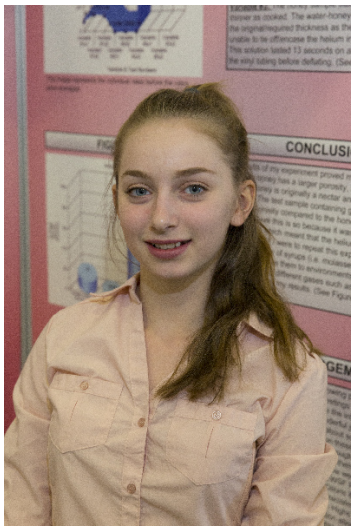
CWSF 2018 - Ottawa, Ontario



Harlow Smith

The Rates that Helium Escapes Through the Porosity of Different Solutions

Challenge: Discovery
Category: Junior
Region: Northwestern Ontario
City: Thunder Bay, ON
School: Bishop Gallagher
Abstract: The purpose of my experiment was to test the rate that helium escapes through three different solutions/"balloons" that are of various porosities. This experiment is interesting because it is a demonstration that shows helium particles escaping from a solution. It is important to understand porosity so that we know how to safely contain dangerous/life-saving chemicals/gases such as oxygen/chlorine without fail will save many lives.

Biography

My name is Harlow, and I have been doing science fair for 4 years. I am a competitive all-star cheerleader and love working with people. My top career choice would be to teach science to younger people so they can share the experience I have had. I first became intrigued around the topic of chemistry earlier last year as I was fascinated by the elements of the periodic table. I was in the middle of trying to find an interesting topic and I found a video online about how to make edible "balloons". I dug deeper and tried to figure out how it worked, specifically, why the "balloons" did not deflate within minutes. It was that day that I decided to set off on this discovery of the porosity levels of different solutions and the rate at which helium escapes solutions. For further investigation, I plan on using different gases, and sugar-based liquids to add to my experiment. If I were to give any advice to a newcomer to the science world it would be: investigate what intrigues you and to keep asking questions, like all good scientists do. And even when people tell you to give up keep going.