

WORKSHOP MTET SUBTOPIC 3.2: "POWER-BASED FUELS AND CHEMICALS"

12th/ 13th June, 2024

Karlsruhe Institut für Technologie

[FTU at Campus North](#), Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen

30.04.2024

Wednesday, 12.06.2024	
09:00	Welcome (Ulrike Krewer, Jörg Sauer, Roland Dittmeyer)
09:05	Energy research at the KIT (Jörg Sauer)
09:15	Overview subtopic 3.2 power based fuels and chemicals (Ulrike Krewer)
09:25	Latest developments in the plasma conversion technology (Ursel Fantz)
09:35	Microwave plasma based CO ₂ conversion in a modular platform (e-XPlore) (Alexander Navarrete)
09:55	Activation of low-energy molecules using the example of nitrogen (Andreas Schulz)
10:15	Coffee Break
10:45	reFuels-Innofuels-REF4FU – From renewables to standard-compliant fuels (Ulrich Arnold)
11:10	Process development of methanol and DME synthesis (Karla Herrera Delgado)
11:35	Towards a LOHC train demonstrator: Reactor and process development to increase power density of hydrogen release units (Michael Geißelbrecht)
11:55	Catalyst development for the LOHC technology (Moritz Wolf)
12:15	Lunch at FTU
13:15	Overview direct electrochemical synthesis (Matthew Mayer)
13:25	Acceleration in Electrocatalyst Parameterization for Organic Synthesis by Means of Real-Time Mass Spectrometry (Pavlo Nikolaienko)
13:45	Revealing the Reaction Kinetics and Transport Effects at Electrodes for CO ₂ Reduction and Electrosynthesis via Kinetic Modeling (Philipp Röse)
14:05	MIEC membrane reactors – Overview of PoF 4 (Wilhelm Meulenberg / Nikolaos Margaritis)
14:15	Joining technologies for oxygen transport membrane reactors (Sonja-M. Groß-Barsnick)
14:35	Theoretical calculations and CFD simulations of membrane reactor designs (Ralf Peters)
14:55	Coffee Break
15:25	Modular Integrated Plants – Overview (Roland Dittmeyer)
15:35	Autonomous Power to Methanol Plants (Mohit Singh)
15:55	Sustainable Aviation Fuel (SAF) as contribution to transformation of the "Rheinisches Revier" area in NRW (Lydia Becka)
16:15	Poster session
18:15	We organize bus transfer to the Aurum (or individually by car)
19:00	Reception and Dinner @Aurum Karlsruhe
Thursday, 13.06.2024	
09:00	Lab tour
10:00	Lab tour
11:00	Lab tour
12:00	Lunch at KIT Casino Campus North
13:15	Board Meeting "Power-based Fuels and Chemicals" (IMVT, building seminar room)
16:00	End