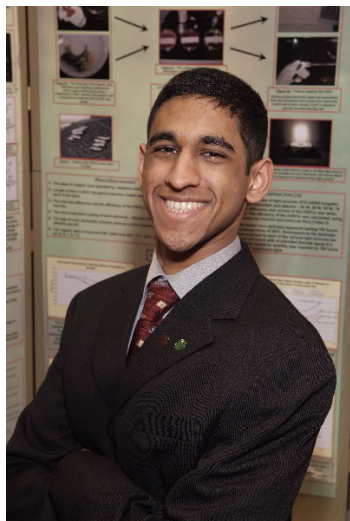


ESPC 2008 - Ottawa (Ontario)



David Castelino

Photonic Boom

Division: Sciences de la santé / Innovation environnementale

Catégorie: Sénior

Région: Peel

Ville: Mississauga, ON

École: St. Aloysius Gonzaga

Sommaire: This project focuses on maximizing the efficiency and stability of a dye-sensitized solar cell that utilises naturally occurring organic dye extracts to produce electrical energy. Techniques and materials found to optimize efficiency of the dye-sensitized solar cell were used to successfully design an efficient and cost-effective solar roofing tile material that can be used in third-world countries. Average efficiencies of 14% were achieved.

Biographie

As a grade twelve student at St. Aloysius Gonzaga S.S. in Mississauga, Ontario, David Castelino is a passionate scientist, fascinated with research in medicine and engineering. He has represented Ontario as a finalist at three Canada-Wide Science Fairs. In 2006, David represented Canada at the Australian National Youth Science Forum. In Australia, David had the opportunity to work alongside top scientists and participate in 'hands-on' science events and discussion groups on global issues. In 2007, David was selected to be on Team Canada and was given the opportunity to compete at the Intel International Science and Engineering Fair in Albuquerque. In New Mexico, he won a third place grand award in Energy and Transportation, as well as a Patent and Trademark Office Society patent citation for his solar cell innovation. Along with being a provincial-level swimmer, avid guitarist, saxophone player, and the Environmental Innovation expert for YSF's SMARTS Network, David enjoys writing for his high school newspaper and participates in his city's youth council. He has attained the bronze and silver levels in the Duke of Edinburgh Program, and he coaches swimming at his local community centre. In future, David intends to pursue a career in engineering and medicine.

Prix

Valeur

Le Prix Manning en innovation Commanditaire: Ernest C. Manning Awards Foundation	500,00 \$
Prix S.M. Blair Family Foundation - Sénior Commanditaire: S.M. Blair Family Foundation	1 000,00 \$
Bourses d'admission de la Faculté des sciences de l'Université Dalhousie Bourse de début d'études de 4 000 \$ Commanditaire: Université Dalhousie, Faculté des sciences	4 000,00 \$
Bourse de recherche de 1er cycle du CRSNG Médaillé d'or, sénior Commanditaire: Conseil de recherches en sciences naturelles et en génie du Canada (CRSNG)	5 625,00 \$
Bourse d'études de l'Université Western Ontario Médaillé d'or - Bourse de début d'études de 2 000 \$ Commanditaire: Université Western Ontario	2 000,00 \$
Bourse d'études de l'Université Western Ontario Médaillé de bronze - Bourse de début d'études de 1 000 \$ Commanditaire: Université Western Ontario	1 000,00 \$
Bourse d'admission de l'Université d'Ottawa Médaillé d'or, sénior ? Bourse d'études de 20 000 \$ (5 000 \$ par année pendant 4 ans) Commanditaire: Université d'Ottawa	20 000,00 \$
Bourse d'admission de l'Université d'Ottawa Médaillé de bronze, sénior ? Bourse d'admission de 1 000 \$ Commanditaire: Université d'Ottawa	1 000,00 \$
Médaille de bronze - Innovation environnementale - Sénior Commanditaire: EnviroExpo, présenté par VIA Rail Canada	300,00 \$
Médaille d'or - Génie - Sénior Commanditaire: Fondation sciences jeunesse Canada	1 500,00 \$
Total	36 925,00 \$