Program

Processes for Resilient Supply of Carbon Carriers, Fuels and Chemicals

Petrochemistry Division
Conversion of Carbon Carriers Divison

October 8 - 9, 2026, Essen

Società Chimica Italiana

ÖGEW

DGMK

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SCIENTIFIC COMMITTEE

Dipl.-Ing. Dipl.-Wirtsch.Ing. Tilman Bechthold, RWE Power AG, Essen
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Dr.-Ing. Stefan Guhl, TU Bergakademie Freiberg, IEC, Freiberg
Dr. Harald Häger, Evonik Performance Materials GmbH, Marl
Prof. Dr. Marco Haumann, FAU Erlangen-Nürnberg, Erlangen
Prof. Dr. Andreas Jess, Universität Bayreuth, Bayreuth
Prof. Dr. Johannes A. Lercher, TU München, München
Dr. Mario Marchionna, Italian Chemical Society, Rom
Dr. Matthias Müller-Hagedorn, BASF SE, Ludwigshafen
Prof. Dr. Jörg Sauer, KIT, Karlsruhe
Prof. Dr. Jennifer Strunk, TU München, München
Dr. Andreas J. Vorholt, MPI für Chemische Energiekonversion, Mühlheim an der Ruhr
Dr. Bryce Williams, AIR LIQUIDE Forschung und Entwicklung GmbH, Frankfurt

WELCOME

Dear ladies and gentlemen,

it is my great pleasure to invite you on behalf of the DGMK divisions "Petrochemistry" and "Conversion of Carbon Carriers", the Industrial Chemistry division of the Società Chimica Italiana (SCI) and the ÖGEW to the 2026-edition of our successful joint conference at the "Haus der Technik" in Essen.
With our conference "Processes for Resilient Supply of Carbon Carriers, Fuels and Chemicals" we focus on a crucial aspect of the energy transition, which is the appropriate balance between sustainability (e.g. low greenhouse gas emissions) on the one hand and affordability and security on the other hand when it comes to the production of carbon carriers, fuels and chemicals. You can expect intriguing and elaborate key notes, lectures and poster sessions given by senior experts from science and industry. This also means a great opportunity for intensive discussions about technologies, processes and the latest developments in this field.
We are sure you are going to enjoy the conference and the great opportunity for networking and exchange and we look forward to many intensive and inspiring conversations.

Dipl.-Ing. Dipl.-Wirtsch.Ing. Tilman Bechthold
Chairman
DGMK division "Conversion of Carbon Carriers"

PROGRAM OVERVIEW

Thursday, October 8, 2026	
09.30 – 09.50	Opening and Welcome Address
09.50 – 11.20	Methanol Synthesis
11.20 – 11.35	Coffee Break
11.35 – 13.15	Methane Pyrolysis, Hydrogen, Ammonia Cracker
13.15 – 14.15	Lunch Break
14.15 - 15.05	Electrification of Chemical Processes
15.05 – 16.50	Postersession & Coffee
16.50 - 17.50	Award of the "Carl-Zerbe Preis"
19.00 – 23.00	Conference Dinner
Friday, October 9, 2026	
08.30 - 09.50	Big data & Resilience
09.50 –10.10	Coffee Break
10.10 – 12.45	Methanol-to-X, Fischer-Tropsch, e-fuels, SAF
12.45 – 13.30	Lunch Break
13.30 – 15.50	Chemical Recycling
15.50 – 16.05	Coffee Break
16.05 – 18.00	Plasma Pyrolysis
18.00 – 18.05	Concluding Remarks & Conference Summary

OPENING AND WELCOME ADDRESS

09.30 h

G. Netzeband
Managing Director, DGMK e.V.

T. Bechthold
Chairman DGMK-Division Conversion of Carbon Carriers

S. Hölbfer
President ÖGEW

SESSION: METHANOL SYNTHESIS

Chairperson: Marco Haumann

09.50 h

Keynote Lecture: Refinery Transformation – Regulation and its Impact on Value Chains
L. Wunderlich
en2x, Berlin, Germany

10.30 h

Step-wise Technology Pathways to Decarbonization
J.-P. Bohn
LINDE Engineering, Chemical and Process Technology Development, Pullach, Germany

10.55 h

Methanol Production from Steel Mill Gases - Comparison of Plant Performance for Different Carbon Sources
J. Voß, V. Angenedt, T. Schulzke
Fraunhofer UMSICHT, Carbon Utilization and Synfuels, Oberhausen, Germany

11.20 h Coffee Break

SESSION: METHANE PYROLYSIS, HYDROGEN, AMMONIA CRACKER

Chairperson: **Bryce Williams**

11.35 h **From the Lab to the Field: Air Liquide's R D-driven De-Risking Strategy for the Commercialization of Ammonia Cracking Technology**

S. Trunk[1], R. Schmidt[1], V. Ren[2], G. Lodier[2], P. Del-Gallo[2], M. Madelain[2], B. Dhungel[3], D. Ulber[4], T. Wurzel[5], F. Cock[6]

[1] Air Liquide Forschung und Entwicklung GmbH, Frankfurt, Germany, [2]Air Liquide Research & Development, France, [3]Air Liquide R & D, Newark, United States, [4]Air Liquide Engineering & Construction, Frankfurt, Germany, [5]Air Liquide Large Industries, WBL, Frankfurt, Germany, [6]Air Liquide Large Industries, Zaventem, Belgium

12.00 h **Compact and Efficient Ammonia Cracker for Decentralized Hydrogen Production**

D. Gashnikova, R. Zapf, C. Hofmann, G. Kolb

Fraunhofer Institute for Microengineering and Microsystems IMM, Mainz, Germany

12.25 h **Hydrogen and Solid Carbon Production by Discharge Plasma Decomposition in Liquid-Phase Hydrocarbons**

Y. Katsuragawa, H. Ueda, M. Asahara, T. Harigai, T. Miyasaka

Gifu University, Gifu, Japan

12.50 h **Inductively Heated Moving-Bed Reactors for Methane Pyrolysis**

S. Schütz[1,2], G. Stubbe[1], S. Möhring, [1]T. E. Müller[2]

[1]VDEh-Betriebsforschungsinstitut GmbH (BFI), Düsseldorf, Germany, [2]Carbon Sources and Conversion, Ruhr-Universität Bochum, Germany

13.15 h **Lunch Break**

SESSION: ELECTRIFICATION OF CHEMICAL PROCESSES

Chairperson: Jennifer Strunk

14.15 h **Novel Joule-Heated Radial Reactors with Spatially Distributed Heat Generation for the Intensification of Steam Methane Reforming**

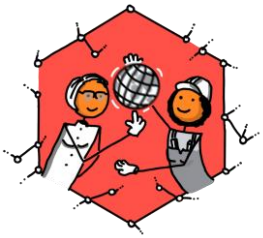
L. Cozzarolo[1], F. Romanelli[1], F. Poma[1], M. Ambrosetti[1], M. Bracconi[1], P. Baj[2], T. Podolak[2], M. Maestri[1], A. Beretta[1], G. Groppi[1], B. Mello-Gabbrielleschi[3], B. Williams[3], E. Tronconi[1]

[1]Politecnico di Milano, Dip. di Energia, Laboratory of Catalysis and Catalytic Processes, Milan, Italy; [2]Air Liquide Global E&C Solutions Poland S.A., Kraków, Poland; [3]Air Liquide Forschung u. Entwicklung GmbH, Frankfurt am M., Germany

14.40 h **Decentralized Ammonia Cracking in a Resistively Heated Reactor**

C. M. Watermann, F. L. Winter, M. Peters, A. Menne, B. Zeidler-Fandrich

Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT, Oberhausen, Germany



She Drives Energy – Network of Women in Energy Technology

SHE DRIVES ENERGY – Anniversary

Our network is celebrating its 5th anniversary.

SHE DRIVES ENERGY aims to increase the visibility of women in the industry by creating space for inspiration, exchange of ideas and knowledge transfer in technical areas to ensure a sustainable and successful industry.

Driving Energy – Podcast

What moves the 'energy' women of our time? Why this industry? Why now? What is important to them and what drives them? Our podcast is for everyone who wants to help shape the energy world of today.

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POSTERSESSION & COFFEE

Chairperson: Andreas Jess

15.05 h **Postersession Intro** in Conference Hall

15.15 h **Postersession - Further information on page 15**

AWARD OF THE „CARL-ZERBE-PREIS"

Winner 2026: Patrick Schühle

16.50 h **Laudatory speech**
T. Bechthold
Chairman DGMK-Division "Conversion of Carbon Carriers"

17.05 h **Carl-Zerbe-Lecture: Toward a Circular Carbon and Hydrogen Economy: Catalytic Innovations in C1 Building Blocks**
P. Schühle
Lehrstuhl für chemische Reaktionstechnik, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen-Nürnberg and Institute for a Sustainable Hydrogen Economy, IHE, Forschungszentrum Jülich, Jülich, Germany

17.50 h **End of Conference Day**

CONFERENCE DINNER

19.00 h RoseMarie Essen
Kettwigerstr.36
45127 Essen
Phone: +49 201- 81411929

SESSION: BIG DATA & RESILIENCE

Chairperson: Andreas Leitner

08.30 h **Keynote Lecture: Do AI-based Surrogate Models offer added Value for Process Optimization?**
B. Bruns
Evonik Oxeno GmbH & Co. KG, Marl, Germany

09.10 h **Keynote Lecture: How can Big Data Ensure that Chemical Brownfield Plants are Future-proof and Stay Competitive?**
C. Gueckel
Siemens AG, Munic, Germany

09.50 h Coffee Break

SESSION: METHANOL-TO-X, FISCHER-TROPSCH, E-FUELS, SAF

Chairperson: Andreas Vorholt

10.10 h **Keynote Lecture: Intensified Thermocatalytic CO_2 Conversion to Chemicals and Fuels**
J. Xie
Green Chemical Reaction Engineering research unit Engineering and Technology Institute Groningen, University of Groningen, Groningen, Netherlands

10.50 h **Keynote Lecture: Fuelling the Fleet: Utilizing Air Liquide's Advanced Methanol Technology to Deliver a CO_2-Based Next-Generation Marine Fuel**
A. Rösch
Air Liquide Global E&C Solutions Germany GmbH, Frankfurt, Germany

CONTINUED: SESSION: METHANOL-TO-X, FISCHER-TROPSCH, E-FUELS, SAF

Chairperson: Andreas Vorholt

11.30 h **From Oil to Low Carbon Alcohols as Energy Carriers for Transportation and Intermediates for Chemical Production**

M. Marchionna
Società Chimica Italiana, Division Industrial Chemistry, Milano, Italy

11.55 **From Methanol to Alcohols: Mechanistic Understanding of a Tandem Catalytic System for Resilient C1-Based Chemical Supply**

J. T. Groteguth[1], S. Stahl[1], J. T. Vossen[1], J. Exo[1], T. Weyhermüller[1], C. Lyall[2], J. Lowe[2], U. Hintermair[2], W. Leitner[1,3], A. J. Vorholt[1]
[1]Max Planck Institute for Chemical Energyconversion, Mülheim an der Ruhr, Germany; [2]University of Bath, Bath, United Kingdom; [3]RWTH Aachen University, Institute of Technical and Macromolecular Chemistry, Aachen, Germany

12.20 h **Demonstration of an Integrated Power-to-liquid plant for SAF Production using a220 kW Co-SOEC Module**

G. Corre[1], A. Happ[2], H. Bürgmayr[2], M. Rubin[2], R. Dittmeyer[2]
[1]Karlsruher Institut für Techologie, Institut für Mikroverfahrenstechnik (IMVT), Eggenstein, Germany; [2]Karlsruher Institut für Techologie, Eggenstein, Germany

12.45 **Lunch Break**

SESSION: CHEMICAL RECYCLING

Chairperson: Alba Dieguez-Alonso

13.30 h **Keynote Lecture: Industrialization of Chemical Recycling – Technical, Regulatory and Market Perspectives from OMV's ReOil® Scale-Up Journey**

A. Leitner
Innovation & Technology, OMV AG, Vienna, Austria

14.10 h **Pyrolysis of PC/ABS-Blends in a Gaseous Ammonia Atmosphere**

P. Rathsack[1], M. D. Hannak[1], D. Scheithauer[1], M. Peuker[2], J. Kleeberg[1,2], M. Gräbner[1,2,3]
[1]Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Circular Carbon Technologies, Freiberg, Germany; [2]TU Bergakademie Freiberg (TUBAF), Institute of Energy Process Engineering and Chemical Engineering (IEC), Freiberg, Germany; [3]TU Bergakademie Freiberg (TUBAF), Center for Efficient High Temperature Processes and Materials Conversion (ZeHS), Freiberg, Germany

14.35 h **Intensification of the Modified OxFA Process by Evaluation of Different Reactor Concepts**

I. C. Wirth[1], H. Kleemiß[2], D. Voß[1], M. Poller[1], M. Schlüter[2], J. Albert[1]
[1]University of Hamburg, Hamburg, Germany, [2]Technische Universität Hamburg, Hamburg, Germany

15.00 h **Integration of Plastic Waste Pyrolysis Oils into FCC Processes**

T. Dreising, S. Tavakkol, D. Stapf
Karlsruher Institut für Technologie (KIT), Institut für Technische Chemie (ITC), Eggenstein-Leopoldshafen, Germany

CONTINUED: CHEMICAL RECYCLING

Chairperson: Alba Dieguez-Alonso

15.25 h **Circular Carbon via Gasification of Complex Waste Streams**

A. Bader[1], L. Seidl[2], T. Horst[3]

[1]BASF SE, Global Technology Basic Petrochemicals, Ludwigshafen am Rhein, Germany; [2]BASF SE, Process Development Petrochemicals, Ludwigshafen am Rhein, Germany; [3]BASF SE, BASF Renewable Carbon, Ludwigshafen am Rhein, Germany

15.50 **Coffee Break**

SESSION: PLASMA PYROLYSIS

Chairperson: Matthias Müller-Hagedorn

16.05 h **Keynote Lecture: Electrification of Gasification Processes by Plasma Integration**

S. Guhl

TU Bergakademie Freiberg, Freiberg, Germany

16.45 h **Integration of a Free-burning Plasma arc into a Fluidized Bed Gasification System**

R. Schimpke [1,2], V. Kuznetsov[1], M. Gräbner [1,2,3], P. Pieterse[4], D. Uhrlandt[4]

[1]TU Bergakademie Freiberg, Institute of Energy Process Engineering and Chemical Engineering (IEC), Freiberg, Germany; [2]TU Bergakademie Freiberg, Center for Efficient High Temperature Processes and Materials Conversion, Freiberg, Germany; [3]Fraunhofer Institute for Ceramic Technologies and Systems (IKTS), Division Energy and Process Engineering – Circular Carbon Technologies, Freiberg, Germany; [4]Leibniz Institute for Plasma Science and Technology Greifswald e.V., Process and Energy Technology, Greifswald, Germany

CONTINUED SESSION: PLASMA PYROLYSIS

Chairperson: Matthias Müller-Hagedorn

17.10 h **Enhancing Waste Gasification-based Methanol Production by Renewable Energy Integration – Hydrogen vs. Plasma**

A. Helf[1], F. Keller[1], M. Gräbner[1,2,3]
[1]TU Bergakademie Freiberg, IEC, Freiberg, Germany; [2]Fraunhofer IKTS, Energie- und Verfahrenstechnik - Kohlenstoff-Kreislauf-Technologien, Freiberg, Germany; [3]Zentrums für effiziente Hochtemperatur-Stoffwandlung (ZeHS), Freiberg, Germany

17.35 h **Circular Carbon for Resilient Chemical Value Chains Enabled by Plasma Technology**

S. Renninger
Cyclize Gmbh, Stuttgart, Germany

18.00 h **Concluding Remarks and Conference Summary**

T. Bechthold
Chairman DGMK-Division Conversion of Carbon Carriers

POSTERSESSION AND COFFEE

Survey of Posters on Display: Andreas Jess

WANDELGANG

15.05 -16.50 h

A-106 Production of Fischer-Tropsch suitable syngas for green jet-fuel through dry reforming of methane-CO^2-mixtures

M. Bachstädter, A. Jess
Universität Bayreuth, Lehrstuhl für chemische Verfahrenstechnik, Bayreuth, Germany

A-107 Thermal Behavior and Runaway Analysis of Exothermic Reactions in Fixed-Bed Reactors: CO^2 Methanation as a Case Study

C. Bischoff, C. Kern, A. Jess
Universität Bayreuth, Lehrstuhl für Chemische Verfahrenstechnik, Bayreuth, Germany

A-109 EnerFuel – Production of Fuels and Energy Carriers from Biogenic Residues and Plastic Waste for the Development of Regional Value Chains

K. Rimagmos, T. Plessing
Hochschule Hof, Institut für Wasserstoff- und Energietechnik, Hof, Germany

A-110 Investigation of the Electrochemical Ethylene Glycol Oxidation using Ni-based Layered Double Hydroxides

I. Kohlhaas[1], L. Cino[2], C. Englezos[2], G. Mul[2], G. Katsoukis[2], R. Palkovits[3]
[1]RWTH Aachen University, Institute for Technical and Macromolecular Chemistry, Aachen, Germany; [2]University of Twente, Enschede, Netherlands; [3]Forschungszentrum Jülich, Jülich, Germany

A-111 Two-step glycerol valorization to 1,2-propanediol as the basis for the construction of a SMART-reactor

P. Hassenstein, J.-D. Krueger, J. Albert
Universität Hamburg, Institut für Technische und Makromolekulare Chemie, Hamburg, Germany

A-112 Process Scale-Up for Tandem Catalytic Alcohol E-Fuel Production in the E-TANDEM project

H. Stieber[1], S. Popp[1], W. Leitner [1,2], G. Prieto[3], A. J. Vorholt[1]
[1]Max Planck Institute for Chemical Energy Conversion, Mülheim an der Ruhr, Germany; [2]RWTH Aachen University, Institute of Technical and Macromolecular Chemistry, Aachen, Germany; [3]ITQ Instituto de Tecnología Química (CSIC-UPV), Valencia, Spain

A-113 Bio-based Polyesters from Itaconic Acid and L-Histidine as Sustainable Alternatives to Fossil-based Polymer Carriers

R. Sebers[1], L. Klug[1], E. Fulajtar[2], J. L. G. Nava[2], A. Pich[2], R. Palkovits[1,3]
[1]ITMC, RWTH Aachen, Aachen, Germany; [2]DWI – Leibniz Institute for Interactive Materials, Aachen, Germany; [3]Institute for a sustainable Hydrogen Economy (IHE-2), Jülich, Germany

A-114 Simulation-Driven Validation and Enhancement of Reactor Models for a Technical Fixed-bed Fischer–Tropsch Synthesis

L. Hentschel, C. Kern, A. Jess
University Bayreuth, Chemical Process Engineering, Bayreuth, Germany

A-115 Ammonia Cracking as a Key Enabler for Resilient and Carbon-Free Energy Supply Chains in Industrial High-Temperature Processes

T. Schiekel
OWI Science for Fuels gGmbH, Hydrogen Technology, Herzogenrath, Germany

A-117 Promotion of Hydrogen Production via the Thermal Decomposition of Piperylene in the Presence of By-Product Light Hydrocarbons

S. Miyamoto[1], Y. Katsuragawa[1], H. Ueda[2], M. Asahara[2], T. Watanabe[2], S. Ohta[2], T. Miyasaka[2]

[1] Gifu University, Graduate School of Natural Science and Technology, Gifu, Japan; [2]Gifu University, Department of Mechanical Engineering, Gifu, Japan

A-119 Higher Oxygenate E-Fuel Synthesis by Tandem Fischer-Tropsch Synthesis and Reductive Hydroformylation

S. Popp[1,2], H. Stieber[1], W. Leitner [1,2], G. Prieto[3], A. Vorholt[1]

[1]Max Planck Institute for Chemical Energy Conversion, Mülheim an der Ruhr, Germany; [2]Institute of Technical and Macromolecular Chemistry, RWTH Aachen University, Aachen, Germany; [3]Institute for Chemical Technology (CSIC-UPV), Valencia, Spain

A-120 Decentralized Methanol Production at Wastewater Treatment Plants: Synergies and Regulatory Challenges in the E-BO_2t Project

B. Bender[1], C. Ait Tarint[1], F. Voit[2], T. Lind[3]

[1]OWI Science for Fuels gGmbH, Herzogenrath, Germany; [2]Research Institute for Water Management and Climate Future at RWTH Aachen University, Aachen, Germany; [3]Emschergenossenschaft / Lippeverband, Essen, Germany

A-134 Closing the Carbon Loop: CO_2-to-Fuel via Hybrid Catalysis

S. Feldhoff

OWI Science for Fuels gGmbH, Energy Carriers, Herzogenrath, Germany

A-136 Studying Deactivation phenomena using Pd/1,2-DTBPMB in the Tandem Isomerization-Methoxycarbonylation Reaction

N. Kumari[1], R. Franke[2,3], A. J. Vorholt[1]

[1]Max Planck Institute for chemical and energy conversion, Chemistry, Mülheim an der Ruhr, Germany, [2]Evonik Oxeno GmbH, Marl, Germany, [3]Ruhr-Universität Bochum, Bochum, Germany

A-138 Plasma-assisted entrained flow gasification as a key technology for Net Zero - a review

L. Kufferath-Sieberin[1], S. Fleck[1], U. Santo[1], D. Becker[2], M. Vogelbacher[2], J. Matthes[2], F. Scheiff [1,3]

[1]Karlsruhe Institute of Technology (KIT), Institute for Technical Chemistry, Gasification Technology (ITC vgt), Eggenstein-Leopoldshafen, Germany; [2]Karlsruhe Institute of Technology (KIT), Institute for Automation and Applied Informatics (IAI), Eggenstein-Leopoldshafen, Germany; [3]Karlsruhe Institute of Technology (KIT), Engler-Bunte-Institute, Fuel Technology (EBI ceb), Karlsruhe, Germany

A-139 Turning Emission to Feedstock: Mapping Europe's CO_2 Market for Fuels and Chemicals

I. Akhmetova, N. Fuchs, C. Gruber, H. Basche, S. Bernhardt, H. Lehmann

PtX Lab Lausitz | ZUG gGmbH, Cottbus, Germany

A-140 High Temperature Workflows in High Throughput Experimentation: From NH_3 Cracking and CO_2 -to-CO to Methane Pyrolysis

M. Moll, C. Hauber, B. Mutz

hte GmbH, Heidelberg, Germany

A-141 Catalyst-modulated discharge chemistry: Tailoring electron–surface interactions in the total oxidation of n-butane to CO_2 over a MnO_2/CaO-coated surface dielectric barrier discharge

J. Hiepel[1], T. Oppotsch[1], G. Hübner[2], P. Awakowicz[2], I. Korolov[2], M. Muhler[1]

[1]Ruhr University Bochum, Chair of Industrial Chemistry, Bochum, Germany; [2]Ruhr University Bochum, Chair of Applied Electrodynamics and Plasma Technology, Bochum, Germany

A-143 Influences on the selective catalytic oxidation of residual ammonia in ammonia cracking gas

A. Sack [1,2,3], H.-P. Schmid[4], J. A. Wünning[4], T. Plessing[1], A. Jess [2,3]
[1] University of Applied Sciences Hof, Institute for Hydrogen and Energy Technology, Hof, Germany; [2]University Bayreuth, Chair of Chemical Engineering, Bayreuth, Germany; [3]University Bayreuth, Center of Energy Technology, Bayreuth, Germany; [4]WS GmbH, Renningen, Germany

A-145 Comparative simulation study of fuel production pathways from biomass-derived syngas

M. E-Moghaddam, N. Dahmen
Karlsruhe Institute of Technology (KIT), Institute of Catalysis Research and Technology (IKFT), Karlsruhe, Germany

A-146 Modeling and Prediction of Phase Equilibria in Systems Containing Bio-Oil Compounds

A. Jalalinejad, A. Funke, N. Dahmen
Karlsruhe Institute of Technology (KIT), Institute of Catalysis Research & Technology (IKFT), Eggenstein-Leopoldshafen, Germany

A-148 Minimum Achievable Cost of Methanol-to-Jet Sustainable Aviation Fuel: A Bottom-up Decomposition by Optimization Measures

A. Elwalily, V. Erfurt, M. Wenzel, L. Tafur, S. Günthner, H. Lehmann
Zukunft – Umwelt – Gesellschaft (ZUG) gGmbH, PTX Lab Lausitz, Cottbus, Germany

A-149 Comparative Assessment of Fischer–Tropsch and Methanol Synthesis Pathways for Resilient Fuel Production from Sustainable CO_2 Sources

V. Erfurt, L. Tafur, A. Elwalily, M. Wenzel, S. Günthner, H. Lehmann
Zukunft – Umwelt – Gesellschaft (ZUG) gGmbH, PtX Lab Lausitz, Cottbus, Germany

A-150 Compliance of Synthetic Fuels with European Standards: The German Regulatory Perspective

M. J. Alhnidi, N. Dahmen, M. Glaser
Karlsruher Institut für Technologie, Institut für Katalyseforschung und -technologie, Eggenstein-Leopoldshafen, Germany

A-152 Revealing resonances in technical dehydration of ethanol

M. Seifert, L. A. Lorenz, L. A. Haufe
TU Dresden, Inorganic Molecular Chemistry, Dresden, Germany

A-153 Kinetic modelling of the Sabatier reaction over Ni/CeO2-ZrO2 for synthetic natural gas production

G. Ramis[1], W. Da Silva Cardoso[2], S. Romegialli[2], M. Tommasi[2], A. Gramegna[2], I. Rossetti[2]
[1]Università degli Studi di Genova, DICCA, Genoa, Italy; [2]Università degli Studi di Milano, Dip. Chimica, Milan, Italy

A-154 Three-pipeline gas grid for renewable hydrogen storage and distribution: integrated power-to-gas/gas-to-power conversion with closed-loop carbon utilization

I. Rossetti[1], M. Tommasi[1], S. Romegialli[1], W. Da Silva Cardoso[1], A. Gramegna[1], G. Ramis[2]
[1]Università degli Studi di Milano, Dip. Chimica, Milan, Italy; [2]Università degli Studi di Genova, DICCA, Genoa, Italy

A-156 Power2ValueChemicals – Integrated Process Development for Evaluating Electrolytically Produced CO from CO_2 for Industrial Applications

L. Steinwachs[1], A. Vorholt[2]
[1] MPI for Chemical Energy Conversion, Molecular Catalysis, Mülheim an der Ruhr, Germany; [2]MPI für Chemische Energiekonversion, Molekulare Katalyse, Mülheim an der Ruhr, Germany

A-160 Bridging the Gap in MDI Value Chains: A Dual-Metric Evaluation of Circularity and Carbon Footprint from CO Production to MDI Synthesis

T. E. Korkut[1], A. Uguina[2]

[1] Air Liquide Forschung und Entwicklung GmbH, Frankfurt am Main, Germany; [2]Air Liquide, Frankfurt, Germany

A-161 Operando spectroscopy to investigate molecular catalysts in flow

R. Medhekar[1], A. Sobolev[2], M. Gerlach[2], C. Hamel[2], W. Leitner[1,3], A. J. Vorholt[1]

[1]MPI Chemical Energy Conversion, Mülheim an der Ruhr, Germany; [2]Otto-von-Guericke-Universität Magdeburg, Magdeburg, Germany; [3]RWTH Aachen, Aachen, Germany

A-162 Phosphorus-Modified Catalysts in the Dehydrogenation of n-Heptane as a Model Compound for Pyrolysis Oil Upgrading

C. Schweiger[1], P. Schühle[1,2]

[1]Forschungszentrum Jülich GmbH, Jülich, Germany, [2]Institute of Chemical Reaction Engineering, Friedrich-Alexander-University Erlangen-Nürnberg, Erlangen, Germany

A-164 Multiscale study of CH_4 pyrolysis: from kinetics to fluidized reactor operation with C-valorization in the steel industry

M. Orsenigo[1], V. Piazza[1,2], G. Dall'Osto[3], C. Negri[1], L. Castoldi[1], G. Groppi[1], M. Maestri[1], C. Mapelli[3], A. Beretta[1]

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A-165 Reconstructing the kinetics of biomass pyrolysis from bio-components contributions: application to rice husk

E. Benedetto[1], V. Piazza[1,2], A. Guarnieri[1], M. Y. Suleiman[3], L. C. Pariani[4], P. D'Arrigo[4], T. Faravelli[4], A. Frassoldati[4], L. Lietti[1], A. Beretta[1], P. Debiagi[3]

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A-192 Recrystallisation of Pyrolysis Carbon into Graphitic Materials

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A-193 Environmental Assessment of CO_2-based Pathways to Short-Chain Alkenes

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A-196 From Ammonia Synthesis to CO_2-based Alkenes: Repurposing Industrial Iron Catalysts

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A-197 DME from Crude Methanol

A. Schaadt, S. Feuerbach, F. Nestler, M. Gierse, R. Szolak

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subject to change!

NOTES

GENERAL INFORMATION

Venue

Haus der Technik
Hollestr. 1 | 45127 Essen | Germany

Registration Desk

Opening Hours

Thursday, October 8, 2026	08.30 h –18.00 h
Friday, October 9, 2026	08.00 h –17.00 h

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