

**Current position**

Head of Tritium Laboratory Karlsruhe (TLK) at Institute of Nuclear Physics, KIT (since 2009)

Previous positions (two selected)

Deputy Head for Research at TLK (2007-2009)
Group Leader at TLK (2001 – 2007)

Scientific degree

PhD in physics / University of Mainz 2001

Recent research topics

Tritium analytics and accountancy, improvement of closed tritium cycle, tritium extraction from blankets, neutrino mass from tritium beta decay

Awards, honors, memberships

Faculty Teaching Award (Physics, KIT) (2014)
Member of the ITER Operations Network (since 2017)

Publications (5 most important)

- **S. Mirz, U. Besserer, B. Bornschein, R. Größle, B. Krasch**, et al Design of a spectroscopy experiment for all hydrogen isotopologues in the gaseous, liquid and solid phase, *Fusion Sci. Technol.* 71, 375 (2017) [doi:10.1080/15361055.2016.1273706](https://doi.org/10.1080/15361055.2016.1273706)
- **M. Röllig, B. Bornschein, S. Ebenhöch**, F. Priester, Geant4 Monte Carlo simulations for sensitivity investigations of an experimental facility for the measurement of tritium surface contaminations by BIXS, *Fusion Eng. Des.* 109-111, 684 (2016) [doi: 10.1016/j.fusengdes.2016.02.018](https://doi.org/10.1016/j.fusengdes.2016.02.018)
- M. Schlösser, **B. Bornschein**, Sebastian Fischer, Timothy M. James, Florian Kassel, et al., Raman Spectroscopy at the Tritium Laboratory Karlsruhe, *Fusion Sci. Technol.* 67, 555 (2015) [doi:10.13182/FST14-T78o](https://doi.org/10.13182/FST14-T78o)
- F. Priester, M. Sturm, **B. Bornschein**, Commissioning and detailed results of KATRIN inner loop tritium processing system at Tritium Laboratory Karlsruhe, *Vacuum* 116, 42 (2015) [doi:10.1016/j.vacuum.2015.02.030](https://doi.org/10.1016/j.vacuum.2015.02.030)
- **B. Bornschein, C. Day, D. Demange**, T. Pinna, Tritium management and safety issues in ITER and DEMO breeding, *Fusion Eng. Des.* 88, 466 (2013) [doi:10.1016/j.fusengdes.2013.03.032](https://doi.org/10.1016/j.fusengdes.2013.03.032)