



Technische Universität Berlin offers an open position:

**Research Assistant - 0.75 working-time - salary grade E13 TV-L Berliner Hochschulen**  
under the reserve that funds are granted

**Faculty VI - Institute of Applied Geosciences / Applied Geochemistry**

**Reference number:** VI-361/22 (starting at 01/08/22 / until 31/07/2025 / closing date for applications 11/07/22)

**Working field:** We are looking for a scientist a 3-year BMBF project (GEO:N - Geo Research for Sustainability) dealing with the sustainable operation of thermal energy storage systems in aquifers (Aquifer Thermal Energy Systems - ATES). The project is carried out in cooperation with the Helmholtz Center Potsdam (German Research Center for Geosciences) and the TU Bergakademie Freiberg.

The primary goal of the interdisciplinary research project UnClog-ATES is to gain a comprehensive understanding of the clogging and scaling processes in ATES systems and to demonstrate their effects on pollutant dynamics. This should help to ensure that ATES systems can be used efficiently and operated safely in the future.

The position is responsible for reactive solute transport modeling using data from 1D column experiments. The focus is on the dissolution and re-precipitation processes of carbonates and iron (hydr)oxides in siliciclastic aquifers, as well as on the concomitant mobilization/fixation of heavy metals. Based on the results, 2D/3D predictions on the reservoir behavior of potential ATES sites will be made.

The position holder is expected to support project management and science communication. Solicitation of external funding is welcomed and supported.

The position will be co-located with another position tasked with obtaining experimental data from column tests, and processing them for use in modeling.

For further questions, please contact Dr. Schiperski by e-mail to [schiperski@tu-berlin.de](mailto:schiperski@tu-berlin.de).

**Requirements:**

- successfully completed university degree (Master, Diplom or equivalent) in in geosciences, hydrogeology, geochemistry, chemistry or related subjects
- Ph.D. in one of the above subjects is desired.
- very good knowledge in thermodynamics of mineral/water interactions (including solution/precipitation, sorption/desorption).
- very good knowledge of reactive solute transport modeling of both direct and inverse problems (e.g., using PhreeqC, ToughReact, or a programming language)
- good knowledge in hydraulic modeling (e.g. with Modflow)
- basic knowledge in coupling hydraulic and reactive transport models (e.g. with PHT3D)
- basic experimental and analytical experience is an advantage (column experiments, fluid sampling)
- ability to work independently and as part of a team and to manage projects
- excellent organizational and communication skills
- very good written and spoken German and English skills
- good computer skills (Excel, Word)

Please send your application with the **reference number** and the usual documents to Prof. Dr. Neumann by email (single pdf file; max. 5 MB) to [schiperski@tu-berlin.de](mailto:schiperski@tu-berlin.de) or by mail to **Technische Universität Berlin, Fakultät VI, Institut für Angewandte Geowissenschaften, FG Angewandte Geochemie, Herrn Prof. Dr. Neumann, Sekr. BH 9-3, Ernst-Reuter-Platz 1, 10587 Berlin.**

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guarantee for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: [https://www.abt2-t.tu-berlin.de/menue/themen\\_a\\_z/datenschutzerklaerung/](https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/) or quick access 214041.

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities.

Please send copies only. Original documents will not be returned.

Technische Universität Berlin - Die Präsidentin - Fakultät VI, Institut für Angewandte Geowissenschaften, FG Angewandte Geochemie, Prof. Dr. Neumann, Sekr. BH-N 9-3, Ernst-Reuter-Platz 1, 10587 Berlin

The vacancy is also available on the internet at  
<https://www.personalabteilung.tu-berlin.de/menue/jobs/>

