
PhD position in Early Earth Geochemistry and Habitability at ETH Zürich

The Experimental Planetology Group at the Department of Earth and Planetary Sciences invites applications to undertake a 4-year PhD position on the geochemistry of Archean komatiites and their role in modulating the surface- and atmosphere of the early Earth.

About NCCR Genesis

The position is fully funded within the framework of the National Centre of Competence in Research NCCR Genesis, a research infrastructure project funded by SNSF focusing on exploring the emergence of life in the Universe. This interdisciplinary research infrastructure brings together physicists, earth and planetary scientists, chemists and biologists to understand the conditions and the mechanisms that enable life to emerge. Developing reliable methods to detect reliable traces of life (biosignatures) – whether through remote sensing or direct onsite measurements – requires significant innovation. These challenges demand close collaboration across physics, biology, chemistry and the earth sciences. NCCR Genesis does not aim to provide answers in all fields, but to drive innovative research and achieve decisive progress. Details on NCCR Genesis are available on its website <https://nccr-genesis.ch>.

Job Description

The transition of the Earth from following its accretion into a habitable planet is poorly understood. Leading theories for the origin of life invoke reducing atmospheres, yet, it is unclear whether such environments existed on the early Earth, and, if so, how long they prevailed. The aim of this project is to use state-of-the-art spectroscopic techniques to study the chemistry of a global selection of Archean komatiites, in order to deduce the conditions under which they were altered by interaction with the Earth's surface environment over time. Magnitudes and rates of reaction will be coupled with models in order to determine the stability and nature of climatic states on the early Earth.

Profile

- Prospective applicants should hold a Masters degree (or will obtain one before the start date) in the broad domain of the Earth and planetary sciences, with a specialisation in one of geochemistry, planetary atmospheres, chemical thermodynamics, mineralogy, or related disciplines.
- The successful candidate is expected to fulfil some laboratory and/or teaching duties.
- Remuneration will conform to the internal rate set by ETH Zürich for PhD students, starting at 53'500 CHF per annum (see [here](#)).

We offer

- A friendly, dynamic and interdisciplinary working environment based at ETH Zürich, with external collaborators at the universities of Bern, Cambridge, Harvard and IPGP.
- An active community within the NCCR Genesis working on origin of life problems
- ETH Zürich is ranked first in the world for Earth Sciences

Application

We look forward to receiving your application in the form of a

- CV
- 1-page statement of motivation and research interests

All applications must be submitted via the online portal, [here](#). The **deadline** for applications is the **21st of August, 2026**, with a **start date in Q4 2026 or Q1 2027**. Further information about our group can be found on our website www.planetology.ethz.ch. Any other inquiries should be addressed to Prof. Paolo Sossi, [paolo.sossi \[at\] eaps.ethz.ch](mailto:paolo.sossi@eaps.ethz.ch)

Diversity and Inclusion

NCCR Genesis is deeply committed to equality, diversity and inclusion. Our aim is to cultivate a respectful and fair work culture with equal access to professional development and support for all. We strongly encourage applications from under-represented groups.