CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)
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Project Number
22767

Project Title
Electrostatics: Dirod Enhancement

Abstract

Objectives/Goals
My goal is to make the dirod, an electrostatic generator, the most effective it can possibly be. The fir| step that I took towards this goal was to test the rod material to try to improve it by testing differen| metals. The most effective will replace the previously used rod material, and I will continue my goal.

Methods/Materials
I constructed a dirod out of what materials I could find and began testing. I tested aluminum, brass, an| copper rods to a total of 10 trials each. I chose these metals because they are commonly used in generators and electric appliances. I tested the materials by running the generator for exactly 15 seconds with a 6| spark gap. After testing them, I gathered my results.

Results
The material brass, was the most effective at creating sparks in a given amout of time. Aluminumt performed the worst but still aquired a good number of sparks.

Conclusions/Discussion
My conclusion is that brass is the most effective rod material for the dirod. Also, by comparing rod prices, I figured out that brass is also the most expensive.

Summary Statement
My project is about testing and observing different rod materials to make the most effective dirod.

Help Received
Dad helped build dirod; brother helped with graphs.