

CWSF 2007 - Truro, Nova Scotia



Arthur Yip, Dolly Lin

Investigating Yeast Power

Division: Biotechnology / Automotive

Category: Senior

Region: Greater Vancouver

City: Vancouver, BC

School: Sir Winston Churchill Secondary

Abstract: A microbial fuel cell system powered by *Saccharomyces cerevisiae* was the subject of the investigation. A variable amount of sugar input was believed to affect the fuel cell's response to aeration and oxygen presence. Data showed that greater sugar input may have induced cell preference of the anaerobic pathway. Further experimentation was performed with cells connected in series and parallel to test effective power output.

Biographies

Arthur - Arthur Yip is an International Baccalaureate Diploma Candidate at Sir Winston Churchill Secondary School, Vancouver, BC. This year (2007), he worked on a microbial fuel cell project with a partner. He first participated in science fairs since Grade 8, and his interest in fuel cells spawned in Grade 10. He was fortunate to reap the benefits of a separate Automotive Sciences division at the Canada-Wide Science Fair 2005, earning not one but two Bronze medals. He was short-listed for Team Canada/ISEF 2007, but was not selected for the final team. In addition to his experimentation with fuel cells, he promotes Better Environmentally Sound Transpo...

Dolly - I immigrated to Canada from Taiwan with my family approximately 10 years ago. We settled in Vancouver and haven't moved since. I am currently in grade 12, completing my second year of the International Baccalaureate programme at Sir Winston Churchill Secondary. I hope to continue my education at McMaster University. I have been involved in the Sir Winston Churchill Dissection Club, of which I am currently the president, for 3 years. I am also in my 2nd year as a Student Ambassador Council member for the Kids Help Phone national counselling service. Last year I was a participant of the Encounters with Canada: Medicine and Health week long ex...

Awards

Value

The University of Western Ontario Scholarship	\$1 000
Bronze Medallist - \$1000 Entrance Scholarship	
Sponsor: University of Western Ontario	
Bronze Medal - Automotive - Senior	\$300
Sponsor: AUTO21	
Bronze Medal - Biotechnology & Pharmaceutical Sciences - Senior	\$300
Sponsor: Rx&D Health Research Foundation	
Total	\$1 600