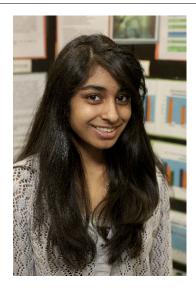




## CWSF 2011 - Toronto, Ontario



## Naima Raza

The NEWspaper Fuel: Enhancing Cellulosic Ethanol Production

Challenge: Energy Category: Junior

Region: Lambton County City: Sarnia, ON School: Errol Road E.S.

Abstract: Newspaper, a biomass, was used to create cellulosic ethanol by

hydrolyzing and fermenting into ethanol. Organosolv and oxidative delignification pretreatment steps were applied on newspaper prior to hydrolysis, along with unpretreated newspaper and sugar-based ethanol controls. Results showed greatest cellulosic ethanol production from organosolv pretreated newspaper; the cellulosic ethanol production process using newspaper was improved as this methodology has not been reported

in literature.

Awards	Value
Renewable Energy Award - Junior	\$500
Sponsor: Ontario Power Generation	
Challenge Award - Energy - Junior	\$500
Sponsor: Youth Science Canada	
Excellence Award - Junior - Gold Medal	\$1 500
Sponsor: Youth Science Canada	
The University of Western Ontario Scholarship	\$4 000
Gold Medallist - \$4000 Entrance Scholarship	
Sponsor: University of Western Ontario	
Total	\$6 500

## **Biography**

Hi! My name is Naima. I'm a grade 8 student at Errol Road Public School. This was my fourth regional science fair, and my second time attending the CWSF. I love science, but I also have many other interests. I enjoy playing and listening to music - I'm currently in grade 7 piano. Some of my favourite sports include basketball, volleyball, soccer, track and field and badminton. My friends and family are some of the most important people to me, and I especially love hanging out with my friends! I also participate regularily in speech, essay and poem contests. In the future, I'd like to pursue dermatology or biology, but mainly do what I'm passionate about and find a way to contribute to society!





