ROBIN J. BOND

Contact Information:

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Education

Ph.D. Geochemistry, Colorado School of Mines, Golden, CO (May 2015)
Dissertation: Kinetics of Biological Hydrogen Peroxide Production (advisor: Bettina M. Voelker)
B.A. Chemistry, California State University Los Angeles

Academic Positions

Faculty, Analytical Chemistry, The Evergreen State University, Olympia, WA. June 2017—present

Assistant Professor (Term), Chemistry, St. John's University, Jamaica, NY. Sept. 2015 – May 2017

Adjunct Professor, Colorado School of Mines, June 2015 – July 2015

Professional Experience

Graduate Research Assistant, Colorado School of Mines, Golden, CO. 2010-2015.

- Investigated kinetics of reactive oxygen species (ROS) in natural water systems (freshwater and marine)
- Developed methods to simultaneously determine production and decay of ROS in microbial cultures
- Analyzed ROS kinetics in axenic diatom and bacterial cultures
- Sample analysis using GC-MS, UV-Vis, FIA/chemiluminescence

Graduate Teaching Assistant, Colorado School of Mines, Golden, CO. 2009-2010 and 2015.

- Lab instructor for General Chemistry and Quantitative Analysis: Fall 2009, Spring 2010, Spring 2015
- Lecture assistant for General Chemistry, Spring 2010

Research Assistant, Department of Chemistry, San José State University, San José, CA, 2009. Studied thermodynamics of protein active sites using molecular dynamics. (Advisor: Tom Kurtzman; now at Lehman College, CUNY, Bronx, NY 10468)

Awards Received

Outstanding Graduate Teaching Assistant Award (Colorado School of Mines Department of Chemistry & Geochemistry), 2010 & 2015

Certificate of Merit for First Platform Presentation, American Chemical Society Division of Environmental Chemistry, Fall 2011

Teaching Experience

at The Evergreen State College

Matter and Motion, Instructor for chemistry lecture and lab + science communication. Fall 2017-Spring 2018. Interdisciplinary course interweaving calculus, physics, and chemistry and including seminar and project components.

General Chemistry I/II with Lab, Sole instructor for lecture and lab, Summer 2017

at St. John's University, Department of Chemistry

Introduction to General and Organic Chemistry (CHE 1110), Sole lecturer, Fall 2015; course coordinator and sole lecturer, Fall 2016. Accelerated general chemistry class for pharmacy majors. General Chemistry I (CHE 1210), Sole lecturer, Fall 2015.

General Chemistry II (CHE 1220) Sole lecturer, Spring 2016, Summer 2016, Spring 2017. Honors/Advanced General Chemistry Lab (CHE 1313L and 1323L). General chemistry laboratory based on project-based experimental design. Lab Instructor, Fall 2015, Spring and Fall 2016, Spring 2017.

Special topics in Analytical Chemistry (CHE 268) Principles of data analysis applied to environmental chemistry. Sole instructor, Spring 2016

Quantitative Analysis Lab (CHE 3321L). Lab Instructor, Fall 2016.

Instrumental Methods of Analysis (CHE 101), Sole instructor for lecture and lab, Spring 2017.

at Colorado School of Mines, Department of Chemistry and Geochemistry Principles of Chemistry I (CHGN 121): Sole instructor, lecture and lab, Summer 2015.

Peer-reviewed publications

- **R.J. Schneider**, K.L. Roe, C.M. Hansel, and B.M. Voelker, (2016). "Species-level variability in production rates of reactive oxygen species by diatoms." *Frontiers in Chemistry*, 4:5. doi: 10.3389/fchem.2016.00005
- K.L. Roe, **R.J. Schneider**, C.M. Hansel, and B.M. Voelker, 2016. "Measurement of dark, particle-generated superoxide and hydrogen peroxide production and decay in the subtropical and temperate North Pacific Ocean." Deep Sea Research I, 107, 59-69. doi:10.1016/j.dsr.2015.10.012
- R. M. Marsico, **R. J. Schneider,** C.M. Hansel, T. Zhang, B.M. Voelker, 2015. "Spatial and Temporal Variability of Widespread Dark Biological Production and Decay of Hydrogen Peroxide in Fresh Water." Aquatic Sciences, 77(4), 523-533. doi:10.1007/s00027-015-0399-2.
- K.L. Lynch, K.M. McGuire, S.M. Ritter, **R.J. Schneider,** J. Spear, J. Munakata Marr, 2015. "Near-Infrared Spectroscopy of Lacustrine Sediments in the Great Salt Lake Desert: An Analog Study for Martian Paleolake Basins." Journal of Geophysical Research—Planets, doi: 10.1002/2014JE004704.

Manuscripts in preparation

- **R.J. Bond,** C.M. Hansel, and B. M. Voelker. "Extracellular production and decay of hydrogen peroxide by heterotrophic bacteria."
- K.L. Lynch, K. Rey, **R.J. Bond**, J.F. Biddle, C. Matthews, J. Spear, and J. Munakata-Marr. "Discrete Community Assembly Within Hypersaline Paleolake Sediments Along a Geological Transect in the Great Salt Lake Desert, Utah."

Selected Presentations

(*denotes mentored undergraduate student)

- *J. Mirkovic and **R. Schneider**. "Iron and Oxygen Cycling in a Simulated Europan Ocean." St. John's Research Event, April 2016; New York ACS Undergraduate Research Symposium, May 2017.
- *S. Johnson and **R. Schneider**. "Investigating Metal Mobility During ISCO via Batch and Column Leach Tests." St. John's Research Event, April 2016; New York ACS Undergraduate Research Symposium, May 2017.
- * L. Diawara, A. Peck, and **R. Schneider**. "Effect of Organic Matter on Cadmium and Chromium Mobility of During In Situ Chemical Oxidation." St. John's Research Event, April 2016.
- *J. Mirkovic and **R. Schneider**. "Iron Cycling in a Simulated Europan Ocean." September 2016.
- **R. Schneider,** K. Roe, C. M. Hansel, and B. Voelker. "Extracellular Production of Reactive Oxygen Species by Marine Microbiota." Ocean Sciences Meeting, February 2016.
- **R.J. Schneider**, K.L. Roe, C.M. Hansel, and B.M. Voelker. "Biological Production of Hydrogen Peroxide in Prochlorococcus-Dominated Oligotrophic Waters" [poster]. American Geophysical Union Fall Meeting, December 2012
- **R.J. Schneider,** R.M. Marsico, T.C. Dixon, A.W. Vermilyea, and B.M. Voelker. "Biological Production of Hydrogen Peroxide," American Chemical Society Fall Meeting, August 2011

<u>Professional Memberships</u>

American Chemical Society Geological Society of America Geochemical Society of America American Geophysical Union