



UNIVERSITY OF
CALGARY



Postdoctoral Associate position:

Area: Experimental geochemistry

Timeframe: 1 year with likely extension, depending on progress

Start date: As soon as possible; ideally winter/spring 2024

Salary: \$50,000/year plus benefits; negotiable depending on experience

Application Deadline: February 1, 2024

Applications are invited for a Postdoctoral Associate to lead experimental geochemistry activities in the Reactive Transport Group at the University of Calgary. Projects include, but are not limited to: 1) experimentally studying the processes leading to the genesis of sedimentary phosphorite deposits and their implications for evolving seawater chemistry and the production of phosphorite-hosted Rare Earth Element (REE) deposits; and 2) experimental examination of a novel technique for enhancing the efficiency of basalt carbonation reactions as a climate change solution. The successful candidate will perform simulated diagenesis experiments in the Reactive Transport Group laboratory at the University of Calgary (<https://www.ucalgary.ca/reactive-transport/lab>), with access to a purpose-built experimental laboratory and an extensive in-house suite of fluid and solid analytical equipment. Notably, we have recently constructed a pair of flexible gold bag hydrothermal reactors, and the successful candidate will gain experience using this important experimental apparatus.

If desired, the successful candidate will have the opportunity to work on other active research projects the University of Calgary (www.geoscience.ucalgary.ca/reactive-transport/), including opportunities to work with undergraduate and graduate students (<https://www.ucalgary.ca/reactive-transport/group-members>).

Candidates should have a PhD in Earth Science or a related field. The ideal candidate will have experience working in a laboratory setting, and experience with hydrothermal laboratory equipment and/or HPLC fittings will be treated very favorably. Experience characterizing fluid and solid chemistry using techniques such as ICP-MS, ICP-OES, IC, Raman, and/or XRD will be considered advantageous. Success in the RTG laboratory requires excellent communication and interpersonal skills, intellectual independence, and scientific curiosity.

Major Duties/Responsibilities:

- Perform process-based experiments to simulate the evolution of rocks and fluids during geochemical reactions
- Analyze experimental run products using fluid and solid characterization techniques
- Present and report research results at conferences, in peer-reviewed journals, and to the funding agency in a timely manner
- Maintain a safe, collegial, interactive, and welcoming research environment.

Application details:

Interested applicants should contact please contact Dr. Benjamin Tutolo (benjamin.tutolo@ucalgary.ca) to apply and/or inquire for more details. **Members of underrepresented groups, particularly women and people of color, are specifically encouraged to apply.**

Attach in **ONE single PDF** document the four documents listed below:

- a CV with a list of publications
- a cover letter (2 pgs. max) expressing interest in this position and summarizing previous research experience.
- the contact information of two referees that are familiar your research and academic experience.

About the RTG and UCalgary

The Reactive Transport Group is a vibrant, dynamic research group with a strong track record for graduate and postdoc training and subsequent employment – former postdocs have gone on to professorships and governmental positions. The University and our research team recognize that a diverse staff/faculty benefits and enriches the work, learning and research experiences of the entire campus and greater community. We are committed to removing barriers that have been historically encountered by some people in our society. We strive to recruit individuals who will further enhance our diversity and will support their professional success while they are here.

The application package should be sent to benjamin.tutolo@ucalgary.ca. Applications will be reviewed as they are received; **all applications received by February 1, 2024 will receive full consideration, but the position will remain open until filled.** Only those who have been selected for interviews will be contacted further.