CWSF 2012 - Charlottetown, Prince Edward Island

Fun in the Sun - Improving the Efficiency of Grätzel Cells

Challenge: Energy
Category: Intermediate
Region:
City: ,
School:
Abstract: The effectiveness of Grätzel cells was examined, testing ten independent variables (type of pure dye, mixed berry dyes, dye preparation, surface area, dye pigments, light source, dyeing process, TiO2 suspension, type of TiO2, and type of solar cell) to optimize electrical energy produced. Results indicated that an absorbed, raspberry, anthocyanin, 1", nano-particle TiO2 cell, placed in a sunny location is the most efficient Grätzel cell.

Awards	Value
Excellence Award - Intermediate - Bronze Medal Sponsor: Nuclear Waste Management Organization	$300
Western University Scholarship Bronze Medallist - $1000 Entrance Scholarship Sponsor: Western University	$1 000
Total	$1 300

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