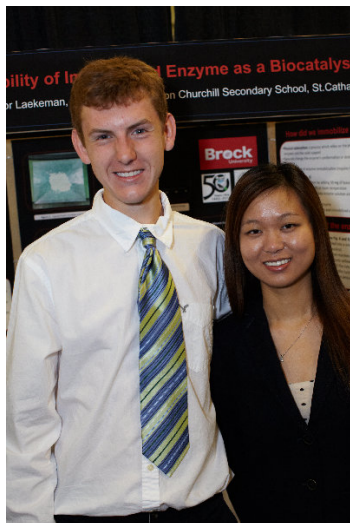


# CWSF 2012 - Charlottetown, Prince Edward Island



## Taylor Laekeman, Amy Lin

### The Viability of Immobilized Enzyme as a Biocatalyst

**Challenge:** Environment

**Category:** Senior

**Region:** Niagara

**City:** Thorold, ON, St. Catharines, ON

**School:** Sir Winston Churchill

**Abstract:** Due to their efficiency and benign nature, enzymes have been introduced into various industrial processes as a biocatalyst. If enzymes can retain their catalytic abilities after being immobilized onto solid supports, they can be filtered and reused for numerous reaction cycles. This technique proves to have significant environmental and industrial advantages. Lipase from *Candida rugosa* was immobilized onto four different solid supports and tested.

#### Biographies

**Taylor** - My name is Taylor Laekeman. I am a grade 12 student at Sir Winston Churchill Secondary School. Over the past three years, I have spent countless hours training and competing for the school Cross Country and Track & Field teams. Outside of school, I spend my time playing guitar, playing video games and watching television. Next year, I plan on attending the University of Waterloo for Mechatronics Engineering.

**Amy** - Amy is currently a grade twelve student at Sir Winston Churchill Secondary School in St. Catharines, Ontario. She was born in Fujian, China and grew up in Scarborough, Ontario before eventually moving to St. Catharines. She is a curious and bright spirited student who enjoys learning about all subjects in school. Her participation in the Brock Mentorship Program during her first semester of grade twelve has allowed her to pursue her love of the sciences. In addition to being a school prefect, Amy is also a part of the school recycling team, Teens for Change Club, and Ruff Times (school newsletter). In the past, Amy has participated in Waterloo...

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Nuclear Waste Management Organization	\$300
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$2 300</b>