

## CWSF 2007 - Truro, Nova Scotia



### Matt Laporte

#### The Degrading Effects of Low pH on Seven Polymer Materials

**Division:** International / None

**Category:** Senior

**Region:** Algoma Rotary

**City:** Sault Ste. Marie, ON

**School:** Korah Collegiate & Vocational School

**Abstract:** This experiment tested the effects of low pH values on seven common plastics. An acidic environment was created using test tubes, with individual tests for all combinations of pH (ranging from 1.0 to 7.0) and plastic type. The results of the experiment suggested that low pH not only affects plastics depending on a plastic's polymeric structure stability, but also on the macroscopic structural rigidity.

#### Biography

Matt Laporte is a resident of Sault Ste. Marie, Ontario, and attends the I.B. Diploma Programme at Korah C&VS. His primary interests include mathematics, the physical sciences, music, philosophy, and linguistics. A published writer, he is an avid linguist and polyglot and enjoys communicating in several languages other than English, including French, German, and Latin. In the past two years' time, he has begun the study of piano under the RCM standard and has advanced to a Grade 8 level, for which he will be taking his examination in June. Piano is, however, only one of his musical interests: he also composes music regularly, and has played clarinet, bass clarinet, oboe, flute, and saxophone in several music groups. Supporting both written and oral academic guidance, he writes revision materials for other I.B. students. Accomplished in the sciences and in mathematics, he has won his local engineering mathematics competition for three years consecutively, and consistently achieves high marks in mathematics competitions. He will be studying engineering in university beginning in fall 2007.

#### Awards

#### Value

The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
Bronze Medal - Physical & Mathematical Sciences - Senior Sponsor: Encana Corporation	\$300
<b>Total</b>	<b>\$1 300</b>