

CWSF 2007 - Truro, Nova Scotia



Zachary Alexander Elgood

Isotopic Fingerprinting of Human-Emitted Methane

Division: International / None
Category: Junior
Region: Waterloo-Wellington
City: New Hamburg, ON
School: Courtland Avenue Senior P.S.
Abstract: This project examines the concentration and isotope signature of human-emitted methane. Breath and colonic samples were analyzed using gas chromatography and isotope ratio mass spectrometry. Vegetarians produced the highest levels of methane. The methane ^{13}C values confirm that the samples collected were of biogenic origin.

Biography

Zach Elgood, age 13, attends Grade 7 in a congregated enrichment/gifted class at Courtland Public School in Kitchener, Ontario. He is on the school wrestling team and plays clarinet in the school band. Travel is a special love of his and he was fortunate to have been chosen by Children's International Summer Villages (C.I.S.V.) to spend a summer in Italy with 47 other 11-year olds from around the world. Reading, research, chess and karate have played important roles in his life for many years. His reading preferences range from fantasy to non-fiction books about magic and mythology. Zach is currently writing a Tolkien-like fantasy book series called the Amulets of Destruction. Because he enjoys nature, Zach particularly loves the spring and summer seasons. He likes hiking and exploring the world around him. He has won several chess and karate awards, as well as some writing and scholastic awards. His aspirations include attending a summer camp hosted by the Perimeter Institute for grade 11 students where only 50 students from around Canada are chosen. He hopes someday to become a professor of astro/theoretical physics to work and research with others at the Perimeter Institute.

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 - Junior Sponsor: Encana Corporation	\$300
Total	\$1 300