary Statement

How exposing plant leaves to extreme temperatures will affect the Kirlian photo's of the leaves.

Help Received

Mother helped in dark room; Step-father helped build the Kirlian device; Science teacher helped review project