



UNIVERSITY OF CALGARY

Postdoctoral Scholar position

Area:	Reactive transport during off-axis hydrothermal circulation in seafloor basalts
Duration:	1 year with the opportunity for extension
Start date:	September 2021 (negotiable)
Salary:	≥\$45,000 \$CAD per year, negotiable based on funding, qualifications, and experience, plus University of Calgary Postdoctoral health insurance benefits

The **Department of Geoscience** in the **Faculty of Science** at the University of Calgary is accepting applications for a Postdoctoral Scholar in geochemistry of seawater-basalt interaction during off-axis hydrothermal circulation.

Job Description:

We are seeking a motivated postdoctoral scholar with excellent communication and interpersonal skills, intellectual independence, and a willingness to explore unfamiliar aspects of the geosciences. The research will focus on the geochemistry of seawater-basalt interaction during off-axis hydrothermal circulation. Results from this work will ultimately contribute to improving our understanding of the mechanisms governing CO₂ storage in oceanic basalts. The successful candidate will work to characterize past water-rock interaction in samples recovered from the Cascadia Basin in the eastern Pacific Ocean and analogous samples from continentally-exposed sections of the oceanic crust on land.

The successful candidate will be working under the supervision of Dr. [Benjamin Tutolo](#) and co-supervised by Dr.'s [Rachel Lauer](#) (University of Calgary) and [Laurence Coogan](#) (University of Victoria).

This position is expected to interact with members of the [“Solid Carbon” partnership](#) and will have routine access to the University of Calgary’s extensive suite of analytical tools for characterizing seawater-basalt interaction in the oceanic sub-surface.

Responsibilities:

- Characterize samples of basalt to parameterize kinetically important parameters such as reactive surface area and reaction rates
- Compare findings with observed changes in fluid chemistry to develop quantitative constraints on reaction rates
- Present and report research results at conferences and in peer-reviewed journals in a timely manner
- Co-supervise undergraduate students’ complementary research projects
- Maintain a safe, collegial, interactive, and welcoming research environment

Qualifications:

- PhD degree, preferably within the last three years, in the geosciences or a closely related field (including but not limited to geology, geochemistry, or hydrogeology)
- Familiarity with the fields of geochemistry, aqueous geochemistry, and mineralogy
- Experience with the geochemistry and kinetics of water-rock interaction

- Experience with geochemical and mineralogical characterization techniques
- Experience with geochemical modeling and programming using e.g. Python
- Excellent written and oral communication skills
- Familiarity with cutting-edge characterization techniques, such as high-resolution imaging and/or isotopic tracing of geochemical reactions will be considered an asset

Please review the [Postdoc Eligibility Guidelines](#) for more information prior to applying for this position.

Application details:

Evaluation of applications will begin on August 18, 2021 and continue until the position is filled. Interested applicants may direct any inquiries about the position to benjamin.tutolo@ucalgary.ca.

To apply, please submit your application via email as a **single PDF file** with the **subject line: Postdoctoral application – [Your name]** to Dr. Benjamin Tutolo at Benjamin.tutolo@ucalgary.ca

All applications must include the following documents:

- 1) **one-page cover letter** expressing interest in this position, including date of availability, suitability and motivation for the role
- 2) current **curriculum vitae (CV)** that includes a list of all publications
- 3) A **one-page research statement** summarizing previous research experience
- 4) official or unofficial copy of **diploma(s)/university certificate(s)**; and
- 5) the names and contact information of at least **two (2) referees** with knowledge of your research and academic experience to support your application

Please review the [Postdoc Eligibility Guidelines](#) for more information prior to applying for this position.

Only those applicants selected for interviews will be contacted further. In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada, although others are encouraged to apply.

Postdocs who are not Canadian citizens or Permanent Residents of Canada are advised to visit [Information for International Postdoctoral Scholars](#) for more information.

To learn more about postdoctoral scholar opportunities at the University of Calgary and all we have to offer, view our [Postdoc Careers website](#).

About the University of Calgary

The University of Calgary is Canada's leading next-generation university – a living, growing and youthful institution that embraces change and opportunity with a can-do attitude. Located in the nation's most enterprising city, the university is making tremendous progress on its Eyes High journey to be recognized as one of Canada's top five research universities, grounded in innovative learning and teaching and fully integrated with the community it both serves and leads. The University of Calgary inspires and supports discovery, creativity and innovation across all disciplines. For more information, visit ucalgary.ca.

Additional information

The terms and conditions of employment are covered under the UCalgary and PDAC Collective Agreement. To find out more about postdoctoral scholar program at the University of Calgary visit our [Postdocs](#) website.

About Calgary, Alberta

Calgary is one of the world's cleanest cities and has been named one of the world's most livable cities for years. Calgary is a city of leaders – in business, community, philanthropy and volunteerism. Calgarians benefit from the strongest economy in the nation and enjoy more days of sunshine per year than any other major Canadian city. Calgary is less than an hour's drive from the Rocky Mountains and boasts the most extensive urban pathway and bikeway network in North America.

The University of Calgary recognizes 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. We encourage all qualified applicants to apply, however preference will be given to Canadian citizens and permanent residents of Canada.