# BRAUNSCHWEIG, Björn, Prof. Dr.

Professor (W1 tenure track W2) Born 24/01/1979 in Bad Gandersheim, German

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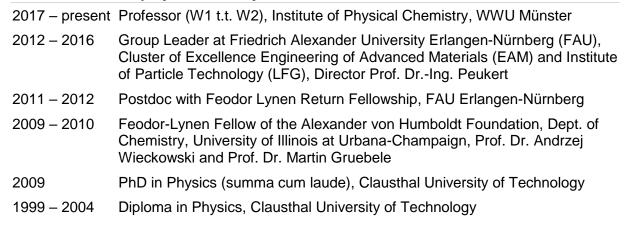
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### **Personal Circumstances**

2 children (born 2011 and 2014)

## **Education and Employment History**



#### Scientific Awards, Honors, Appointments and Professional Recognition

2018	Key note lecture at ECIS meeting in Ljubiljana
2014	ERC Starting Grant
2014	BASF Fellowship, supporting a Junior Professional Management-Program
2012	Max Buchner Research Fellowship
2009	Feodor-Lynen Fellowship, Alexander-von-Humboldt Foundation
2009	Dissertation award of the Verein von Freunden der TU Clausthal

# Memberships

Member of the German Physical Society (DPG), American Chemical Society (ACS) and European Colloid and Interface Society (ECIS)

## **Research Interests and Scientific Focus**

Dynamic wetting• Molecular self-assembly at interfaces• soft matter interfaces• interface spectroscopy with nonlinear optics • electrochemistry



#### **The Ten Most Important Publications**

- 1. Structure of Polystyrenesulfonate/Surfactant Mixtures at Air–Water Interfaces and Their Role as Building Blocks for Macroscopic Foam. F. Schulze-Zachau, **B. Braunschweig**, *Langmuir* **2017**, 33, 3499-3508.
- 2. In situ spectroscopy of Ligand Exchange Reactions at the Surface of Colloidal Gold and Silver Nanoparticles, R. Dinkel, W. Peukert and **B. Braunschweig**, *J. Phys.: Cond. Mat.* **2017**, 29, 133002. (Invited)
- 3. Specific Effects of Ca<sup>2+</sup> Ions and Molecular Structure of β-Lactoglobulin Interfacial Layers That Drive Macroscopic Foam Stability. **B. Braunschweig**, F. Schulze-Zachau, E. Nagel, K. Engelhardt, S. Stoyanov, G. Gochev, Khr. Khristov, E. Mileva, D. Exerowa, R. Miller and W. Peukert, *Soft Matter* **2016**, *12*, 5995.
- 4. Self-Assembled Monolayers Get Their Final Finish via a Quasi-Langmuir-Blodgett Transfer. C. Meltzer, H. Dietrich, D. Zahn, W. Peukert, **B. Braunschweig**, *Langmuir*. **2015**, 31, 4678-4685.
- 5. Indentation and Self-Healing Mechanisms of a Self-Assembled Monolayer A Combined Experimental and Modeling Study. C. Meltzer, J. Paul, H. Dietrich, C.M. Jäger, D. Zahn, T. Clark, **B. Braunschweig** and W. Peukert, *J. Am. Chem. Soc.* **2014**, *136*, 10718.
- 6. Vibrational Sum-Frequency Generation at Protein Modified Air-Water Interfaces: Effects of Molecular Structure and Surface Charging. K. Engelhardt, W. Peukert, **B. Braunschweig**, *Curr. Opinion Coll. Int. Sci.* **2014**, *19*, 207-215. (Invited)
- 7. Mixed Layers of β-Lactoglobulin and SDS at Air-Water Interfaces with Tunable Intermolecular Interactions. K. Engelhardt, U. Weichsel. E. Kraft, D. Segets, W. Peukert, **B. Braunschweig**, *J. Phys. Chem. B* **2014**, *118*, 4098-4105.
- 8. pH Effects on the Molecular Structure of β-Lactoglobulin Modified Air–Water Interfaces and Its Impact on Foam Rheology. K. Engelhardt, M. Lexis, G. Gochev, C. Konnerth, R. Miller, N. Willenbacher, W. Peukert, and **B. Braunschweig**, *Langmuir* **2013**, 29, 11646-11655.
- 9. Electrocatalysis: a Fuel Cell and Surface Science Perspective. **B. Braunschweig**, D. Hibbitts, M. Neurock and A. Wieckowski, *Catalyis Today* **2013**, 202, 197-2019
- Real-Time Investigations of Pt(111) Surface Transformations in Sulfuric Acid Solutions.
  B. Braunschweig, P. Mukherjee, R. B. Kutz, A. Wieckowski and D. D. Dlott, *J. Am. Chem. Soc.* 2010, *132*, 14036-14038.