



At the Faculty of Geosciences, Geoengineering and Mining, Institute of Geology, Chair of Hydrogeology and Hydrochemistry, is a vacancy for the position of a



**Research Associate (m/f/d) – reference number 143-E/2022**

is available.

**Pay grade:** according to the German pay group "Entgeltgruppe" 13 TV-L  
**Hours:** 0,5 FTE  
**Contract type:** fixed-term until 30.06.2025

At the Chair of Hydrogeology and Hydrochemistry, the complex processes in the transport of substances, particles and microorganisms in the surface water-groundwater-rock system are investigated. Using groundwater for drinking water as well as for energy purposes are further important subjects of investigation.

**Job description:**

The position holder (subject to project funding approval) is involved in the BMBF-Project 'MineATES'. The scope of the project is to use groundwater-flooded cavities created by mining for the purpose of seasonal storage and retrieval of heat. In MineATES, the uncertainties of this method are to be examined from different perspectives. This will be investigated in mines in the region; among others in the "Reiche Zeche" in Freiberg.

The main focus is to perform thermally controlled column flow experiments, whereby in-situ rock from the mines is brought together with (synthetic) mine water and exposed to various temperatures, some of which are variable over time. Tasks include:

- Designing the experimental system (stainless steel columns in multiple versions) including the realization of controllable heating and cooling of the systems
- Planning the experiment series using models incl. selecting appropriate combinations of rocks, mine waters and operating parameters (esp. temperatures)
- carrying out the experiments incl. continued model-based monitoring (thermal, hydraulic, chemical)
- mineralogical / geochemical evaluation of the rock properties before and after the column tests
- publishing the results in scientific journals and at conferences

**What you can expect from us:**

- working at a family-friendly university with flexible working hours
- attractive fringe benefits, e.g. Asset-based benefits (VL), company pension schemes (VBL), health management, "Job-Ticket"
- a wide range of networking, mentoring and development opportunities
- a focused research programme and a structured training strategy
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**What we expect from you:**

- university diploma or master degree in the field of geology / hydrogeology / geochemistry / hydrochemistry or equivalent
- very good performance during studies and willingness for further qualification are required
- experience with sampling of rocks and groundwater and their analysis in the laboratory is advantageous
- Experience in the use of hydrogeochemical modeling programs/codes (e.g., PHREEQC)

**For further information please contact Univ.-Prof. Dr.-Ing. Traugott Scheytt;  
phone: +49-3731 39-2775 e-mail: Traugott.Scheytt@geo.tu-freiberg.de.**

The applicant (m/f/d) must meet the hiring requirements for fixed-term employment contracts according to the WissZeitVG. Applicants with disabilities will receive preferential consideration, provided they possess equal qualifications. For consideration, we ask you to submit proof of your disabled status together with your application documents. TU Bergakademie is committed to increasing the number of women in teaching and research positions, hence qualified female candidates are especially encouraged to apply.

Written applications, including a CV, motivation letter and copies of all relevant qualifications documents (certificates, diplomas) and a summary of the thesis, should be submitted by **June 26<sup>th</sup>, 2022** stating **reference number (143-E/ 2022)** to the following address:

**TU Bergakademie Freiberg, Dezernat für Personalangelegenheiten, 09596 Freiberg or  
e-mail: [bewerbungen@tu-freiberg.de](mailto:bewerbungen@tu-freiberg.de)**

Your application documents will not be returned, please only submit copies. TU Bergakademie Freiberg is always looking for scientific personnel from various disciplines. Further information can be found at <http://tu-freiberg.de/wirtschaft/karriere/stelle-nausschreibungen>