

CALIFORNIA STATE SCIENCE FAIR 2017 PROJECT SUMMARY

Name(s)

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Project Number

J0617

Project Title

Bright Enough?

Abstract

Objectives/Goals

My experiment is trying to see which temperature of water will cause the most resistance in a glow stick sample.

Methods/Materials

I first cut open the glow stick with a saw. Then, I separated the two mixtures and combined them with the water in the small container. I set up the multi meter, attach it to the photo resistor, and record data.

Results

At the end, my hypothesis was proven correct. The cold water ended up with averages of 0.17 ohms, 0.26 ohms, and 0.16 ohms. The cold water had averages of 0.11 ohms, 0.14 ohms, and 0.174 ohms. The room temperature water had averages of 0.13 ohms, 0.15 ohms, and 0.16 ohms. My hypothesis is proven correct.

Conclusions/Discussion

In this experiment, my hypothesis was proven correct. The glow stick sample at 5°C had the most amount of resistance, the glow stick at 23°C had the 2nd most amount of resistance, and the glow stick sample 34°C had the least amount of resistance. This shows that a glow stick would be brightest in hot water, and dullest in cold water.

Summary Statement

My project is about comparing the different amounts of electrical resistance from different glow stick samples at three temperatures.

Help Received

Mr. Michail, my parents, and my brother