

CWSF 2012 - Charlottetown, Prince Edward Island



Aditya Mohan, Gayashan Tennakoon

Algal Biofuels: A Greener Solution

Challenge: Resources

Category: Intermediate

Region: Ottawa

City: Ottawa, ON, Nepean, ON

School: Colonel By S.S.

Abstract: Microalgae, for biofuel feedstock, has many advantages compared to fossil fuel; net-zero emission of CO₂, rapid growth, cleaner energy production, lower environmental disruption, etc. In order increase economic viability, a number of technological problems, primarily algal de-watering and hydrocarbon extraction/conversion, must be addressed. Theoretical and experimental investigations based on chemical, electrochemical, and hydrodynamic approaches to improve the production of microalgae-based biofuel were conducted in response.

Biographies

Aditya - Aditya is a Grade 9 student of the International Baccalaureate program at Colonel By School in Ottawa, ON. Aditya is a highly motivated student who has excelled in the academics and extra-curricular activities. At this time, Aditya hopes to pursue his higher studies in the field of medical sciences. He has always been intrigued by science and is inspired by the greats such as Albert Einstein, Louis Pasteur, Stephen Hawking, etc. He has also been actively involved in the community volunteering. The inspiration for this project came from the deep desire to address environmental issues and the global warming concerns. Through this project, Aditya...

Gayashan - Academically, I have several hobbies. I have always been a scientifically curious person, as a hobby I used to build small devices. I also participate in a wide variety of musical groups. I have been chosen to be a member of the OCDSB All-Star Jazz Band and All-Star Concert Band. At school, I participate in the Concert Band and Brass Choir. For physical activities, I am interested in swimming. After three years of swimming, I have managed to attain all levels which allow me to continue on to become a life guard. Above all I like to volunteer to the local Buddhist temple as to support the organization and gain knowledge on my heritage. Eventu...

Awards

Value

Challenge Award - Resources - Intermediate Sponsor: Youth Science Canada	\$750
Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	\$700
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$3 450