

CWSF 2010 - Peterborough, Ontario



Naima Raza

Substrate Effectiveness in Microbial Fuel Cells

Division: Earth & Environmental Sciences

Category: Junior

Region: Lambton County

City: Sarnia, ON

School: Errol Road E.S.

Abstract: This project involved the construction and testing of a Microbial Fuel Cell. This device used bacteria to liberate hydrogen atoms from an energy-rich substance (a substrate) in order to create electricity. Glucose and acetic acid were tested as substrates in separate experiments. The obtained data proved that both glucose and acetic acid are effective substrates, although acetic acid is preferable for long term use.

Biography

My name is Naima Raza. I am in grade 7 at Errol Road Public School. This was my third regional science fair, and my first time attending the CWSF. I am an avid musician currently in grade 5 piano. Participating in sports is an interest of mine and I am regularly on school teams- basketball, volleyball, soccer and tennis are my favourite sports. Moreover, I am a green belt in karate and have competed yearly in Track&Field at city level since grade 4. I also enjoy travelling, reading, writing, art and music. Volunteering is significant in my life, as well - I volunteer regularly in fundraising activities. I enjoy participating in the Royal Canadian Legion speech, essay and poem contests on a regular basis as well. I plan to pursue law or dentistry in university.

Awards

Value

The University of Western Ontario Scholarship	\$2 000
Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	
Silver Medal - Biotechnology & Pharmaceutical Sciences - Junior Sponsor: Youth Science Canada	\$700
Total	\$2 700