

**Current positions**

Vice Director Helmholtz Institute Ulm (HIU)  
Head of Materials-I at HIU  
Professor (W3) for Solid State Chemistry, Ulm University (since 2013)  
Spokesperson of the Cluster of Excellence “Energy Storage Beyond Lithium” (since 2019)  
Scientific Director of CELEST (Center for Electrochemical Energy Storage Ulm-Karlsruhe) since 2018

**Previous position**

Group Leader at KIT-INT “Nanoscale Materials for Energy Storage”

**Scientific degree**

Dr. rer. nat. (PhD) in Chemistry, University Karlsruhe, Germany (1992)

**Recent research topics**

Novel ways for electrochemical storage and related materials, disordered materials, magnesium battery, sodium battery, organic electrodes, solid electrolytes

**Publications (5 most important)**

- **Z. Li, X. Mu, Zh. Zhao-Karger**, T. Diemant, R.J. Behm, **Ch. Kübel**, and **M. Fichtner**, Fast multivalent intercalation enabled by solvated  $Mg^{2+}$  ions into self-established metallic layered materials, *Nature Communications* 9, 5115 (2018), [doi:10.1038/s41467-018-07484](https://doi.org/10.1038/s41467-018-07484)
- **Z. Zhao-Karger**, R. Liu, W. Dai, Z. Li, T. Diemant, B. P. Vinayan, C. Bonatto Minella, X. Yu, A. Manthiram, R.J. Behm, **M. Ruben**, **M. Fichtner**, Towards Highly Reversible Magnesium-sulfur Batteries with Efficient and Practical  $Mg[B(hfip)_4]_2$  Electrolyte, *ACS Energy Letters* 3, 2005 (2018) [doi:10.1021/acseenergylett.8b01061](https://doi.org/10.1021/acseenergylett.8b01061)
- P. Gao, Z. Chen, **Zh. Zhao-Karger**, J.E. Mueller, Ch. Jung, S. Klyatskaya, T. Diemant, O. Fuhr, T. Jacob, R.J. Behm, **M. Ruben**, **M. Fichtner**, A Porphyrin Complex as a Self-Conditioned Electrode Material for High-Performance Energy Storage, *Angew. Chemie Int. Ed.* 129,1 (2017) [doi:10.1002/ange.201702805](https://doi.org/10.1002/ange.201702805)
- I. Mohammad, R. Witter, M. Fichtner, M.A. Reddy, Room-Temperature, Rechargeable Solid-State Fluoride-Ion Batteries *ACS Applied Energy Materials* 1,4766 (2018) [doi:10.1021/acsaem.8b00864](https://doi.org/10.1021/acsaem.8b00864)
- **M. Fichtner**, X. Zhao, **H. Hahn**, *Secondary Battery and method for its manufacturing*, EP12401224.6 (2012) [Chloride Ion Battery]