

# Effects of Humic Acid Aggregation in Varying Ionic Concentration



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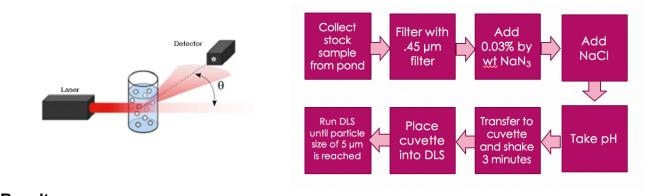
### Introduction/Background

- Humic substances comprise the major fraction of natural organic matter in most natural waters
- The aggregation of humic substances has implications for our understanding of the facilitated transport of contaminants and organic matter through the microbial loop
- Little is known about the aggregation process, but the understanding of this process could lead to a wide range of colloidassisted phenomena found in filtration media

#### **Research Questions**

How does varying the ionic concentration of a sample affect humic acid aggregation?

## **Experimental Design- DLS Analysis**



#### Conclusions

 The sample with a higher concentration of NaCl took more time to aggregate than the sample with no NaCl



[1] Esfahani, Milad, et al. "Abiotic Reversible Self-Assembly of Fulvis and Humic Acid Aggregates in Low Electrolytic Conductivity Solutions by Dynamic Light Scattering and Zeta Potential Investigation." Science of the Total Environment, vol. 537, no. 5, 1 Aug. 2015, doi:http://dx.doi.org/10.1016/j.scit otenv.2015.08.001 0048-9697.

