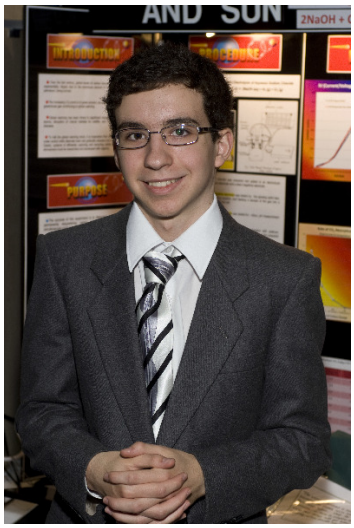
CWSF 2010 - Peterborough, Ontario



Jordan Wentzell

Carbon Conquered by Sea, Salt, and Sun

Division: Physical & Mathematical Sciences
Category: Senior
Region: Northwestern Ontario
City: Thunder Bay, ON
School:

Abstract: The hypothesis of this experiment is that carbon dioxide could be extracted from the atmosphere through the spontaneous reaction with sodium hydroxide, generating sodium carbonate and water. The sodium hydroxide required for the reaction could be obtained by solar-powered electrolysis of sea water. The electrolysis would also produce hydrogen, which could provide electrical or thermal power, and chlorine, which could be used for industrial processes.

Biography

I am fifteen years old, the eldest of five children, and am currently home schooled. In my spare time, I enjoy playing the piano, cycling, chess, and swimming. I was the gold medalist in Intermediate Physical and Mathematical Sciences at the Canada-Wide Science Fair, in Ottawa, 2008. I have always been keenly interested in science, especially the field of chemistry. My career plans involve research related to renewable energy and hydrogen.

Awards	Value
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - $4000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	$4 000
UBC Science (Vancouver) Entrance Award Senior Gold Medallist - $4000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	$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 - Physical & Mathematical Sciences - Senior Sponsor: Encana Corporation	$1 500
Total	$33 500