

Seminar on current research in chemical technology for employees and students (advanced internships and theses) – WS 21/22

Time/Location: Tuesday, 14:00, online* <https://itcp-bbb.itcp.kit.edu/b/mar-ad9-dgf> (exceptions are indicated),
language: English; LV no. 5434

Presentations:

Date	Presenter	Title	Chair
19.10.2021	Dr. Toyin Omojola	Descriptors in Catalysis: Methanol-to-Olefin Conversion over ZSM-5 catalysts, and Selective Oxidation of Propane over MoVTeNbO _x catalysts (guest lecture)	Dr. Sofia Angeli
26.10.2021	Oscar Furst	Solution of the Unsteady Boundary Layer Equations for Channel Flows in Solid Oxide Cells (PhD intermediate report)	Lukas Wehrle
	Dr. Torstein Fjermestad	First-principle chemical engineering applied to the methanol-to-hydrocarbon reaction (guest lecture)	Dr. Sofia Angeli
02.11.2021	Deniz Quick	Noble Metal Catalysts for Exhaust Gas Aftertreatment of Modern Gas-Powered Engines. (Master thesis intermediate report)	Michael Borchers
	Felix Kleuker	Mechanism Reduction for the Methanol-to-Olefins Process (Master thesis final report)	Dr. Steffen Tischer
09.11.2021	Patrick Rohlfis	Energetic, ecological and economic evaluation of emerging, carbon-free energy carriers by process simulation in AspenPlus (Master thesis final report)	Andrea Düll
30.11.2021 13:30 h	Kevin Keller	Methane oxidation over PdO-based catalysts – Influence of the support material (PhD intermediate report)	Michael Borchers
	Estelle Amling	Numerical simulation of the hydrodynamics of a falling film reactor for CO ₂ capture from flue gas streams in OpenFOAM (Master thesis intermediate report)	Andrea Düll
07.12.2021 13:30 h	Dr. Hendrik Goßler	RDM with Adacta	Michael Borchers
14.12.2021 13:30 h	Clara Strunz	Determination of Two-Dimensional NO Concentration Distributions in a SCR Catalyst Using Planar Laser-Induced Fluorescence (Master thesis final report)	Dr. Sui Wan
21.12.2021	Ahmet Celik	Methane as feedstock for high-value chemicals – experimental studies on C-C-Coupling (Master thesis final report)	Sven Schardt
18.1.2021	Presentations postponed due to technical issues		

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25.01.2022	Christian Kuntz	Progress and challenges in 0D to 3D modelling of urea SCR (PhD intermediate report)	Sven Schardt
	Tim Bastek	Hydrogen production from ammonia using Ba/Ru-catalysts in fixed-bed and protonic ceramic cell (PCC) reactors – Experimental studies (Master thesis intermediate report)	Lukas Wehrle
	Paul Jakob Jägerfeld	Coupling of liquid and surface chemistry in urea-SCR systems (Master thesis intermediate report)	Christian Kuntz
01.02.2022	Sven Schardt	Oxidative coupling of methane at short contact times - Influence of process parameters and the catalytic system (PhD intermediate report)	Christian Kuntz
	Andrea Düll	CO ₂ capture by reactive absorption (PhD intermediate report)	Carola Kuhn
08.02.2022	Carola Kuhn	Clean Circles - Reduction of Fe ₂ O ₃ with hydrogen (PhD intermediate report)	Andrea Düll
	Philipp Blank	Dry reforming of steel plant exhaust gases: a study on the influence of operating parameters (Master thesis intermediate report)	Prof. Dr. Olaf Deutschmann
	Deniz Quick	Pollution Control of Modern Gas-Powered Engines utilizing Zeolite-Based Noble Metal Catalysts (Master thesis final report)	Michael Borchers
Monday, 07.03.2022 10:00 h	Estelle Amling	Numerical simulation of the hydrodynamics of a falling film reactor using a volume-of-fluid method in OpenFOAM (Master thesis final report)	Andrea Düll
	Mario Eck	HNCO interactions in the SCR-system (PhD intermediate report)	Dr. Patrick Lott

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* Please note:

This seminar will be started online, but might be changed to personal attendance (in bldg. 11.21, room 006) later.

This and other changes to the program will be announced on the ITCP homepage: <https://www.itcp.kit.edu/364.php>.