

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

04.06.2024

Wednesday, 12.06.2024	
09:00	Welcome (Ulrike Krewer, Jörg Sauer - KIT)
09:05	Energy research at the KIT (Jörg Sauer - KIT)
09:15	Overview subtopic 3.2 power based fuels and chemicals (Ulrike Krewer - KIT)
09:25	Latest developments in the plasma conversion technology (Ursel Fantz - IPP)
09:35	Microwave plasma based CO ₂ conversion in a modular platform (e-XPlore) (Alexander Navarrete - KIT)
09:55	Activation of low-energy molecules using the example of nitrogen (Andreas Schulz – Uni Stuttgart)
10:15	Coffee break
10:45	reFuels-Innofuels-REF4FU – From renewables to standard-compliant fuels (Ulrich Arnold - KIT)
11:10	Process development of methanol and DME synthesis (Karla Herrera Delgado - KIT)
11:35	Towards a LOHC train demonstrator: Reactor and process development to increase power density of hydrogen release units (Michael Geißelbrecht – FZJ / HI ERN)
11:55	Catalyst development for the LOHC technology (Moritz Wolf - KIT)
12:15	Lunch at FTU
13:15	Overview direct electrochemical synthesis (Matthew Mayer - HZB)
13:25	Acceleration in Electrocatalyst Parameterization for Organic Synthesis by Means of Real-Time Mass Spectrometry (Pavlo Nikolaenko - FZJ)
13:45	Revealing the reaction kinetics and transport effects at electrodes for CO ₂ reduction and electrosynthesis via Kinetic Modeling (Philipp Röse - KIT)
14:05	MIEC membrane reactors – overview of PoF 4 (Nikolaos Margaritis - FZJ)
14:15	Joining technologies for oxygen transport membrane reactors (Sonja-M. Groß-Barsnick - FZJ)
14:35	Theoretical calculations and CFD simulations of membrane reactor designs (Ralf Peters - FZJ)
14:55	Coffee break and group photo¹
15:25	Modular integrated plants – overview (Roland Dittmeyer - KIT)
15:35	Autonomous power to methanol plants (Mohit Singh - KIT)
15:55	Sustainable aviation fuel (SAF) as contribution to transformation of the “Rheinisches Revier” area in NRW (Lydia Becka - FZJ)
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 605 room 201)
16:00	End

¹ Note: We will use the group photo of the participants for public relations purposes. By participating in the photo, you agree that KIT may use the resulting photo material for the purpose of press and public relations work.