

ESPC 2011 - Toronto (Ontario)



Zach Elgood

Potential Production of CH₃CL in an Instream Denitrifying Woodchip Bioreactor

Défi: Environnement

Catégorie: Sénior

Région: Waterloo-Wellington

Ville: New Hamburg, ON

École: Cameron Heights C.I.

Sommaire: Potential side effects of bioreactors used for nitrate removal include production of greenhouse gases and methyl mercury. Degradation of bioreactor materials by white-rot could also result in production of methyl chloride, known to deplete ozone. Microbial and chemical analysis determined that neither white-rot fungi nor methyl chloride were present in the bioreactor studied. It is unlikely this type of bioreactor contributes to ozone depletion.

Biographie

Zach Elgood is a 17 year old, grade 11, student attending Cameron Heights Colligate Institute. He is enrolled in the International Baccalaureate program and enjoys all types of scientific inquiry, while also having a passion for ancient history. He participates in a variety of school activities, including debate, math and science clubs, the school musical and a variety of music ensembles. In 2007 and 2008, he attended the Canada Wide Science and Engineering Fair, where he won awards in physical and environmental science. In 2009, Zach was a member of Team Canada at the International Science and Engineering Fair where he was awarded a third place grand award in Environmental Management. Most recently, he was awarded a gold medal at ISWEEP 2010 and an award at the CWSF. In his spare time, he enjoys reading and writing, traveling, karate, nature walks. Last summer, Zach was selected as a participant for the 2010 QCSYS at the Institute for Quantum Computing. In the future, Zach wishes to pursue a job in theoretical physics.

Prix

Valeur

Prix d'excellence - Senior - Médaille de bronze Commanditaire: Sciences jeunesse Canada	300,00 \$
Bourse d'études de l'Université Western Ontario Médaille de bronze - Bourse de début d'études de 1 000 \$ Commanditaire: Université Western Ontario	1 000,00 \$
Bourse d'admission de l'Université d'Ottawa Médaille de bronze, sénior ? Bourse d'admission de 1 000 \$ Commanditaire: Université d'Ottawa	1 000,00 \$
Total	2 300,00 \$