Program

Hydrogen and Syngas – Platform for a sustainable future

Petrochemistry Division
Conversion of Carbon Carriers Divison

October 28 - 29, 2025, Essen

DGMK

Cover Design & Image Source

DIE NEUDENKER ®, Darmstadt | DGMK e.V., Hamburg

2019 FrankHH/Shutterstock.com

CONTENT

WELCOME

Dear ladies and gentlemen,

with great pleasure we welcome you, also in the name of the organizing committee and the board of the DGMK division of Petrochemistry and the division of Conversion of Carbon Carriers, the Industrial Chemistry division of the Società Chimica Italiana (SCI) and the ÖGEW to our joint conference 2025, which is also the 33rd edition of the DGMK Petrochemistry Conference and 17th K^3/C^3 - Conference of the DGMK Division Conversion of Carbon Carriers, here at the "Haus der Technik" in Essen.

We are very glad to provide you with a great opportunity for networking and scientific exchange, in addition to a splendid scientific conference program. We are looking forward to 7 invited keynote lectures and 19 lectures, as well as a 32 poster presentations around this year's main topic "***Hydrogen and Syngas - Platform for a sustainable future***".

We hope that you will enjoy this conference as much as we do and look forward to many lively discussions.

Prof. Dr.
Dieter Vogt
Chairman DGMK-Division
"Petrochemistry"

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

SCIENTIFIC COMMITTEE

Tilman Bechthold, RWE Power AG, Essen
Dr. Michael Bender, BASF SE, Ludwigshafen
Dr. Karsten Büker, thyssenkrupp Uhde GmbH, Dortmund
Prof. Dr. -Ing. Jakob Burger, TU München, Straubing
Dr. Alexander Gammersbach, Ineos Manufacturing Deutschland GmbH, Köln
Dr.-Ing. Stefan Guhl, TU Bergakademie Freiberg, IEC, Freiberg
Dr. Harald Häger, Evonik Performance Materials GmbH, Marl
Prof. Dr. Marco Haumann, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen
Prof. Dr. Andreas Jess, Universität Bayreuth, Bayreuth
Prof. Dr. Johannes A. Lercher, Technische Universität München, München
Dr. Mario Marchionna, Saipem S.p.A., San Donato Milanese
Dr. Matthias Müller-Hagedorn, BASF SE, Ludwigshafen
Prof. Dr. Jörg Sauer, KIT, Karlsruhe
Prof. Dr. Jennifer Strunk, Technische Universität München, München
Dr. Andreas J. Vorholt, Max-Planck-Institut für Chemische Energiekonversion, Mühlheim an der Ruhr
Prof. Dr. Dieter Vogt, Technische Universität Dortmund
Dr. Bryce Williams, AIR LIQUIDE Forschung und Entwicklung GmbH, Frankfurt

PROGRAM OVERVIEW

Tuesday, October 28, 2025	
09.30 – 09.45	Opening and Welcome Address
09.45 – 11.30	Political & economic framework
11.30 – 11.45	Coffee Break
11.45 – 13.15	Carbon Capture
13.15 – 14.15	Lunch Break
14.15 - 16.10	Hydrogen & syngas
16.10 – 18.00	Poster Session & Coffee
18.00 – 18.50	She Drives Energy Workshop
19.00	Conference Dinner
Wednesday, October 29, 2025	
08.30 -10.50	Chemistry for hydrogen logistics
10.50 – 11.15	Coffee Break
11.15 – 12.30	Valorisation of biomass
12.30 – 13.30	Lunch break
13.30 – 15.25	Methanol & Fischer Tropsch synthesis
15.25 – 16.00	Coffee Break
16.00 – 17.55	Oxo chemistry
17.55 – 18.00	Concluding remarks & Conference Summary

OPENING AND WELCOME ADDRESS

09.30 h **Gesa Netzeband**
Managing Director, DGMK e.V.

09.35 h **Dieter Vogt**
Chairman DGMK-Division Petrochemistry

SESSION: POLITICAL & ECONOMIC FRAMEWORK

Chairperson: Tilman Bechthold

09.45 h **Keynote Lecture: From Ambition to Infrastructure: The Industrial Imperative for Hydrogen and Syngas**
B. Bergt
Die Gas- und Wasserstoffwirtschaft - früher Zukunft Gas, Berlin, Germany

10.25 h **Keynote Lecture:**
Transition to Green Molecules: Opportunities and Hurdles of the Regulatory Framework
L. Wunderlich
en2x | Wirtschaftsverband Fuels und Energie e.V., Berlin, Germany

11.05 h **Stand-alone Power-to-X Production Dynamics - A Multi-Method Approach to Quantify the Emission-Cost Reduction Trade-off**
U. Langenmayr[1], P. Heinzmann[2], A. Schneider[1], A. Rudi[1], M. Ruppert[1], W. Fichtner[1]
[1]Karlsruhe Institute of Technology, [2]BASF, Karlsruhe Institute of Technology

11.30 h **Coffee Break**

SESSION: CARBON CAPTURE

Chairperson: Jakob Burger

11.45 h **Keynote Lecture: Electrochemical DAC as a game changer for cost-competitive chemicals?**

A. May
Phlair GmbH, Ismaning, Germany

12.25 h **Amino Acid based Carbon Capture Technology – from DAC to point sources applications**

R. Gesthuisen[2], U. Dietz[1], J. Nottbohm[2], T. Bittner[2]
[1]CBL – Carbon Beyond Limits GmbH and Co.KG, [2]INEOS Manufacturing Deutschland GmbH

12.50 h **Evaluating Electrochemical Mineral Trapping for Carbon Dioxide Removal: Insights from Experiments and Predictive Modeling**

D. Groh[1], J.Staudt[1], K. Kanokkanchana[2], M. Ibañez[1], N. Plumeré[2], J. Burger[1]
[1]Technical University of Munich, Campus Straubing for Biotechnology and Sustainability, Laboratory of Chemical Process Engineering, Straubing, Germany, [2]Technical University of Munich, Campus Straubing for Biotechnology and Sustainability, Professorship for Electrobiotechnology, Straubing, Germany

13.15 h Lunch Break

SESSION: HYDROGEN & SYGNAS

Chairperson: Michael Bender

14.15 h **Keynote Lecture: Pathways to Low Carbon Hydrogen**

A. Behrens, J.-P. Bohn, N. Schödel
Linde GmbH, Linde Engineering, Pullach, Germany

14.55 h **Decarbonization of Syngas and Hydrogen Production**

M. Marchionna
Saipem SpA, Milano, Italy

15.20 h **Experimental Investigation of Syngas Purification from Biogenic Residue Gasification**

L. Hassel, J. Kaltenmorgen, F. Panitz, M. Siodlaczek, P. Eiden, J. Ströhle, B. Epple
Institute for Energy Systems and Technology, Technical University of Darmstadt, Germany

15.45 h **Novel Joule-heated Reactor based on Radial Current and Flow for the Intensification of Endothermic Catalytic Processes**

L. Cozzarolo[1], F. Romanelli[1], C. Ferroni[1], M. Ambrosetti[1], B. Mello Gabbrielleschi[2], M. Bracconi[1], M. Maestri[1], G. Groppi[1], A. Beretta[1], B. Williams[2], E. Tronconi[1]
[1]Laboratory of Catalysis and Catalytic Processes, Politecnico di Milano, Milan , Italy, [2]Air Liquide Forschung und Entwicklung GmbH, Frankfurt, Germany

POSTER SESSION & COFFEE

Chairperson: Andreas Jess

16.10 h **Poster Intro** in Conferenc hall

16.20 h **Poster Session - Further information on page 16**

SHE DRIVES ENERGY WORKSHOP

ROOM: 413

18.00 h **Recognize, Challenge, Overcome: Addressing Unconscious Bias in the Energy Industry**

M. Baumeister

Network Coordinator of She Drives Energy

About the WORKSHOP:

Whether we know it or not, we all have unconscious biases. These learned stereotypes are automatic, unintentional and deeply ingrained in our belief systems. Although they often seem harmless, they influence our behavior and can also arise and impact us in our workplaces.

This interactive workshop aims to inspire and equip women in the energy sector to recognize, navigate, challenge and overcome unconscious biases and stereotypes. We will share personal experiences and lessons learned, explore the impact of unconscious bias, and discuss practical steps to break down barriers. By exchanging experiences and strategies, this workshop encourages attendees to believe in their potential, support each other, and actively contribute to a more inclusive and equitable future of the energy industry.

CONFERENCE DINNER

19.00 h RoseMarie Essen

Kettwigerstr. 36, 45127 Essen

SESSION: CHEMISTRY FOR HYDROGEN LOGISTICS

Chairperson: Jörg Sauer

08.30 h **Keynote Lecture: Potential of Dimethylether as a large-scale chemical hydrogen carrier**
A. Peschel
Forschungszentrum Jülich GmbH, Institut für nachhaltige Wasserstoffwirtschaft (INW), Jülich, Germany

09.10 h **Catalysts for Hydrogen Storage based on Liquid Organic Hydrogen Carriers**
B. Bong, C. Mebrahtu, R. Palkovits
Institute for a Sustainable Hydrogen Economy, Forschungszentrum Jülich GmbH, Institute of Technical and Macromolecular Chemistry, RWTH Aachen University, Aachen, Germany

09.35 h **Advanced Catalyst and Reactor Engineering for Efficient Hydrogen Release from Perhydro-Benzyltoluene**
E. Herzinger, H. Park, J. Weimann, J. Berger, O. Kırlangıçoğlu, J. Biesinger, M. Wolf
Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany

10.00 h **Light-assisted thermal catalysis for hydrogen storage in a "methanol economy"**
M. Rehner, K. Blank, J. Huang, J. Strunk
Technical University of Munich, Chair for Industrial Chemistry and Heterogeneous Catalysis, Garching, München, Germany

10.25 h **CO_2 methanation as a strategy for green H_2 storage and distribution: Experimental optimisation and process design**

M. Tommasi[1], A. Gramegna[1,2], S. Romegialli[1,2], G. Ramis[3], I. Rossetti[1,2]

[1]Chemical Plants and Industrial Chemistry Group, Dip. Chimica, Università degli Studi di Milano and CNR-SCITEC, Milan, Italy, [2]INSTM Unit Milano-Università, Dip. Chimica, Università degli Studi di Milano, Milan, Italy, [3]Dip. DICCA, Università degli Studi di Genova and INSTM Unit-Genova, Genoa, Italy

10.50 h Coffee Break

She Drives Energy – Network of Women in Energy Technology

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.

LISTEN ON Spotify

SESSION: VALORISATION OF BIOMASS

Chairperson: Dieter Vogt

11.15 h **A chemical and engineering analysis of the conversion of biomass to lactic acid using POMs under nitrogen atmosphere**

E. Hundt, J.-D. Krueger, A. Pawlig, L. Schidowski, I. Wirth, M.-J. Poller, D. Voß, J. Albert
Institute of Technical and Macromolecular Chemistry, University of Hamburg, Hamburg, Germany

11.40 h **Transforming wet biomass waste into sustainable methanol: Concept study of a competitive and mild process route**

P. Nathrath[1], F. Kroll[2], D. Karmann[2], V. Haagen[2], D. Weber[3], T. Franken[3], M. Geißelbrecht[2], P. Schühle[1]
[1]Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany, [2]Forschungszentrum Jülich GmbH, Helmholtz Institute Erlangen-Nürnberg for Renewable Energy, Erlangen, Germany, [3]Technical University Darmstadt, Darmstadt, Germany

12.05 h **NET-Fuels – Integrating negative emission technologies in biofuels production**

C. Groves, M. Meiller, F. Lehner
Fraunhofer UMSICHT, Sulzbach-Rosenberg, Germany

12.30 h **Lunch Break**

SESSION: METHANOL & FISCHER TROPSCH SYNTHESIS

Chairperson: Jennifer Strunk

13.30 h **Keynote Lecture: The role of hydrogen and syngas for coupling energy transformation and circular economy**

F. Scheiff
Karlsruher Institut für Technologie, Engler-Bunte-Institut, Karlsruhe, Germany

14.10 h **Excellent T Control in Compact Fischer–Tropsch Reactor with Al Packed POCS**

M. Panzeri, C. G. Visconti, G. Groppi, E. Tronconi
Laboratory of Catalysis and Catalytic Processes, Politecnico di Milano, Milan, Italy

14.35 h **Shaping of a methanol catalyst: Parameter study of the tableting of CuO/ZnO/ZrO_2**

F. Neumann, M. Herfet, S. Grewe, L. Warmuth, T.A. Zevaco, T.N. Otto, M. Zimmermann, S. Pitter, M. Wolf
Institute of Catalysis Research and Technology (IKFT), Karlsruhe Institute of Technology (KIT), Eggenstein-Leopoldshafen, Germany

15.00 h **Towards Sustainable Ethene Production: Modified Fischer-Tropsch Synthesis from CO_2 and H_2**

K. Laichter[1], A. Chowdhury[1], V. Hagen[2], T. Liese[3], M. Doeker[3], F. Buschsieweke[3], J. Hannes[3], F. Heck[4], H.-J. Woelk[4], I. J. Graef[4], T. E. Müller[1]

[1]Carbon Sources and Conversion, Ruhr-Universität Bochum, [2]Rubokat GmbH, Bochum, [3]RWE Power AG, Essen, [4]Heraeus Precious Metals GmbH & Co. KG, Hanau, Germany

15.25 h Coffee Break

ANNOUNCEMENT

SESSION: OXO CHEMISTRY

Chairperson: Harald Häger

16.00 h **Keynote Lecture: New roads in oxo catalysis via solid catalyst design and tandem reaction integration**

G. Prieto
Instituto de Technologia Quimica, ITQ, Valencia, Spain

16.40 h **Enzyme-Inspired Gel Materials: Tuneable Gels for Hydroformylation**

P. McNeice[1], W. Leitner[1,2], A. J. Vorholt[1]
[1]Max Planck Institute for Chemical Energy Conversion, Mülheim a.d. Ruhr, Germany, [2]RWTH Aachen University, Aachen, Germany

17.05 h **From Syngas to Alcohol E-fuels –Scale up from lab to miniplant**

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 a.d. Ruhr, Germany, [2]Institute of Technical and Macromolecular Chemistry, RWTH Aachen University, Aachen, Germany, [3]ITQ Institute for Chemical Technology (CSIC-UPV), Valencia, Spain

17.30 h **Industrial application of supported liquid phase catalysis: Case study of 1-Butene hydroformylation in a continuous gas-phase membrane reactor**

A. Al-Shaibani[1], F. Stenger[2], R. Franke[2,3], M. Haumann[1]

[1]Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Lehrstuhl für Chemische Reaktionstechnik (CRT), Erlangen, Germany, [2]Evonik Operations GmbH, Marl, Germany, [3] Ruhr-Universität Bochum, Lehrstuhl für Theoretische Chemie, Bochum, Germany

17.55 h **Concluding Remarks and Conference Summary**

Frank Behrendt

TU Berlin, Berlin, Germany

SOCIAL MEDIA

POSTERSESSION AND COFFEE

Survey of Posters on Display: Andreas Jess

WANDELGANG

16.20 - 18.00 h

08 Catalyst study for selective catalytic oxidation of residual ammonia for purification of green hydrogen from ammonia cracking

A. Sack[1,2,3], A. Gradel[1], H.-P. Schmid[4], J. Wünning4, T. Plessing[1], A. Jess[2,3]

[1]Institute for hydrogen and energy technology, University of Applied Sciences Hof, [2]Chair of Chemical Engineering, University of Bayreuth, [3]Center of Energy Technology, University of Bayreuth, [4]WS GmbH, Renningen, Germany

09 Elevating the C_2 to C_4 Chemistry

M. Belleflamme[1], F. S. Heinen[1,2], S. Mersmann[1], A. J. Vorholt[1]

[1] Max Planck Institute for Chemical Energy Conversion, Mülheim an der Ruhr, [2] Institut für Technische und Makromolekulare Chemie, RWTH Aachen University, Aachen, Germany

10 Power2ValueChemicals: Evaluating the Suitability of CO_2-Derived CO for the Chemical Industry

L. Steinwachs[1], A. Bauer[2], E. Jodat[2], R. Eichel[2], R. Pastusiak[3], E. Simon[3], M. Kristen[4], R. Franke[4], A. Vorholt[1]

[1]Max-Planck-Institut für Chemische Energiekonversion, Mülheim a.d. Ruhr, [2]Forschungszentrum Jülich IEK-9, Jülich, [3]Siemens Energy Global GmbH & Co KG, München, [4]Evonik Oxeno GmbH & Co. KG, Marl, Germany

12 Microwave-Assisted Catalytic Polymer Cracking into Hydrogen at Low Temperatures Using Ionic Liquids and Nanoparticles

K. Bürner, M. Haumann
Friedrich-Alexander-Universität Chemische Reaktionstechnik, Erlangen, Germany

13 From Syngas to Alcohol E-fuels –Scale up from lab to miniplant

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 a.d. Ruhr, Germany, [2]Institute of Technical and Macromolecular Chemistry, RWTH Aachen University, Aachen, Germany, [3]ITQ Institute for Chemical Technology (CSIC-UPV), Valencia, Spain

14 Tandem Fischer-Tropsch Synthesis and Reductive Hydroformylation under Mild Conditions for Optimized Higher Oxygenate E-Fuels

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

15 Development and Enhancement of Iron-Based Catalysts to Boost the Conversion of CO_2 to Liquid Hydrocarbons

F. Mai, A. Jess
Chair of Chemical Process Engineering, Faculty of Engineering, University of Bayreuth, Bayreuth, Germany

16 WasteWood2Fuel – Development of a technology for the decentralised synthesis of liquid fuels from solid biogenic residues

S. Kolb, C. Kern, A. Jess
Chair of Chemical Engineering, University of Bayreuth, Bayreuth, Germany

17 Homogenous catalyst recovery by nanofiltration for the production of a potential hydrogen carrier such as formic acid from biomass

L. Schidowski,D. Voß, M. Poller, J. Albert
Institute of Technical and Macromolecular Chemistry, Universität Hamburg, Hamburg, Germany

18 Advanced biphasic selective glycerol oxidation in a jet loop reactor using polyoxometalates

I. C. Wirth, D. Niehaus, D. Voß, J. Albert
University Hamburg, Hamburg, Germany

19 Carbon-Encapsulated Magnetic Nanoparticles for Magnetocatalytic CO_2 Hydrogenation to CO

J. Hu, W. Leitner, A. Bordet
MPI für Chemische Energiekonversion, Mülheim an der Ruhr, Germany

20 Improving Reactivity in Biphasic Hydroformylation of Long-Chain Olefins

F. S. Heinen[1,2], A. J. Vorholt[1]
[1]Max Planck Institute for Chemical Energy Conversion, Mülheim an der Ruhr
[2]Institut für Technische Chemie und Makromolekulare Chemie (ITMC), RWTH Aachen University, Aachen, Germany

21 Continuous Reductive Hydroformylation in a Segmented Slug Flow Reactor Using a Single Catalyst Enabled by CO-Degassing

A. Windisch, P. Pey, D. Vogt, T. Seidensticker
Laboratory of Industrial Chemistry, TU Dortmund, Dortmund, Germany

27 Synthesis of suitable catalysts to produce synthesis gas through dry reforming of methane for green kerosene

M. Bachstädter, A. Jess
Chair of Chemical Engineering, Center of Energy Technology (ZET) University of Bayreuth, Bayreuth, Germany

28 Development of catalyst recycling strategies for the hydroformylation of olefins using methanol as a syngas source

J. T. Groteguth[1], S. Stahl[1], J. Mädicke[1,2], W. Leitner[1,2], A. J. Vorholt[1]
[1] Max Planck Institute for Chemical Energy Conversion, Mülheim a.d. Ruhr, Germany, [2]Institute of Technical and Macromolecular Chemistry, RWTH Aachen University, Aachen, Germany

29 Polyoxometalates and strongly non-ideal solvent mixtures (SNISMs) towards boosting acid-catalysed esterification reactions

L. Prawitt[1], P. Figiel[2], C. Held[2], M. Poller[1], J. Albert[1]
[1]Institute for Technical and Macromolecular Chemistry, University of Hamburg, Hamburg, Germany, [2]Department of Biochemical and Chemical Engineering, TU Dortmund, Dortmund, Germany

31 Photocatalytic processes for energy storage

S.N. Degerli[1], M. Tommasi2, A. Gramegna[1],2, I. Rossetti[1,2], G. Ramis[3]

[1] INSTM Unit Milano-Università, Dip. Chimica, Università degli Studi di Milano, Milan, Italy, [2]Chemical Plants and Industrial Chemistry Group, Dip. Chimica, Università degli Studi di Milano and CNR-SCITEC, Milan, Italy, [3]Dip. DICCA, Università degli Studi di Genova and INSTM Unit-Genova, Genoa, Italy

32 CO_2 Assisted Primary Amine Isolation and Catalyst Recycling in the Homogeneously Catalyzed Nitrile Hydrogenation and Alcohol Amination

B. Rienhoff, N. Oppenberg, F. Zolthoff, D. Vogt, T. Seidensticker

TU Dortmund University, Laboratory of Industrial Chemistry, Germany

34 Challenges of catalyst development for the load-flexible and integrated production of molecular hydrogen carriers from CO_2 and water

J. Artz[1], C. Mebrahtu[1, 2], R. Palkovits[1, 2]

[1]Forschungszentrum Jülich GmbH, Institut für nachhaltige Wasserstoffwirtschaft, Jülich, Germany, [2]Institute for Technical and Macromolecular Chemistry, RWTH Aachen University, Aachen, Germany

38 Sustainable Hydrogen Generation via Continuous Dehydrogenation of Biomass-derived Formic Acid

T. Hein, P. Schühle

Institute of Chemical Reaction Engineering, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany

40 Production of Syngas via Dehydration of Biogenic Aqueous Formic Acid coupled with the Water-Gas Shift Reaction

E. Hoffmann, P. Schuehle
Institute of Chemical Reaction Engineering (CRT) at Friedrich-Alexander University (FAU) Erlangen Nuremberg, Germany

45 Shaping Methanol Synthesis from CO_2: Phase Transitions, Residence Time, and Reactor Design

A. Böhmeke[1], K. Laichter[1], G. Nell[2], T. E. Müller[1]
[1]Carbon Sources and Conversion, Ruhr-Universität Bochum, [2]Parr Instrument GmbH, Frankfurt, Germany

46 Towards Sustainable Ethene: Techno-Environmental Assessment of a Modified Fischer-Tropsch Pathway from CO_2 and H_2

M. Hebenbrock[1], V. Hagen[2], T. E. Müller[1]
[1] Carbon Sources and Conversion, Ruhr-Universität Bochum, [2]Rubokat GmbH, Bochum, Germany

47 Selective Hydrogenation of Renewable Raw Materials Using Commercial Catalyst Systems

D. Pietschmann, J. Bernstein, D. Vogt, T. Seidensticker
Laboratory of Industrial Chemistry/Department of Biochemical and Chemical Engineering, TU Dortmund University, Dortmund, Germany

48 Carbon Capture and Hydrogen Plants - Overcoming Challenges and Optimizing Integration

A. Wincierz
Siemens AG, Karlsruhe, Germany

50 Operando spectroscopic techniques to investigate molecular catalysts in flow

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

[1]Max-Planck-Institut für Chemische Energiekonversion, Mülheim a.d.Ruhr., [2]Otto-von-Guericke-Universität Magdeburg, Magdeburg, [3]Institut für Technische Chemie und Makromolekulare Chemie (ITMC), RWTH Aachen University, Aachen, Germany

51 Linear, Aliphatic Polymer Precursors from Local Plant Oils through Cross Metathesis and Isomerizing Functionalisation

J. Hommes, D. Vogt, T. Seidensticker

TU Dortmund University, Laboratory of Industrial Chemistry, Dortmund, Germany

52 Direct, tandem catalysis synthesis of higher alcohols from syngas: The influence of water on reaction rates and alcohol (regio)selectivity

F. Fiore[1], A. Rodriguez-Gomez[1], D. De Baker[1], M. Claeys[2], A. J. Vorholt[3], G. Prieto[1]

[1]ITQ Instituto de Tecnología Química (UPV-CSIC), Valencia Spain, [2]Catalysis Institute, Department of Chemical Engineering, University of Cape Town, Rondebosch South Africa, [3]Max Planck Institute for Chemical Energy Conversion, Mülheim an der Ruhr, Germany

53 Property-performance relationship assessment of tailored nanoparticles for alkaline water electrolysis

T. S. Sicila Mary[1,2,3], A. Barthelmeß[2], M. Wolf[2,4], J. Schröder[1]

[1]Institut für Technische Chemie und Polymerchemie, Karlsruher Institut für Technologie (KIT), Karlsruhe, Germany, [2]Institut für Katalyseforschung und -technologie (IKFT), Karlsruher Institut für Technologie (KIT), Eggenstein-Leopoldshafen, Germany, [3]Technical University of Munich (TUM), Munich, Germany, [4]Engler-Bunte-Institut, Karlsruher Institut für Technologie (KIT), Karlsruhe, Germany

56 Methanolation of Olefins: Versatile low-pressure synthesis of various alcohols from olefins and methanol

S. Stahl[1,2], J. T. Vossen[1,2], J. Mädicke[1,2], S. Popp[1,2], W. Leitner[1,2], A. J. Vorholt[1]

[1]Max Planck Institute for Chemical Energy Conversion, Mülheim an der Ruhr, Germany, [2]Institute for Technical and Macromolecular Chemistry, RWTH Aachen University, Aachen, Germany

GENERAL INFORMATION

Venue

Haus der Technik
Hollestr. 1 | 45127 Essen | Germany

Registration Desk

Opening Hours

Tuesday, October 28, 2025	08.45 h – 18.00 h
Wednesday, October 29, 2025	08.00 h – 17.00 h

Phone +49 151 56005706

WLAN

Zugang: HDT WLAN; Passwort: Willkommen

Conference Preprints

Lectures and posters presented at the DGMK-Conference are published in full length in the DGMK-Conference Proceedings. These publications are registered under ISBN and ISSN. The DGMK-Conference Proceedings will be given to each conference participant in a digital format.

Disclaimer

DGMK assumes no liability for loss or damage to items brought along.

Organiser

DGMK Deutsche Wissenschaftliche Gesellschaft für nachhaltige Energieträger, Mobilität und Kohlenstoffkreisläufe e.V.
Große Elbstraße 131 | 22767 Hamburg | Germany

Become a member of DGMK

... and take advantage of networking & exchange with a community of peers across the energy industry.

Your member benefits at a glance:

- Both print and online versions of the magazine EEK TECHNOLOGY & TRANSFORMATION OF FOSSIL AND GREEN ENERGIES
- Discounted participation fees at DGMK events and selected partner events
- Exchange opportunities in our network from science and industry
- Regular mailings regarding our attractive event calendar; Invitations to current workshops and conferences
- 50 percent discount on research reports and conference proceedings

Special offers for students:

- Reduced membership fee
- Free access to annual conferences (if registered in time).
- Opportunity to connect with university researchers and potential employers
- Information on current topics and trends in research

Further information: www.dgmk.de