

DR. DMITRIY BORODIN

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Google Scholar:

https://scholar.google.de/citations?user=V4_RgzwAAAAJ&hl=de

EDUCATION

- 11/2017 – 12/2021 **Dr. rer. nat. Chemistry**, *summa cum laude*
MPI for Biophysical Chemistry and University of Göttingen, GER
- 10/2015 – 10/2017 **M.Sc. Chemistry**, *with distinction (grade: 1.0)*
University of Göttingen, GER
- 10/2012 – 10/2015 **B.Sc. Chemistry**, *with distinction (grade: 1.2)*
University of Göttingen, GER
- 07/2009 – 05/2012 **University Entrance Qualification / Abitur**, *(grade: 1.1)*
Gymnasium Horn, Bremen, GER

SELECTED PUBLICATIONS

1. “*Quantum Effects in Thermal Reaction Rates at Metal Surfaces*”
Borodin *et al.*, *Science* **377**, 394-398 (2022).
2. “*Kinetics of NH₃ Desorption and Diffusion on Pt: Implications for the Ostwald Process*”
Borodin *et al.*, *J. Am. Chem. Soc.* **143**, 18305-18316 (2021).
3. “*Measuring Transient Reaction Rates from Nonstationary Catalysts*”
Borodin *et al.*, *ACS Catal.* **10**, 14056-14066 (2020).

FELLOWSHIPS AND AWARDS

- 2022 **Richard-Zsigmondy-Award**
Best Doctoral Research at the Faculty for Chemistry
- 2014-2017 **Deutschlandstipendium**
Student fellowship
- 2014-2016 **Award for Best Non-Independent Teaching in Physical Chemistry**
- ‘Chemical Equilibrium’
 - ‘Chemical Kinetics’
 - ‘Atomic Structure and Chemical Bond’

RESEARCH EXPERIENCE

- 03/2023 – present **Postdoctoral research**
Center for Quantum Nanoscience (QNS), KOR
- Study of functional control of single atom magnets and potential qubit candidates using ESR-STM.
- 01/2022 – 02/2023 **Postdoctoral research**
MPI for Multidisciplinary Sciences and University of Göttingen, GER
- Construction of a new generation of Velocity Resolved Kinetics instruments for the study of nonstationary heterogeneous catalysis phenomena with high temporal resolution, high duty cycle and multiplex advantage for species detection.
- 11/2017 – 12/2021 **Doctoral research**
MPI for Biophysical Chemistry and University of Göttingen, GER
Supervisor: Alec M. Wodtke and Theofanis N. Kitsopoulos
- Development of experimental methods for the study of surface reactions using molecular beams, ion imaging and high repetition rate lasers.
 - Experimental investigation of reaction and desorption rates from atomically flat and stepped surfaces. Kinetics, diffusion and statistical modelling of surface reaction rates.
- 11/2016 – 01/2017 **Research internship**
German Aerospace Center of Combustion Technology, Stuttgart, GER
Supervisor: Patrick Oßwald and Markus Köhler
- Investigation of the combustion of C₄-fuels in an atmospheric pressure laminar flow reactor using Molecular Beam Mass Spectrometry.