Freie Universität Berlin - Fachbereich Geowissenschaften - Institut für Geologische Wissenschaften AB Mineralogie-Petrologie

Research assistant (predoc) (m/f/d)

with 75%-part-time limited to 42 months (salary grade) Entgeltgruppe 13 TV-L FU
Reference code: WSS-2026-03

City: Berlin; Starting date (earliest): At the earliest possible; Duration: befristet bis zu 42 Monate; Remuneration: Entgeltgruppe 13 TV-L FU; Reference number: WSS-2026-03; Closing date: 02/03/26

Tasks

The Mineralogy-Petrology research group of Prof. Dr. Timm John at the Institute of Geological Sciences investigates fluidsolid interaction processes and the recovery of critical metals from primary and secondary resources. The group closely collaborates with other research groups at the Center for Sustainable Resources (CSR|Berlin, https://www.csrberlin.de) at Freie Universität Berlin and beyond. Our joint project WSS-Resources, which aims at the development and conversion of sustainable resources using a novel ionic liquid, is seeking for a research assistant to extend our interdisciplinary team to jointly explore new approaches to resource recovery. The topic area “Urban Mining” focuses on the recovery of metals from primary and secondary sources such as natural ore, mine waste, as well as automotive catalysts, electronic waste, end-of-life electronic devices, and permanent magnets. Particular emphasis is placed on precious metals, such as the platinum-group and rare earth elements.

Job description:
Experimental identification of efficient digestion procedures of rare-earth-element-bearing minerals in ionic liquids. This includes ore minerals from naturally occurring rare-earthelement deposits, associated products of supergene alteration, as well as mine tailings material. Furthermore, particular emphasis will be placed on the influence of the rock matrix on dissolution kinetics and outcome. The goal is the development of efficient decomposition and dissolution procedures at the laboratory scale. The research activity serves as the candidate’s own scientific qualification (PhD) and includes the synthesis and publication of the results obtained in the project.

Requirements

Requirements:
Completed academic university degree (Master’s/Diploma) in mineralogy, geology or

chemistry.

Desirable:

- Degree in geology, mineralogy or chemistry completed with a grade of “very good” as well as very good academic performance in the field of analytical inorganic chemistry.
- Knowledge of decomposition/digestion procedures of complex materials such as rocks.
- Extensive experience with electron microscopy (e.g. SEM and EMPA), Raman spectroscopy (e.g. phase identification) and X-ray diffractometry (e.g. for crystal structure analysis).
- Sense of responsibility and experience in handling highly reactive substances in the laboratory (e.g. mineral acids and ionic liquids).
- Prior experience with interdisciplinary work.
- Very good command of spoken and written English and, in particular, experience in scientific writing.
- The candidate is highly motivated for independent scientific work, willing to familiarize themselves with new tasks, and possesses a strong sense of responsibility as well as the ability to work in a team.

Application

Applications should be sent by e-mail, together with significant documents, indicating the **reference code, no later than March, 2nd , 2026** in PDF format (preferably as one document) to Mr. Prof. Dr. Timm John: susanne.stein@fu-berlin.de or postal to

Freie Universität Berlin
Fachbereich Geowissenschaften
Institut für Geologische Wissenschaften
AB Mineralogie-Petrologie
Mr. Prof. Dr. Timm John
Malteserstr. 74-100
Haus L, 12249 Berlin (Lankwitz)

With an electronic application, you acknowledge that FU Berlin saves and processes your data. FU Berlin
cannot guarantee the security of your personal data if you send your application over an unencrypted
connection.
Freie Universität Berlin is an equal opportunity employer.

More information at https://stellenticket.de/201489/BUA/
Offer visible until 02/03/26