

Professional Career

- 2016 - Professor at the Institute of Chemical Technology and Polymer Chemistry (ITCP) and the Institute of Catalysis Research and Technology (IKFT) at the Karlsruhe Institute of Technology (KIT)
- 2010 - 2016 Staff Scientist and group leader at the SUNCAT Center for Interface Science and Catalysis, SLAC National Accelerator Laboratory
- 2006 - 2010 Postdoctoral Researcher, Center for Atomic-scale Materials Design, Technical University of Denmark
- 2002 - 2005 Ph.D. Student at the Institute of Inorganic Chemistry, University of Kiel, Germany

Education

- 2005 Ph.D. in Chemistry (University of Kiel)
- 2002 Diploma in Chemistry (University of Kiel)

Research Profile

Research interest in theory guided materials discovery, electrochemical processes, synthesis gas conversion, CO₂ reduction, routes from biomass to chemicals

- > 70 published papers, > 2900 citations, h-index 27
- > 20 invited talks (14 at international conferences)

Textbooks

Fundamental Concepts in Heterogeneous Catalysis, Wiley-VCH, Weinheim, Germany (2014) – Nørskov, Studt, Abild-Pedersen, Bligaard

Selected Publications

- [Theoretical Insight into Trends that Guide the Electrochemical Reduction of Carbon Dioxide to Formic Acid](#). J. S. Yoo, R. Christensen, T. Vegge, J. K. Nørskov, F. Studt, *ChemSusChem* **2016**, *9*, 358.
- [The Mechanism of CO and CO₂ Hydrogenation to Methanol over Cu-Based Catalysts](#). F. Studt, M. Behrens, E. L. Kunkes, N. Thomas, S. Zander, A. Tarasov, J. Schumann, E. Frei, J. B. Varley, F. Abild-Pedersen, J. K. Nørskov, R. Schlögl, *ChemCatChem* **2015**, *7*, 1105.
- [Discovery of a Ni-Ga catalyst for carbon dioxide reduction to methanol](#). F. Studt, I. Sharafutdinov, F. Abild-Pedersen, C. F. Elkjær, J. S. Hummelshøj, S. Dahl, I. Chorkendorff, J. K. Nørskov, *Nature Chem.* **2014**, *6*, 320.
- [Reactivity Descriptor in Solid-Acid Catalysis: Predicting Turnover Frequencies for Propene Methylation in Zeotypes](#). C.-M. Wang, R. Y. Brogaard, B. M. Weckhuysen, J. K. Nørskov, F. Studt, *J. Phys. Chem. Lett.* **2014**, *5*, 1516.
- [Activity and Selectivity Trends in Synthesis Gas Conversion to Higher Alcohols](#). A. J. Medford, A. C. Lausche, F. Abild-Pedersen, B. Temel, N. C. Schjødt, J. K. Nørskov, F. Studt, *Top. Catal.* **2014**, *57*, 135.
- [The Active Site of Methanol Synthesis over Cu/ZnO/Al₂O₃ Industrial Catalysts](#). M. Behrens, F. Studt, I. Kasatkin, S. Kühl, M. Hävecker, F. Abild-Pedersen, S. Zander, F. Girgsdies, P. Kurr, B.-L. Knief, M. Tovar, R. W. Fischer, J. K. Nørskov, R. Schlögl, *Science*, **2012**, *336*, 893.
- [Density functional theory in surface chemistry and catalysis](#). J. K. Nørskov, F. Abild-Pedersen, F. Studt, T. Bligaard, *Proc. Natl. Acad. Sci. U.S.A.* **2011**, *108*, 937.