BRAUNSCHWEIG, Björn, Prof. Dr.

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

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Personal Circumstances

2 children (born 2011 and 2014)

Education and Employment History

2017 – present	Professor (W1 t.t. W2), Institute of Physical Chemistry, WWU Münster
2012 – 2016	Group Leader at Friedrich Alexander University Erlangen-Nürnberg (FAU), Cluster of Excellence Engineering of Advanced Materials (EAM) and Institute of Particle Technology (LFG), Director Prof. Dr.-Ing. Peukert
2011 – 2012	Postdoc with Feodor Lynen Return Fellowship, FAU Erlangen-Nürnberg
2009 – 2010	Feodor-Lynen Fellow of the Alexander von Humboldt Foundation, Dept. of Chemistry, University of Illinois at Urbana-Champaign, Prof. Dr. Andrzej Wieckowski and Prof. Dr. Martin Gruebele
2009	PhD in Physics (summa cum laude), Clausthal University of Technology
1999 – 2004	Diploma in Physics, Clausthal University of Technology

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^{2+} 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
10. 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.