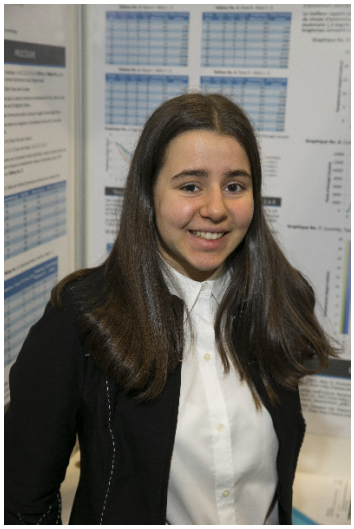
CWSF 2017 - Regina, Saskatchewan



Julia Ionica

L'investigation de la réaction endothermique dans les compresses froides

Challenge: Discovery
Category: Intermediate
Region: Greater Vancouver
City: Vancouver, BC
School: Kitsilano Secondary

Abstract: Cette expérience est de déterminer si on peut obtenir un ratio plus efficient de nitrate d'ammonium et d'eau dans les compresses froides qui ne gaspille pas autant de nitrate et d'eau. Le but est de recommander un ratio de nitrate et d'eau qui est presque aussi froide que les compresses froides commerciales. L'expérience est soutenue par le calcul de la perte d'énergie pour chaque mélange.

Biography

My inspiration for my project comes from playing volleyball. Whenever I got injured I would use a cold pack to help nub the pain. So I started to think of ways to save money by reducing the chemical weight in cold packs and environmental impact. I cut open a cold pack and decided to mix different ratios of ammonium nitrate and water. I found a ratio that saved 25% of the nitrate. Now imagine if we use my ratio instead of using the current commercial ratio in cold packs: we would save money, nitrate and the environment. After the regional science fair, I did another investigation to see whether my ratio of nitrate to water stayed as cold for the same amount of time as the commercial cold packs, and it did. If I were to advise a student about doing a project, I would say to choose a topic you have a strong desire to learn more about or something that can impact your life or the earth. If you choose to do a project only to impress the judges but you are not interested in, you won't get the best experience or be motivated to present it.