UNIVERSITÉ DE GENÈVE
FACULTY OF SCIENCE
Department of Earth Sciences

Ph.D. position in mineralogy and geochemistry of modern lacustrine microbialites

The Opportunity
We invite applications for **one Ph.D. position** in mineralogy and geochemistry in the newly formed Biogeochemistry group at the Department of Earth Sciences of the University of Geneva (Switzerland) under the supervision of Prof. Nina Zeyen. The Biogeochemistry group aims to understand abiotic and biological formation and transformation of minerals within natural and engineered systems. This project will focus on the collection and characterization of microbialites from a modern lake affected by volcanic activity. The aim will be to characterize the mineralogy and the chemistry of microbialites and the sediments as well as the water chemistry at different locations in this lake with the objective to understand the key parameters responsible of the microbialite formation.

Main duties and responsibilities include
Prepare and conduct fieldwork
Mineralogical and chemical characterization using different instruments/methods
Design and execute laboratory experiments
Participate in teaching and/or supervision of XRD analysis
Attend and present research at national and international conferences
Publish research results in international scientific journals

Your Profile

- Master's degree in geosciences (*e.g.*, geochemistry, geology, environmental science, geomicrobiology)
- Curious, motivated, creative, with a strong interest in natural science research
- Good organizational and communication skills
- Knowledge in lab techniques and/or a willingness to learn
- Experience with Fourier transform infrared spectroscopy, x-ray diffraction, scanning electron microscopy and/or synchrotron techniques is an advantage
- Fluent English (written and spoken) is essential and basic French is an advantage

We offer

- An inclusive and supportive working environment that encourages scientific curiosity and creativity.
- Opportunities to learn advanced analytical methods (*e.g.*, spectroscopic techniques, X-ray diffraction, synchrotron-based techniques)
- Opportunities to attend and present at conferences and meetings
- The chance to build a scientific network in the fields of (bio)geochemistry, geobiology and sedimentology.

The University of Geneva offers a stimulating research environment. With 18'865 students, 38% of which come from abroad. Situated on the shores of Lake Léman, Geneva is a perfect place to undertake high-level research in an idyllic setting between lakes and mountains. The department of Earth Sciences is located in the heart of Geneva in the Jonction neighbourhood, close to the departments of Environmental Sciences (Forel), Physics, Biology and Chemistry. The department of Earth Sciences share collaborations and laboratories with the Institute of Earth Sciences from the University of Lausanne (UNIL) with preferential access to complementary facilities and expertise (*e.g.*, SIMS). Information about the department can be found at https://www.unige.ch/sciences/terre/en/earth-sciences-department/

Start date: June 2023 (or upon agreement) **Duration:** 4 years

Application
To apply, please send the following documents as a single pdf file with the subject line **''PhD application_ [your name]''** before February 15th, 2023 (or until the position is filled) to nina.zeyen@unige.ch

(1) A concise statement (2 pages max.) describing your motivation and interest in the project
(2) Detailed CV including contact information for 2 references
(3) Copies of transcripts from BSc and MSc studies

Queries about this opportunity should be sent to the same email address.