

	Session	Time	Type	Abstract No.	Title	Presenting author
Sunday 10 May, 2026	Plenary 1	17:00	PL	PL0393	Advanced Model-based Reaction Engineering for Circular Economy	Dr. Sang Phil Han
	Session	Time	Type	Abstract No.	Title	Presenting author
	Plenary 2	8:30	PL	PL0726	Electrified, High temperature Thermocatalytic Reactor Technologies	Prof. Dionisios Vlachos
	MKC-1 (Room E1)	9:50	KN	KN0291	Computational Simulations and Artificial Intelligence for Heterogeneous Catalyst Discovery and Optimization	Prof. Shenggang Li
		10:30	OL	MKC0020	Accounting for Input Uncertainty when Estimating Parameters in Reactor Models and Selecting Conditions for New Experiments	Prof. Kimberley McAuley
		10:50	OL	MKC0387	Kinetic modeling of the pyrolysis of impure polyethylene	Mr. Daniël Witthoek
		11:10	OL	MKC0426	Mechanisms and Predictive Modeling of Gas-Liquid Mass Transfer in Microchannel Taylor Flows	Prof. Wenjun Yuan
		11:30	OL	MKC0487	Decomposition of Nitrogenated Impurities in Plastic Waste Pyrolysis Oil: A Combined Experimental and Modeling Study	Dr. Jeroen Aerssens
		11:50	OL	MKC0537	Bridging kinetic model extraction and multi-scale simulations by efficient neural-network-based kinetics	Mr. Tim Kircher
	HTT-1 (Room E2)	9:50	OL	HTT0173	Thermocatalytic CO2 conversion into oxygenates on Fe-based catalyst under high pressure conditions	Ms. Jiyeon Lee
		10:10	OL	HTT0185	CO2 hydrogenation to methanol on ZrO2-supported Cu and Cu-In2O3: comparative catalysis and in-situ IR	Mr. Marco Pietro Mezzapesa
		10:30	OL	HTT0293	Effects of Zn and Mn promoter over mesoporous cobalt-based catalyst for CO2 hydrogenation to hydrocarbons	Ms. Ye Ji Kim
		10:50	OL	MKF9704	Hybrid heterogeneous transfer learning for kinetics models	Mr. Youba ABED
		11:10	OL	HTT0541	Investigation the Interface between Cu and Boron oxide as an active site for CO2 to Methanol	Mr. ByeongJo Shim
		11:30	OL	HTT0570	Copper Oxide-Zeolite Tandem catalysis for direct multi-carbon oxygenates synthesis from CO2 hydrogenation	Prof. Xu Wang
	HYP-1 (Room E3)	11:50	OL	HTT0625	Experimental and Theoretical Evidence for the Rearrangement of Ru Catalyst for CO2 Hydrogenation: An In situ TEM and DFT Study	Dr. Kyung Rok Lee
		9:50	OL	HYP0096	Experimental investigation of green hydrogen production via Molten Carbonate Electrolyzers directly coupled with PV	Dr. MASSIMILIANO DELLA PIETRA
		10:10	OL	HYP0264	Interfacial engineering to boost photocatalytic hydrogen evolution via synergistic Z-scheme heterojunction in novel n-type metal free NiCoV-LDH/g-C3N4 Composite	Dr. Akawat Sirisuk
		10:30	OL	HYP0399	Aqueous phase reforming of methanol using copper-based catalysts: towards Pt-free hydrogen production	Prof. Giuseppe Pipitone
		10:50	OL	HYP0518	Optimization of Anode Circulation Plate Parameters in Alkaline Water Electrolyzers for Enhanced Hydrogen Production	Dr. Ming ming Pan
		11:10	OL	HYP0624	Joule Heated Membrane Reformer for Ultrapure Hydrogen Generation	Dr. SACHIN KUMAR VISHWAKARMA
	SCW-1 (Room E4)	11:30	OL	HYP9698	Benefits of Piston Reactor-Based Autothermal Reforming for Hydrogen-Rich Synthetic Gas Conditioning from wet biomass: Modeling, Performance Evaluation and Benchmarking	Mr. Massamba Sow
		11:50	OL	HYP0253	A Two-Stage System for Enhanced Methane Pyrolysis using Activated Carbon Catalyst with Integrated Steam Regeneration	Ms. Tasmia Khaid
		9:50	OL	SCB0272	Electronic-structure control of source-dependent hydrogen utilization in selective C–O bond cleavage in furfural conversion	Mr. Rizky Gilang Kurniawan
		10:10	OL	SCW0157	Catalytic upgrading of waste tire pyrolysis vapors in a circulating fluidized bed reactor	Dr. Angelos Lappas
		10:30	OL	SCW0159	Solvent-free hydrogenolysis of waste PET to p-xylene over a PtSn bimetallic catalyst	Dr. Do-Young Hong
		10:50	OL	SCW0234	Waste Polyoxymethylene Valorization Using Reusable Polymeric Acid Catalyst	Dr. Abhijit Sen
	CDU-1 (Room E5)	11:10	KN	KN0024	Design Synthesis of Novel Metallosilicates for Selective Oxidation Catalyses	Prof. Peng Wu
		11:50	OL	SCW0235	Environmentally Friendly Production of Sustainable Olefins from Plastic Waste via Catalytic Cracking of Crude Pyrolysis Oil in a Circulating Fluidized Bed Reactor	Dr. Do Kyoung Kim
		9:50	OL	CDU0051	Dual Upcycling CO2 and PET in an Integrated Electrolyzer	Dr. Hesamoddin Rabiee
		10:10	OL	CDU0091	Improving full energy efficiency in photoelectrochemical glycerol oxidation coupled with CO2 reduction using BIVO ₄ -based photoanodes	Prof. Jonathan Albo
		10:30	OL	CDU0137	Na-Doped Ru/Mg-Al Dual-Function Material for Isothermal Integrated CO2 Capture and Methanation	Dr. Michele Emanuele Fortunato
		10:50	OL	CDC0050	Data-driven DeepONet surrogate modelling for Direct Air Capture applications	Mr. Mattia Galanti
	DFN-1 (Room E6)	11:10	OL	CDU0184	Analysis of an Electricity-Price Optimized Operating Strategy of a Carbon Capture and Power-to-Methanol Pilot Plant	Mr. Lukas Anthofer
		11:30	OL	CDU0248	Mitigating Ni Catalyst Oxidation in ICCU-Methanation via a Dual-Temperature Fluidized-Bed Chemical Looping Strategy	Prof. Fabrizio Scala
		11:50	OL	CDU0347	Engineering PFAS-Free Gas Diffusion Electrodes for Electrochemical CO ₂ Reduction	Mr. Tim Brands
		9:50	OL	DFN0641	Radial Heat Transfer in Industrial-Sized Fixed-Bed Reactors under Steady-State and Dynamic Conditions	Mr. Lukas Gotthel
		10:10	OL	DFN0685	A NEW MASS-CONSERVING TWO-PHASE MODEL FOR A BUBBLING FLUIDIZED-BED GASIFIER	Dr. Pranav Vivek Kherdekar
		10:30	KN	KN0175	Reaction engineering of non-oxidative methane conversion via coupled surface and gas-phase radical pathways	Dr. Yong Tae Kim
	DFL-1 (Room E7)	11:10	OL	DFN0698	Thermodynamic Modeling and Optimization of Light Naphtha Hydroisomerization: Implications for Energy-Efficient Refinery Operation	Dr. Rogelio Sotelo-Boyás
		11:30	OL	DFN0705	Model-Based Fault Diagnosis and Fault Tolerant Control in Closed-loop Safety-Critical Chemical Reactors: An Experimental Study	Dr. Pu Du
		11:50	OL	DFN0578	Design of Dynamic Operation for NH ₃ Synthesis from Exhaust NO _x gas over Pt/TiO ₂ Catalyst	Mr. Huichan Hwang
		9:50	OL	DFL0640	Virtual Process Engineering: Building World Models for Process Industries	Prof. Wei Ge
		10:10	OL	DFL0643	Mapping of Gas-Liquid Flow Regimes and Bubble Dynamics in a Dual-Impeller Stirred Tank Using Non-Intrusive Measurement Techniques and Machine Learning	Dr. Roushni Kumari
		10:30	OL	DFL0646	Model-based assessment of heterogeneous secondary reactions and the relevance of char loading in fluidized bed pyrolysis of biomass	Dr. Maurizio Troiano
	Plenary 3	10:50	OL	DFL0110	Measured and modeled gas concentration profiles of a 180 kW pilot-scale methanation bubbling fluidized bed reactor	Mr. Lukas Schlagenhauf
		11:10	OL	DFL0324	Effect of gas properties on transport disengaging height of iron ore in a fluidized bed	Prof. Sung Won Kim
		11:30	OL	DFL0634	Identification of Volatile Cloudy Zone in a Liquid-injected Fluidized Bed by CFD-DEM Simulation	Dr. Qiushi Xu
		11:50	OL	MKF0662	Complex Network Approaches for Flow Regime Recognition in Gas-Solid Fluidized Beds	Dr. Yupeng Du
	Session	Time	Type	Abstract No.	Title	Presenting author
	Plenary 3	13:30	PL	PL0158	Reactor Engineering for Converting CO2 and Biogas to Carbon Nanofibers	Prof. Jingguang Chen
	MKC-2 (Room E1)	15:10	OL	MKC0026	Density functional theory and pair distribution function to understand catalytic graphitization of biocarbon from biomass	Dr. Ning Zhang
		15:30	OL	MKC0111	Multi-scale Modelling-Supported Catalytic Conversion Reactions towards Bio-based Chemicals	Prof. Blaž Likozar
		15:50	OL	MKC0128	Accounting for entropy in first-principles atomistic models – a marginal effect or a crucial consideration?	Prof. Matej Hus
		16:10	OL	MKC0176	On-line optimization for integrated carbon capture and conversion process through a combined DFT-microkinetic-modeling workflow	Prof. Supareak Praserttham

Monday II 11 May 2026	HTT-2 (Room E2)	16:30	OL	MKC0452	REGULATION OF MICRO-ENVIRONMENTS BY MULTI-METAL PROMOTERS: A THEORETICAL STUDY ON CO ₂ ACTIVATION OVER IRON CARBIDE CATALYSTS	Dr. Nan Song
		16:50	OL	MKC0627	Catalytic Roles of Reactive Hydrogen in CO ₂ activation via Reverse Water-Gas Shift on Rh and Pt Surfaces	Mr. Gabriele Spanò
		17:10	OL	MKF0294	Aromatization Mechanisms and Kinetics of n-Heptane over Ga/ZSM-5 Zeolites	Prof. Donghai Mei
	15:10	KN	KN0719	Catalysis-Driven Practical Solutions for Carbon Neutrality	Dr. Jinwoo Song	
	15:50	OL	HTT0384	Inhibition of Excessive NiO-MgO Solid Solution Formation via BaO Addition for Dry Reforming of Methane	Mr. Myeong-Hoon Kang	
	16:10	OL	HTT0507	Fe Modification Complementing Zeolite Encapsulation for Coke-Resistant Ni@S-1 in Dry Reforming of Methane	Ms. Liling Huang	
	16:30	OL	HTT0523	Sorption enhanced carbon dioxide methanation employing a bifunctional zeolite-based material with fine-tuned nickel clusters.	Mr. Enrico Marchi	
	16:50	OL	HTT0554	Kinetic Roles of Surface Carbon in Methane Dry Reforming on Rh and Ni by Operando Raman Spectroscopy	Dr. Matteo Maestri	
	17:10	OL	HTT5687	Redox-Basic Functional Balancing of Ni-Based Catalysts for Synergistic Coupling of Dry Reforming of Methane and the Reverse Water-Gas Shift Reaction	Prof. Hyun-Seog Roh	
	HYS-1 (Room E3)	15:10	OL	DFL0302	Power Dense LOHC Reactors and Effective Hydrogen Purification for Railway Applications	Dr. Julian Kadar
		15:30	OL	HYS0047	Reactor modelling and heat integration analysis of the hydrogen carriers 1,4 butanediol and perhydro-benzyl toluene for LOHC fueled vehicles	Dr. Michael Geißelbrecht
		15:50	OL	HYS0136	Reactor Stability for the Hydrogenation of Liquid Organic Hydrogen Carriers	Dr. Giuseppe Andriani
		16:10	OL	HYS0148	Optimizing Pt Coordination for Enhanced Dehydrogenation: From Laboratory Insights to Practical Applications	Prof. Yongxiao Tuo
		16:30	OL	HYS0181	Multi-Scale Hybrid Modeling of the Hydrogenation of Dibenzyltoluene in a Trickle-Bed Reactor	Mr. Casimir MAUDET
		16:50	OL	HYS0182	Semi-batch reactor modelling for LOHC dehydrogenation	Dr. Aurélie GALFRE
	SCW-2 (Room E4)	17:10	OL	HYS0534	Study of the hydrodynamic phenomena of three-phase packed bed reactors: hydrogenation and dehydrogenation of Liquid Organic H ₂ Carriers (LOHC)	Mr. Andrea Murlo
		15:10	OL	SCM0651	Investigating external surface accessibility effects of hierarchical and nanosponge zeolite Beta in polyolefin chemical recycling	Dr. Hankyeul Kang
		15:30	OL	SCW0134	Technical and environmental assessment of wheat straw biochar for soil application	Dr. Francesca Demichelis
		15:50	OL	SCW0237	Catalytic Hydrothermal Valorization of Hydrocarbon Residue and Plastic Waste to Chemicals: Experimental and Machine Learning Insights	Prof. Mohammad Hossain
		16:10	OL	SCW0292	Efficient polyolefin upcycling to liquid fuels via Ru-zeolite physical mixtures and pathway control	Dr. Hyeongdong Jung
		16:30	OL	SCW0343	Unlocking BTX from Epoxy-Polyethylene Waste: Catalytic Vapor Upgrading over Ga/Zn HZSM 5	Dr. Oguzhan Akin
		16:50	OL	SCW0440	High-conversion Fischer-Tropsch Technology for Waste to Fuels applications	Dr. Steapan Spatenka
	CET-1 (Room E5)	17:10	OL	SCW0552	Pyrolysis of Contaminated Mixed poly-olefins: Feedstock Characterization and Impurity Partitioning into Oil Fractions	Dr. Bhargav Baruah
		15:10	OL	CET0193	Unlocking catalyst potential: Forced dynamic operation for modern emission control	Dr. Patrick Lott
		15:30	OL	CET0271	Co-modulated Ag/Al ₂ O ₃ IPA-SCR catalyst for NO _x emission control in semiconductor FAB exhaust	Dr. Sang Woo Byun
		15:50	OL	CET0350	Pd-ceria catalysts for complete CH ₄ oxidation: influence of Pr-doping on water and sulfur resistance	Dr. Enrico Sartoretti
		16:10	OL	CET0329	N ₂ O Abatement on Fe-CHA Catalysts: Transient Experiments and Kinetic Modelling	Prof. Enrico Tronconi
	DFN-2 (Room E6)	16:30	KN	KN0348	Unravelling the Standard/NH₃-SCR Redox Chemistry: A Decoupled Kinetic Approach for Cu-CHA Catalysts	Prof. Isabella Nova
		17:10	OL	HTT0546	Modeling of propylene oxidation rate and selectivity on Cu/SSZ-13 catalysts for NH ₃ -SCR	Prof. Petr Koci
		15:10	OL	DFN0431	Creating Digital Twins of Gamma-Alumina Supports by means of 3D Pore Network Models	Dr. Jan Verstraete
15:30		OL	DFN0602	Dynamic simulation and scenario study of washcoated electrified reverse water gas shift reactor	Mr. Dong-Gi Lee	
15:50		OL	DFN0500	Strategies for industrial-scale methanol synthesis via CO ₂ hydrogenation under load-flexible conditions	Ms. Luisa Failing	
16:30		OL	DFN0556	Physically consistent neural network surrogates of catalytic reactors with detailed surface kinetics	Dr. Felix Döppel	
DFL-2 (Room E7)	16:50	OL	DFN0560	Understanding unsteady operation of washcoated monolith reactors for emission-control	Mr. Maximilian Meyer	
	17:10	OL	DFN0600	Multiscale Modelling of Transport Phenomena in Tubular Fixed-Bed Reactors	Prof. Boram Gu	
	15:10	OL	DFL0240	Design and Process Intensification of a Microbubble-Interfacial Reactor for Catalyst-Free Oxidative Degradation of Phenolic Compounds	Dr. Xiaoyang Chen	
	15:30	OL	DFL0414	Ignition of hydrogen in a fluidized bed of silica during non-premixed operation	Mr. Aki Fujinawa	
	15:50	KN	KN0049	Generation, accumulation, dissipation and monitoring of electrostatic charges in gas-solids fluidized beds	Prof. Xiaotao Bi	
	16:30	OL	DFL0443	High-throughput simulation and optimization of gas-solid fluidized bed for the clean coal utilization	Mr. Yong Zhang	
	16:50	OL	CDC0180	Functionalization of corn-cob-derived biochars as innovative bio-based CO ₂ adsorbents	Ms. Bianca Ziantoni	
17:10	OL	DFL0598	CFD-DEM study on the effect of drag, lift and hydrodynamic torque in a dense -gas solid fluidized beds with non-spherical particles.	Dr. Vikrant Verma		

Session	Time	Type	Abstract No.	Title	Presenting author
Plenary 4	8:30	PL	PL0069	From Fossil Feedstocks to Renewable Carbon: Rethinking the Petrochemical Value Chain	Prof. Kevin Van Geem
DNR-2 (Room E1)	9:50	OL	DNR0125	Electrified dry reforming of methane via volumetric Joule heating of structured foam catalysts	Prof. Lei Zheng
	10:10	OL	DNR0238	STARBRIDGE™ Electrified Furnaces: Engineering-Scale 3D Modeling for Low-Carbon Steam Cracking, Reforming and Gas Heating	Dr. Hans-Jörg Zander
	10:30	OL	DNR0289	Rapid Pulsed Joule Heating for Energy-Efficient Nonoxidative Conversion of Methane to Ethylene	r. Tsegay Gebrekidan Gebreyohanne
	10:50	OL	DNR0430	EMERALD: Experimental investigation of a novel eReactor concept based on radial electric current	Prof. Enrico Tronconi
	11:10	OL	DNR0497	Electrification of ethylene production in a lab-scale electrothermal fluidized bed reactor through simulated steam cracking conditions.	Mr. Daniel A. Quintero-Coronel
	11:30	OL	DNR0565	A reduced order model for electrically heated catalytic reactors	Ms. Teresa Bhumana
HTT-3 (Room E2)	11:50	OL	DNR0621	Experimental testing and CFD modelling of an electrified ammonia cracking reactor	Dr. Matteo Ambrosetti
	9:50	KN	KN0194	Active Site Structures on Transition Metals and Oxides and their Mechanistic Roles in Alcohol Conversion	Prof. Ya-Huei (Cathy) Chin
	10:30	OL	HTT0327	Regulating the Acidity of MCM-22 Zeolite Catalysts for Aromatization from Light Hydrocarbons	Dr. Jonghyun Jeon
	10:50	OL	HTT0298	Pr-doped Pd/CeO ₂ catalysts for CH ₄ oxidation: unveiling the promoting role of Pr through in-operando techniques	Prof. Samir Bensaid
	11:10	OL	HTT0524	C=C enantioselective hydrogenation over Pd/MOF	Mr. Hyunjun Jeong
11:30	OL	HTT0618	Environmentally Benign Co/Sn Catalysts: The Role of Mesoporous Silica Supports in Propane Dehydrogenation	Ms. Mozdeh Amanati	
11:50	OL	HTT0654	Carbonate-mediated CO ₂ and CH ₄ Conversion over Metal Oxide-based Catalysts for Value-added Product Production	Dr. Seungdon Kwon	

Tuesday II 12 May, 2026		17:10	OL	HYS0445	Design of cost-effective Ru-free perovskite derived catalysts with optimized Ni exsolution and electronic properties for high performance ammonia decomposition	Mr. Jae Min Park
	SCB (Room E4)	15:10	OL	SCB0149	Thermodynamic Prediction of Advanced Distillation Curves for Bio-Oil and Complex Sustainable Fuel Mixtures	Mr. Amir Jalalinejad
		15:30	OL	SCB0257	High-rate biohydrogen production and granule formation in an upflow bioreactor packed with ceramic hollow balls and granular activated carbon	Prof. Sang-Hyoun Kim
		15:50	OL	SCB0470	Efficient production of xylitol via xylose hydrogenation under relatively low hydrogen pressure	Dr. Hiroyasu Fujitsuka
		16:10	OL	SCB0490	Role of inorganics during the hydrothermal liquefaction of OFMSW	Dr. Edoardo Tito
		16:30	OL	SCB0526	CATALYTIC HYDROLYSIS OF HEMICELLULOSE TO SUGAR MONOMERS	Dr. Georgia Ioannidou
		16:50	OL	SCB0649	Effect of Different Environmental Gases on the Catalytic Pyrolysis of Organic Waste	Ms. Haneul Shim
		17:10	OL	SCB0653	Hydrogen production from waste cigarette filters via steam gasification over waste-derived Ni/MFe ₂ O ₄ spinel catalysts synthesized from acid mine sludge effluent	Ms. Fatemeh Khani-Aghesmaeili
	MKF-2 (Room E5)	15:10	OL	MKF0215	Deactivation of a Ni/Al ₂ O ₃ catalyst during CO ₂ methanation studied in a concentration-controlled recycle reactor	Mr. Mathias Waldner
		15:30	OL	MKF0278	The Role of Ni and Ru Sites in Thermo-Catalytic Ammonia Decomposition over Ni-BCZY cermet	Dr. Sofia Angeli
		15:50	OL	MKF0317	Low Temperature Fast-SCR on Cu-SSZ-13 Catalysts: Evidence for Redox and Surface Nitrates Routes	Mr. Andrea Gjetja
		16:10	OL	MKF0433	Composition and Reaction Modeling of Lignins during Hydroconversion	Dr. Jan Verstraete
		16:30	OL	MKF0636	Kinetic Study of Ethylene Hydroformylation over Rh supported SiO ₂ catalysts	Prof. Takahiko Moteki
		16:50	OL	MKF0638	Impact of Fe-Fe ₃ C-C phase evolution on methane pyrolysis kinetics: from catalyst structure to reactor scale	Dr. Veronica Piazza
		17:10	OL	MKC0536	Microkinetic modelling of Methane oxidation and NOx reduction for stoichiometric CNG vehicles	Ms. Chaitra Borkar
	CDU-2 (Room E6)	15:10	OL	CDU0419	Tuning e-fuel properties using zeolites in CO ₂ -modified Fischer-Tropsch Synthesis	Dr. Fabio Salomone
		15:30	OL	CDU0498	Direct utilization of ambient carbon dioxide by reactive carbon capture	Dr. Wonsuk Chung
		15:50	OL	CDU0548	Experimental and Modelling Assessment of Intraporous Mass Transport in Highly Active CO ₂ Methanation Catalysts	Dr. Carlo Giorgio Visconti
		16:10	OL	CDU0568	Highly Dispersed ZnZrOx Species on Zeolites Enabling CO ₂ Hydrogenation to Hydrocarbons	Dr. Kentaro Kimura
		16:30	OL	CDU0594	Advancing CO ₂ Hydrogenation to Liquid Fuels via Spatial Proximity Control and Exsolution Engineering	Dr. Yongseok Kim
		16:50	OL	CDU0664	On the optimal design of cooled fixed-bed reactors for the direct methanation of biogas and syngas via 2-D modelling	Dr. Emanuele Giglio
	PTL-1 (Room E7)	17:10	OL	CDU0676	Impact of Catalyst Preparation Routes on Structural Properties and CO ₂ Methanation Performance of Ni/CeO ₂ Catalyst	Mr. Aamir Suhail Khan
		15:10	OL	PTL9699	Scale-up of a compact Fischer-Tropsch structured reactor	Mr. Martino Panzeri
		15:30	OL	PTL0155	Thermochemical conversion, and process integration solutions for biomass-derived feedstocks and their upgrading into usable fuel blends	Prof. Cataldo De Blasio
		15:50	KN	KN0629	AI Assisted CO₂ Conversion Process for Value Added Chemical Production	Dr. Ung Lee
		16:30	OL	PTL0232	Environmental and Economical Assessment of Membrane-based Blue Hydrogen Process: Integrating Carbon Capture and Oxygen-enriched combustion	Prof. Boram Gu
		16:50	OL	PTL0381	High-Pressure Sorption-Enhanced Reverse Water Gas Shift Process: a Comparative Study of LTA and FAU Zeolites	Mr. Rodrigo González Pizarro
			17:10	OL	PTL0601	Techno-Economic Assessment of Hydrogen Production from Agricultural Residue-Derived Bio-Oil via Steam Reforming

	Session	Time	Type	Abstract No.	Title	Presenting author
Wednesday I 13 May, 2026	Plenary 6	8:30	PL	PL0033	Engineering Chemical Process by Capsule Catalyst and 3D Printed Self-Catalytic Reactor	Prof. Noritatsu Tsubaki
	DNR-3 (Room E1)	9:50	OL	DNR0366	Model-Driven AI Analysis and Optimization of a Novel Heat-Integrated Reactor for CO ₂ Methanation and NH ₃ Cracking	Dr. Ali Bakhtyari
		10:10	OL	DNR0458	Novel Autothermal Cracker concept for Ethylene production	Dr. Shauvik De
		10:30	OL	DNR0529	CFD modelling of reactive CO ₂ absorption in structured packings	Prof. Swapna Singha Rabha
		10:50	OL	DNR0687	MODELING OF A CATALYTIC CANDLE FILTER FOR DUST AND TAR REMOVAL FROM SYNGAS	Dr. Pranav Vivek Kherdekar
		11:10	OL	DPR0099	Detailed Modeling of Autoclave Reactors	Dr. In Seon Kim
		11:30	OL	DPR0626	Size control of polystyrene particles in suspension polymerization with a stirred tank	Dr. Xiaoping Guan
		11:50	OL	DPR0633	Optimization of Slurry Loop Reactors by Understanding the Complex Mesoscale Behaviors of swelling particles	Prof. Ning Yang
	HTT-5 (Room E2)	9:50	OL	HTE0581	Size-Dependent electrochemical CO ₂ reduction on diverse bimetallic gold silver alloy nanoparticle morphologies: Synergistic effects on CO selectivity	Ms. Roshni Ray
		10:10	OL	HTT0310	Promotional Effect of Silica Shell Coated NiO Physically Mixed with Mo/HZSM-5 Catalyst on Methane Dehydroaromatization	Mr. Jangeon Roh
		10:30	OL	HTT0485	Structure-guided control of Al sites in MFI zeolites: Toward rational catalyst design for efficient methane dehydroaromatization	Mr. Sang Yun Kim
		10:50	OL	HTT0599	Screw-Extruder-Assisted Catalytic Upcycling of High-Viscosity Polyethylene Waste	Prof. Yong-Kul Lee
		11:10	OL	HTT0622	Ammonia cracking activity assessment of PGM catalyst deposited on high surface carbon supports	Mr. Giovanni Carolini Rizzo
		11:30	OL	HTT0652	Mixed zeolite system for catalytic cracking to enhance light olefin yield and selectivity	Ms. Jiyun Park
	CET-2 (Room E3)	11:50	OL	HTT0667	Synergistic Co-pyrolysis of Coconut Husk and HDPE for CNT Synthesis: Catalyst and Process Optimization	Ms. Thanchanok Vettavong
		9:50	OL	CET0083	On the thermal degradation of a functionalized ionic liquid for reactive removal of acid gases and its synthesis mixtures	Dr. Giuseppe Andriani
		10:10	OL	CET0156	Kinetics analysis of pure and industrial hematite powder reduction using hydrogen and carbon monoxide mixture.	Mr. Antonio D Angelo
		10:30	OL	CET0177	Optimization of process parameters for the esterase production from Trichoderma harzianum using both Taguchi orthogonal design and machine learning technique and hydromechanical stress study in a fermenter	Dr. Dinesh Sankar Reddy Puchalappal
		10:50	OL	CET0280	CF ₄ Destruction via Oxidative Heat Assistance in a Sn-Mg Molten Metal Bubble Column Reactor	Mr. Jung Hyeon Park
		11:10	OL	CET0613	Optimization of the Catalyst Layer Using Fluorine-Free Ionomers in GDE Half-Cell Configuration	Dr. Giovanni Marco Carrabba
		11:30	OL	CET0660	Delayed Coking for Co-conversion of Biomass: Bench-scale Experiments and Multi-Objective Optimization	Prof. Divesh Bhatia
		11:50	OL	CET5684	Sub/supercritical water gasification of hydrothermal carbonization-derived wastewater: influence of feedstock on the energy recovery	Prof. Samir Bensaid
	SCM (Room E4)	9:50	OL	SCB0030	Tuning the acid-base properties of lignin-derived carbon modulated ZnZr/SiO ₂ catalysts for selective and efficient production of butadiene from ethanol	Dr. Na Liu
		10:10	OL	SCM0153	Synthesis of Beta-Type Titanocaluminosilicates via an Interzeolite Transformation and Their Catalytic Activity in Glucose Conversion	Mr. Jun Seong Park
		10:30	KN	KN0117	Synthetic methods to position acid sites in zeolites for selective arene methylation catalysis	Prof. Rajamani Gounder
		11:10	OL	SCM0225	Replacing HCl with Hierarchical Zeolite Catalysts in the Production of Polyurethane Intermediates	Prof. Minkee Choi
		11:30	OL	SCM0542	Encapsulation of Metal Nanoparticles in Zeolites Enabled by Organic Molecules	Prof. Changbum Jo

		11:50	OL	SCM0623	Ti-MWW Zeolite for Sustainable Lactide Production from Methyl Lactate: Origin of Its Catalytic Superiority	Dr. Seung Hyeok Cha
MKF-3 (Room E5)		9:50	OL	MKF0013	Simplifying Batch Reactor Models with Some Fast Equilibrium Reactions Using Extent of Reaction	Prof. Kimberley McAuley
		10:10	OL	MKC0090	Adaptation and Application of Dynamic Modeling for Gas Fermentation Under Cell Retention and Elevated Pressure Conditions	Mr. Christian Ebel
		10:30	OL	MKF0218	Morphology-Controlled Kinetics in the Catalytic Glycolysis of PET	Mr. Joseph Sutton
		10:50	OL	MKF0360	Unveiling Active Center of Ru ₃ Sn ₇ /ZnO Catalyst for Carboxylic Acids Hydrogenation: in situ DRIFTS Study	Mr. Dae Ho Hong
		11:10	OL	MKF0585	Development of thermodynamically consistent microkinetic model of a Pd-based three-way catalyst for natural gas vehicles	Ms. Chaitra Borkar
		11:30	OL	MKF0630	Apparent Kinetic Parameters of Friedel-Crafts Alkylation over Hierarchical Beta Zeolites Derived from Pseudo-First-Order Modeling	Prof. Jeong-Chul Kim
		11:50	OL	MKF0632	O ₂ co-feed as Diagnostic Tool to Investigate H-Poisoning on NH ₃ Decomposition over Ru-Based Catalysts	Mr. Ivan Conti
CDU-3 (Room E6)		9:50	KN	CDU0283	Advancing CO₂-Derived e-Fuels through Fischer-Tropsch Synthesis	Dr. Dong Hyun Chun
		10:30	OL	CDU0279	La-based perovskite mixed metal oxide for CO ₂ removal via direct air capture and in situ conversion	Dr. Muhammad Tayyab
		10:50	OL	CDU0299	Low-content Ru/TiO ₂ catalysts for efficient CO ₂ methanation: catalyst development and reactor design	Prof. Samir Bensaid
		11:10	OL	CDU0320	Kinetic and Experimental Investigation of CO ₂ Methanation in a Bubbling Fluidized Bed	Dr. Roberto Ruggiero
		11:30	OL	CDU0407	Decoupling the Role of Exsolved Ni and Active Support in Dry Reforming of Methane: Enhanced CO ₂ Dissociation over Ni-doped La ₂ Ti ₂ O ₇	Mr. Sung-Bin Choi
PTL-2 (Room E7)		11:50	OL	CDU0409	Green syngas production via eRWGS: an in-depth analysis of an electrified packed foam reactor	Mr. Federico Nicolini
		9:50	OL	DNR0398	Digital Twin Guided Reinforcement Learning for Stable and Energy-Efficient Operation of Complex Reactive Systems	Mr. Guanwei Zhou
		10:10	OL	PTL0048	Ultrasound enhanced continuous crystallization	Prof. Simon Kuhn
		10:30	OL	PTL0086	Early Detection of Thermal Runaway in Chemical Reactors via Electrical Conductivity Monitoring	Dr. Giuseppe Andriani
		10:50	OL	PTL0258	High-Gravity Vortex Drying for Intensified Secondary Drying of Pharmaceutical Powders	Ms. Afroditi Kourou
		11:10	OL	PTL0486	Solid-liquid mass transfer characteristics of porous corn straw particles in the stirred tank	Ms. Yixi Wei
	11:30	OL	PTL0519	Autonomous Chemical Process Design and Simulation Using LLM Agents: An Integrated Design-to-Simulation Framework	Ms. Margaret Margareth	
	11:50	OL	PTL0644	Breaking the ASF Constraint: Catalytic Surface Resonance as a Route to Controlled ¹ Chain-length Selectivity	Prof. Michael Patrascu	
	Session	Time	Type	Abstract No.	Title	Presenting author
DPL/DER (Room E1)		13:30	KN	KN0220	Light Oils Synthesized by Methane Homologation over a Novel Hierarchically Porous Titania Catalyst Designed for a Non-Thermal Plasma	Prof. Jinwoo Lee
		14:10	OL	DER0084	Explaining the High-Pressure Advantage in Reactive Carbon Capture Electrolysis: 1D Multiphysics Resolution of BPM/Cathode Interfacial CO ₂ Generation	Ms. JEONGYEON LEE
		14:30	OL	DER0233	Modeling Bipolar Membrane Electrodialysis for Isolation of Lactic Acid	Mr. Jiun Yun
		14:50	OL	DER0612	3D Multiphysics Modeling of PEM fuel cells: From Validation to Gas Channel Optimization	Dr. Maria Chiara Massaro
		15:10	OL	DMB0011	Membrane-based reactive separation process intensification for H ₂ production	Prof. Xianhao Chen
HTE (Room E2)		15:30	OL	DPL0681	Overcoming thermal degradation in continuous conversion of water into hydrogen peroxide in a flexible microwave plasma reactor	Dr. Alexander Navarrete
		13:30	OL	HTE0326	Intrinsic Activity Enhancement of Iridium Oxide via a Modified Adams Fusion Route for Low-Ir Proton Exchange Membrane Water Electrolysis	Prof. Chanho Pak
		13:50	OL	HTE0361	Pulsing Towards High Selectivity Electrochemical Furfural Hydrogenation Over Multimetallic Sulfide Electrodes	Dr. Bezawit Zerihun Desalegn
		14:10	KN	KN0151	Polymer Syntheses Toward Carbon-Neutral Future	Prof. Bun Yeoul Lee
		14:50	OL	DER0775	Electrochemical Reactor Modeling for Sustainable Alkane Dehydrogenation	Dr. Sayantan Biswas
CET-3 (Room E3)		15:10	OL	HTP0365	Photoelectrode with Co-Catalyst-Embedded Ion-Conductive Polymer Layer for Solar-to-Chemical	Dr. Sang Youn Chae
		15:30	OL	HTP0680	From Plasmons to Catalysis: Single particle correlative study of bimetallic Cu-Ag antenna-reactor nanowires	Mr. Uttam Sharma
		13:30	OL	CET0330	Investigating Effect of Angle of Attack on Methane-Oxidation Reaction in Exhaust After-Treatment Process	Ms. Ankita Kumari
		13:50	OL	CET0163	From Mixed Plastic Waste to Olefins: Techno-Economic and Life-Cycle Impacts of Pyrolysis-Oil Co-Feeding and Electrified Steam Cracking under Korean electricity grid	Prof. Philippe Heynderickx
		14:10	OL	CET0195	Does H ₂ Temperature-Programmed Reduction Always Probe Solid-State Redox Chemistry?	Dr. Jaeha Lee
		14:30	OL	CET0313	Tailored catalytic selectivity in small-pore environments: A case study of Mn/TiO ₂ in the NO _x reduction	Prof. Inhak Song
CDC (Room E4)		14:50	KN	KN0022	Cyclic unsteady-state reactions on catalyst surfaces for CO₂ utilization, exhaust purification, and mechanistic studies	Prof. Kenichi Shimizu
		15:30	OL	CET9697	Effect of Enhanced Support Surface Area of Red Mud-Derived Al ₂ O ₃ on Catalytic CO ₂ Methanation over Ni Catalysts	Mr. Hoesuk Yim
		13:30	OL	CDC0029	In-situ hydrothermal synthesis of b-axis oriented Si-MFI zeolite membranes with high binding strength and flue gas separation study	Prof. Dingcheng Liang
		13:50	OL	CDC0087	Experimental assessment of kinetics of co-adsorption for solid sorbents in sub-ambient DAC conditions	Mr. Timothy van Lanen
		14:10	OL	CDC0231	Preliminary study of blu hydrogen production using MCFC as active CCS device	Dr. Silvia Lo Conte
		14:30	OL	CDC0287	Electrophoretic Dynamics in Electric Field-Assisted CO ₂ Capture over Molten Nitrate-Promoted MgO Sorbent	Mr. You Seok Kang
		14:50	OL	CDC0161	Modelling approaches for sorption on solid sorbents	Ms. Meenakshi Josyula
MKF-4 (Room E5)		15:10	OL	CDC0666	Optimization of Operating Conditions in a Fluidized-Bed CO ₂ Capture System Using an Amine-based Solid Sorbent	Dr. Weerawut Chaiwat
		15:30	OL	CDC0684	Building-Integrated Direct Air Capture via HVAC Systems for Reduced Energy Demand and Cost	Dr. Masoud Mahmoudizadeh
		13:30	OL	MKF0006	Towards the upgrading of plastic pyrolysis oil: Understanding of the recombination reaction between olefin and hydrochloric acid	Ms. Marta DEL GIUDICE
		13:50	OL	MKF0056	Kinetic investigation of acid gas valorisation on NaX zeolite	Mr. Raman Ghassemi
		14:10	OL	MKF0070	Dual-Function Ligands Regulate the Nucleation Growth and Suppress the Ripening of Perovskite Quantum Dots	Dr. Xiaofeng Chen
		14:30	OL	MKF0146	Reaction mechanism and kinetics of CaCO ₃ hydrogenation	Mr. Yuqi Zhou
MKF-4 (Room E5)		14:50	OL	MKF0435	Kinetic studies on the catalytic ammonia decomposition over Nickel catalysts	Ms. Paula Hirte
		15:10	OL	MKF0392	Mechanistic Insights into Heterolytic C-H Bond Activation over Boron Modified Ga ₂ O ₃ Catalysts	Mr. Jungmok Oh
		15:30	OL	MKP0567	Mitigation of the Coffee-Ring Effect Through Thermoresponsive PNIPAM-Grafted Particles	Mr. Seong Hwan Kim
		13:30	OL	CDC0511	A Novel DMEA-based Tri-Amine Solvent for Efficient CO ₂ Capture: Performance, Kinetics, Spectroscopic and Toxicity Assessment	Mr. Akhil Kumar Gupta
		13:50	OL	CDC0659	Breakthrough in Direct Air Capture: High-Performance CO ₂ Adsorption Tower Design and Optimization	Dr. Sutthichai Boonprasop

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CDU-4 (Room E6)	14:10	OL	CDU0097	Autothermal Reactor Design for CO ₂ Hydrogenation to Methanol	Mr. Onkar Makarand Ghangrekar
	14:30	OL	CDU0113	Pilot-Scale Assessment of Fe ₂ O ₃ -MgAl ₂ O ₄ Extrudates in Chemical Looping Reverse Water-Gas Shift: Performance and Structural Stability	Mr. Michiel W.F. Van Cauwelaert
	14:50	OL	CDU0449	Effect of Ni loading method on the deactivation behavior of Ni/Al ₂ O ₃ catalysts prepared via mechanochemical synthesis for Dry reforming of methane	Mr. Gwan-Joong Park
	15:10	OL	CDU0510	Application of model predictive control in a methanol synthesis miniplant under fluctuating conditions	Mr. Johannes Voß
	15:30	OL	CDU0614	Spillover effects between Ru and CO ₂ sorbent for integrated CO ₂ capture and methanation	Dr. Alessandro Porta
PTL-3 (Room E7)	13:30	OL	PTL0250	Geometry-Driven Process Intensification of Continuous Biodiesel Synthesis in 3D-Printed Meandering Milli-Reactors	Ms. Aastha Garg
	13:50	OL	PTL0311	Scale-Up Performance of Electrified Steam and Plasma Cracking of Naphtha for Ethylene Production	Dr. Eprillia Intan Fitriyani
	14:10	OL	PTL0356	Process Intensification using Anisotropic POCS – experimental and numerical assessment	Roberta Castiglione
	14:30	OL	PTL0401	Thermally stable TR-PBO hollow fiber membrane reactor for process intensification of catalytic reactions	Mr. Myeong-Hun Hyeon
	14:50	OL	PTL0706	Radio-Frequency-Driven Propane Dehydrogenation over Pt-based Catalysts	Prof. Benjamin Wilhite
	15:10	OL	PTL0707	Methanol Synthesis in a Sorption Enhanced Fluidized Bed Reactor with Continuous Sorbent Feeding (SEFBR+CSF)	Prof. Jaime Soler
	15:30	OL	PTL5686	Electrified Sorption-intensified Ammonia Production Process over Serial Ruthenium Catalysis / Zeolite-supported Halide Capture	Prof. Blaž Likozar