

24 April, 2019

Open Position
Postdoctoral Researcher
Civil and Environmental Engineering
Carnegie Mellon University
Pittsburgh, Pennsylvania, USA
Principal investigator: Gregory V. Lowry

The Civil and Environmental Engineering Department of Carnegie Mellon University is seeking a post-doctoral researcher in environmental chemistry. The candidate should have research interests in metal contamination and transformation in environmental matrices.

Candidates must have demonstrated experience using synchrotron X-ray absorption spectroscopy for determining metal speciation in environmental samples (e.g. soils and subaquatic sediment or similar matrices), and/or experience using synchrotron X-ray Fluorescence and XANES mapping to speciate metals in environmental (soil) or biological samples (plant tissue). Strong analytic skills for data treatment are required (Linear combination and shell-by-shell fitting). Trips to synchrotron facilities (SLAC, Stanford and NSLSII, Brookhaven, mainly) are expected a couple of times per year. Experience with mercury and/or arsenic geochemistry, and working knowledge of other solid phase characterization methods for metals (e.g. XRD, FTIR, XPS, ICP-MS, spICP-TOF-MS) are desirable. A demonstrated ability to publish research in high quality journals, meet deadlines, and write proposals is required. Effective English language oral and written communication are needed.

The candidate will interact with an interdisciplinary research team of faculty, post-docs, and Ph.D. students and with industry collaborators on a variety of projects including Hg speciating in soils and in plants. The successful candidate will be expected to design and conduct experiments, collect and analyze synchrotron XAS spectra on samples containing mercury, arsenic, and other metals, prepare manuscripts and monthly research reports, assist in proposal writing, and present findings at national and international professional conferences. The position is for a minimum of one year, renewable depending on performance.

Interested applicants should contact Prof. Greg Lowry glowry@cmu.edu. Please send a brief cover letter, curriculum vitae, a brief statement of research interests and the contact information for at least three references. Applications will be accepted until the position is filled.