

# CWSF 2010 - Peterborough, Ontario



## Kyle Schole

### Microbial Degradation of Vehicle Tires

**Division:** Physical & Mathematical Sciences

**Category:** Senior

**Region:** Edmonton

**City:** Pickardville, AB

**School:** Richard F Staples Secondary School

**Abstract:** As processing waste is often costly and uses electricity, it was a novel idea to reverse this scenario and produce usable energy from scrap vehicle tires. In using a combination of Microbial Fuel Cell (MFC), LED technology as well as a microbial process already found in nature I was able to use bacterial reduction of the waste vehicle tires.

### Biography

Kyle Schole lives on a farm located just northwest of Edmonton, Alberta with his family of five. Attending Grade Eleven at RF Staples Secondary School, in Westlock, his favorite pastimes include playing the flute, cooking, reading, playing soccer, intense debates, and of course, working on his latest science fair project. This year, Kyle is secretary of the Student's Union, and hopes to be elected as president later this year. He also was a part of the model United Nations. Kyle has been in the science fair since the third grade, and is privileged to attend the Canada Wide Fair for three years. Upon graduation, Kyle hopes to enter the field of microbiology, or teach. In addition to science fair, he has also been in 4-H for four years with a beef project. In his time with the club, he also filled the rolls of club secretary, and treasurer. Kyle has had a lot of fun with all of his past science projects and feels that the experience gained from them will aid him later in life, whether he enters a profession in science, politics, or elsewhere.

### Awards

### Value

Canadian Commission for UNESCO - Science for Peace and Development (MILSET ESI) Award Sponsor: Canadian Commission for UNESCO	\$5 000
The Manning Innovation Achievement Award Sponsor: Ernest C. Manning Awards Foundation	\$500
The Manning Innovation Achievement Award and \$4000 Manning Young Canadian Innovation Award Sponsor: Ernest C. Manning Awards Foundation	\$4 000
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - \$4000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$4 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - \$20,000 Entrance Scholarship (\$5,000 each year for 4 years) Sponsor: University of Ottawa	\$20 000
The University of Western Ontario Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: University of Western Ontario	\$4 000
Gold Medal - Environmental Innovation - Senior Sponsor: EnviroExpo, Presented by VIA Rail Canada	\$11 500
<b>Total</b>	<b>\$49 000</b>