

ESPC 2010 - Peterborough (Ontario)

Sruti Arulmani

Photoautotrophic Composite Based Nanocrystalline Solar Cells

Photo removed
by request.

Division: Sciences physiques et des mathématiques

Catégorie: Junior

Région: Peel

Ville: Mississauga, ON

École: Tomken Road Senior P.S.

Sommaire: This research investigates implication of dye sensitizer composites to enhance electron transfer from sensitizer to TiO₂ semiconductor in nanocrystalline solar cells. It is implied that sensitizer composites sustain higher adsorption ranges in the light spectrum. Sensitizers including Zeaxanthin/Cryptoxanthin, Betalain and Anthocyanin were fabricated into composites for comparison with Chlorophyll. Characterization was performed with current-voltage curves, potentiostatic-measurements and open-circuit for presence/absence of light, and various

Biographie

My name is Sruti Arulmani and I am 12 years old. I am a grade seven student at Tomken Road Middle School and I was accepted into the Sci-tech program for grade 6 to 8. At school my favourite subjects are science and geography. I enjoy learning about science very much because it is very fascinating and allows my knowledge and curiosity to flourish. I also take part in cross country running, track and field at school. My special interests are in dancing, reading, badminton and ping pong. I started dancing when I was eight and continue to enjoy this artistic sport and I attend a dance academy now. I have been playing ping pong for few years now and badminton for longer. Outside of education and sports I also take part in art programs during the summer as I take pleasure in expressing my creativity through art. My other favourites are hiking and travelling with my family. In the distant future I wish to pursue a career in archaeology or biology.

Prix

Valeur

Bourse d'études de l'Université Western Ontario	1 000,00 \$
Médaille de bronze - Bourse de début d'études de 1 000 \$	
Commanditaire: Université Western Ontario	
Médaille de bronze - Innovation environnementale - Junior	300,00 \$
Commanditaire: EnviroExpo, présenté par VIA Rail Canada	
Total	1 300,00 \$