

## Seminar on current research in chemical technology for employees and students (advanced internships and theses) – SS 22

**Time/Location:** Tuesday, 14:00, Bldg. 11.21, HS 006, language: English; LV no. 5434,  
if online: BBB <https://itcp-bbb.itcp.kit.edu/b/mar-ad9-dgf>

### Presentations:

Date	Presenter	Title	Chair
19.04.2022	Jaspreet Chawla	Modeling of Oxidative Coupling of Methane over Pt/Al <sub>2</sub> O <sub>3</sub> Catalyst (PhD intermediate report)	Dr. Sofia Angeli
	Stefan Rudolph	Numerical simulation of the absorption of CO <sub>2</sub> in a Hele-Shaw cell (B.Sc. thesis final presentation)	Andrea Düll
10.5.2022 Start: 15:30h, Online BBB	Rinu Chacko	Automating the optimization of reaction mechanism parameters in catalysis via Basin Hopping (PhD intermediate report)	Dr. Sofia Angeli
	P. Jakob Jägerfeld	Coupling of liquid and gaseous chemistry in urea-SCR systems (M.Sc. thesis final report)	Christian Kuntz
	Tim Bastek	Ammonia decomposition in protonic ceramic cells (PCCs): Experimental and modelling studies (M.Sc. thesis final report)	Lukas Wehrle
17.05.2022	Philipp Blanck	Dry reforming of steel plant exhaust gases: a study on the influence of operating parameters (M.Sc. thesis final report)	Prof. Dr. Olaf Deutschmann
	Daniel Hodonj	Component Resolved Simulation and Experimental Investigation of the Direct Catalytic Hydrogenation of CO <sub>2</sub> to Long-Chain Hydrocarbons (PhD thesis intermediate report)	Dr. Patrick Lott
14.06.2022 Start: 16:30h, Online BBB	Vittoria Troisi, Politecnico di Milano	Biofuel methane and ethanol reforming and oxidation (Guest lecture)	Prof. Dr. Olaf Deutschmann
	Michael Borchers	Impact of catalyst formulation and operating conditions on H <sub>2</sub> SCR for hydrogen powered engines (PhD intermediate report)	Sven Schardt
21.06.2021	<i>cancelled</i>		
28.06.2022	Felix Ehrlich	Studies on the Oxidative Coupling of Methane (M.Sc. thesis intermediate report)	Sven Schardt
	Dr. Martin Wörner	Interaction of drops and bubbles with solids: Supporting the interpretation of experiments and simulations through analytical energy balance (Senior Scientist presentation)	Prof. Dr. Olaf Deutschmann
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12.07.2022	Lukas Wehrle	Optimizing innovative Power-to-Methane plant concepts with integrated SOEC module via multi-scale modelling (PhD intermediate report)	Oscar Furst
	Sebastian Schulz	Experimental and numerical investigation of turbulent impinging jets on rough surfaces (PhD intermediate report)	Prof. Dr. Rainer Suntz
	Anna Bertótiné Abai	Contribution of urea and its derivatives to particulate emissions of diesel vehicles (PhD intermediate report)	Christian Kuntz
19.07.2022 Gemeinsamer Termin mit EBI: Geb. 40.50, EBI SR004	Fabian Hagen	Quantifizierung der Größenverteilung von Ruß-Nanopartikeln in Gegenstromflammen mittels in-situ-Probenahme und differentieller Mobilitätsanalyse sowie zeitaufgelöster laserinduzierter Inkandeszenz (PhD intermediate report)	Prof. Dr. Rainer Suntz
20.09.2022	Iadh Ben Othman	Production of CO <sub>2</sub> -free hydrogen via methane pyrolysis: influence of residence time and feed gas composition in a high-temperature reactor (Bachelor thesis final report)	Ahmet Celik

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\* Please note:

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