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Education

2010 – 2013 Ph. D. Technical University of Dresden (Physical Chemistry)

2008 – 2010 M. S. Keio University (Materials Chemistry / Electrochemistry)

2004 – 2008 B. S. Keio University (Theoretical Condensed Matter Physics)

Professional Career

2024.04 – Present Team Leader, Electrochemical Energy Conversion Team, NIMS

2021.12 – Present Associate Professor, School of Science and Technology, University of Tsukuba

2021.04 – Present Principal Researcher, NIMS

2018.04 – 2021.03 Senior Researcher, NIMS

2015.04 – 2018.03 Researcher, NIMS

2013.06 – 2015.03 Postdoc, Colloid Chemistry Dept., Max Planck Institute of Colloids&Interfaces

Miscellaneous

2025.01 – Present Visiting By-Fellow, Churchill College, Cambridge, UK

2025.01 – Present Visiting Researcher, Cavendish Laboratory, University of Cambridge, UK

2010.09 – 2013.05 Visiting researcher, Leibniz Institute for Solid-State and Materials Research,
Germany

2009.06 – 2012.03 Visiting researcher, National Institute for Advanced Industrial Science and
Technology, Japan

Selected Publications

1. M. Wang, K. Sakaushi*, Deciphering pH Mismatching at the Electrified Electrode–Electrolyte Interface towards Understanding Intrinsic Water Molecule Oxidation Kinetics, *Angew. Chem. Int. Ed.*, 2025, <https://doi.org/10.1002/anie.202419823>.
2. M. Wang, A. Ishii, K. Sakaushi*, Accelerated Electrocatalyst Degradation Testing by Accurate and Robust Forecasting of Multidimensional Kinetic Model with Bayesian Data Assimilation, *ACS Energy Letters*, 2025, 10, 22.
3. K. Sakaushi,* W. Hoisang, R. Tamura, Human–Machine Collaboration for Accelerated Discovery of Promising Oxygen Evolution Electrocatalysts with On-Demand Elements, *ACS Central Science* 2023, 9, 2216.
4. T. Kumeda, L. Laverdure, K. Honkala, M.M. Melander, K. Sakaushi*, Cations Determine the Mechanism and Selectivity of Alkaline Oxygen Reduction Reaction on Pt(111), *Angew. Chem. Int. Ed.*, 2023, 62, e202312841.
5. K Sakaushi,* A Lyalin, T Taketsugu, K Uosaki, Quantum-to-Classical Transition of Proton Transfer in Potential-Induced Dioxygen Reduction, *Physical Review Letters* 2018, 121, 236001.
6. K. Wada, K. Sakaushi,* S. Sasaki, H. Nishihara, Multielectron-Transfer-based Rechargeable Energy Storage of Two-Dimensional Coordination Frameworks with Non-Innocent Ligand, *Angew. Chem. Int. Ed.*, 2018, 57, 8886.

7. K. Sakaushi,* E. Hosono, G. Nickerl, T. Gemming, H.S. Zhou, S. Kaskel, J. Eckert, Aromatic porous-honeycomb electrodes for a sodium-organic energy storage device, *Nature Communications*, 4, 1485.
8. K. Sakaushi,* G. Nickerl, F.M. Wisser, D. Nishio-Hamane, E. Hosono, H.S. Zhou, S. Kaskel, J. Eckert, *Angew. Chem. Int. Ed.*, 2012, 51, 7850.

Research Interests

1. Microscopic Mechanism of Cation/Electron Transfer at Electrified Solid-Liquid Interfaces
2. Understanding Structure-Property Relations in Electrocatalysts

Awards

1. Churchill College, Cambridge 「Visiting By-Fellowship 2024」
2. The Commendation by the Minister of Education, Culture, Sports, Science and Technology 「Young Scientist Award 2022」
3. The Chemical Society of Japan 「The CSJ Award for Young Chemist 2021」
4. The Chemical Society of Japan / Royal Society of Chemistry 「PCCP Prize 2019」
5. International Society of Electrochemistry 「ISE Travel Award for Young Electrochemists 2016」
6. Max Planck Society 「Max Planck Society Stipend」
7. German Academic Exchange Service 「Research Grant for PhD Study」