

CWSF 2007 - Truro, Nova Scotia



Andrew Gerwin

Who Will Save the Electric Car?

Division: Health Sciences / Automotive

Category: Junior

Region: Waterloo-Wellington

City: Guelph, ON

School: King George P.S.

Abstract: Five electric car batteries were load-tested with four different resistors under three temperature conditions. Weight, volume, cost, capacity, power, charge times and low-temperature performances were evaluated. Lithium-ion batteries made by Altair and A123 outperformed the Lead-acid and Nickel Metal-Hydride batteries. Between the lithium-ion batteries, Altair's battery was less expensive, had greater specific capacity and reached full charge faster, but A123's battery had higher energy density.

Biography

My name is Andrew Gerwin, and although I'm only 13, I've already developed a large range of interests and plans for the future. I am the first born child in a family of five kids. Both my parents are teachers. I am currently in grade 8 French immersion at King George P.S. in Guelph, Ontario. My extra curricular interests include playing trumpet, and singing with the Guelph Youth Singers. Recently, I went on a choir exchange trip to Vancouver. For sports, I prefer swimming, biking, and skating. Reading, especially science books, is also one of my pastimes. My favorite subjects in school are science, geography, and music. I enjoy learning to spell challenging words, and I recently finished third in the Guelph Regional Spelling Bee. For a career, I will probably choose Environmental Engineering, since I am very concerned with pollution and global warming. When I won a gold medal and an award of merit at the W.W.S.E.F, I was thrilled to be participating in the Canada-Wide Science Fair. My project on electric car batteries has been the most educational project I've ever done. I look forward to meeting other students who share my strong interest in science.