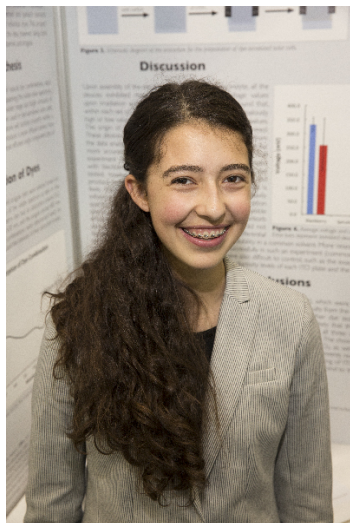


CWSF 2019 - Fredericton, New Brunswick



Rya Adronov

Ti-Dye Energy: Natural Dye Combinations in Dye-Sensitized Solar Cells

Challenge: Energy

Category: Junior

Region: Bay Area

City: Hamilton, ON

School: Sir William Osler

Abstract: My project, Ti-Dye Energy, concerned dye-sensitized solar cells, devices that replicate photosynthesis using a natural dye to absorb light and generate power. I tested whether using combinations of different dyes (thus absorbing a wider range of light) is more effective than using individual dyes in dye-sensitized solar cells. The efficiency of these cells could have a massive impact on sustainable energy production in the future.

Biography

I was born in 2005, and I am currently finishing Grade 8 in Hamilton, Ontario! In 2015, my family went on sabbatical to France for the year? it was an amazing experience, and I learned so much from all the traveling we were able to do, in addition to school. My interests afterward became more focused on STEM fields, as well as music. I play the piano, and I'm in the Hamilton Children's Choir, with which I'll be traveling to Hong Kong in July to perform as a resident ensemble at an international choral festival. My science fair project this year, Ti-Dye Energy, was inspired by my interest in chemistry as well as alternative energy sources and sustainability. This project has taught me so much, and has put me on a path toward further work in the field. There were, however, many setbacks? but my perseverance paid off. The end product was extremely rewarding, despite the frustration and difficulties that were a part of the journey that led to it. I am very excited and thankful to be part of CWSF this year and to present my project!

Awards

Value

Excellence Award - Junior - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 000