Post Doctoral Research
Department of Earth Sciences, St. Francis Xavier University

The Hydrothermal Research Laboratory at St. Francis Xavier University has an opening for a postdoctoral position starting Jan 2010. The selected candidate will collaborate with a team of scientists to describe solvent/solute structure in fluids under extreme conditions, and to determine the solubility of various transition metal oxides in supercritical water. The candidate will contribute to molecular-level studies of solute/solvent interactions, clustering, ion-pair formation, and hydrogen bonding occurring under extremes of temperature, concentration and pH. A primary responsibility of the candidate will be the application of X-ray Absorption Spectroscopy (XAS) and X-ray Fluorescence (XRF) to \textit{in situ} studies of solute/solvent structure under extreme conditions. Knowledge of XAS techniques is desired spanning the range from spectral acquisition to data reduction. The research is aimed primarily at understanding supercritical water chemistry in Generation IV CANDU reactors as well as in natural hydrothermal systems.

Candidates must have received a PhD in Geochemistry, Physical Chemistry, Chemical or Experimental Physics, or Inorganic Chemistry within the past five years from an accredited college or university.

The ideal candidate must be self-motivated and have the ability to work independently. Meeting attendance and preparation of publications is expected. This is a limited term employment position with a two-year appointment.

For more information please contact Prof. Alan J. Anderson aanderso(at)stfx.ca

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