Arsenic Sensor

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The goal of the Arsenic Sensor team was to design a low cost arsenic sensor with sufficient precision to measure arsenic removal for drinking water. To begin, the team read two works of literature that outlined colorimetric photometry as a method to detect arsenic in water. The Arsenic Sensor team determined that the method using Ethyl Violet-Molybdoarsenate particle formation was the most feasible procedure to conduct in the AguaClara lab due to a lower total cost in supplies and less harmful chemicals used. The supplies were then ordered based on 10 mL samples the team had planned to make to easily be used in the spectrophotometer. The goals of this method was to use a spectrophotometer to get a complete absorbance spectrum of arsenic in drinking water. This was to be used in order to build a photometer that includes optics to focus narrow band wavelength as determined by the experimental procedures, extra long optical pathlength, and a second LED at wavelength not absorbed by arsenic to correct adsorption due to particulate matter. Finally, the team calibrated a photometer using ProCoDA to test a sample of water with arsenic.

Current & Future Research

Summary and links to relevant resources.

Team Members

Dylan Vu

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Team Documents

	Challenges	Tasks	Symposium	Final Presentation	Final Report
Spring '17	? Unknown Attachment		🗐	🗐	

Past Research

None.