

## Prof. Dr. Horst Geckeis



### Current positions

Head of the Institute for Nuclear Disposal (INE) at the Karlsruhe Institute of Technology (KIT) (since 2008)  
Professor for radiochemistry at the faculty for biosciences and chemistry of KIT (since 2008)

### Previous positions (two selected)

PostDoc at the Center for advanced technological and environmental training of the Karlsruhe Research Centre (FZK now KIT) (1989-1993)  
Staff scientist at the Institute for Nuclear Disposal (INE) at FZK (now KIT) (1993-2008)

### Scientific degree

Dr. rer. nat. (PhD) in Chemistry, University of Saarbrücken (1989)

### Recent research topics

Geological disposal of radioactive waste, Actinide (geo)chemistry, Analytical chemistry of radionuclides

### Awards, honors, memberships

Nuclear Waste Management Commission (ESK) advising the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), Expert Group on Deep Geological Repositories (EGT) advising the Swiss Federal Nuclear Safety Inspectorate (ENSI), until 2018 Chairman of the German Association for Repository Research (DAEF)

### Publications (5 most important)

- H. Geckeis, B. Salbu, M. Zavarin, O. Chr. Lind, L. Skipperud, Environmental Chemistry of Plutonium, in Plutonium Handbook, Edition: Second Edition, Publisher: American Nuclear Society (2018)
- T. Vitova, I. Pidchenko, D. Fellhauer, E. Gonzalez-Robles, H. Geckeis, et al., The role of the 5f valence orbitals of early actinides in chemical bonding, *Nat. Comm.* 8, 16053 (2017) [doi:10.1038/ncomms16053](https://doi.org/10.1038/ncomms16053)
- A. Schnurr, R. Marsac, T. Rabung, J. Lützenkirchen, H. Geckeis, Sorption of Cm(III) and Eu(III) onto clay minerals under saline conditions: Batch adsorption, laser-fluorescence spectroscopy and modeling, *Geochim. Cosmochim. Acta* 151, 192 (2015) [doi:10.1016/j.gca.2014.11.011](https://doi.org/10.1016/j.gca.2014.11.011)
- R. Marsac, J. Lützenkirchen, C.M. Marquardt, K. Dardenne, H. Geckeis, et al., Neptunium redox speciation at the illite surface, *Geochim. Cosmochim. Acta* 148, 39 (2015) [doi:10.1016/j.gca.2014.12.021](https://doi.org/10.1016/j.gca.2014.12.021)
- F. Quinto, R. Golser, M. Plaschke, T. Schäfer, H. Geckeis, et al., Accelerator mass spectrometry of actinides in ground- and seawater: An innovative method allowing for the simultaneous analysis of U, Np, Pu, Am, and Cm isotopes below ppq levels, *Anal. Chem.* 87, 5766 (2015) [doi:10.1021/acs.analchem.5b00980](https://doi.org/10.1021/acs.analchem.5b00980)