

Session Program

22-26 Apr 2024

**Frontiers of Multi-scale Modeling in
Materials, Energy & Catalysis X**

Poster Session

Monday 22 April

20:00

Poster Session

Session | **Location:** Hotel Marena Wellness & Spa Turystyczna 1, 72-415 Międzywodzie, Poland

20:00–22:00

On the pH-Dependent Shift of the „Hupd Peak“ on Polycrystalline Pt-Group Surfaces

Speaker

Ms Hedda Oschinski

20:00–22:00

Bridging the Gap: From EIS to Real-World Battery Performance with Stochastic Pulse Design

Speaker

Ms Limei Jin

20:00–22:00

With Markov Jumps Toward Sustainability - Computational Modeling of Catalytic Reactions

Speaker

Dr Martin Deimel

20:00–22:00

Machine Learning Assisted Realistic Description of Catalytic Centers on M1 Catalyst Surfaces

Speaker

Mr Kyeonghyeon Nam

20:00–22:00

Exploring Dynamic Solvation Effects at the Electrochemical IrO₂/Water Interface

Speaker

Mr Nikhil Bapat

20:00–22:00

Excitation Trapping and Polaron Formation in Solar Battery Materials

Speaker

Ms Nóra Kovács

20:00–22:00

Modelling LLZO Grain Boundaries with Amorphous Domains by Adaptively Trained Machine-Learning Interatomic Potentials

Speaker

Ms Yuandong Wang

20:00–22:00

Incorporation of Preparation Variability Into Reactor Models of Heterogeneous Catalysts

Speaker

Mr Muhammad Zeeshan Ashraf

20:00–22:00

Combining DFTB and Structure Mapping for the Prediction of Transition Paths in the Deactivation of ZnO@Cu Catalysts**Speaker**

Dr Artem Samtsevykh

20:00–22:00

How the Metal Substrate Affects Oxide Cluster Shapes in Inverse Catalysts**Speaker**

Mr Luuk Kempen

20:00–22:00

Realistic Representations of IrO₂ Catalyst Surfaces through Extensive Sampling**Speaker**

Dr Hao Wan

20:00–22:00

Adaptive Quasi Monte Carlo Quadrature With Possible Application in Bayesian Inference of Chemical Kinetic Models**Speaker**

Jinyi Zhou

20:00–22:00

Machine Learning Enhanced Bayesian Inference on Multiscale Kinetic Models**Speaker**

Mr Andreas Panagiotopoulos

20:00–22:00

Predicting Atomic Charges in MOFs by Topological Charge Equilibration**Speaker**

Mr Babak Farhadi Jahromi

20:00–22:00

Adapting Explainable Machine Learning to Study Mechanical Properties of 2D Hybrid Perovskites**Speaker**

Mr Yuxuan Yao

20:00–22:00

A Fundamentals Study of the Slater-Koster Tables in NiO_x Systems**Speaker**

Mr Yihua Song

20:00–22:00

Exploring Enhanced Sampling Concepts Using Boltzmann Generators**Speaker**

Mr David Greten

20:00–22:00

Classical Force Field Simulations of Electrolytes at Charged Water Surfaces**Speaker**

Dr Jakob Filser

20:00–22:00

Charge Mobility Estimation in Amorphous Organic Semiconductors via Machine Learning**Speaker**

Dr Ke Chen

20:00–22:00

A General-Purpose Framework for Kinetic Monte-Carlo Simulations**Speaker**

Dr Roya Ebrahimi Viand

20:00–22:00

Exploration of Cathode-Stable Hybrid Solid-State Electrolytes**Speaker**

Ms Sina Jennifer Ziegler

20:00–22:00

Li-Ion-Mediated Polaron Formation and UV Energy Storage in NbWO₆ Photo-Batteries: An Integrated Experimental and Computational Approach**Speaker**

Dr Yu-Te Chan

20:00–22:00

Considerations of Mean Field Microkinetic Modeling: Selective Hydrogenation of C₂H₂**Speaker**

Dr Olga Vinogradova

22:00

Tuesday 23 April

16:00

18:00

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