

Catalysis Networking Conference

CRC 1333 | Stuttgart “Molecular Heterogeneous Catalysis in Confined Geometries”

CRC/TRR 247 | Duisburg-Essen and Bochum “Heterogeneous Oxidation Catalysis in the Liquid Phase”

CRC/TRR 234 | Ulm and Jena “CataLight - Light-driven Molecular Catalysts in Hierarchically Structured Materials - Synthesis and Mechanistic Studies”

CRC 1073 | Göttingen “Atomic Scale Control of Energy Conversion”

CRC 1441 | Karlsruhe “Tracking the Active Site in Heterogeneous Catalysis for Emission Control”

CRC 1452 | Erlangen “Catalysis at Liquid Interfaces”

CRC/TRR 325 | München, Regensburg, Leipzig “Assembly Controlled Chemical Photocatalysis”

03.05.2022–05.05.2022

Hotel La Strada, Raiffeisenstraße 10, 34121 Kassel

Rooms
Palazzo
Castello
Wilhelmshöhe + Rondell

03. May 22

11:00	12:00	Registration until 13:00	
12:00	13:00	Welcome-Snack	
13:00	13:20	Welcome	
		Chair: Prof. Dr. Michael Buchmeiser	
13:20	14:00	Prof. Dr. Carmine Gaeta Biomimetic Supramolecular Catalysis in Confined Space	
14:00	14:10	Change of room	
		Chair: Prof. Dr. Johannes Kästner	Chair: Prof. Dr. Stephan Schulz
14:10	14:35	Jun.-Prof. Dr. Deven Estes Interactions between Metal Hydride Complexes and Metal Oxide Surfaces: Effect of Confinement on CO ₂ Hydrogenation	Prof. Dr. Kristina Tschulik Electrochemical Water Splitting at a Single Nanoparticle – Using Single Entity Electrochemistry to Study OER at Co Based Spinel Nanocatalysts
14:35	15:00	Prof. Dr.-Ing. Niels Hansen Fluid Properties under Mesoporous Confinement	Prof. Dr. Martin Muhler Thermal Catalytic Oxidation over Cobalt-based Spinel and Perovskite Nanoparticles
15:00	15:35	Break & Snack 35 min	
		Chair: Dr. Maria Wächtler	Chair: Prof. Dr. Sven Schneider
15:35	16:00	Prof. Dr. Sven Rau Active Repair of a Molecular Hydrogen Evolving Photocatalysts - Boosting Catalytic Efficiency	M. Sc. Nikolas Lausch Atomistic Simulations of Lithium Manganese Oxides with High-Dimensional Neural Networks
16:00	16:25	Prof. Dr. Christine Kranz Scanning Electrochemical Probe Microscopy for Characterizing Light-Driven Heterogeneous Catalytic Processes	M. Sc. Gaurav Lole In-situ Environmental Transmission Electron Microscopy Study of Active States of Strongly Correlated Perovskite Oxide Thin Films During Electrochemical Oxygen Evolution
16:25	16:35	Change of room	
16:35	17:15	FAIR Research Data Management in Catalysis - Intro by NFDI4Cat (Prof. Dr. Olaf Deutschmann) + Best practices by Dr. Nicole Jung, Dr. Hendrik Goßler and M. Sc. Torsten Giess	
17:15	18:45	Networking - FAIR Research Data Management in Catalysis (17:15 – 18:00)	Poster session 1 (17:30 – 18:45) CRC 1333, CRC 247, CRC 234, CRC 1073
18:45	19:00	Break	
19:00	21:00	Dinner	

04. May 22

09:15	09:25	Intro & Announcements	
		Chair: Prof. Dr. Jan-Dierk Grunwaldt	
09:25	10:05	Prof. Dr. Silvia Bordiga Copper Speciation in Cu-exchanged Zeolites	
10:05	10:15	Change of room	
		Chair: Prof. Dr. Felix Studt	Chair: Dr. Golo Storch
10:15	10:40	Prof. Dr. Jan-Dierk Grunwaldt TrackAct – Tracking the Active Site in Heterogeneous Catalysis in a Time and Spatially Resolved Manner	Prof. Dr. Oliver Reiser Copper makes the Difference: Developing Sustainable Photoredox Catalyzed Transformations
10:40	11:05	Dr. Florian Maurer Exploiting Atomic Dispersion of Platinum and its Dynamics in Pt/CeO ₂ Catalysts for Improved Emission Control	Dr. Joshua Barham ‘Electrifying’ Photocatalysis: New Frontiers in Light-Powered Organic Synthesis
11:05	11:40	Break & Snack 35 min	
		Chair: Dr. Golo Storch	
11:40	12:20	TRR 325 Prof. Dr. Thorsten Bach Assembly Controlled Chemical Photocatalysis (CRC 325) – An Overview and an Example	
12:20	14:00	Lunch	
		Chair: Prof. Dr. Ana-Sunčana Smith	Chair: Jun.- Prof. Dr. Deven Estes
14:00	14:25	Prof. Dr. Peter Wasserscheid CLINT - Catalysis at Liquid Interfaces	Dr. Stefan Naumann Ordered Mesoporous Carbon Materials as Tunable Supports for Catalysis under Confinement
14:25	14:50	PD Dr. Christian Papp Supported Catalytically Active Liquid Metal Solutions	Dr. Johanna Bruckner Highly Defined Ordered Mesoporous Silica for Advanced Catalytic Applications
14:50	15:00	Change of room	
		Chair: Prof. Dr. Franc Meyer	
15:00	15:40	Prof. Dr. Jenny Yang (online) Bioinspired Catalysts for Renewable Fuels	
15:40	16:15	Break & Snack 35 min	

		Chair: Prof. Dr. Franc Meyer	Chair: Prof. Dr. Jan-Dierk Grunwaldt
16:15	16:40	Prof. Dr. Inke Siewert The Electrochemical Hydrogenation of C=O Bonds Catalyzed by a Manganese Complex	Prof. Dr. Andreas Stierle Operando Surface Sensitive X-ray Diffraction Studies of Alloy Model Catalysts During CO Oxidation
16:40	17:05	Prof. Dr. Sven Schneider Photocatalytic Nitrogen Atom Transfer via Transient Metallonitrenes	Prof. Dr. Silke Behrens Nanoparticle-Derived Model Catalysts via the Precursor Concept
17:05	17:15	Change of room	
17:15	18:45	Networking Session - Early Career Group Leaders and Postdocs (17:15 - 18:00)	Poster session 2 (17:15 - 18:45) CRC 1441, CRC 1452, CRC 325
18:45	19:00	Break	
19:00	20:30	Dinner	
20:30	22:00	PhD & PI networking meeting	

05. May 22

09:15	09:25	Intro & Announcements	
		Chair: Prof. Dr. Malte Behrens	
09:25	10:05	Prof. Dr. Graham Hutchings Catalysis Using Gold Nanomaterials	
10:05	10:40	Change of room	
		Chair: Prof. Dr. Malte Behrens	Chair: Dr. Joshua Barham
10:15	10:20	Prof. Dr. Rossitza Pentcheva Understanding and Tailoring the Catalytic Activity of Spinel and Perovskite Surfaces from First Principles Calculations	Prof. Dr. Kirsten Zeitler Photoredox Catalytic Strategies for the Activation of Strong Bonds
10:40	11:05	Dr. Arno Bergmann Surface Reactivity of Co-based Model Catalysts in Oxidation Electrocatalysis	Dr. Golo Storch Tailored, Molecular Flavins as Catalysts for Organic Transformations
11:05	11:40	Break & Snack 35 min	
		Chair: Prof. Dr. Hans Peter Steinrück	
11:40	12:20	Prof. Dr. Ulrike Diebold Establishing the Fundamentals: Atomically-resolved Chemistry with Surface Science Techniques	
12:20	14:00	Lunch	
		Chair: Prof. Dr. Benjamin Dietzek-Ivansic	Chair: Prof. Dr. Andreas Görling
14:00	14:25	Prof. Dr. Andrea Pannwitz Creating an Artificial Photosystem in Phospholipid Bilayers	Dr. Dorothea Wisser Towards Interface-Enhanced Supported Ionic Liquid Phase Catalysts
14:25	14:50	Prof. Dr. Dirk Ziegenbalg Dynamic Irradiation for Enhanced Performance of Light-Driven Reactions	Prof. Dr. Jörg Libuda Solid Catalysts with Ionic Liquid Layers (SCILL): Advanced Approaches and Concepts
14:50	15:00	Change of room	
		Chair: Prof. Dr. Benjamin Dietzek-Ivansic	
15:00	15:40	Prof. Dr. Jillian Dempsey (online) Generating Solar Fuels with Hybrid Photoelectrodes	
15:40	16:00	Final Remarks / Goodbye	