

## Seminar Reactive Flows and Heterogeneous Catalysis – SS 2021

**Time/Location:** Tuesday, 14:00, online <https://itcp-bbb.itcp.kit.edu/b/mar-ad9-dgf> (exceptions are indicated), language: English

\*access details for ZOOM meeting 6.7.21: Meeting-ID: 655 6079 3272, Kenncode: 064777

Link: <https://kit-lecture.zoom.us/j/65560793272?pwd=NGUzK25ia055TGFER0lkNWWhrKzNLdz09>

### Presentations:

Date	Presenter	Title	Chair
20.04.2021	Igor Scherbej	Dynamic behaviour of a slurry bubble column reactor for catalytic three-phase methanation (PhD introductory presentation on Master thesis)	Michael Borchers
27.04.2021	Carsten Drechsler (TU Dortmund)	Integrated Adsorber Concepts for Use in Direct Air Capture and Power-to-Gas Applications	Olaf Deutschmann
04.05.2021	Paul Jakob Jägerfeld	Determination of deposit composition in SCR systems through thermogravimetric experiments (final report student internship (Vertieferarbeit))	Christian Kuntz
11.05.2021	Felix Kleuker	Mechanism reduction for the methanol-to-olefins process (Master's thesis intermediate report)	Steffen Tischer
18.05.2021	Bjarne Kreitz (TU Clausthal)	Automated Generation of Microkinetic Models for the CO <sub>2</sub> Methanation	Olaf Deutschmann
08.06.2021	Jaspreet Chawla	Mechanistic Aspect of Oxidative Coupling of Methane (PhD intermediate report)	Patrick Lott
15.06.2021	Pallabi Mishra	Multi-functional conversion of chemical species and energy: Numerical simulation and optimization (PhD intermediate report)	Hendrik Gossler
22.06.2021	Manas Mokashi	Thermocatalytic methane pyrolysis over activated carbons: Impact of surface reactions (PhD intermediate report)	Akash Shirsath
29.06.2021	Michael Borchers	Selective catalytic reduction of NO <sub>x</sub> with hydrogen for hydrogen-powered engines (PhD intermediate report)	Kevin Keller
06.07.2021	Lukas Wehrle	Model based Optimization of Solid Oxide Electrolysis Cells and Stacks for Power-to-Gas Applications (PhD intermediate report)	Daniel Schmider
	Sebastian Schulz (EBI)	Experimentelle Untersuchungen der Wechselwirkung zwischen Turbulenz und Skalartransport in Wandnähe (PhD intermediate report)	Peter Habisreuther (EBI)

-> p. 2

13.07.2021	Felix Ehrlich	Modeling of the methane pyrolysis reaction (final report student internship (Vertieferarbeit))	Patrick Lott
20.07.2021	Akash Shirsath	Modelling and simulation of soot particle (PhD intermediate report)	Manas Mokashi
	Patrick Rohlf	Energetic, ecological and economic evaluation of emerging, carbon-free energy carriers for maritime applications by process simulation in AspenPlus® (Master's thesis intermediate report)	Andrea Düll
26.07.2021 <i>exceptional date: Monday, 14h, BBB link as usual</i>	Ahmet Celik	Methan als Plattformmolekül für Chemikalien – experimentelle Studien zur C-C-Kopplung (Master's thesis intermediate report)	Sven Schardt
	Rinu Chacko	Leveraging Long Short-Term Memory based Neural Networks for the inverse design of Metamaterials (PhD introductory presentation on previous work)	Sofia Angeli

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