

Tentative Program

Course of the Central German Catalysis Institute

“Mitteldeutscher Katalyse-Lehrverbund”

Duration: 31.01.22 – 04.02.2022
Place: online

Day 1 (31.01.): Introduction to Catalysis and of the Course Participants

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| 09:00 – 10:15 | Welcome and Introduction to Catalysis (Gläser / University Leipzig) |
| 10:00 – 10:30 | Coffee break |
| 10:30 – 11:30 | Introduction to Heterogeneous Catalysis (Kureti / Technical University Freiberg) |
| 11:30 – 12:30 | Introduction to Homogeneous Catalysis (Kretschmer / University Jena) |
| 12:30 – 13:30 | Lunch |
| 13:30 – 14:30 | Introduction to Biocatalysis (Bertau / Technical University Freiberg) |
| 14:30 – 15:30 | Introduction to Electro- and Photocatalysis (Bron / University Halle) |
| 15:30 – 16:00 | Coffee Break |
| 16:00 – 18:00 | Introduction of Participants (Short presentations of research topics) |
| 18:00 | Get-Together (Wonder Me) |

Day 2 (01.02.):

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| 09:00 – 10:00 | <i>Structural Enzymology and Biocatalysis (Sträter / University Leipzig)</i> |
| 10:00 – 11:00 | <i>Asymmetric Organocatalysis (Schneider / University Leipzig)</i> |
| 11:00 – 11:30 | Coffee break |
| 11:30 – 12:30 | <i>Immobilisation of enzymes (Beck-Sickinger / University Leipzig)</i> |
| 12:30 – 13:30 | Lunch |
| 13:30 – 14:30 | <i>Coupling of electrochemical and microbial catalysis (Harnisch / Centre for Environmental Research Leipzig)</i> |
| 14:30 – 15:30 | <i>Microbial biofilms: opportunities and challenges for chemical synthesis (Karande / Centre for Environmental Research Leipzig)</i> |
| 15:30 – 16:00 | Coffee Break |
| 16:00 – 17:00 | <i>Gasphasenuntersuchungen an Modellsystemen für heterogene Katalysatoren (Asmis / University Leipzig)</i> |

Day 3 (02.02.):

- 09:00 – 10:00 *Surface reactions studied by X-ray photoelectron spectroscopy
(Denecke / University Leipzig)*
- 10:00 – 11:00 *New developments in environmental catalysis for water treatment
(Mackenzie / Centre for Environmental Research Leipzig)*
- 11:00 – 11:30 *Coffee Break*
- 11:30 – 12:30 *Computing Liquid Phase Free Energy Profiles from ab initio Molecular
Dynamics Simulations
(Brehm / University Halle)*
- 12:30 – 13:30 *Lunch*
- 13:30 – 14:30 *Microstructured Wall Reactors for the Intensification of Heterogeneously
Catalyzed Gas Phase Reactions
(Schwarz / Technical University Chemnitz)*
- 14:30 – 15:30 *High-Throughput Technologies and Combinatorial Methods in Catalysis
(Stöwe / Technical University Chemnitz)*
- 15:30 – 16:00 *Coffee Break*
- 16:00 – 17:00 *Entwicklung von eisenbasierten Katalysatoren für die Synthese höherer
Alkohole
(Reichelt / Fraunhofer Institute for Ceramic Technologies and Systems)*

Day 4 (03.02.):

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| 09:30 – 10:30 | Examination |
| 10:30 – 11:00 | Coffee Break |
| 11:00 – 12:00 | <i>Immobilization of (Bio-)Catalysts on Polymer Membranes for Application in Water Treatment</i> (Schulze / The Leibniz Institute of Surface Engineering) |
| 12:00 – 13:00 | Lunch |
| 13:00 – 14:30 | <i>National Research Data Infrastructure 4 Catalysis – Basics of Research Data Management</i> (Liebau / University Leipzig) |
| 14:30 – 15:00 | Coffee Break |
| 15:00 – 16:30 | <i>National Research Data Infrastructure 4 Catalysis (II) – Databases and Data Modelling</i> (Greiner / Max Planck Institute for Chemical Energy Conversion) |
| 16:30 – 17:00 | Discussion Digitalization in Catalysis |

Day 5 (04.02.):

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| 09:00 – 10:00 | <i>Forced periodic operation of chemical reactors</i> (Seidel-Morgenstern / University Magdeburg) |
| 10:00 – 11:00 | <i>tba</i> (Schunk / hte – the high throughput experimentation company) |
| 11:00 – 12:30 | Lunch |
| 12:30 – 13:30 | Selective acetylene removal by SHELL catalysts (Schneider, Preising, Klemt / Shell Catalysts) |
| 13:30 – 14:30 | Final Feedback and Prize Ceremony (Gläser / University Leipzig) |
| 14:30 | End of the workshop |