

**Current positions**

Group leader of Colloid Chemistry at Institute of Soft Matter and Functional Materials, HZB (since 2009)
Professor, University of Potsdam, Germany (since 2017)

Previous position

Postdoc, Physical Chemistry I, University of Bayreuth (2005-2006);
Staff Scientist, Physical Chemistry I, University of Bayreuth (2006-2009)

Scientific degree

Dr. rer. nat. in Chemistry / Technische Universität Dresden (2005)

Recent research topics

Design and synthesis of functional colloidal particles with tailored mesoscopic structures, and their application as cathode materials for Metal-S batteries; supercapacitors, (photo)catalysts; and sensors.

Awards, honors, memberships

Selected as top female researchers (W2/W3-Programme) in Helmholtz Association (2015), "Dr. Hermann-Schnell-Stipendium" by GDCh (2012), "API-Prize" by GDCh (2005)

Publications (5 most important)

- **F Sun**, M Osenberg, K Dong, D Zhou, A Hilger, et al., Correlating Morphological Evolution of Li Electrodes With Degrading Electrochemical Performance of Li/LiCoO₂ and Li/S Battery Systems: Investigated by Synchrotron X-ray Phase Contrast Tomography, *ACS Energy Letters* 3, 356 (2018) [doi:10.1021/acseenergylett.7b01254](https://doi.org/10.1021/acseenergylett.7b01254)
- **S. Mei**, **C. J. Jafta**, I. Lauermann, Q. Ran, M. Kärger, et al., Porous Ti₄O₇ Particles with Interconnected-Pores Structure as High-Efficiency Polysulfide Mediator for Lithium-Sulfur Batteries, *Adv. Funct. Mater.* 27, 1701176 (2017) [doi:10.1002/adfm.201701176](https://doi.org/10.1002/adfm.201701176)
- **Y. Yang**, **S. Risse**, **S. Mei**, **C. Jafta**, **Y. Lu**, et al., Binder-Free Carbon Monolith Cathode Material for Operando Investigation of High Performance Lithium-Sulfur Batteries with X-Ray Radiography, *Energy Storage Materials* 9, 96 (2017) [doi:10.1016/j.ensm.2017.06.008](https://doi.org/10.1016/j.ensm.2017.06.008)
- J. Cao, **C. Jafta**, J. Gong, Q. Ran, X. Lin, et al., Synthesis of Dispersible Mesoporous Nitrogen-doped Hollow Carbon Nanoplates with Uniform Hexagonal Morphologies for Supercapacitors, *ACS Appl. Mater. Interfaces* 8 (43), 29628 (2016) [doi:10.1021/acsami.6b08946](https://doi.org/10.1021/acsami.6b08946)
- **Y. Lu**, **M. Ballauff**, Spherical Polyelectrolyte Brushes as Nanoreactors for the Generation of Metallic and Oxidic Nanoparticles: Synthesis and Application in Catalysis, *Prog. Polym. Sci.* 59, 86 (2016) [doi:10.1016/j.progpolymsci.2016.03.002](https://doi.org/10.1016/j.progpolymsci.2016.03.002)