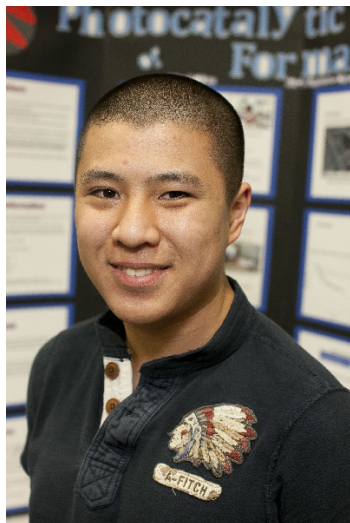


# CWSF 2011 - Toronto, Ontario



## Mark Tan

### Photocatalytic Degradation of Formaldehyde

**Challenge:** Innovation

**Category:** Senior

**Region:** Greater Vancouver

**City:** Vancouver, BC

**School:** Sir Winston Churchill Secondary

**Abstract:** This experiment tested whether coating TiO<sub>2</sub> onto activated carbon paper can improve the paper's effectiveness in removing CH<sub>2</sub>O and if the effectiveness is positively correlated to the percentage concentration of TiO<sub>2</sub>. It was found that the TiO<sub>2</sub> coated sheets reduced considerably more formaldehyde at a faster rate than the plain activated carbon sheet did. However the effectiveness had no strict correlation with the TiO<sub>2</sub> concentration.

#### Biography

My name is Mark Tan. I am enrolled in the IB program at Sir Winston Churchill Secondary School. I am very involved in both my school and my community. At Churchill, I am an editor and columnist for the chemistry section of a well-established school science magazine. Also, I participate in the Model UN club, the Key club and the Student Social Network club. Outside of school, I volunteer as a tour guide for the Dr. Sun-Yat-Sen Classical Chinese Garden and as a workshop leader for the Bolton Academy of Speech Arts. During winter, I work as a ski instructor. Some of my extracurricular activities include skiing, swimming, tennis, saxophone and speech and drama. I have received the Level 1 ski instructor license, the lifeguard certificate, the level 7 Trinity speech exam certificate, the Highest Achievement Award at the B.A.S.A. Speech Arts Festival, and first place awards at the CDMF. After graduation from secondary school, I plan to go into chemistry. However, I also love acting. Frankly, I have not made a definite decision yet. I have had many memorable experiences. Nevertheless, I believe that my participation in the CWSF will become my most notable experience!

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	\$300
The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
<b>Total</b>	<b>\$2 300</b>