Chad P. Johnston

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Education

University of Connecticut, Storrs, Connecticut **2008 - 2013**
Department of Civil and Environmental Engineering

- Field of Study: Environmental Engineering
- Advisor: Maria Chrysochoou
- Dissertation: "Molecular-scale investigations of chromate adsorption at the mineral-water interface"
- Degree: Doctor of Philosophy

- Relevant Coursework: Environmental Engineering Chemistry, Environmental Transport Phenomena, Physicochemical Processes, Contaminant Source Remediation, Quantitative Methods in Environmental Engineering, Environmental Applications of Nanoscale Semiconductors, Advanced Soil Chemistry, Engineering Hydrology

Plattsburgh State University, Plattsburgh, New York **2004 - 2008**
Center for Earth and Environmental Science

- Major: Environmental Science
- Minor: Chemistry
- Degree: Bachelor of Science, *magna cum laude*

- Relevant Coursework: Environmental Chemistry, Organic Chemistry, Environmental Geology, Environmental Technology, Environmental Law, Wetlands Ecology, Wildlife Ecology and Management, Differential Equations

University of Queensland, Brisbane, Queensland, Australia **2006**
School of Geography, Planning, and Environmental Management

- Relevant Coursework: Chemical Bonding and Organic Chemistry, Geomorphic Processes, Coral Reef Processes

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Teaching Experience

University of Connecticut, Storrs, Connecticut
Department of Civil and Environmental Engineering

Assistant Professor in Residence **2013 - present**
- Soil Mechanics
- Environmental Engineering Chemistry

Graduate Teaching Assistant **2010 - 2013**
- Civil Engineering Materials: *Laboratory Instructor*
- Soil Mechanics: *Laboratory Instructor*
- Introduction to Air Pollution: *Teaching Assistant*

Plattsburgh State University, Plattsburgh, New York **2007 - 2008**
Department of Chemistry

– General Chemistry: *Undergraduate Teaching Assistant, Academic Tutor*

Research Experience

University of Connecticut, Storrs, Connecticut **2008 - present**
Department of Civil and Environmental Engineering

– Characterization of chromate adsorption reactions in soils using molecular spectroscopy.
– Evaluation of portable spectroscopic techniques for characterization of construction materials.
– Optimization of calcium polysulfide treatment of soil contaminated with hexavalent chromium.

Plattsburgh State University, Plattsburgh, New York **2007 - 2008**
Geology Program

– Analysis of sediment cores to characterize flooding events during the last glacial maximum.

Honors and Awards

Best Teaching Assistant Award	**2012, 2011**
Koerner Family Fellowship	**2011**
Environmental Professionals Organization of Connecticut Scholarship	**2011**
Center for Environmental Science and Engineering Summer Research Grant	**2009**
Undergraduate Research in Environmental Science Award	**2008**
Outstanding Graduating Senior in Environmental Science Award	**2007**
Dean's List (all undergraduate semesters),	**2004–2008**

Publications

Johnston, C. P.; Chrysochoou, M. Investigation of chromate coordination on ferrihydrite by in situ ATR-FTIR spectroscopy and theoretical frequency calculations. *Environ. Sci. Technol.* **2012**, *46* (11), 5851-5858.

Chrysochoou, M.; Johnston, C. P.; Dahal, G. A comparative evaluation of hexavalent chromium treatment in contaminated soil using calcium polysulfide and green tea nanoscale zero valent iron. *J. of Hazard. Mater.* **2012**, *201-202*, 33-42.

Chrysochoou, M.; Ferreira, D; Johnston, C. P. Calcium polysulfide treatment of Cr contaminated soil. *J. Hazard. Mater.* **2010**, *179*, 650-657.

Conference Presentations

Chrysochoou, M.; Kabengi, N.; Machesky, M.; Johnston C.; Kubicki J. An integrated approach to build surface complexation models for chromate on iron oxides.

Johnston, C.P.; Chrysochoou, M. Mechanisms of chromate adsorption at the mineral-water interface. American Chemical Society National Meeting, Philadelphia, PA, August 19-23, 2012.

Johnston, C.P.; Chrysochoou, M. An in situ ATR-FTIR study of chromate binding to goethite. American Chemical Society National Meeting, San Francisco, CA, March 21-25, 2010.

Johnston, C. P.; Chrysochoou, M. Calcium polysulfide reduction of hexavalent chromium-contaminated aquifer sediments in saturated flow-through columns. American Chemical Society Northeast Regional Meeting, Hartford, CT, 2009.

Chrysochoou, M.; Ferreira, D.; Johnston, C. P. Calcium polysulfide treatment of Cr contaminated soil. Second International Conference on Environmental Management, Engineering, Planning and Economics, Mykonos, Greece, 2009.

Johnston, C. P. *et al.* Textural and compositional variations in late Wisconsin proglacial lake and marine deposits as proxies for changing sediment provenance and fresh-water outflow sources in the Champlain Lowland, New York. Geological Society of America Northeastern Conference, Buffalo, NY, March 27-29, 2008.