The Effect of the Temperature on the Cohesion between Water Molecules at the Water Surface

Kabulska, Katarzyna

This essay attempts to discover how the temperature of water is affecting its molecular structure at the surface and what consequences this may bring to the surrounding us world. Also its aim is to highlight and to draw attention to the phenomena of surface tension which we usually tend to not notice and appreciate. Initially this essay discusses the idea of surface tension and where we can see its occurrence. Then it explores why it is so extremely important that it exists and further looks at different examples, such as the organisms dependent on it. After discussing its significance it investigates the science that is responsible for creating the tension at the surface. It contains the definitions and equations which help to understand it more in depth. This essay then focuses on the experiment I have carried out. It introduces the reader to the initial ideas, how I decided upon different aspects and the way I will gather the results. Then the experimental section is followed by the Design and Collection and Processing of the Data. The obtained results allowed me to find the correlation between the variables and looking at the overall pattern. I discovered that as the temperature rises the surface tension is less effective and even with the differences being so tiny it still has a huge impact on life on the planet. In my conclusion I looked at Global Warming and the predictions made by the scientist about the temperature changes, especially to the water and the consequences involved with it. This area is still very interesting and open to further exploration. It is one of the microscopic features which can cause macroscopic effects and understanding it more deeply can help to reduce some of the major consequences.

Awards Won: