

Helmholtz-Zentrum Dresden-Rossendorf e.V.



With cutting-edge research in the fields of ENERGY, HEALTH and MATTER, around 1,500 employees from more than 70 nations at Helmholtz-Zentrum Dresden-Rossendorf (HZDR) are committed to mastering the great challenges facing society today. The Institute of Resource Ecology performs research to protect humans and the environment from hazards caused by pollutants resulting from technical processes that produce energy and raw materials. The Department of Reactive Transport is looking for a PhD Student (f/m/d) Tomographic analysis of flow fields in pore networks affected by clogging.

PhD Student (f/m/d) Tomographic analysis of flow fields in pore networks affected by clogging

The work is being carried out as part of a joint project involving several universities and research institutions, Project consortium: Long-term behaviour of coupled reactive transport processes in deep hydrothermal reservoirs (LangRes). Recruitment is subject to final approval by the project sponsor.

City: Leipzig; Starting date (earliest): 01/05/26; Remuneration: TVöD-Bund; Reference number: 2026/31; Closing date: 01/04/26

Tasks

- Conducting experiments on reactive transport in porous materials
- Tomographic analysis of pore networks and flow fields in porous materials
- Evaluation of large tomographic data sets as input for mechanistic and AI-based reactive transport models
- Presentation and publication of original scientific results

Requirements

- Completed university studies (Master) in the field of Chemistry, Radiochemistry, Geology, Mineralogy, Physics or related field
- Experience in experimental methods for analyzing reactive transport processes
- Experience in evaluating large (tomographic) data sets
- Knowledge of handling radioactive materials is considered an asset
- Expertise in radiochemical methods is considered advantageous
- Highly qualified and highly motivated graduates and interested in working in an interdisciplinary environment
- Excellent written and verbal communication skills in English

What we offer

- A vibrant research community in an open, diverse and international work environment
- Scientific excellence and extensive professional networking opportunities
- A structured PhD program with a comprehensive range of continuing education and networking opportunities - more information about the PhD program at the HZDR can be found [here](#)
- Salary and social benefits in accordance with the collective agreement for the public sector (TVöD-Bund) including 30 days of paid holiday leave, company pension scheme (VBL)
- We support a good work-life balance with the possibility of part-time employment, mobile working and flexible working hours
- Numerous company health management offerings
- Employee discounts with well-known providers via the platform Corporate Benefits
- An employer subsidy for the "Deutschland-Ticket Jobticket"

Application

We look forward to receiving your application documents (including cover letter, CV, diplomas/transcripts, etc.), which you can submit via our online-application-system: <https://www.hzdr.de/db/Cms?pNid=490&pLang=en&pOid=76982>

More information at <https://stellenticket.de/202384/TUBS/>
Offer visible until 01/04/26

