



**Second International
Symposium
“Catalytic Chemistry
of C1 Molecules”**

**July 7-10, 2026
Palais des Congrès,
Le Touquet-Paris-Plage, France**

PROGRAM

Invitation and scope

The Scientific and Organizing committees welcome you at the **C1Chem** International Symposium “**Catalytic Chemistry of C1 Molecules**”, taking place from 7 to 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 provide an overview of recent innovations in both fundamental and applied aspects of catalytic utilization of **CO₂, 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:

- ✓ **CO₂ upgrading** (hydrogenation, reduction, CO₂ for oxidation/dehydrogenation, carbonates);
- ✓ **Catalytic valorization of methane** (methane coupling, partial oxidation, reforming);
- ✓ **Methanol-mediated hydrocarbon synthesis from CO and CO₂**;
- ✓ **Fischer-Tropsch synthesis**;
- ✓ **Synthesis of methanol and dimethyl ether**;
- ✓ **Synthesis of substitute natural gas (SNG)**;
- ✓ **Conversion of methanol to hydrocarbons**.

Program

The symposium program includes 6 Plenary Lectures (**45 min without Q&A**), 12 Keynote Lectures (**30 min presentation + 10 min Q&A**), 89 Oral Presentations (**15 min presentation + 5 min Q&A**), 36 Short Oral Presentations (**5 min presentation + 5 min Q&A for session**) and about 40 Posters. The presentations have been selected by peer-reviewing 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 **Wiley, Kehan Colloidal Silica, Malvern Panalytical, Micromeritics, REALCAT, University of Lille, UCCS 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.

Awards

Awards for the best oral presentations and best posters will be presented by the Scientific and Organizing Committees, with generous support from Wiley and Micromeritics.

Shuttle

Monday, 6 July 2026 : Roissy Charles de Gaulle Airport (CDG) → Le Touquet-Paris-Plage: 10:00; 14:00; 18:30; 22:00. Friday, 10 July 2026 : Le Touquet-Paris-Plage → Roissy Charles de Gaulle Airport (CDG): 14:30; 17:30.

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Program at a glance

Day	Scientific program	Social / practical events
Monday July 6	Arrival day	19:00-22:00 Welcome Cocktail Reception
Tuesday July 7	Opening ceremony; Plenary lectures by Tao Zhang and Bert Weckhuysen; parallel sessions on methanol, photocatalysis, zeolites, CO ₂ electroreduction, methane activation and CO ₂ conversion.	Registration from 8:00; Round Table; Poster session and cocktail reception; optional guided pedestrian tour.
Wednesday July 8	Plenary lecture by Ye Wang; parallel sessions on RWGS, CO ₂ hydrogenation, Fischer-Tropsch, syngas-to-olefins, SAF, methane pyrolysis, reforming and hydrogen production.	Guided visit of Nausicaá ; Young scientist party at La Plage des Pirates.
Thursday July 9	Plenary lectures by Beatriz Roldán Cuenya and Ding Ma; parallel sessions on single-atom catalysts, methane reforming/coupling, electrochemical fuels, zeolites, MTH/MTO, CO ₂ hydrogenation, methanation and sustainable fuels.	Symposium dinner at Le Touquet Golf Resort.
Friday July 10	Plenary lecture by Matthias Beller; final parallel sessions on sustainable CCU, mechanistic/operando/modelling studies and emerging catalyst/process concepts.	Closing ceremony , sponsor address, awards and lunch.

ORAL SESSIONS

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

Monday July 6, 2026 - Afternoon

19:00-22:00	Welcome Cocktail Reception
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Tuesday July 7, 2026 - Morning

8:00-9:00	Registration		
9:00-9:20	Opening ceremony Auditorium Victor Boucher (A. Khodakov)		
9:20-10:05	Plenary 1 Tao Zhang, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China (Chair: A. Khodakov) Single-Atom Catalysts: Concept and Applications in C1 Chemistry		
10:05-10:25	Coffee break		
	Session Victor Boucher (Chair: L. Zubeir) Methanol	Session Schuman (Chair: P. Boruah) Photocatalysis & Solar Fuels	Session Adenauer (Chair: M. Virginie) 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 Conversion Reactions	O4 F. Zhang, Dalian Institute of Chemical Physics (DICP), China Redox-mediated Z-scheme overall water splitting over photocatalysts with wide visible light utilization	O7 X. Shang, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China Formation of valuable aromatics through alkylation reactions on zeolite catalysts
10:45-11:05		O5 G. Fang, CNRS, France In-situ Decorating Titania with Ultrasmall Zr-MOF for Quantitative Methane Photocatalytic Oxidation	O8 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 N. Nesterenko, Sulzer Chemtech, Switzerland Upgrading One-Carbon Molecules: A New Toolbox for Strategic Impact	O9 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		O10 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	O6 G.S. García, Universitat de Valencia, Spain Tailoring WO ₃ Photoanodes for Solar-Driven CO ₂ Reduction to C1-C2 products	O11 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
12:05-12:25	SO: CO₂ Hydrogenation to SAF SO1 C. Wang CO/CO ₂ hydrogenation to jet fuel components SO2 D. Alsaadi Enhancing Iron-Copper Catalysts for Direct CO ₂ Hydrogenation toward Sustainable Aviation Fuel SO3 B. Rolandi Product distribution control in CO ₂ Fischer-Tropsch synthesis toward sustainable aviation fuel via Fe-Zeolite tandem catalysis	SO: Methane activation SO4 J. Ma Catalytic Dilute Methane Abatement via O ₂ Activation into Reactive Surface Oxygen on Copper Zeolites SO5 Z. Wei Revisiting the Catalytic Role of supported Na ₂ WO ₄ for Oxidative Coupling of Methane Reaction SO6 M. Fu Mechanisms of Copper-Based Catalysts in methane partial oxidation and VOCs Catalytic Oxidation	O12 Z. Cao, Institute of Coal Chemistry, Chinese Academy of Sciences Zeolite framework induced regioselectivity in Rh-catalyzed hydroformylation of α -olefins
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 (Chair: Y. Wang, G. Skorikova) 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 (Chair: J.L. Luo) CO₂ electroreduction	Session Schuman (Chair: F. Tao, J. Mielby) Methane oxidation/activation	Session Adenauer (Chair: J. Han) CO₂ conversion
14:50-15:10	O13 H. Wang, Utrecht University, the Netherlands Visualizing the Restructuring and Self-healing Ability of Copper Electrodes during Electrochemical CO ₂ Reduction	Keynote 3 P. Xie, Zhejiang University, China Rational Design of Dual-atom Catalysts for Methane Valorization	O21 H. Chen, Xiamen University, China Sustainable pathway for the synthesis of methylamine from CO ₂ , H ₂ and NH ₃
15:10-15:30	O14 X. Cai, Shenzhen University, Shenzhen, China Development of catalysts for multi-electrons involved electrocatalytic reactions		O22 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	O15 A. Muthuperiyanayagam, Queen Mary University of London, UK Amorphous Catalysts for CO ₂ Electroreduction	O17 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	O23 T. Karnaukhov, National Institute of Chemistry, Slovenia Efficient CO ₂ hydrogenation into light olefins over synergistic Fe-based catalysts

15:50-16:10	SO: CO₂ Reduction & C–C Coupling SO7 Z. Teimouri Integrating Atomic Scale Catalyst Design with Transport Engineering for Stable and Efficient CO ₂ Electrolysis to CO in a Membrane Electrode Assembly SO8 J.C. Cruz Methane Suppression and Selective Oxygenate Production in CO ₂ Hydrogenation over Ni–Ga Intermetallic Catalysts SO9 A. Pérez-Calvo Catalytic Valorization of CO ₂ via Oxidative Dehydrogenation of Ethylbenzene: Linking Catalyst Performance, Electrochemical Properties and Techno-Economic/Sustainability Assessment	O18 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 SO10 S. Huang Optimizing gallium hydrides of GaZrO _x –ZSM-5 for aromatic synthesis and toluene methylation using CO ₂ hydrogenation intermediates SO11 O. Toyin Site dynamics reduces the induction period of methanol conversion SO12 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 4 K. Cheng, Xiamen University, China Methane Upgrading to C2+ Hydrocarbon Chemicals via Relay Catalysis at Mild Conditions	O19 Y. Cao, Southwest Petroleum University, China Photocatalytic Methane Conversion: Regeneration Mechanism and Control Strategies for Methanol Production	O24 F. Zhang, Sichuan University, China Polyethylene Upgrading to Aromatics by Coupling With CO ₂
16:50-17:10		O20 S. Kim, King Abdullah University of Science and Technology (KAUST), Saudi Arabia Syngas economy for rapid decarbonization of fuels and chemicals	O25 J. Vachaud, Univ. Grenoble Alpes, France Kinetic Modelling and Catalyst Development for Direct CO ₂ Valorisation to Light Olefins
17:10-17:30	O16 Z.-J. Zhao, Tianjin University, China Theoretical guided design of Zn modified Cu catalyst for CO ₂ electrochemical reduction	SO: CO₂ Capture, Hydrogen Carriers & Process Intensification SO13 C. Zhou Revisit Amine Regeneration in Post-Combustion CO ₂ Capture Process from a Catalytic Point of View SO14 S. Gigot Transition-Metal Based Catalysts for The Dehydrogenation of Formic Acid	SO: Advanced CO₂ Hydrogenation Catalysts & Functional Oxides SO15 D. Mateo Oxygen Vacancy-Engineered In ₂ O ₃ @Carbon Catalysts from Steam-Pyrolyzed MOFs for Photo-thermal CO ₂ Hydrogenation SO16 C. Spyros Designing High-Surface Area Ordered Mesoporous In ₂ O ₃ for efficient CO ₂ hydrogenation SO17 W. Liu Unveiling Nb ₂ O ₅ as a Catalytically Functional Oxide for Thermocatalytic CO ₂ Hydrogenation
17:30-18:30	Round Table (Chair: B. Weckhuysen) – Welcome Address by S. González Gallardo, Editor-in-Chief, Advanced Synthesis & Catalysis (Wiley)		
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 (Chair: D. Ma, D. Levin) Relay Catalysis for Precise Conversions of Syngas and CO ₂ Involving C-C Coupling		
	Session Victor Boucher (Chair: D. Wu) RWGS	Session Schuman (Chair: M. Zabilskiy, S. Paul) CO₂ hydrogenation	Session Adenauer (Chair: M. Saeys, A. Mironenko) Fischer-Tropsch, syngas-to-olefins & SAF
9:50-10:10	Keynote 5 B. Guichard, IFPEN, France Syngas Transformation into Chemicals and Biofuels: From Fundamental Approaches to Industrial Applications, Bridging the Past and the Future	O28 P. Da Costa, Sorbonne University, France Yttrium-promoted Ni/CeO ₂ catalyst for plasma-assisted CO ₂ valorization reaction	O34 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		O29 J. Hong, South-Central Minzu University, China Active Site Evolution in CoIn Catalysts for Enhanced CO ₂ Hydrogenation	O35 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 6 L.M. Rossi, University of São Paulo, Brazil The Critical Role of Metal-Carbides for CO ₂ Hydrogenation to Hydrocarbons and	O30 L. Gavrilovic, Institute for Energy Technology, Norway Effect of ZrO ₂ and In ₂ O ₃ on Cu-based catalyst in Sorption-enhanced CO ₂ hydrogenation to methanol	O36 Y. Han, Dalian Institute of Chemical Physics, China Hydroxy-Induced Cobalt Oxides for Syngas to Light Olefins
11:10-11:30	Oxygenates over Metal-Oxide Catalysts	O31 F. Bihl, University of Strasbourg, France Experimental Investigation of Sorption-Enhanced Methanol Synthesis: Impact of Sorbent Properties on Conversion and Selectivity	O37 Y. Wisse, University of Lille, France Achieving High Activity and Stability in In ₂ O ₃ -ZrO ₂ /SAPO-34 Catalysts for Syngas-to-Olefins Conversion: The Role of Indium Mobility
11:30-11:50	O26 J. Hu, Max Planck Institute for Chemical Energy Conversion, Germany Low Temperature Reverse Water-Gas Shift Enabled by Magnetically Induced Catalysis	O32 C. Liu, Shaanxi Normal University, China Gallium Nitride Catalyzed CO ₂ Hydrogenation to Dimethyl Ether as a Primary Product	O38 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	O27 F. Nicolini, Politecnico di Milano, Italy Green Syngas Production via Reverse Water Gas Shift	O33 S. Singh, Indian Institute of Technology Indore, India Aqueous-Phase Hydrogenation of CO ₂ to Formate over Diruthenium Catalysts	O39 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: CO₂ Methanation SO18 A. Szymaszek-Wawryca Ni-Ce Mixed Oxides Promoted with Mg or Ca and Supported on Natural Aluminosilicates as Novel CO ₂ Methanation Catalysts SO19 K. Ray Low Temperature CO ₂ Methanation over Mn-Promoted Ni and Ru Catalysts for Energy Efficient C1 Conversion SO20 O. Laurent High performance Ni-based catalysts for CO ₂ methanation synthesized via aerosol-assisted sol-gel method	SO: Fischer-Tropsch SO21 C. Chatelier Copper Doping in FeK Catalysts For Direct CO ₂ Hydrogenation SO22 Y. Fan Al Promotion Regimes in Iron Carbides for CO ₂ Hydrogenation SO23 Z. Yang CO ₂ Hydrogenation to Linear Alpha Olefins over Fe-Based Composite Catalysts	SO: Methane Pyrolysis, Reforming & Hydrogen Production SO24 L. Rishi Catalyst Design and Optimization for Methane-to-Hydrogen Conversion Using FeCo/Al ₂ O ₃ SO25 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		
14:00-18:00	Social program: guided visit of Nausicaá, the largest aquarium in Europe		
18:00-21:00	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 (Chair: K. Cheng, L. Rossi) CO ₂ Conversion Catalysts: More Alive than Previously Thought		
	Session Victor Boucher (Chair: R. Güttel) Single-Atom & Advanced Catalyst Design	Session Schuman (Chair : P. Xie) Methane Reforming & Coupling	Session Adenauer (Chair: G. Fang) Electrochemical fuels, hydrogen and value-added products
9:50-10:10	Keynote 7 C. Duan, Nanjing University, China Metal-organic architectures for catalytic CO ₂ reduction	O43 F. Tao, University of California, USA Transformations of Methane and Ethane to Methanol and Acetic Acid under Mild Conditions	O48 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
10:10-10:30		O44 J. Mielby, Technical University of Denmark, Denmark Preventing Coke-Formation During Dry Reforming of Methane	O49 X.Z. Fu, Shenzhen University, China Electrocatalytic co-generation of electrical energy/hydrogen and value-added chemicals
10:30-10:50	O40 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	SO: Advanced Reactor SO26 R. Ishibashi Rational support design for high energy conversion efficiency in microwave-driven dry reforming of methane SO27 N.S. Altinsoy Ferromagnetic catalyst development for inductively heated syngas production by reverse-water gas shift reaction SO28 F. Varsano Structured Co–Ni Catalysts Prepared by Additive Manufacturing for Induction-Heated Methane Bi-reforming	SO: Operando, Dynamic Catalysts & Reaction Control SO31 G. Groppi Thermal control in conductive structured Fischer–Tropsch reactors: expanding the high-conversion operating window SO32 A. Rabee Oxide Support Control of Sodium-Induced Promotion and Deactivation during the Reverse Water-Gas Shift over Cu-Based Catalysts SO33 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	O41 F. Kishimoto, University of Tokyo, Japan Microwave-Induced Atomic Scale Hot Spots for Enhanced Catalytic Reactions	O45 I. Melnikov, Ghent University, Belgium Unravelling the Transients in Hydrogen Production during Methane Pyrolysis over BP2000	Keynote 9 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	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	O46 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	Keynote 8 A. Fedorov, ETH Zürich, Switzerland The Role of Point Defects and Support Effect on the Fischer-	O47 Y. Luo, University of Strasbourg, France Ni-based catalysts for dry reforming of methane: Multi-fuel electrode SOFC	O50 J.L. Luo, Shenzhen University, China Perovskite Electrocatalysts for Synthesis of High-value Fuels in Solid Oxide Cells

12:10-12:30	Tropsch Catalysis with Mo-based MXenes	SO: C–C Coupling SO29 W. Lin Heterogeneously Coordinated Dual-Co Single Atom Sites on Carbon Nanotubes Drive C–C Coupling toward Ethanol Formation SO30 R. Güttel Hydrogenation of CO in Presence of CO ₂ using Ru-based Fischer-Tropsch Synthesis	SO: Plasma Catalysis & Non-Thermal Activation SO34 A.R. Garcia Kinetic modelling of methane conversion in DBD plasma-catalysis under isothermal conditions SO35 Z. Ye From Powder Interfaces to Structured Electrodes Product Partitioning in Plasma-Catalytic CH ₄ /CO ₂ Conversion SO36 M. Wisniewski Non-thermal plasma application in selective CO ₂ reduction
12:30-14:00	Lunch		

Thursday July 9, 2026 - Afternoon

14:00-14:45	Auditorium Victor Boucher Plenary 5 Ding Ma, Peking University, China (Chair: M. Beller, B.R. Cuenya) Low-Carbon Emission Iron-Based Fischer–Tropsch Synthesis Process		
	Session Victor Boucher (Chair: Z.-J. Zhao, V. De Waele) Photo/electrochemical and hybrid photo-catalytic systems	Session Schuman (Chair: N. Nesterenko, X. Ou) Zeolites, MTH/MTO and hydrocarbon upgrading	Session Adenauer (Chair: K. Natte) CO₂ hydrogenation, methanation and sustainable fuels
14:50-15:10	O51 P. Boruah, CNRS, France MOP-POM Assemblies Post-functionalized with Re(I) for Highly Selective Photocatalytic CO ₂ Reduction to CO	Keynote 11 P. Fongarland, Claude Bernard University Lyon 1, France From experiment to optimization by simulation of the SERP methanol synthesis from CO ₂ /H ₂	O65 X. Wang, King Abdullah University of Science and Technology (KAUST), Saudi Arabia Highly Selective Photothermal CO ₂ Hydrogenation to C ₂ + Hydrocarbons over bimetallic Fe-based Catalysts
15:10-15:30	O52 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		O66 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	O53 Y. Hu, South China University of Technology, China Design and Mechanistic Investigation of Photo/electrochemical CO ₂ Reduction-Oxidation Coupled System	O58 Z. Qin, China University of Petroleum (East China), China Tailored design of ZSM-5 zeolites for catalysis	O67 N. Iwanjko, 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	O59 A. Kordek, Jagiellonian University, Poland Unraveling Reaction Intermediates in the MTH Process Using MCR-ALS Analysis of FT-IR Spectroscopy Data	O68 Y. He, University of Toyama, Japan Synergistic Fe-Co Catalysts for Efficient CO ₂ Hydrogenation

16:30-16:50		O60 M. Vanni, Paul Scherrer Institute, Switzerland Enhanced alkene productivity in methanol-to-hydrocarbons conversion using a secondary catalyst component and hydrogen co-feeds	O69 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	O54 M. Nguyen, CNRS, France Heterojunction Engineering Powered by CIGS Solar Cells for Boosted Photocatalytic Methane Coupling	O61 M. Mielniczuk, Paul Scherrer Institut, Switzerland Mechanistic understanding of regeneration by steam of methanol-to-olefins catalysts	O70 C. Molinet-Chinaglia, University of Toulouse, France Selectivity Shifts in CO ₂ Methanation over Subnanometer Ru/TiO ₂ Catalysts
17:10-17:30	O55 N. Alhajjar, University of Lille, France Femtosecond Study of the Methane Photoconversion in Me/NPW/TiO ₂ Photocatalysts	O62 X. Gong, King Abdullah University of Science and Technology, Saudi Arabia Spatiotemporal Activation of Ni/Zeolite Catalysts Enables Isoparaffin-Rich Gasoline	O71 B. Bai, Utrecht University, The Netherlands Enhancing Low-Temperature CO ₂ Methanation via Nickel Electronic Structure Engineering
17:30-17:50	O56 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	O63 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	O72 S. Xing, Guangzhou Institute of Energy Conversion, CAS, China Surface engineering of nickel oxide cluster on indium oxide for driving methanol synthesis from CO ₂ hydrogenation
17:50-18:10	O57 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	O64 V. De Waele, CNRS, France Methanol photoconversion in zeolite activated by femtosecond pumping of hot-vibrational states	O73 F. Braun, Ulm University, Germany Investigating the Influence of Metal-Support Interactions on CO ₂ hydrogenation with periodic-transient Experimentation
19:00-23:00	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 (Chair: V. Ordonsky, C. Duan) Green Carbonylation Reactions: Challenges and Opportunities to Impact the Chemical Industry		
	Session Victor Boucher (Chair: A. Fedorov) Sustainable CCU and unconventional activation	Session Schuman (Chair: P. Granger) Mechanistic, operando & modelling	Session Adenauer (Chair: P. Fongarland) Emerging catalyst and process concepts
9:50-10:10	Keynote 12 G. Skorikova, Netherlands Organization for Applied Scientific Research (TNO), the Netherlands Driving CO ₂ Conversion with Sorption Enhancement	O78 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	O84 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		O79 S. Loridant, Claude Bernard University Lyon 1, France Oxide-Zeotype Bifunctional Catalysts Efficient for The Conversion of CO to Light Olefins	O85 D. Wu, Zhengzhou University, China Spatial Confined Single-atom Ru catalyst for Efficient CO ₂ Hydrogenation to Formate
10:30-10:50	O74 P. Schuehle, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany Sustainable Methanol Production from Wet Biomass Waste in a Novel Mild And Competitive Process	O80 S. Yasuda, University Toyama, Japan NiFe ₂ O ₄ –Fe ₂ O ₃ Interfacial Engineering Breaking the Activity–Selectivity Trade–Off CO ₂ hydrogenation to ethanol	O86 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	O75 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	O81 F. Ivars-Barceló, UNED University, Spain Deciphering the Atomic-Scale Evolution Of Pd(Ag)-Fe ₃ -ΔO ₄ Nanocomposites during Low-Temperature Methane Partial Oxidation	O87 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	O76 S. Raseale, University Of Cape Town, South Africa When the Support Talks Back – Rwgs Control via Fe _x Ni Supported on Overlayered γ-Al ₂ O ₃	O82 D. Tuncer, Ghent University, Belgium Role of Chabazite Support and Single Atom Vanadium Site Interactions in CO ₂ -Assisted Propane Dehydrogenation	O88 K. Qi, Dalian Institute of Chemical Physics, China Unlocking CO ₂ Electrolysis to C3 Products via Electrolyte Supersaturation
11:50-12:10	O77 C. Wang, Max-Planck-Institut für Kohlenforschung, Germany Mechanical Force Unlocks CO ₂ Reactivity on Hexagonal Boron Nitride	O83 Q. Gu, Eindhoven University of Technology, The Netherlands Regulating Dynamic Coordination Environments in Pt/CeO ₂ Single-Atom Catalysts	O89 E. de la Torre Miranda, University of Lille, France Liquid Metals for CO ₂ Reduction to CO and Formic Acid
12:10-12:30	Closing Ceremony, Sponsor Address by A. Moury (Micromeritics), Announcements, and Presentation of Awards		
12:30-14:15	Lunch		

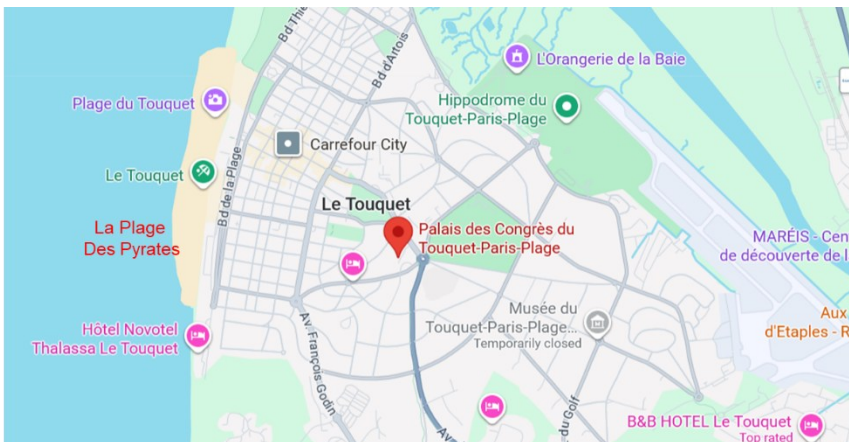
POSTER SESSION

P1	I. Abdellah , <i>University of Lorraine, France</i>	A Sustainable, Metal-Free Route to Amides via Visible-Light ConPET Carbonylation of Alkyl Iodides
P2	G. Assaad , <i>University of Lille, France</i>	Hydrogen Spillover for Highly Efficient Hydrogenation of Anthraquinone Over Pd/TiO ₂ For H ₂ O ₂ Synthesis
P3	A. Braga , <i>Instituto de Química-Universidade de São Paulo, Brazil</i>	Optimizing Selectivity and Lifetime In Methanol-To Aromatics by Creating Defects In H-ZSM-5 Catalysts
P4	A. Roussey , <i>University Grenoble Alpes, France</i>	Thermodynamic Enhancement of CO ₂ Hydrogenation via In Situ Water Removal
P5	Y. Chen , <i>Zhejiang University, China</i>	Surface-Confined Radical Mediation for Ultra-High-Yield Oxidative Dehydrogenation of Ethane to Ethylene
P6	N. Featherstone , <i>Ghent University, Belgium</i>	e-SAF: Innovative Process Integration for CO ₂ conversion to Sustainable Aviation Fuels
P7	R. Fernandez-Domene , <i>Universitat de Valencia, Spain</i>	Tailoring WO ₃ Photoanodes for Solar-Driven CO ₂ Reduction to C1-C2 products
P8	E. Hoffmann , <i>Institute of Chemical Reaction Engineering FAU-Erlangen, Germany</i>	Syngas Production from Biogenic Aqueous Formic Acid via Coupled Reaction Pathways
P9	A. Hosoi Kimura , <i>University of São Paulo, Brazil</i>	Tailoring Cobalt Active Sites on Graphitic Carbon Nitride for Selective CO ₂ Hydrogenation to Alcohols
P10	Q. Jiang , <i>GuangZhou Institute of Energy Conversion</i>	Direct Synthesis of Aromatics for Jet Fuel by Integrating CO ₂ -FTS and Toluene Alkylation Reaction
P11	K. Kalita , <i>Indian Institute of Technology Indore, India</i>	Ru Catalysts for Reversible Formic Acid Dehydrogenation and CO ₂ Hydrogenation: Ligand Tuned Catalytic Activity
P12	M. Koothupalakkal Manojkumar , <i>University of Strasbourg, France</i>	Development of Catalytic Materials for Methanol Synthesis from Renewable Carbon
P13	A. Kordek , <i>Jagiellonian University in Kraków, Poland</i>	Catalytic Upgrading of CO ₂ and CH ₄ to Oxygenates over Fe-FER zeolite
P14	M. Mendes , <i>University of São Paulo, Brazil</i>	Synthesis of CZA Catalysts by a One-Pot Mechanical Route: A Novel Methodology for A Classic Methanol Synthesis Application
P15	E. Montejano Nares , <i>UNED, Spain</i>	Methane and CO ₂ Transformation into Ethanol under Mild Conditions over Pd(Ag)-Fe _{3-δ} O ₄ Catalysts: Structural and Electronic Dynamics
P16	J. Moszczyńska , <i>Nicolaus Copernicus University, Poland</i>	From Capture to Conversion: C@C Nanocomposites for CO ₂ Valorisation
P17	C. Pietrogiacomì , <i>Sapienza University of Rome, Italy</i>	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 , <i>Universitat de Valencia, Spain</i>	Co/Co ₃ O ₄ Heterojunction Catalysts for Selective Photoelectrochemical CO ₂ -to-Formate Conversion
P19	L. Sommaruga , <i>Università degli Studi di Milano, Italy</i>	ZrO ₂ -based tandem catalysts for CO ₂ to DME conversion
P20	A. Szymaszek-Wawryca , <i>AGH University of Krakow, Poland</i>	Rice-Husk Silica-Supported CO ₂ Methanation Catalysts: Solution combustion synthesis vs hydrotalcite co-precipitation
P21	X. Yao , <i>Institute of Science Tokyo, Japan</i>	Acidity Tuning of AEI-Type Zeolite Catalysts for Methanol-to-Olefins Performance
P22	X. Yu , <i>Utrecht University, Netherlands</i>	Quantifying Structural and Dipole–Dipole Coupling Effects in Coverage-Dependent CO Infrared Spectra on Pt
P23	D. Bi , <i>Nanyang Normal University, China</i>	Engineering S-scheme ZnIn ₂ S ₄ /CuInS ₂ on Flexible Substrate for Selective Photothermal CO ₂ Reduction to CO
P24	F.J. Platero Moreno , <i>King Abdullah Science and Technology University, Saudi Arabia</i>	Comparative Hydrogenation Strategies for Converting CO ₂ -Derived Oil into Sustainable Aviation Fuel
P25	M. Ali , <i>University of the Littoral Opal Coast, France</i>	Shaping of Ni-Co Catalyst for Up-Scale Biogas Dry Reforming

P26	M. Tayyab , <i>King Fahd University of Petroleum and Minerals, Saudi Arabia</i>	Regulating Redox Sites for Photocatalytic Phenylcarbinol Conversion and H ₂ Production on Lattice-Matched Schottky Junction
P27	M. Ali , <i>University of Strasbourg, France</i>	Iron-Based Catalysts for Sustainable CO ₂ Conversion via the Reverse Water Gas Shift Reaction (RWGS)
P28	H. Wang , <i>Guangzhou Institute of Energy Conversion, China</i>	Direct Catalytic Hydrogenolysis of Cellulose to Methane over Ru/C under Mild Conditions
P29	T. Wu , <i>Nanyang Technological University, Singapore</i>	Studies on Metal Oxide-Based Heterogeneous Catalysts for Aqueous Phase CO ₂ Hydrogenation to Alcohols
P30	B. Berger , <i>ETH Zürich, Switzerland</i>	Fe ₂ O ₃ - A Novel SOMC Platform to Study Bimetallic Fe Carbide FTS Catalysts
P31	S. Fujii , <i>University of Toyama, Japan</i>	The Particle Effect of ZrO ₂ -SiO ₂ Supported Co-Mn Catalysts for Ethylene Co-Feeding Fischer-Tropsch Synthesis Toward Sustainable Aviation Fuel
P32	B. Solsona , <i>Universitat de Valencia, Spain</i>	CO ₂ Assisted Oxidative Dehydrogenation of Ethylbenzene Over MoVTeNbO Mixed Oxides With The M1-Orthorhombic Phase
P33	Y. Stiefel , <i>ETH Zürich, Switzerland</i>	Alkali Metal Doping of Cobalt-Based Catalysts for CO ₂ Hydrogenation
P34	M. Claeys , <i>UCLouvain, Belgium</i>	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 , <i>Federal University of Ceara, Brazil</i>	Effect of Niobium Oxide Support on the Performance of Cu-ZnO Catalysts for CO ₂ Hydrogenation to Methanol
P36	Z. Zhang , <i>CNRS, France</i>	CO ₂ Hydrogenation to Methanol within the OBIWAN Project

Useful information

The Second International Symposium "**Catalytic Chemistry of C1 Molecules (C1Chem 2026)**" takes place at the **Palais des Congrès**, located in the heart of Le Touquet-Paris-Plage, one of the most beautiful seaside resorts on the French Opal Coast. The venue is within walking distance of the beach, restaurants and the town center.



The **Welcome Cocktail Reception** will take place on **Monday, July 6, from 19:00 to 22:00**, at the Palais des Congrès. This informal event provides an excellent opportunity to meet fellow participants before the scientific sessions begin.

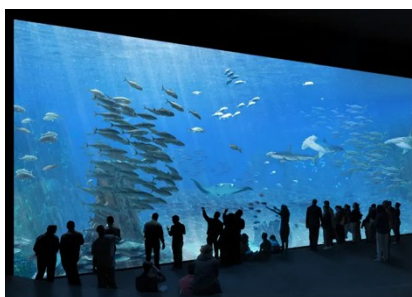
The **Round Table Discussion**, chaired by Prof. Bert Weckhuysen, will be held on **Tuesday, July 7, from 17:30 to 18:30**, followed by the **Poster Session and Cocktail Reception** from **18:30 to 21:00**. An optional **guided walking tour of Le Touquet** will start at **21:00** from the symposium venue.

Optional Program

On **Wednesday, July 8**, participants are invited to visit **Nausicaá**, the **largest aquarium in Europe**, located in nearby Boulogne-sur-Mer. Buses will depart from the **Palais des Congrès** following lunch at **14:00** and return to Le Touquet before the evening program.

The **Young Scientist Party** will take place on **Wednesday, July 8, from 18:00 to 22:00**, at **La Plage des Pirates (28 min from Palais des Congrès)**, offering a relaxed atmosphere for networking among early-career researchers.

The **Symposium Gala Dinner** will be held on **Thursday, July 9**, at the **Le Touquet Golf Resort**. Surrounded by pine forests and golf courses, the venue provides an elegant setting for an evening of networking and informal discussions. Buses will depart from the **Palais des Congrès** at **19:00**.



We wish you a pleasant stay in Le Touquet and hope you enjoy both the scientific program and the unique atmosphere of the Opal Coast.

Thank you for participating in C1Chem 2026!

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