



UNIVERSITY OF WATERLOO

PhD Positions in Redox-Sensitive Metal Isotope Geochemistry

Department of Earth and Environmental Sciences, University of Waterloo

Up to two PhD student positions are available to support the Tier 2 Canada Research Chair program on Redox-Sensitive Metal Isotope Geochemistry, led by Dr. Brian Kendall. These fully funded positions may be for any of the following research areas:

- 1) Quantitatively constrain changes in Proterozoic and Phanerozoic ocean oxygenation using metal isotope systems and infer the influence of ocean redox conditions on patterns of eukaryotic/metazoan evolution and extinction
- 2) Developing the new rhenium isotope system as a paleoceanographic tracer via analysis of modern sediments and Precambrian/Phanerozoic black shales
- 3) Metal isotope systems as tracers for ore-forming processes (e.g., orogenic gold, porphyry, sediment-hosted base metal)

Students accepted for these positions will have access to Dr. Kendall's Metal Isotope Geochemistry Laboratory, which includes a Nu Plasma II multi-collector inductively coupled plasma mass spectrometer, an Agilent 8800 triple quadrupole inductively coupled plasma mass spectrometer, a Photon Machines Analyte G2 laser ablation system, an UltraWAVE microwave digestion system, and a HEPA-filtered clean room with four ULPA-filtered acid-exhaust hoods, water purification system, two acid distillation systems, weighing balances, centrifuge, and hot plates. Students will also have access to a wide range of other departmental analytical facilities.

Prior experience with metal isotope geochemistry is an asset. PhD student stipends are ~\$25,000 CDN / year for four years. Funding opportunities exist for students to secure higher annual stipends, including the Vanier Canada Graduate Scholarship, NSERC Alexander Graham Bell Canada Graduate Scholarship, and Ontario Graduate Scholarship. The start dates for these positions are September 1, 2020.

Further information about the PhD program in the Department of Earth and Environmental Sciences can be found at <http://uwaterloo.ca/earth-environmental-sciences/graduate-students>. The University of Waterloo fully embraces the principles of equity, diversity, and inclusion. All qualified applicants are encouraged to apply. Please email Dr. Kendall at bkendall@uwaterloo.ca with questions about the PhD program or research projects.

Interested students should apply by April 1, 2020 at <https://uwaterloo.ca/graduate-studies-postdoctoral-affairs/future-students/applying>.