Second International Symposium "Catalytic Chemistry of C1 Molecules"

July 7-10, 2026
Le Touquet-Paris-Plage, France

DRAFT PROGRAM

Invitation and scope

The Scientific and Organizing committees welcome you at the **C1Chem** International Symposium **"Catalytic Chemistry of C1 Molecules** ", which take place 7-10 July 2026, Palais des congrès, Le Touquet- Paris Plage, France.

The ongoing societal transition from fossil fuels to renewable energy sources requires the development of energy-efficient, selective and waste-free catalytic processes for C1 molecules, which occur under mild conditions. The symposium is intended to offer an update of recent innovations in both fundamental and applied aspects of catalytic utilization of **CO_2, CO, methane, methanol, formaldehyde and formic acid**. The particular focus will be on **hydrogen production and storage** using C1 molecules. The symposium will emphasize catalyst design, thermocatalysis, homogeneous catalysis, heterogeneous catalysis, photocatalysis, electrocatalysis, catalyst characterization, modelling, kinetics, process design and intensification. Our goal is to enable researchers from different fields to exchange views and to create a synergy of knowledge.

Symposium topics:

- ✓ **CO_2 upgrading** (hydrogenation, reduction, CO_2 for oxidation/dehydrogenation, carbonates);
- ✓ **Catalytic valorization of methane** (methane coupling, partial oxidation, reforming);
- ✓ **Methanol-mediated hydrocarbon synthesis from CO and CO_2;**
- ✓ **Fischer-Tropsch synthesis;**
- ✓ **Synthesis of methanol and dimethyl ether;**
- ✓ **Synthesis of substituted natural gas (SNG);**
- ✓ **Conversion of methanol to hydrocarbons;**
- ✓ **Hydrogen production and storage using C1 molecules.**

Program

The symposium program includes 6 Invited Plenary Lectures **(45 min without Q&A)**, 11 Keynote Lectures **(30 min presentation + 10 min Q&A)**, 94 Oral Presentations **(15 min presentation + 5 min Q&A),** 38 Short Oral Presentations **(5 min presentation + 5 min Q&A for session)** and about 40 Posters. The presentations have been selected by peer-reviewing on the basis of the submitted abstract. The accepted abstracts are published in the symposium proceedings.

Publication

After the symposium, the authors of oral presentations and selected posters will be invited to submit full manuscripts to a special issue of ***Catalysis Today.***

Sponsors

The C1Chem Symposium organizers are grateful to the sponsors **Malvern Panalytical, Micromeritics, REALCAT, Université de Lille and Elsevier**, who have kindly agreed to provide financial support for the organization of this meeting.

Poster Session

The poster session will be held on July 7 after 18:30. The posters will be available through the whole symposium for presentation and discussion. The Scientific Committee will attribute the Best Poster Award during the Closing Ceremony.

Awards

Awards will be given by Scientific and Organizing Committees for the best oral presentations and best poster.

ORAL SESSIONS

PL Plenary Lecture, **KL** Keynote Lecture, **O** Oral presentation, **SO** Short Oral presentation, **P** Poster

Tuesday July 7, 2026 - Morning

8:00-9:00	**Registration**		
9:00-9:20	**Opening ceremony Auditorium Victor Boucher**		
9:20-10:05	**Plenary 1 Tao Zhang,** *Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China* Single-Atom Catalysts: Concept and Applications in C1 Chemistry		
10:05-10:25	**Coffee break**		
	Session Victor Boucher **CO_2 Hydrogenation to Methanol**	**Session Schuman** **Photocatalysis & Solar Fuels**	**Session Adenauer** **Zeolites & Aromatics**
10:25-10:45	**Keynote 1 D. Levin**, *ExxonMobil Technology and Engineering* A Mechanistic Investigation into Basic Metal Oxide Co-Catalyst Functionality in Methanol Conver-sion Reactions	**O5 S. Ali**, *Prince Sultan University, Saudi Arabia* Advanced Metal chalcogenides-Based Photocatalysts for Efficient CO_2 Reduction and Solar Energy Conversion	**O8 B. Zhang**, *Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China* Formation of valuable aromatics through alkylation reactions on zeolite catalysts
10:45-11:05		**O6 F. Zhang**, *Dalian Institute of Chemical Physics (DICP), China* Redox-mediated Z-scheme overall water splitting over photocatalysts with wide visible light utilization	**O9 Y. Yuan**, *Xiamen University, China* CO_2 Hydrogenation Intermediates for Selective Aromatic Methylation
11:05-11:25	**O1 X. Fan**, *The University of Manchester, UK* Cooperative Role of Nonthermal Plasma and Copper-Zinc Catalysts in the Hydrogenation of CO_2 to Methanol	**Keynote 2 J. Lu**, *University of Science and Technology of China, China* Precise Design of Metal-Oxide Interfaces for Efficient CO_2 and Syngas Conversions	**O10 X. Ou**, *University of Nottingham Ningbo China, China* Decoupling Zeolites Properties: Unravelling the Hierarchical Impacts on CO_2 Hydrogenation to Aromatics
11:25-11:45	**O2 J.M. Gallo**, *King Abdullah University of Science and Technology, Saudi Arabia* Indium-based catalysts for CO_2 hydrogenation: opportunities and challenges		**O11 S. Damasceno**, *University of São Paulo, Brazil* Catalyst Design and Process Optimization for the Methanol-to-Aromatics Reaction: Impact of Particle Size and Hierarchical Structure
11:45-12:05	**O3 J.M. Christensen**, *Technical University of Denmark, Denmark* Elucidation of the mechanism of CO_2 conversion to methanol through isotope labelling experiments	**O7 G.S. García,** *Universitat de Valencia, Spain* Tailoring WO_3 Photoanodes for Solar-Driven CO_2 Reduction to C1-C2 products	**Keynote 3 N. Nesterenko**, *Sulzer Chemtech, Switzerland* Upgrading One-Carbon Molecules: A New Toolbox for Strategic Impact
12:05-12:25	**O4 Z. Zinat**, *Ghent University, Belgium* Origin of CO and Methanol in CO_2 Hydrogenation over Zn_xZrO_y Catalysts	**SO: Methane activation** **SO1 J. Ma** Catalytic Dilute Methane Abatement via O_2 Activation into Reactive Surface Oxygen on Copper Zeolites **SO2 Z. Wei** Revisiting the Catalytic Role of supported Na_2WO_4 for Oxidative Coupling of Methane Reaction **SO3 M. Fu** Mechanisms of Copper-Based Catalysts in methane partial oxidation and VOCs Catalytic Oxidation	
12:25-14:00	**Lunch**		

Tuesday July 7, 2026 - Afternoon

14:00-14:45	**Auditorium Victor Boucher** **Plenary 2** **Bert Weckhuysen**, *Utrecht University, The Netherlands* Understanding Reaction and Deactivation Mechanisms in the Catalytic Activation of CO, CO_2 and CH_4 as Revealed by Spatiotemporal Operando Spectroscopy		
	Session Victor Boucher **CO_2 electroreduction**	**Session Schuman** **Methane oxidation/activation**	**Session Adenauer** **CO_2 conversion**
14:50-15:10	**O12** **H. Wang**, *Utrecht University, the Netherlands* Visualizing the Restructuring and Self-healing Ability of Copper Electrodes during Electrochemical CO_2 Reduction	**Keynote 4** **P. Xie**, *Zhejiang University, China* Rational Design of Dual-atom Catalysts for Methane Valorization	**O20** **H. Chen**, *Xiamen University, China* Sustainable pathway for the synthesis of methylamine from CO_2, H_2 and NH_3
15:10-15:30	**O13** **X. Cai**, *Shenzhen University, Shenzhen, China* Development of catalysts for multi-electrons involved electrocatalytic reactions		**O21** **K. Natte**, *Indian Institute of Technology Hyderabad, India* CO_2 Valorization toward Selective N-Formylation of Nitroarenes and Aminoarenes under Homogeneous Titanium Catalysis
15:30-15:50	**O14** **A. Muthuperiyanayagam**, *Queen Mary University of London, UK* Amorphous Catalysts for CO_2 Electroreduction	**O16** **H. Jeong**, *Korea Institute of Materials Science (KIMS), Republic of Korea* Palladium oxide nano-cluster catalysts with tailored surface structures for high-performance methane oxidation	**O22** **T. Karnaukhov**, *National Institute of Chemistry, Slovenia* Efficient CO_2 hydrogenation into light olefins over synergistic Fe-based catalysts
15:50-16:10	**SO: CO_2 Reduction & C–C Coupling** **SO4** **Z. Teimouri** Integrating Atomic Scale Catalyst Design with Transport Engineering for Stable and Efficient CO_2 Electrolysis to CO in a Membrane Electrode Assembly **SO5** **J.C. Cruz** Methane Suppression and Selective Oxygenate Production in CO_2 Hydrogenation over Ni–Ga Intermetallic Catalysts **SO6** **A. Pérez-Calvo** Catalytic Valorization of CO_2 via Oxidative Dehydrogenation of Ethylbenzene: Linking Catalyst Performance	**O17** **P. Granger**, *University of Lille, France* Importance of the protocol used to incorporate Pd to Co-spinel structure in methane oxidation: Optimal interaction and kinetic consequences	**SO: Zeolites & Aromatics** **SO7** **S. Huang** Optimizing gallium hydrides of $GaZrO_x$–ZSM-5 for aromatic synthesis and toluene methylation using CO_2 hydrogenation intermediates **SO8** **O. Toyin** Site dynamics reduces the induction period of methanol conversion **SO9** **M. Ozden** Optimization of Catalyst-Adsorbent Bed Configurations for Sorption-Enhanced CO_2 Hydrogenation to DME
16:10-16:30	**Coffee break**		
16:30-16:50	**Keynote 5** **K, Cheng**, *Xiamen University, China* Methane Upgrading to C2+ Hydrocarbon Chemicals via Relay Catalysis at Mild Conditions	**O18** **Y. Cao**, *Southwest Petroleum University, China* Highly Selective Methane Photooxidation to Formaldehyde by Constructing Symmetry-Breaking Sites	**O23** **F. Zhang**, *Sichuan University, China* Polyethylene upgrading to aromatics by coupling with CO_2
16:50-17:10		**O19** **S. Kim**, *King Abdullah University of Science and Technology (KAUST), Saudi Arabia*	**O24** **J. Vachaud**, *Univ. Grenoble Alpes, France* Kinetic modelling and catalyst development for direct CO_2 valorisation to light olefins

		Syngas economy for rapid decarbonization of fuels and chemicals	
17:10-17:30	**O15** **Z.-J. Zhao** Theoretical guided design of Zn modified Cu catalyst for CO_2 electrochemical reduction	**SO: CO_2 Capture, Hydrogen Carriers & Process Intensification** **SO10** **C. Zhou** Revisit Amine Regeneration in Post-Combustion CO_2 Capture Process From a Catalytic Point of View **SO11** **S. Gigot** Transition-metal based catalysts for the dehydrogenation of Formic Acid **SO12** **Y. Guo** Hydrogen Production via Catalytic Reforming over $NiAl_2O_4$ Spinel Catalysts	**SO: Advanced CO_2 Hydrogenation Catalysts & Functional Oxides** **SO13** **D. Mateo** Oxygen Vacancy-Engineered In_2O_3@Carbon Catalysts from Steam-Pyrolyzed MOFs for Photo-thermal CO_2 Hydrogenation **SO14** **C. Spyros** Designing High-Surface Area Ordered Mesoporous In_2O_3 for efficient CO_2 hydrogenation **SO15** **W. Liu** Unveiling Nb_2O_5 as a Catalytically Functional Oxide for Thermocatalytic CO_2 Hydrogenation
17:30-18:30	**Round Table**		
18:30-21:00	**Poster session and cocktail reception**		
21:00-22:00	**A guided pedestrian tour (optional)**		

Wednesday 8, 2026 - Morning

9:00-9:45	**Auditorium Victor Boucher** **Plenary 3** **Ye Wang**, *Xiamen University, China* Relay Catalysis for Precise Conversions of Syngas and CO_2 Involving C-C Coupling		
	Session Victor Boucher **RWGS**	**Session Schuman** **CO_2 hydrogenation**	**Session Adenauer** **Fischer–Tropsch, syngas-to-olefins & SAF**
9:50-10:10	**Keynote 6** **B. Guichard**, *IFPEN, France* Syngas Transformation into Chemicals and Biofuels: From Fundamental Approaches to Industrial Applications, Bridging the Past and the Future	**O27** **P. Da Costa**, *Sorbonne Université, France* Yttrium-promoted Ni/CeO_2 catalyst for plasma-assisted CO_2 valorization reaction	**O33** **L. K/Bidi**, *Yale University, United States* Probing adsorption sites diversity and reactivity in colloidal Iron Carbide nanoparticles for Fischer-Tropsch Synthesis
10:10-10:30		**O28** **J. Hong**, *South-Central Minzu University, China* Impact of Oxide Promoters on Active Phase Dispersion and Cu-ZnO Interfacial Sites in CO_2 Hydrogenation to Methanol	**O34** **C. Jimenez**, *Helmholtz-Zentrum Berlin für Materialien und Energie (HZB), Germany* Mn Promotion and Surface Dynamics of Co(0001) Model Catalysts in Fischer-Tropsch Synthesis
10:30-10:50	**Coffee break**		
10:50-11:10	**Keynote 7** **L.M. Rossi**, *University of São Paulo, Brazil* The critical role of metal-carbides for CO_2 hydrogenation to hydrocarbons and oxygenates over metal-oxide catalysts	**O29** **L. Gavrilovic**, *Institute for Energy Technology, Norway* Effect of ZrO_2 and In_2O_3 on Cu-based catalyst in Sorption-enhanced CO_2 hydrogenation to methanol	**O35** **Y. Han**, *Dalian Institute of Chemical Physics, China* Hydroxy-induced cobalt oxides for syngas to light olefins
11:10-11:30		**O30** **F. Bihl**, *Université de Strasbourg, Strasbourg, France* Experimental Investigation of Sorption-Enhanced Methanol Synthesis: Impact of Sorbent Properties on Conversion and Selectivity	**O36** **Y. Wisse**, *Lille University, France* Achieving High Activity and Stability in In_2O_3–ZrO_2/SAPO-34 Catalysts for Syngas-to-Olefins Conversion: The Role of Indium Mobility

11:30-11:50	**O25 J. Hu**, *Max Planck Institute for Chemical Energy Conversion, Germany* Low Temperature Reverse Water-Gas Shift Enabled by Magnetically Induced Catalysis	**O31 C. Liu**, *Shaanxi Normal University, China* Gallium nitride catalyzed CO_2 hydrogenation to dimethyl ether as a primary product	**O37 B. Rolandi**, *Politecnico di Milano, Italy* Spatial-temporal characterization of activation effects on phase evolution and performance of a FeZnCuK catalyst in CO_2 hydrogenation to hydrocarbons
11:50-12:10	**O26 F. Nicolini**, *Politecnico di Milano, Italy* Green syngas production via Reverse Water Gas Shift	**O32 S. Singh**, *Indian Institute of Technology Indore, India* Aqueous-phase hydrogenation of CO_2 to formate over diruthenium catalysts	**O38 X. Zhang**, *Utrecht University, The Netherlands* Pathway-dependent carburization under competing carbon and hydrogen fluxes: Insights from cobalt catalysts for CO_2 hydrogenation
12:10-12:30	**SO: CO_2 Methanation** **SO16 A. Szymaszek-Wawryca** Ni-Ce mixed oxides promoted with Mg or Ca and supported on natural aluminosilicates as novel CO_2 methanation catalysts **SO17 K. Ray** Low temperature CO_2 methanation over Mn-promoted Ni and Ru catalysts for energy efficient C1 conversion **SO18 O. Laurent** High performance Ni/CeO_2 catalysts for CO_2 methanation synthesized via aerosol-assisted sol-gel method	**SO: Fischer-Tropsch** **SO19 C. Chatelier** Copper doping in FeK catalysts for direct CO_2 hydrogenation **SO20 Y. Fan** Al Promotion Regimes in Iron Carbides for CO_2 Hydrogenation **SO21 Z. Yang** CO_2 Hydrogenation to Linear Alpha Olefins over Fe-based Composite Catalysts	**SO: Methane Pyrolysis, Reforming & Hydrogen Production** **SO22 S. Li** Hydrogen and High-Value Carbon Production via Efficient Thermal Catalytic Methane Cracking over Ni-Based Catalysts Derived from Hydrotalcite **SO23 L. Rishi** Catalyst Design and Optimization for Methane-to-Hydrogen Conversion Using $FeCo/Al_2O_3$ **SO24 A. Horváth** Methane pyrolysis on NiMo/MgO catalysts: how the preparation method governs bimetallic interactions that lead to high activity
12:30-14:00	**Lunch**		
14:00-17:30	**Social program: guided visit of Nausicaá, the largest aquarium in Europe**		
17:30-21:00	**Young scientist party in the restaurant "La Plage des Pirates" (optional)**		

Thursday July 9, 2026 - Morning

9:00-9:45	**Auditorium Victor Boucher** **Plenary 4 Beatriz Roldán Cuenya**, *Fritz Haber Institute of the Max Planck Society (FHI), Germany* CO_2 Conversion Catalysts: More Alive than Previously Thought		
	Session Victor Boucher **Single-Atom & Advanced Catalyst Design**	**Session Schuman** **Methane Reforming & Coupling**	**Session Adenauer** **Electrochemical fuels, hydrogen and value-added products**
9:50-10:30	**O39 A. Mironenko**, *University of Illinois Urbana-Champaign, United States* Methanol Carbonylation to Acetic Acid on Ultradispersed ReOx Sites: Insights into the Reaction Mechanism from First-Principles Calculations and Microkinetic Modeling	**O45 F. Tao**, *University of California, USA* Transformations of Methane and Ethane to Methanol and Acetic Acid under Mild Conditions	**O50 J. Albero**, *Institute of Chemical Research (ITQ), Spain* Ni and Mo atom pairs as active sites for urea production from simultaneous CO_2 and NO_3^- reduction by pulsed electrocatalysis
	O40 G. Fang, *Lille University, France* In-situ Decorating Titania with Ultralsmall Zr-MOF for	**O46 J. Mielby**, *Technical University of Denmark, Denmark* Preventing Coke-Formation During Dry Reforming of Methane	**O51 X.Z. Fu**, *Shenzhen University, China* Electrocatalytic co-generation of electrical energy/hydrogen and value-added chemicals

	Quantitative Methane Photocatalytic Oxidation		
10:30-10:50	**O41** **C. Duan**, *Nanjing University, China* Metal-organic architectures for catalytic CO_2 reduction	**SO: Advanced Reactor** **SO25** **R. Ishibashi** Rational support design for high energy conversion efficiency in microwave-driven dry reforming of methane **SO26** **N.S. Altinsoy** Ferromagnetic catalyst development for inductively heated syngas production by reverse-water gas shift reaction **SO27** **F. Varsano** Structured Co–Ni Catalysts Prepared by Additive Manufacturing for Induction-Heated Methane Bi-reforming	**SO: Operando, Dynamic Catalysts & Reaction Control** **SO28** **G. Groppi** Thermal control in conductive structured Fischer–Tropsch reactors: expanding the high-conversion operating window **SO29** **A. Rabee** Oxide Support Control of Sodium-Induced Promotion and Deactivation during the Reverse Water-Gas Shift over Cu-Based Catalysts **SO30** **F. Rocha-Antezana** Monitoring Structural Reconstruction of Perovskites during Chemical Looping Dry Reforming by Operando Synchrotron XRD and XAS
10:50-11:10	**Coffee break**		
11:10-11:30	**O42** **B. Gu**, *Yunnan University, China* Lattice-Shrunk TiO_2 with an Au Cocatalyst Enables Highly Efficient and Selective Photocatalytic Coupling of Methane to C_2+ Hydrocarbons	**O47** **I. Melnikov**, *Ghent University, Belgium* Unravelling the Transients in Hydrogen Production during Methane Pyrolysis over BP2000	**Keynote 8** **M. Saeys**, *Ghent University, Belgium* First-principles microkinetic study of the effect of the CO/CO_2 ratio on the selectivity of Fischer-Tropsch synthesis
11:30-11:50	**O43** **A. Wang**, *Dalian Institute of Chemical Physics, China* Development of Heterogeneous Single-Atom Catalysts for Ethylene Methoxycarbonylation	**O48** **Y. Chen**, *Zhejiang University, China* Ca Atomic Monolayer on CeO_2: An Electron Reservoir Steering Oxygen Activation for Selective Methane Coupling	
11:50-12:10	**O44** **A. Fedorov**, *ETH Zürich, Switzerland* The Role of Point Defects on the Fischer-Tropsch Catalysis with Mo-based MXenes	**O49** **Y. Luo**, *Université de Strasbourg, France* Ni-based catalysts for dry reforming of methane: Multi-fuel electrode SOFC	**O52** **J.L. Luo**, *Shenzhen University, China* Perovskite Electrocatalysts for Synthesis of High-value Fuels in Solid Oxide Cells
12:10-12:30	**SO: Plasma Catalysis & Non-Thermal Activation** **SO31** **A.R. Garcia** Kinetic modelling of methane conversion in DBD plasma-catalysis under isothermal conditions **SO32** **Z. Ye** From Powder Interfaces to Structured Electrodes Product Partitioning in Plasma-Catalytic CH_4/CO_2 Conversion **SO33** **M. Wisniewski** Non-thermal plasma application in selective CO_2 reduction	**SO: CO_2 Hydrogenation to SAF** **SO34** **C. Wang** CO/CO_2 hydrogenation to jet fuel components **SO35** **D. Alsaadi** Enhancing Iron-Copper Catalysts for Direct CO_2 Hydrogenation toward Sustainable Aviation Fuel **SO36** **B. Rolandi** Product distribution control in CO_2 Fischer-Tropsch synthesis toward sustainable aviation fuel via Fe-Zeolite tandem catalysis	**SO: C–C Coupling** **SO37** **W. Lin** Heterogeneously Coordinated Dual-Co Single Atom Sites on Carbon Nanotubes Drive C–C Coupling toward Ethanol Formation **SO38** **R. Güttel** Hydrogenation of CO in Presence of CO_2 using Ru-based Fischer-Tropsch Synthesis
12:30-14:00	**Lunch**		

Thursday July 9, 2026 - Afternoon

14:00-14:45	**Auditorium Victor Boucher** **Plenary 5 Ding Ma**, *Peking University, China* Low-Carbon Emission Iron-Based Fischer–Tropsch Synthesis Process		
	Session Victor Boucher **Photo/electrochemical and hybrid photo-catalytic systems**	**Session Schuman** **Zeolites, MTH/MTO and hydrocarbon upgrading**	**Session Adenauer** **CO_2 hydrogenation, methanation and sustainable fuels**
14:50-15:10	**O53 P. Boruah**, *CNRS, France* MOP-POM Assemblies Post-functionalized with Re(I) for Highly Selective Photocatalytic CO_2 Reduction to CO	**Keynote 9 P. Fongarland**, *Université Claude-Bernard Lyon 1, France* From experiment to optimization by simulation of the SERP methanol synthesis from CO_2/H_2	**O67 X. Wang**, *King Abdullah University of Science and Technology (KAUST), Saudi Arabia* Highly Selective Photothermal CO_2 Hydrogenation to C2+ Hydrocarbons over bimetallic Fe-based Catalysts
15:10-15:30	**O54 W. Li**, *South China University of Technology, China* Rich Electron Site CO_2 Reduction Photocathode Coupled with Ethylene Glycol Reforming Photoanode for Integrated Formate Production		**O68 J. L. Santos**, *King Abdullah University of Science and Technology (KAUST), Saudi Arabia* Powering Sustainable Aviation: Machine Learning–Guided Catalysts for CO_2-to-SAF
15:30-15:50	**O55 Y. Hu**, *South China University of Technology, China* Design and Mechanistic Investigation of Photo/electrochemical CO_2 Reduction-Oxidation Coupled System	**O60 Z. Qin**, *China University of Petroleum (East China), China* Tailored design of ZSM-5 zeolites for catalysis	**O69 N. Iwanojko**, *ETH Zürich, Zürich, Switzerland* Efficient Chemical Space Exploration in Fischer-Tropsch Synthesis from CO_2 via Mathematically Optimized High Throughput Experimentation
15:50-16:10	**Coffee break**		
16:10-16:30	**Keynote 10 M. Zabilskiy**, *Clariant, Germany* Green Methanol Synthesis: From Academic Discovery to Industrial Reality	**O61 A. Kordek**, *Jagiellonian University, Poland* Unraveling Reaction Intermediates in the MTH Process Using MCR-ALS Analysis of FT-IR Spectroscopy Data	**O70 Y. He**, *University of Toyama, Japan* Synergistic Fe-Co Catalysts for Efficient CO_2 Hydrogenation
16:30-16:50		**O62 M. Vanni**, *Paul Scherrer Institute, Switzerland* Enhanced alkene productivity in methanol-to-hydrocarbons conversion using a secondary catalyst component and hydrogen co-feeds	**O71 S. Paul**, *Centrale Lille, France* Development of Ru-based supported catalysts for the hydrogenation of biogas CO_2 into methane using high-throughput experiments
16:50-17:10	**O56 M. Nguyen**, *CNRS, France* Heterojunction Engineering Powered by CIGS Solar Cells for Boosted Photocatalytic Methane Coupling	**O63 M. Mielniczuk**, *Paul Scherrer Institut, Switzerland* Mechanistic understanding of regeneration by steam of methanol-to-olefins catalysts	**O72 C. Molinet-Chinaglia**, *Université de Toulouse, France* Selectivity Shifts in CO_2 Methanation over Subnanometer Ru/TiO_2 Catalysts
17:10-17:30	**O57 N. Alhajjar**, *Lille University, France* Femtosecond Study of the Methane Photoconversion in Me/NPW/TiO2 Photocatalysts	**O64 X. Gong**, *King Abdullah University of Science and Technology, Saudi Arabia* Spatiotemporal Activation of Ni/Zeolite Catalysts Enables Isoparaffin-Rich Gasoline	**O73 B. Bai**, *Utrecht University, The Netherlands* Enhancing Low-Temperature CO_2 Methanation via Nickel Electronic Structure Engineering

17:30-17:50	**O58** **Y.F. Zhu**, *University of New South Wales, Australia* Examining the effect of a plasmonic metal promoter for visible light-assisted thermal CO_2-Fischer Tropsch Synthesis over Fe supported on HZSM-5	**O65** **D.H. Kim**, *Seoul National University, Republic of Korea* Systematic Optimization of NiO Promoters for Mo/HZSM-5 Catalysts in Methane Dehydroaromatization: From Particle Size Control to Interfacial Engineering	**O74** **S. Xing**, *Guangzhou Institute of Energy Conversion, China* Surface engineering of nickel oxide cluster on indium oxide for driving methanol synthesis from CO_2 hydrogenation
17:50-18:10	**O59** **R. Tokarz-Sobieraj**, *Jerzy Haber Institute of Catalysis and Surface Chemistry, Poland* Model DFT model studies of CH_4 reforming on metal heteropolyacid titania photocatalysts	**O66** **V. De Waele**, *CNRS, France* Methanol photoconversion in zeolite activated by femtosecond pumping of hot-vibrational states	**O75** **S. Yasuda**, *University Toyama, Japan* $NiFe_2O_4$–Fe_2O_3 Interfacial Engineering Breaking the Activity–Selectivity Trade–Off CO_2 hydrogenation to ethanol
19:30-23:00	**Symposium dinner at Le Touquet Golf Resort (optional)**		

Friday July 10, 2026 - Morning

9:00-9:45	**Auditorium Victor Boucher** **Plenary 6** **Matthias Beller, Leibniz-Institut für Katalyse (LIKAT), Germany** Green Carbonylation Reactions: Challenges and Opportunities to Impact the Chemical Industry		
	Session Victor Boucher **Sustainable CCU and unconventional activation**	**Session Schuman** **Mechanistic, operando & modelling**	**Session Adenauer** **Emerging catalyst and process concepts**
9:50-10:10	**Keynote 11** **G. Skorikova**, *Netherlands Organization for Applied Scientific Research (TNO), the Netherlands* Driving CO_2 conversion with sorption enhancement	**O81** **P. Vanaraja Ambeth**, *University of Queensland, Australia* Role of B-Site Substitution on Lattice Oxygen Activation of Ba–Sr–Co Perovskites for Hydrogen Production in a Chemical Looping System	**O88** **O.M. Gazit**, *Israel Institute of Technology -Technion, Israel* CO_2 hydrogenation over mixed MnCo catalyst – effect of metal valence on performance
10:10-10:30		**O82** **S. Loridant**, *Université Claude Bernard Lyon 1, France* Oxide-zeotype bifunctional catalysts efficient for the conversion of CO to light olefins	**O89** **D. Wu**, *Zhengzhou University, China* Spatial Confined Single-atom Ru catalyst for Efficient CO2 Hydrogenation to Formate
10:30-10:50	**O76** **P. Schuehle**, *Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany* Sustainable methanol production from wet biomass waste in a novel mild and competitive process	**O83** **Z. Zuo**, *Shanghai Institute of Organic Chemistry, Shanghai* LMCT Catalysis for selective functionalizations of strong bonds	**O90** **L. Zubeir**, *Netherlands Organization for Applied Scientific Research (TNO), the Netherlands* Integrating CO_2 conversion and ammonia reforming
10:50-11:10	**Coffee break**		
11:10-11:30	**O77** **F. Morfin**, *Institut de Recherches sur la Catalyse et l'Environnement de Lyon (IRCELYON), France* Low-Temperature Ni and Re-based Dual-Function Material for Sustainable Integrated CCU-Methanation	**O84** **F. Braun**, *Ulm University, Germany* Investigating the Influence of Metal-Support Interactions on CO_2 hydrogenation with periodic-transient Experimentation	**O91** **J. Wang**, *Technical University of Denmark, Denmark* Mechanistic Insight into High-Temperature Reverse Water-Gas Shift over Mn-Based Spinel Catalysts

11:30-11:50	**O78 F. Kishimoto**, *University of Tokyo, Japan* Microwave-induced atomic scale hot spots for enhanced catalytic reactions	**O85 F. Ivars-Barceló**, *UNED University, Spain* Deciphering the atomic-scale evolution of Pd(Ag)-$Fe_{3-\delta}O_4$ nanocomposites during low-temperature methane partial oxidation	**O92 J. Han**, *Dalian Institute of Chemical Physics, China* Dynamic Ga(III)/GaH_x Interconversion in Ga-MFI Zeolites Enables High-Efficiency CO_2–Cyclohexane Coupling to Aromatics
11:50-12:10	**O79 S. Raseale**, *University of Cape Town, South Africa* When the support talks back – rWGS control via Fe_xNi supported on overlayered γ-Al_2O_3	**O86 D. Tuncer**, *Ghent University, Belgium* Role of Chabazite Support and Single Atom Vanadium Site Interactions in CO_2-Assisted Propane Dehydrogenation	**O93 K. Qi**, *Dalian Institute of Chemical Physics, China* Unlocking CO_2 electrolysis to C3 products via electrolyte supersaturation
12:10-12:30	**O80 C. Wang**, *Max-Planck-Institut für Kohlenforschung, Germany* Mechanical Force Unlocks CO_2 Reactivity on Hexagonal Boron Nitride	**O87 Q. Gu**, *Eindhoven University of Technology, The Netherlands* Regulating Dynamic Coordination Environments in Pt/CeO_2 Single-Atom Catalysts	**O94 E. de la Torre Miranda**, *Lille University* Liquid metals for CO_2 reduction to CO and formic acid
12:30-12:50	**Closing ceremony, announcements and presentation of awards**		
12:50-14:15	**Lunch**		

Poster Session

P1	**I. Abdellah**, *Université de Lorraine, France*	A Sustainable, Metal-Free Route to Amides via Visible-Light ConPET Carbonylation of Alkyl Iodides
P2	**G. Assaad**, *Lille University, France*	Hydrogen spillover for highly efficient hydrogenation of anthraquinone over Pd/TiO_2 for H_2O_2 synthesis
P3	**A. Braga**, *Instituto de Química-Universidade de São Paulo, Brazil*	Optimizing selectivity and lifetime in Methanol-to Aromatics by creating defects in H-ZSM-5 catalysts
P4	**B. Chatelier**, *University Grenoble Alpes, France*	Thermodynamic Enhancement CO_2-FTS
P5	**Y. Chen**, *Zhejiang University, China*	Surface-Confined Radical Mediation for Ultra-High-Yield Oxidative Dehydrogenation of Ethane to Ethylene
P6	**N. Featherstone**, *Ghent University, Belgium*	e-SAF: Innovative Process Integration for CO_2 conversion to Sustainable Aviation Fuels
P7	**R. Fernandez-Domene**, *Universitat de Valencia, Spain*	Tailoring WO_3 Photoanodes for Solar-Driven CO_2 Reduction to C1-C2 products
P8	**E. Hoffmann**, *Institute of Chemical Reaction Engineering FAU-Erlangen, Germany*	Syngas Production from Biogenic Aqueous Formic Acid via Coupled Reaction Pathways
P9	**A. Hosoi Kimura**, *University of São Paulo, Brazil*	Tailoring Cobalt Active Sites on Graphitic Carbon Nitride for Selective CO2 Hydrogenation to Alcohols
P10	**Q. Jiang**, *GuangZhou Institute of Energy Conversion*	Direct Synthesis of Aromatics for Jet Fuel by Integrating CO_2-FTS and Toluene Alkylation Reaction
P11	**K. Kalita**, *Indian Institute of Technology Indore, India*	Ru catalysts for reversible formic acid dehydrogenation and CO_2 hydrogenation: Ligand tuned catalytic activity
P12	**M. Koothupalakkal Manojkumar**, *University of Strasbourg, France*	Development of catalytic materials for methanol synthesis from renewable carbon
P13	**A. Kordek**, *Jagiellonian University in Kraków, Poland*	Catalytic Upgrading of CO_2 and CH_4 to Oxygenates over Fe-FER zeolite
P14	**M. Mendes**, *University of São Paulo, Brazil*	Synthesis of CZA catalysts by a one-pot mechanical route: a novel methodology for a classic methanol synthesis application

P15	**E. Montejano Nares**, *UNED, Spain*	Methane and CO_2 Transformation into Ethanol under Mild Conditions over Pd(Ag)-$Fe_{3-\delta}O_4$ Catalysts: Structural and Electronic Dynamics
P16	**J. Moszczynska**, *Nicolaus Copernicus University, Poland*	From Capture to Conversion: C@C Nanocomposites for CO_2 Valorisation
P17	**C. Pietrogiacomi**, *Sapienza University of Rome, Italy*	Ni supported on Ca-modified ZrO_2 catalysts: influence of ZrO_2 crystalline phases on Oxidative Dry Reforming of CH_4
P18	**R. Sanchez-Tovar**, *Universitat de Valencia, Spain*	Co/Co_3O_4 Heterojunction Catalysts for Selective Photoelectrochemical CO_2-to-Formate Conversion
P19	**L. Sommaruga**, *Università degli Studi di Milano, Italy*	ZrO_2-based tandem catalysts for CO_2 to DME conversion
P20	**M. Szymaszek**, *AGH University of Krakow, Poland*	Rice-Husk Silica-Supported CO_2 Methanation Catalysts: Solution combustion synthesis vs hydrotalcite co-precipitation
P21	**X. Yao**, *Institute of Science Tokyo, Japan*	Acidity Tuning of AEI-Type Zeolite Catalysts for Methanol-to-Olefins Performance
P22	**X. Yu**, *Utrecht University, Netherlands*	Quantifying Structural and Dipole–Dipole Coupling Effects in Coverage-Dependent CO Infrared Spectra on Pt
P23	**D. Bi**, *Nanyang Normal University, China*	Engineering S-scheme $ZnIn_2S_4$/CuInS2 on Flexible Substrate for Selective Photothermal CO_2 Reduction to CO
P24	**F.J. Platero Moreno**, *King Abdullah Science and Technology University, Saudi Arabia*	Comparative Hydrogenation Strategies for Converting CO_2-Derived Oil into Sustainable Aviation Fuel
P25	**M. Ali**, *Université du Littoral Côte d'Opale, France*	Shaping of Ni-Co catalyst for up-scale biogas dry reforming
P26	**M. Tayyab**, *King Fahd University of Petroleum and Minerals, Saudi Arabia*	Regulating redox sites for photocatalytic phenylcarbinol conversion and H_2 production on lattice-matched Schottky junction
P27	**M. Ali**, *Université de Strasbourg, France*	Iron-Based Catalysts for Sustainable CO_2 Conversion via the Reverse Water Gas Shift Reaction (RWGS)
P28	**H. Wang**, *Guangzhou Institute of Energy Conversion, China*	Direct Catalytic Hydrogenolysis of Cellulose to Methane over Ru/C under Mild Conditions
P29	**T. Wu**, *Nanyang Technological University, Singapore*	Studies on Metal Oxide-Based Heterogeneous Catalysts for Aqueous Phase CO_2 Hydrogenation to Alcohols
P30	**B. Berger**, *ETH Zürich, Switzerland*	Fe_2O_3 - A Novel SOMC Platform to Study Bimetallic Fe Carbide FTS Catalysts
P31	**S. Fujii**, *University of Toyama, Japan*	The particle effect of ZrO_2-SiO_2 supported Co-Mn catalysts for ethylene co-feeding Fischer-Tropsch Synthesis toward Sustainable Aviation Fuel
P32	**C. Solsona**, *Universitat de Valencia, Spain*	CO_2 assisted oxidative dehydrogenation of ethylbenzene over MoVTeNbO mixed oxides with the M1-orthorhombic phase
P33	**Y. Stiefel**, *ETH Zürich, Switzerland*	Alkali Metal Doping of Cobalt-Based Catalysts for CO_2 Hydrogenation
P34	**M. Claeys**, *UCLouvain, Belgium*	Effect of preparation method and copper promotion on the acidity and activity of Fe-ZSM-5 catalysts in mild conditions for methane oxidation
P35	**Y. M. Lucas**, *Federal University of Ceara, Brazil*	Effect of Niobium Oxide Support on the Performance of Cu–ZnO Catalysts for CO_2 Hydrogenation to Methanol
P36	**Z. Zhang**, *CNRS, France*	CO_2 Hydrogenation to Methanol within the OBIWAN Project