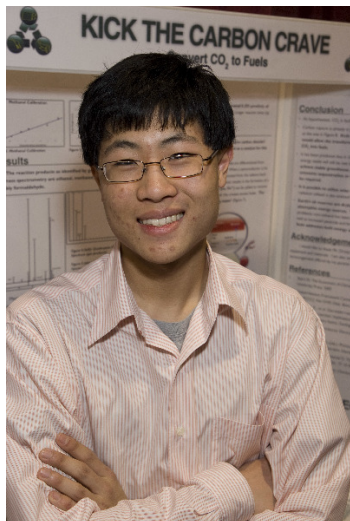


## CWSF 2008 - Ottawa, Ontario



### Tim Rappon

#### Kick the Carbon Crave: Convert CO<sub>2</sub> to Fuels

**Division:** International / Environmental Innovation

**Category:** Intermediate

**Region:** Northwestern Ontario

**City:** Thunder Bay, ON

**School:** Hammarskjold High School

**Abstract:** Carbon dioxide is converted to methane, methanol and ethanol under photocatalytic conditions in the presence of selected additives. Analysis of the products was done using gas chromatography and mass spectrometry. This technology would enable a carbon neutral economy and solve energy shortages by recycling the carbon dioxide generated from the burning of fuels.

#### Biography

I suppose I consider myself to be multi-talented. This will be my fourth year as a CWSF finalist; I have won the Best in Fair award from the North Western Ontario Regional Science Fair for four years in a row. I'm working on my grade 9 piano, and recently won the Silver Tray for senior piano at my local festival. I'm a member of Hammarskjold's cross-country running and badminton teams, and enjoy soccer, skiing, and cycling. For the past few years, I have been an active participant in my community, and a member of Youth Advisory Council, Citizens Concerned About Pesticides, Natural Helpers, Kids Help Phone, and Youth With an Open Mind.

#### Awards

#### Value

Renewable Energy Award - Intermediate Sponsor: Ontario Power Generation	\$750
The University of Western Ontario Scholarship Silver Medallist - \$1500 Entrance Scholarship Sponsor: University of Western Ontario	\$1 500
Honourable Mention - Environmental Innovation - Intermediate Sponsor: EnviroExpo, Presented by VIA Rail Canada	\$100
Silver Medal - Physical & Mathematical Sciences - Intermediate Sponsor: Encana Corporation	\$700
<b>Total</b>	<b>\$3 050</b>