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Scientific and Working Experience		
since 2012	W3-Professor (chair) and director of Institute of Energy and Process Systems Engineering, TU Braunschweig	
2009 - 2012	Juniorprofessor (Assist. Prof.) for Portable Energy Systems, Univ. Magdeburg	
2008 - 2013	Head of Otto Hahn research group Portable Energy Systems (independent research group) at Max Planck Institute for Dynamics of Complex Technical Systems, Magdeburg	
2006-2007	Senior Researcher, Corporate R&D Center Samsung SDI, Energy Lab (S. Korea)	
2005	Dr.-Ing in Process & Systems Engineering (with distinction), Univ. Magdeburg	
2001 – 2005	Research Assistant, Max Planck Institute for Dynamics of Complex Technical Systems (Supervisor: Prof. Kai Sundmacher)	
Selected activities	Member of board of directors of the Battery Labfactory Braunschweig Member of board of International Max Planck Research School for Analysis, Design and Optimization in Chemical and Biochemical Process Engineering Member of selection committee of AvH Foundation Member of board of annual Hybrid and Electric Vehicles Symposium Organizer of 15 th Symposium on Fuel Cell and Battery Modeling and Experimental Validation (2019)	
Awards		
<ul style="list-style-type: none"> ▪ Award for fundamental research of Federal State of Saxony-Anhalt 2010 ▪ Participation in Fast Track program Excellence and Leadership Skills for Women in Science, Robert Bosch Stiftung, 2010 ▪ Otto-Hahn Medal of the Max Planck Society, 2006 ▪ Dissertationspreis (PhD award) of the University of Magdeburg, Karin-Witte-Stiftung, 2006 ▪ Gold medal in the Samsung SDI Paper Award (South Korea), 2006 		

Research Areas and Focus of Work
<ul style="list-style-type: none"> ▪ Batteries (Li-ion, Zn-air, Li-S, Solid-state) and Fuel Cells (AMFC, DMFC, Bio-FC, PEMFC) ▪ Experimental and model-based analysis from catalyst surface/reaction kinetics to system ▪ Dynamic electrochemical analysis, including EIS and nonlinear methods (NFRA) ▪ Modeling and simulation at electrode, cell and system level, including kinetic Monte Carlo

10 Selected Publications (of > 60 Journal Publications)	
1	Kalz, K., Kraehnert, R., Dvoyashkin, M., Dittmeyer, R., Gläser, R., Krewer, U., Reuter, K., Grunwaldt, J.-D. Future Challenges in Heterogeneous Catalysis: Understanding Catalysts under Dynamic Reaction Conditions, <i>ChemCatChem</i> , 9(1), pp.17-29, 2016.
2	Röder, F., Braatz, R.D., Krewer, U., Multi-Scale Simulation of Heterogeneous Surface Film Growth Mechanisms in Lithium-Ion Batteries, <i>Journal of the Electrochemical Society</i> , 164, pp. E3335-E3344, 2017.
3	Kubannek, F., Krewer, U. A Cyclone Flow Cell for Quantitative Analysis of Kinetics at Porous Electrodes by Differential Electrochemical Mass Spectrometry, <i>Electrochimica Acta</i> , 210, pp. 862-873, 2016.
4	Weinzierl, C., Krewer, U., Model based Analysis of Water Management in Alkaline Direct Methanol Fuel Cells, <i>Journal of Power Sources</i> , 268, pp. 911-921, 2014.
5	Schröder, D., Krewer, U., Model Based Quantification of Air-composition Impact on Secondary Zinc Air Batteries, <i>Electrochimica Acta</i> , 117C, pp. 541-553, 2014.
6	Mao, Q., Krewer, U., Sensing Methanol Concentration in Direct Methanol Fuel Cell with Total Harmonic Distortion: Theory and Application, <i>Electrochimica Acta</i> , 68, pp. 60-68, 2012.
7	Zenith, F., Weinzierl, C., Krewer, U., Model-based Analysis of the Feasibility Envelope for Autonomous Operation of a Portable Direct Methanol Fuel-Cell System, <i>Chemical Engineering Science</i> , 65, pp. 4411-4419, 2010.
8	Yu, E.H., Krewer, U., Scott, K., Principles and Materials Aspects of Direct Alkaline Alcohol Fuel Cells, <i>Energies</i> , 3, pp. 1499-1528, 2010.
9	Krewer, U., Kim, H.T., Yoon, H.K., Basic Model for Membrane Electrode Assembly Design for Direct Methanol Fuel Cells, <i>Journal of Power Sources</i> , 175, pp. 760-772, 2007.
10	Krewer, U., Christov, M., Vidakovic, T., Sundmacher, K., Impedance Spectroscopic Analysis of the Electrochemical Methanol Oxidation Kinetics, <i>Journal of Electroanalytical Chemistry</i> , 589 (1), pp. 148-159, 2006.