Applications are sought for a postdoctoral fellow to conduct experimental research on the structure and stability of aqueous species in sub-critical and supercritical aqueous solutions using state-of-the-art Raman spectroscopic techniques. Our current program includes projects to examine hydrothermal solution chemistry in five areas of mission-oriented basic research related to the energy sector:

- Deuterium isotope effects on chemical speciation in high temperature water
- Thermochemistry of organic solutes in sub-critical and supercritical water.
- Transition-metal and uranium complexes under hydrothermal conditions.

Candidates should hold a recent PhD in chemical physics, physical chemistry, analytical chemistry or experimental geochemistry, with experience in Raman spectroscopy using the JY Horiba LabRam 800; JY T64000, or similar instruments for research on aqueous solutions. Experience with hydrothermal diamond anvil cells or high pressure optical cells, and solution thermodynamics would be an asset.

Professor Peter Tremaine  
Department of Chemistry, University of Guelph  
Guelph, Ontario, Canada, N1G 2W1

Web-site: http://tremaine.cs.uoguelph.ca/

Applications and expression of interest may be sent to:  
Dr. Jenny Cox: Laboratory Manager and Senior Research Associate  
E-mail coxj@uoguelph.ca

This research will take place as part of the NSERC/UNENE Senior Research Chair in High Temperature Aqueous Chemistry, awarded to Prof. Tremaine in 2016, which is funded by the Canadian nuclear industry. Access to state-of-art thermochemical, spectroscopic, electrochemical and surface analytical methods, and first-rate machine and electronic shops is provided by the Hydrothermal Chemistry Laboratory and the Department of Chemistry.

The starting date is November 1 2018, or as soon as possible thereafter, but no later than January 7, 2019.

At the University of Guelph, fostering a culture of inclusion is an institutional imperative. The University invites and encourages applications from all qualified individuals, including from groups that are traditionally underrepresented in employment, who may contribute to further diversification of our Institution.

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