

**Current position**

Head of the Helmholtz Young Investigators Group “Advanced synchrotron based systematic investigations of actinide and lanthanide systems to understand and predict their reactivity” at Institute for Nuclear Waste Disposal (INE), KIT (since 2011)

**Previous position**

PostDoc fellowship granted by ACTINET – A Network of Excellence for Actinide Sciences funded by the European Commission at INE, KIT (2008 - 2009)

**Scientific degree**

Dr. rer. nat. (PhD) in Physics, University of Bonn (2008)

**Recent research topics**

Electronic and geometric structural properties of actinides, High energy resolution X-ray absorption and emission spectroscopy

**Awards**

The first Women in Nuclear-Germany Award (2011)

**Publications (5 most important)**

- **T. Vitova, I. Pidchenko, D. Fellhauer, T. Pruessmann, S. Bahl**, et al., Exploring the electronic structure and speciation of aqueous and colloidal Pu with high energy resolution XANES and computations, *Chem. Commun.* 54, 12824 (2018) [doi:10.1039/c8cc06889e](https://doi.org/10.1039/c8cc06889e)
- **S. Bahl, S. Peugot, I. Pidchenko, J. Rothe, Vitova, T.**, et al., Pu coexists in three oxidation states in a borosilicate glass: Implications for Pu solubility, *Inorg. Chem.* 56, 13982 (2017) [doi:10.1021/acs.inorgchem.7b02118](https://doi.org/10.1021/acs.inorgchem.7b02118)
- **T. Vitova, I. Pidchenko, D. Fellhauer**, P.S. Bagus, Y. Joly, et al., The role of the 5f valence orbitals of early actinides in chemical bonding, *Nat. Commun.* 8, 16053 (2017) [doi:10.1038/ncomms16053](https://doi.org/10.1038/ncomms16053)
- **I. Pidchenko, K.O. Kvashnina, T. Yokosawa, N. Finck, T. Vitova**, et al., Uranium redox transformations after U(VI) coprecipitation with magnetite nanoparticles, *Environ. Sci. Technol.* 51, 2225 (2017) [doi:10.1021/acs.est.6b04035](https://doi.org/10.1021/acs.est.6b04035)
- **T. Vitova, J.C. Green, R.G. Denning, M. Löble, K. Kvashnina**, et al., Polarization dependent high energy resolution X-ray absorption study of dicesium uranyl tetrachloride, *Inorg. Chem.* 54, 174 (2015) [doi:10.1021/ic5020016](https://doi.org/10.1021/ic5020016)