

ANASTASIA MARIE SCHLEGEL

Dept. Civil & Environmental Engineering, Northeastern University
360 Huntington Avenue, Boston, MA 02115 • E-Mail: aschlegel@gmail.com

EDUCATION

Ph.D. Civil & Environmental Engineering, Northeastern University, Boston, MA December 2016

Dissertation Title: *Nitrogen Isotope Effects in Selenate During Selenium Redox Cycling*

Advisor: Professor Pamela Smith-Hamden

Committee: Professor Yvonne Martin, Professor Simon Stuhl, and Professor Maryann Thompson

B.A. Biochemistry, Vassar College May 2010

Presidential Excellence Scholar (awarded to top 50 applicants)

RESEARCH EXPERIENCE

Graduate Research Assistant May 2011- December 2016

Dept. of Civil & Environmental Engineering, Northeastern University

P.I.: Professor Pamela Smith-Hamden

Determined the isotopic enrichment of oxygen in selenate during biotic & abiotic selenium transport & transformation; co-authored a successful NSF grant proposal for graduate research, examined the capacity for algal & fungal bodies to reduce and sequester selenium; and elucidated the mechanism of sorption of selenium to non-redox active iron minerals.

Lab Intern

June 2008- August 2008

Dept. of Botany, Smithsonian Institution

P.I.: Dr. Sampson Hartford

Developed Excel database to document archival plant tissue samples at the Museum Support Center for the Plant DNA Barcode project. Located, logged, and transferred archival tissue samples in preparation for genetic sampling.

STEM Scholar

September 2006-May 2008

Dept. of Biology, Vassar College

P.I.: Professor Joanne Faust and Francis Tisch

Verification of species and locations of plants within botanical gardens and greenhouses of Smith College. Development of digital catalogue for the College Herbarium, and verification of the location and condition of each specimen.

PUBLICATIONS

Schlegel, A.; Parker, A.; Jones, D.P., and Latimore, P. (2015) Oxygen kinetic isotope effects in selenate during microbial reduction. *Applied Microbiology*. **68**: 340-362

Schlegel, A. and Latimore, P. (2013) Oxygen isotope indicators of selenate reaction with Fe(II) and Fe(III) hydroxides. *New Directions in Science*. **47**: 6254-6262

CONFERENCE PRESENTATIONS

Schlegel, A.; "Isotopic approach to characterizing biogeochemical transformations of selenium", **227th National Meeting, American Chemical Society**, Boston, MA, United States, August 16-20, 2016 (poster)

Schlegel, A., "Unstable oxygen isotope enrichment during biotic and abiotic reduction of selenate", **249th National Meeting, American Chemical Society**, Denver, CO, United States, March 22-26, 2015

Schlegel, A. and Latimore, P. "Isotopic characterization of environmental transformations of Se oxyanions", **Water Systems, Science, and Society Under Global Change Conference**, Medford, MA, June 18-20, 2014 (poster)

Schlegel, A. and Latimore, P., "Characterizing environmental transformations of selenium oxyanions: an isotopic approach" **New England Graduate Student Water Symposium**, Amherst, MA, September 12-14, 2014

Schlegel, A. and Latimore, P. "Kinetics and oxygen isotope effects of selenate reactions with Fe layered double hydroxides", **246th National Meeting, American Chemical Society**, Indianapolis, IN, United States, September 8-12, 2013 (poster)

TEACHING EXPERIENCE

Laboratory Teaching Assistant

January 2012-December 2012

Dept. of Civil & Environmental Engineering, Northeastern University
Courses: Environmental Engineering I & II; Environmental Chemistry

PROFESSIONAL EXPERIENCE

Graduate Student Lab Manager

January 2013- September 2013

Dept. of Civil & Environmental Engineering, Northeastern University

Oversight of all laboratory safety protocols including training of new researchers, ensuring functionality and accuracy of DO & pH meters, spectrometers, and ion & liquid chromatography equipment, maintaining the arc lamp & anoxic chamber, updating chemical inventories, and managing waste collection.

Lab Technician

February 2011-May 2011

Battelle Memorial Institute, Duxbury, MA

Prepared equipment and stocked laboratories for daily experimentation, traced sample contamination and determined methods for contamination elimination, ensured the cleanliness of all labware.

AFFILIATIONS/MEMBERSHIPS

American Chemical Society (ACS)

From 2011

American Association for the Advancement of Science (AAAS)

From 2015

Association of Environmental Engineering and Science Professors (AEESP)

From 2016