UNIVERSITY OF BERN

Fully funded PhD position in mineral weathering and its CO_2 removal potential

The Environmental Geochemistry group at the Institute of Geological Sciences, University of Bern, Switzerland invites applications for a PhD position in mechanisms of gas-driven mineral weathering. We are seeking a PhD student to participate in the SERI-funded ERC starting grant, DryCO2. The DryCO2 project explores mechanisms of mineral weathering and in particular the impacts of water and reactive gas availability on weathering rates. The project will explore how climate change influences weathering rates and the feedback between mineral weathering and removal of CO_2 from the atmosphere in natural and engineered systems. An aspect of the research is to use mineral weathering for carbon dioxide removal as a climate change mitigation approach. The PhD student will conduct experimental studies in the laboratory and participate in field-based experiments with the DryCO2 team. Preferred start date: September 2023

Requirements

We are interested in candidates with a Master of Science in Geology, Physical Geography, Environmental Chemistry, or a related field. The project will involve designing and conducting experiments, analyzing fluids and solids with a variety of techniques (e.g., ICP-MS, X-ray diffraction, scanning and transmission electron microscopy), geochemical modeling, and isotopic analyses. Experience with these techniques is an advantage. Strong written and verbal communication skills in English are required. Experience or strong interest in aqueous geochemistry, wet chemistry laboratory work, and analytical laboratory work are beneficial. The candidate must be willing to collaborate with other team members in the Environmental Geochemistry group and international collaborators, communicate effectively, think critically, and contribute to the DryCO2 project as a whole.

Offer

We offer a fully funded PhD position for four years on the SERI-funded ERC starting grant, DryCO2. The Institute of Geological Sciences is an international and interdisciplinary environment hosting state-of-the art laboratory and analytical facilities. There will be numerous collaboration opportunities within University of Bern and with international colleagues within Europe and North America. In the Environmental Geochemistry group, we aim to foster a supportive, dynamic, diverse, and inclusive team and students from historically underrepresented groups in the Natural Sciences fields are encouraged to apply.

Application procedure

Please contact Prof Anna Harrison (anna.harrison@geo.unibe.ch) if you have questions regarding the position or the application procedure.

To apply:

Submit a Curriculum vitae, motivation letter and research interest summary (maximum 2 pages), and contact information for 2 referees by email to Prof Anna Harrison (anna.harrison@geo.unibe.ch).

Deadline: April 28, 2023