

3 PhD positions in Environmental Biogeochemistry

The **Environmental Chemistry Group** of Prof. Laurel ThomasArrigo is offering **3 PhD positions** in the Institute of Chemistry at the University of Neuchâtel (Switzerland). The research will be conducted within the SNSF Starting Grant “MiMOC: Mineral-Mediated Organic Carbon dynamics in soils and sediments: Advancing understanding from the lab to the field”. The project involves 3 PhD students and 1 Postdoc.

Project description. Iron mineral phases in soils play a key role in global element cycles. Yet our understanding of how fluctuating soil redox conditions affects mineral stability and transformation and impact the sequestration and/or mobilization of associated organic carbon is not clear. As part of a larger team, you will contribute to the development of novel approaches for investigating iron mineral transformations and the coupled fate of mineral-associated organic carbon in redox-dynamic soil and sediment environments. You will conduct laboratory and field studies on selected iron mineral transformation processes and their influence on carbon dynamics, using state-of-the-art experimental and analytical techniques including stable isotope tracers, synchrotron techniques, and XRD.

Main duties and responsibilities include

- Design and execute laboratory experiments
- Publish research results in international scientific journals
- Attend and present research at national and international conferences
- Participate in teaching and supervision of laboratory practical courses

Your profile

- MSc degree in a related field (e.g. environmental science, chemistry, mineralogy, ecology, soil science)
- Highly motivated to conduct scientific research in environmental biogeochemistry
- Good organizational and communication skills
- Knowledge in wet chemistry and lab techniques and a willingness to learn
- Experience with synchrotron techniques or XRD 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
- Opportunities to further develop skills in advanced analytical methods (e.g., synchrotron XAS, XRD)
- Opportunities to attend and present at conferences and meetings
- The chance to build a scientific network in the fields of environmental and soil biogeochemistry

Start date: Summer 2025 (or upon agreement)

Duration: 4 years

Application and additional information. Review of applications will begin March 1 and will continue until the positions are filled. To apply, please send the following documents as a single pdf file with the subject line “**PhD application_ [your name]**” to laurel.thomas@unine.ch :

- A concise statement (2 page max.) describing your experience, motivation, and interest in the position
- Detailed CV including contact information for 2-3 references
- Copies of BSc/MSc transcripts

For further information please visit our website <https://www.unine.ch/envchem/> or contact Prof. Laurel ThomasArrigo by email at laurel.thomas@unine.ch