

**Current positions**

Section head “Surface & Interface Analysis” at the Institute for Applied Materials – Energy Storage Systems (IAM-ESS), KIT (since 2019)

Young investigator group leader “Designed Interfaces for Electrochemical Energy Storage” at IAM-ESS, KIT (since 2017)

**Previous position**

Postdoctoral researcher at Uppsala University (2014-2017)

**Scientific degree**

Dr.-Ing. (PhD) in Materials Science TU Darmstadt (2014)

**Recent research topics**

Interfaces in Li-ion and post Li-ion batteries, Li ion battery anode materials, combining electrochemistry with ambient pressure photoelectron spectroscopy

**Awards, honors, memberships**

NanoMatFutur Young Investigator Grant (BMBF), project “InSEIde” (2017)  
Founding member of Center of Electrochemical Energy Storage (CELEST) Ulm Karlsruhe (since 2018)

**Publications (5 most important)**

- **J. Maibach**, I. Källquist, M. Andersson, S. Urpelainen, K. Edström, et al., The surface of a battery electrolyte drop seen through ambient pressure x-ray photoelectron spectroscopy, *Nat. Comm.*, accepted (2019)
- **J. Maibach**, C. Xu, S. K. Eriksson, J. Åhlund, T. Gustafsson, et al., A high pressure x-ray photoelectron spectroscopy experimental method for characterization of solid-liquid interfaces demonstrated with a Li-ion battery system, *Rev. Sci. Instrum.* 86, 044101 (2015) [doi:10.1063/1.4916209](https://doi.org/10.1063/1.4916209)
- **J. Maibach**, F. Lindgren, H. Eriksson, K. Edström, M. Hahlin, Electric potential gradient at the buried interface between Lithium-ion battery electrodes and the SEI observed using photoelectron spectroscopy, *J. Phys. Chem. Lett.* 7, 1775 (2016) [doi:10.1021/acs.jpcllett.6b00391](https://doi.org/10.1021/acs.jpcllett.6b00391)
- F. Lindgren, et int., **J. Maibach**, Breaking down a complex system: Interpreting PES peak positions for cycled Li-ion battery electrodes, *J. Phys. Chem. C* 121, 27303 (2017) [doi:10.1021/acs.jpcc.7b08923](https://doi.org/10.1021/acs.jpcc.7b08923)
- **J. Maibach**, F. Jeschull, D. Brandell, K. Edström, M. Valvo, Surface layer evolution on graphite during electrochemical sodium-tetraglyme co-intercalation, *ACS Appl. Mater. Interfaces* 9, 12373 (2017) [doi:10.1021/acsami.6b16536](https://doi.org/10.1021/acsami.6b16536)