

Prof. Dr. Dirk Bosbach



Current positions

Director of the Institute of Energy and Climate Research (IEK-6) Nuclear Waste Management, FZJ (since 2009)

Professor for Nuclear Waste Management at RWTH Aachen University (since 2009)

Previous positions (two selected)

Head of Division "Geochemistry" at Institute for Nuclear Waste Disposal (INE), KIT (2001-2009)

Assistant Professor, University Münster (1995-2000)

Scientific degree

Dr. rer. nat. (PhD) in Mineralogy, University of Cologne (1993)

Recent research topics

Management of radioactive wastes, radio(geo)chemistry, material science, reactive transport phenomena

Awards, honors, memberships

Member of the Berlin-Brandenburg Academy of Science (since 2015), EJP EURAD - Member of the bureau of the GA (since 2019), Member of the scientific advisory board GDCh nuclear chemistry division (2012 – 2019), DAEF, IGD-TP, SNETP, NUGENIA, Kompetenzverbund Kerntechnik (since 2010)

Publications (5 most important)

- V.L. Vinograd, [...], F. Brandt, M. Klinkenberg, J. Weber, [...], D. Bosbach, Thermodynamics of the solid solution - Aqueous solution system (Ba,Sr,Ra)SO₄+H₂O: I. The effect of strontium content on radium uptake by barite, *Appl. Geochem.* 89, 59 (2018) <https://doi.org/10.1016/j.apgeochem.2017.11.009>
- S. Finkeldei, P. Kegler, P.M. Kowalski, [...], A.A. Bukaemskiy, [...], D. Bosbach, Composition dependent order-disorder transition in Nd_xZr_{1-x}O_{2-0.5x} pyrochlores: A combined structural, calorimetric and ab initio modeling study, *Acta Mater.* 125, 166 (2017) <https://doi.org/10.1016/j.actamat.2016.11.059>
- J. Shamblin, [...], S. Finkeldei, D. Bosbach, [...], R.C. Ewing, M. Lang, Probing disorder in isometric pyrochlore and related complex oxides. *Nat. Mater.* 15(5), 507 (2016) <https://doi.org/10.1038/NMAT4581>
- J. Weber, J. Barthel, F. Brandt, M. Klinkenberg, [...], D. Bosbach, Nano-structural features of barite crystals observed by electron microscopy and atom probe tomography, *Chem. Geol.* 424, 51 (2016) <https://doi.org/10.1016/j.chemgeo.2016.01.018>
- X.F. Guo, [...], S. Labs, [...], H. Curtius, D. Bosbach, [...], A. Navrotsky, Thermodynamics of formation of coffinite, USiO₄, *Proc. Natl. Acad. Sci. USA* 112(21), 6551 (2015) <https://doi.org/10.1073/pnas.1507441112>