

CWSF 2012 - Charlottetown, Prince Edward Island



Mikaela Preston

BioHydrogen Fuel from Photosynthetic Bacteria: Studying Single Stage Reactors

Challenge: Energy

Category: Intermediate

Region: York

City: Markham, ON

School: Havergal College

Abstract: Growth rates of hydrogen-producing, non-sulphur, purple bacteria cultures were studied when the primary carbon source was switched between acetate and glucose. The study included mono-species and mixed-species cultures. An unexpected positive outcome was that the growth rates during the glucose runs were equal to or greater than the growth rates during acetate. No difference in growth rates between the mono-species and mixed-species cultures was observed.

Biography

Hey, I'm Mikaela Preston and I'm currently in grade 10 at Havergal College in Toronto. I think science is the coolest thing in the entire universe (or possibly the multiverse?). I've been doing science fair projects since I was in grade 3 and I plan on doing research all through my life! This year my research dealt with renewable fuel- as have my last 2 projects. I believe that it's really important for us to work towards being able to live sustainably without harming our Earth. Despite the fact that it's probably truthful to say I'm a science nerd (and I totally love it, of course), I'm not a fan of pocket protectors, and I love hanging with my friends, snowboarding, longboarding, going to rock concerts and playing Ultimate Frisbee. As Albert Einstein said, "I have no special talents, I am just passionately curious."

Awards

Value

Challenge Award - Energy - Intermediate Sponsor: Youth Science Canada	\$750
Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	\$1 500
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
Total	\$6 250