

Society of Physics Students Undergraduate Research Award Update Letter

Our research project, Ferroelectric Nano-particles Suspended in Liquid Crystal Matrices, is well under way thanks to your generous grant. We started out a little slower than originally planned so that we could get all of our members trained in the basics of making a liquid crystal, taking measurements, and most of all laboratory safety. The majority of our work during the spring was to set up training manuals and examples for future SPS students interested in liquid crystal research.

The research is heading into full swing this summer and we have taken some initial measurements and will be creating many more samples to study with different ferroelectric materials. We had some unfortunate news; our "rubbing machine" used to polarize our TIO glass that was graciously lent to us by an outside company had to be returned. Fortunately, our faculty advisor, Anatoliy Glushchenko, purchased a DAQ so that we would still have the budget to get a new "rubbing machine".

We have also created several presentations to show to local schools about our research. We have invited classes K-12 to come to UCCS this fall for a science field trip. The invited students will see our research first hand and some hands on demonstrations into the workings of liquid crystal displays.

Also, we have had several speakers from our faculty and otherwise give talks to the campus on different aspects of physics.

Our Budget so far:

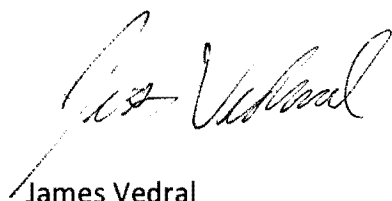
~\$900 on rubbing machine

~\$100 on Printing manuals for LC research, fliers for high schools, and lab books for our researchers

On behalf of the entire University of Colorado at Colorado Springs campus I must thank you for choosing us for this award. We have enriched the campus and our community and plan to give as much back as we have been given. We look forward to submitting our final report in December.

Sincerely,

The SPS at UCCS

A handwritten signature in black ink, appearing to read "James Vedral". The signature is written in a cursive style with a large initial "J".

James Vedral

SPS Chair at UCCS