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*Arsenic Contaminated Water: How Can Concentration Levels Be Lowered to Promote Safe Human Consumption?*

Recently, arsenic contaminated water has become one of the most talked about issues when it comes to environment and human safety. This is due to its high concentration levels that are found in water all around the world. Its harmful effects have caused the Environment Protection Agency (EPA) to make laws and standards as to what level of concentration is allowed. With that being said, my biggest goal was to see if the concentration levels could be lowered with this chelating agent called Aqualuxus. I tried numerous different solutions and tried different methods as to which would be best and be readable for the Ultra Violet Visible Spectrometer, a considerably cheaper and more available instrument. After a lot of trial and error, I finally got the data I needed. I learned that Arsenic cannot be detected by a UV-Vis spec. The only way the machine would be able to do so, is if it was "tricked". I was able to "trick" the machine by adding a solution of Rhodamine B along with the Aqualuxus. The Rhodamine B acted as a chelating agent and attracted the Arsenic. After this, the machine was then able to detect the Arsenic and give me the data necessary. After all of that was figured out, I was able to see if the Aqualuxus actually worked. After making my solutions and treating them with Aqualuxus, I found out that the Aqualuxus does lower the levels of concentration in the contaminated water, which benefits the environment.