

**Current positions**

Head of the Institute for Applied Materials – Energy Storage Systems (IAM-ESS) at KIT (since 2012)

Professor for Inorganic Chemistry, KIT (since 2011)

Co-director of the Center for Electrochemical Energy Storage Ulm-Karlsruhe (CELEST)

Previous positions (two selected)

Head of Department Functional Composite Materials, IFW Dresden (2006-2010)

Marie-Curie Fellow at the University of Cambridge, UK (1997-1999)

Scientific degrees

venia legendi (Habilitation), Materials Science, Technische Universität Darmstadt (2005)

Dr. rer. nat. (PhD) in Materials Science, Technische Universität Darmstadt (1996)

Recent research topics

Synthesis and characterization of battery materials; Lifetime analysis of electrochemical energy storage devices; Development of *operando* characterisation techniques using synchrotron and neutron radiation

Awards, honors, memberships

Adolf-Messer Prize for Excellence in Teaching and Science (2001), Max-von-Laue Award, German Crystallographic Association (2001), Speaker of the Cluster of Excellence “Energy Storage beyond Lithium” (since 2019)

Publications (5 most important)

- O. Dolotko, A. Senyshyn, **M. Mühlbauer**, **K. Nikolowski**, **H. Ehrenberg**, Understanding structural changes in NMC Li-ion cells by in situ diffraction, *J. Power Sources* 255, 197 (2014) [doi:10.1016/j.jpowsour.2014.01.010](https://doi.org/10.1016/j.jpowsour.2014.01.010)
- D. Wang, X. Bie, **Q. Fu**, **D. Dixon**, **N. Bramnik**, et. int., **H. Ehrenberg**, G. Chen, F. Du, Sodium vanadium titanium phosphate electrode for symmetric sodium-ion batteries with high power and long lifespan, *Nat. commun.* 8:15888 [doi:10.1038/ncomms15888](https://doi.org/10.1038/ncomms15888)
- A. Senyshyn, **M. J. Mühlbauer**, O. Dolotko, M. Hofmann, **H. Ehrenberg**, Homogeneity of lithium distribution in cylinder-type Li-ion batteries, *Sci. Rep.* 5,18380 (2015) [doi:10.1038/srep18380](https://doi.org/10.1038/srep18380)
- **M. Monchak**, et. int., **M.J. Hoffmann**, **H. Ehrenberg**, Lithium Diffusion Pathway in $\text{Li}_{1.3}\text{Al}_{0.3}\text{Ti}_{1.7}(\text{PO}_4)_3$ (LATP) Superionic Conductor, *Inorg. Chem.* 55, 2941 (2016) [doi:10.1021/acs.inorgchem.5b02821](https://doi.org/10.1021/acs.inorgchem.5b02821)
- **K. Kleiner**, **D. Dixon**, **P. Jakes**, **J. Melke**, **M. Yavuz**, **C. Roth**, **K. Nikolowski**, V. Liebau, **H. Ehrenberg**, Fatigue of $\text{LiNi}_{0.8}\text{Co}_{0.15}\text{Al}_{0.05}\text{O}_2$ in commercial Li ion batteries, *J. Power Sources* 273, 70 (2015) [doi:10.1016/j.jpowsour.2014.08.133](https://doi.org/10.1016/j.jpowsour.2014.08.133)