



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s) Aditya Kakarla	Project Number J0206
Project Title Using Phosphorescence to Increase Solar Panel Output	
<p style="text-align: center;">Abstract</p> <p>Objectives The objective of this project was to observe if phosphorescence can increase the amount of energy we receive from solar panels.</p> <p>Methods In this project, we used a polycrystalline solar panel, glow sticks, a shoebox, a multimeter, and a lamp. We tested the effect of phosphorescence on a solar panel in 4 different situation inside a room. We used a multimeter to track our results.</p> <p>Results The project was tested over multiple days to ensure proper accuracy. Voltages of our 4 different situations was tracked and recorded. Phosphorescence was shown to increase the energy received from the solar panels when the day and night energy outputs were combined.</p> <p>Conclusions Repeated trials of our experiment showed that phosphorescence increased the voltage of the solar panel. When combining the day and night results of the tests, there is a constant pattern in the results. The solar panel with the phosphorescence initially has less energy, but gains voltage over time. This results in us determining phosphorescence is a viable source for improved solar panel efficiency.</p>	
Summary Statement This project shows phosphorescence can be used to increase solar panel output.	
Help Received My parents helped me acquire the materials needed for the project.	