**Mass-suite - Novel data analysis package for mass spectrometry data for water quality assessment**

Project Sponsor: Edward Kolodziej (University of Washington, Center of Urban water)

Project Team: Ximin Hu (Civil & Environmental Engineering), Derek Mar (Materials Science & Engineering), Nozomi Suzuki (Materials Science & Engineering), Bowei Zhang (Materials Science & Engineering)

Mass-suite is a python based open source package that is designed to utilize High Resolution Mass Spectrometry (HRMS) data for water quality assessment. The analysis of HRMS data for water quality assessment is still in its infancy, with many basic aspects of data reduction, analysis, and interpretation still lightly developed. Here, our package will allow users flexible and various options to process the HRMS data: from basic functions to advanced data analysis, such as dilution rate prediction and source tracking analysis that is not currently covered with current software. Furthermore, it is developed in a modularized concept so that the user can use different combinations of parts of our code to accomplish their tasks. By providing this package, we hope to open up a new space for HRMS data analysis, resulting in more rapid and detailed studies in this area.