

CWSF 2010 - Peterborough, Ontario



Sunny Dye-Light: Dye-Sensitized Solar Cells

Division: Physical & Mathematical Sciences

Category: Junior

Region:

City: ,

School:

Abstract: This project tested the solar conversion efficiency of three inexpensive natural anthocyanin dyes (blackberry, pomegranate and raspberry) when used in dye-sensitized solar cells. The solar cell efficiency was measured using an Oriel I-V (current-voltage) Solar Simulator. Blackberry dye was found to have the highest average efficiency. A prototype for charging mobile devices and music players was constructed utilizing the dye-sensitized solar cells.

Awards	Value
The University of Western Ontario Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: University of Western Ontario	\$4 000
Gold Medal - Environmental Innovation - Junior Sponsor: EnviroExpo, Presented by VIA Rail Canada	\$11 500
Total	\$15 500