

CWSF 2012 - Charlottetown, Prince Edward Island



Ronald Vuong, Ian Harold Rodgers

Electricity from Fluorescent Protein Solar Cells

Challenge: Innovation

Category: Senior

Region: Waterloo-Wellington

City: Guelph, ON

School: Centennial Collegiate & Vocational Institute

Abstract: Dye-sensitized solar cells are becoming more famous as an alternative for conventional solar cells. Fluorescent proteins were added to their design in order to allow the absorption of UV light spectra. As a result, the efficiency of the cells have increased and the cells are more capable of producing electricity in dark lighting.

Biographies

Ronald - My name is Ronald Vuong. I am a grade 12 student at Centennial CVI in Guelph, Ontario. The inspiration for our project, Fluorescent Proteins in Dye-Sensitized Solar Cells comes from a legacy of related projects from our school. We wanted to further develop the ideas that older projects had already begun. In the future, we hope to expand the cells into an array involving all types of fluorescent proteins, and we will test the efficiency of an array compared to that of a normal dye-sensitized solar cell array. Before starting a project for science fair, I think it's important for students to understand the amount of dedication it takes to perfo...

Ian Harold - My name is Ian Rodgers, and I am a Grade 12 Student at Centennial C.V.I. Hopefully, I will be heading off to McMaster university for their Integrated Science program next year. In addition to the science fair, I am also involved in the Improv team at Centennial, as well as the Reach for the Top team, which attained first provincially, and second nationally last year. The inspiration for my project really came from the history of solar cell projects at Centennial, as well as my own experience with GFP in biology class. In the future, I want to investigate cells made with many different FPs, as well as determining the longevity of our cells. Th...