

International Congress on Catalysis Science and Chemical Engineering - 2026	
DAY – 1 June 29, 2026 @Sala Conferenze F. Perri	
08:00-08:45	Registrations
08:45–09:15	Welcoming Speech: Conference Chairs
	Francesco Mauriello, Università Mediterranea di Reggio Calabria, Italy
	Emilia Paone, Università Mediterranea di Reggio Calabria, Italy
	Session Chair: TBA
	Plenary Talks
09:15–09:45	Title: Catalysis for Bio-Chemicals and Bio-Fuels: Scientific and Technical Achievements in an Evolving Landscape
	Fabrizio Cavani, University of Bologna, Italy
09:45–10:15	Title: Emerging Catalysis Process for Effective Energy Storage
	Qiang Zhang, Tsinghua University, China
10:15–10:45	Title: Colloidal Metal Nanocrystals as the Next-Generation Catalytic Materials
	Yunan Xia, Johns Hopkins University, USA
10:45–11:15	Coffee Break
11:15–11:45	Title: Photocatalytic Water Splitting to Produce Green Hydrogen and Related Fuels (Online)
	Kazunari Domen, The University of Tokyo, Japan
11:45–12:15	Title: Green Shades in Catalysis for Fine Chemicals and Pharmaceuticals
	Luigi Vaccaro, University of Perugia, Italy
	Session: Catalysis for the Energy Transition
	Session Chair: TBA
	Keynote Talk
12:15–12:40	Title: Where to look for Shape Selectivity? The Strange Cases of Catalysis on Ferrierite
	Francesco Di Renzo, University of Montpellier-CNRS-ENSCM, France
	Invited Talks
12:40–13:00	Title: Towards Accurate Modeling of Elementary Reaction Steps in Heterogeneous Catalysis <i>via</i> Insights from Gas-Surface Dynamics
	Jörg Meyer, Leiden University, Netherlands
13:00–13:20	Title: Catalytic Oxidative Desulphurization of Pyrolytic Oils to Fuels Over Different Waste Derived Carbon-Based Catalysts
	Mattia Bartoli, Politecnico Torino, Italy
13:20–14:20	Lunch Break
14:20–14:40	Title: Sustainable Cross-Coupling Protocol: Miyaura Borylation and One-Pot Suzuki-Miyaura Reaction in Deep Eutectic Solvents (DES)
	Daniele Franchi, CNR-ICCOM, Italy
14:40–15:00	Title: Use of Zeolites for the Synthesis of Ketals from Ethyl Levulinate and Glycerol
	Vincenzo Russo, University of Naples Federico II, Italy
15:00–15:20	Title: Value Added Chemicals from Acetylene, Ethylene and Isocyanides by Single to Multi-Cycle Catalytic Processes Using Late Transition Metal Heteroatom Stabilized Singlet Carbene Complexes
	Prasenjit Ghosh, Indian Institute of Technology Bombay, India
	Session: Single-Atom Catalysis and Nanostructured Catalysts
	Session Chair: TBA
	Keynote Talks
15:20–15:45	Title: Non-Conventional Technologies for Catalyst Preparation and Synthetic Processes

	Giancarlo Cravotto, University of Turin, Italy
15:45–16:10	Title: Tuning the Reactivity of Sol-Gel Multifunctional Catalysts for the Synthesis of Added-Value Products
	Martino Di Serio, University of Naples Federico II, Italy
16:10–16:40	Coffee Break
	Invited Talks
16:40–17:00	Title: Accelerating Green Technologies: The Role of DFT Modeling in Catalyst Design for Low-Carbon Chemical Processes
	Izabela Czekaj, Cracow University of Technology, Poland
17:00–17:20	Title: Towards the Discovery of Single-Atom Catalysts for Electrochemical Reactions with Atomistic Simulations
	Giovanni Di Liberto, University of Milan Bicocca, Italy
17:20–17:40	Title: Ketalization of Ethyl Levulinate with Glycerol Catalyzed by Strata™-XL-C
	Francesco Taddeo, University of Naples Federico II, Italy
17:40–18:00	Title: Turning Food Waste into Fuel: Sustainable Production of Ethyl Levulinate as Bio-blendstock for Gasoline Engines
	Sara Fulignati, University of Pisa, Italy
	Oral Talk
18:00–18:15	Title: Computational Insights into the Catalytic Reduction of Furfural Over Co-Based Oxides
	Pierraffaele Barretta, Università Magna Graecia di Catanzaro, Italy
18:15 ONWARDS	Networking Cocktail
DAY – 2 June 30, 2026 @Sala Conferenze F. Perri	
08:30–08:45	Registrations
	Session: Advanced Electrocatalysis and Photocatalysis
	Session Chair: TBA
	Keynote Talks
08:45–09:10	Title: Rational Design of Doped Oxide and Hybrid Nanomaterials for Enhanced Photocatalysis
	Stefano Bellucci, INFN-Laboratori Nazionali di Frascati, Italy
09:10–09:35	Title: Nanoporous Hybrid Catalysts for Photo(electro)Catalytic Conversion Reactions Across the Carbon, Nitrogen and Water Cycles
	Conchi Ania, Université d'Orléans, France
	Invited Talks
09:35–09:55	Title: Hydrogen Production from Aqueous Organic Solutions <i>via</i> Solar Thermo-Photoreforming over Semiconductor/Carbon Photocatalysts
	Giuseppe Marci, University of Palermo, Italy
09:55–10:15	Title: Photocatalytic Energy Conversion with Nanostructured Semiconductors
	Kei Noda, Keio University, Japan
10:15–10:35	Title: TaNbHfZrTi High-Entropy Alloy in Photo(electro)catalytic Tetracycline Degradation
	Miran Čeh, Jožef Stefan Institute, Slovenia
10:35–11:05	Coffee Break
11:05–11:25	Title: Nitrate Radicals in Photocatalysis: An Emerging Tool for Selective Oxidation (Online)
	Alessandro Gottuso, Shanghai Jiao Tong University (SJTU), China
11:25–11:45	Title: Eco-friendly and Reusable CNT/Halloysite-Based Sensor for Ciprofloxacin Electrochemical Detection

	Carlo Spampinato, Consiglio Nazionale delle Ricerche (IMM), Italy
11:45–12:05	Title: An Operando Study of the Surface Chemistry of (Ni,Cu)-Catalysts for Bio-Ethanol Dehydrogenation Reaction
	Elena Spennati, University of Genoa, Italy
12:05–12:25	Title: Oriented WO ₃ Nanoflakes Immobilized on Glass Spheres for the Continuous Flow Photocatalytic Degradation of Pharmaceuticals
	Vito Cristino, University of Ferrara, Italy
12:25–12:45	Title: Electrocleavage Synthesis of Molecular-Level Hybrid COF/Single-Layer MOF-Derivative MOOH Catalysts with Interface-Heterojunction for Biomass Electrooxidation Reaction
	Lingling Wang, Technical University of Munich, Germany
12:45–13:05	Title: Nanocatalysts for Lignocellulosic Biomass Conversion toward Pharmaceutical Building Blocks
	Alina M. Balu, University of Córdoba, Spain
13:05–14:10	Lunch Break
	Oral Talk
14:10–14:25	Title: Bio-Based LIOL-Containing Hydrogel Electrolytes for Sustainable Energy Storage: Structure-Efficiency Relationships
	Quentin De Roover, University of Liege, Belgium
14:25–14:40	Title: Enhancing Photocatalytic Hydrogen Production: Modification of TiO ₂ by coupling with semiconductor Nanoparticles
	Saud Alshammari, University of Leeds, United Kingdom
14:40–14:55	Title: High-Entropy Oxides as Electrocatalysts in Anion Exchange Membrane Water Electrolyzers for Green Hydrogen Production
	Maria Grazia Musolino, Università Mediterranea di Reggio Calabria, Italy
	Session: Catalytic CO₂ Conversion and Utilization
	Session Chair: TBA
	Invited Talks
14:55–15:15	Title: Sequential Catalytic Incorporation of CO ₂ and CO Leading to Carbonylated Cyclic Carbamates
	Lucia Veltri, University of Calabria, Italy
15:15–15:35	Title: Catalytic Conversion of CO ₂ and CH ₄ into Acetic Acid and Formic Acid Through Ni ₁₃ Clusters Supported on MgO Surface: A DFT Study
	Aravindhan Ramachandran, University of Milan-Bicocca, Italy
15:35–15:55	Title: Zn-based Electrocatalysts for CO ₂ Utilization: From Controlled Synthesis to Mechanistic Understanding and Efficient Devices
	Nataly Carolina Rosero-Navarro, Institute of Ceramic and Glass (CSIC), Madrid, Spain
15:55–16:30	Coffee Break
16:30–16:50	Title: NAP-XPS Study of CO and CO ₂ Hydrogenation on Ni(111) Under h-BN Cover (Online)
	Luca Vattuone, University of Genoa, Italy
16:50–17:10	Title: Improving the Performance of Co/TiO ₂ Catalysts by Mesostructuring the Support
	Alfonso Caballero, University of Seville, Spain
17:10–17:30	Title: Predicting Catalytic Activity from Atomic Structure
	Hendrik Heinz, University of Colorado Boulder, USA
17:30–17:45	Title: Optimize the Chemical and Physical Properties of H-ZSM-5 Zeolite Catalysts to Produce Ethylene by the Process of Ethanol Dehydration
	Makhosonke Ngcobo, University of South Africa, South Africa
17:45–18:15	Poster Presentations @Sala Esposizioni Boccioni
CAT01	Title: Democratising the Jellium Model for Plasmonic Nanoparticles
	Bibiana Türkcan, Leiden University, Netherlands

CAT02	Title: High-Entropy Metal Sulfides as Electrocatalysts for Overall Water Splitting Elena Miliutina, UCT Prague, Czech Republic
CAT03	Title: Pt Nanoclusters on MXene for the Methanol Oxidation Reaction Vasilii Burtsev, UCT Prague, Czech Republic
CAT04	Title: Continuous-flow Plasmonic Catalysis: Insights Into Mass Transport Effects in Au@Pd Nanocatalysts During Suzuki Coupling Mariia Erzina, UCT Prague, Czech Republic
CAT05	Title: Efficient Electrochemical CO ₂ Reduction to Ethylene on Thermal-Reduced Copper Electrodes Xianyun Zhang, Uppsala University, Sweden
CAT06	Title: Enzymatic Biocatalysis as a Sustainable Route to Bio-Adhesives from Agro-Food Residues Aušra Šimonėlienė, Kauno kolegija, Higher Education Institution, Lithuania
CAT07	Title: Assessment of Lignocellulosic Feedstocks for Efficient Bioenergy Catalytic Conversion Technologies Tetiana Kulik, Chuiko Institute of Surface Chemistry, Ukraine; Cardiff Catalysis Institute, United Kingdom
CAT08	Title: Valorization of Cocoa Pod Husk via Chemical Modification and Pyrolysis toward Catalytic Applications Borys Palianytsia, Chuiko Institute of Surface Chemistry, Ukraine
CAT09	Title: Synthesis and Characterization of Phosphorus-Modified ZSM-5 Zeolite Nanosheets Using Spectroscopic and Chemometric Approaches Sara Karimi, Allameh Tabarsi University Babol, Iran
CAT10	Title: Upcycling of Coconut Shell into Bifunctional Sulfonated Catalysts for Enhanced Sugar Hydrolysis Alina M. Balu, University of Córdoba, Spain
18:15 ONWARDS	Special Dinner
DAY – 3 July 01, 2026 @Sala Conferenze F. Perri	
08:30–08:45	Registrations
Session: Sustainable Catalysis and Green Chemistry	
Session Chair: TBA	
Keynote Talks	
08:45–09:10	Title: Recent Advances in Palladium Iodide Catalyzed Carbonylative Transformations Bartolo Gabriele, University of Calabria, Italy
09:10–09:35	Title: NiGraf and Reduced NiGraf: A New Family of Catalytic Metal Organic Alloys of Large Applicative Potential Mario Pagliaro, Istituto per lo Studio dei Materiali Nanostrutturati, CNR, Italy
09:35–10:00	Title: Waste Valorization into Chemicals and Fuels Using Nanocatalysis Sudarsanam Putla, Indian Institute of Technology Hyderabad, India
10:00–10:25	Title: Unconventional Solvents: a Powerful Reaction Media for Heterocyclization Processes Raffaella Mancuso, University of Calabria, Italy
10:25–10:55	Coffee Break
Invited Talks	
10:55–11:15	Title: Catalysis in Ball Mills: Mechanochemistry as an Alternative Synthesis Strategy Lars Borchardt, Ruhr University Bochum, Germany
11:15–11:35	Title: Designing Ru Catalysts from Atomic to Nanoparticle Scale: Mechanistic Insights from Multiscale Modeling

	Hsin-Yi Tiffany Chen, National Tsing Hua University, Taiwan
11:35–11:55	Title: Reframing the Amazon: From Biodiversity Reservoir to a Global Platform for Catalysis, Biorefineries, and Sustainable Innovation
	Luís Adriano Santos do Nascimento, Universidade Federal do Pará, Brazil
11:55–12:15	Title: Quantitative Structure–Reactivity Relationships in Catalytic Biomass Pyrolysis
	Tetiana Kulik, Chuiko Institute of Surface Chemistry, Ukraine; Cardiff Catalysis Institute, United Kingdom
12:15–12:35	Title: 3DM Engineering: Accelerating Protein Engineering with AI for Next-Generation Biocatalysis
	Tom Van Den Bergh, Bio-Product B.V., Netherlands
12:35–12:55	Title: Supported Copper Catalysts for Sustainable C–H Amination and Selective Reductions Under Microwave and Flow Conditions
	Katia Martina, University of Turin, Italy
12:55–14:00	Lunch Break
14:00–14:20	Title: Anthocyanins as Natural sensitizers of TiO ₂ thin films: Optical and Electrochemical Characterization
	William Vallejo, Universidad del Atlántico, Colombia
14:20–14:40	Title: A Zinc-Based Catalyst for the Synthesis and Chemical Recycling of Polyester
	Federica Santulli, University of Salerno, Italy
14:40–15:00	Title: Chitosan From Insects: Versatile Role in Green Chemistry and Circular Economy
	Ana Paula Ribeiro, CQE-IST-ID, University of Lisbon, Portugal
15:00–15:20	Title: Cascade Biorefining of Wet Agro-Industrial Residues into Renewable Energy Carriers: Integrated Extraction, Ni-Catalyzed Supercritical Water Gasification and Mn–Ce Catalyzed Wet Air Oxidation
	Catia Cannilla, CNR-ITAE, Italy
15:20–15:40	Title: Catalytic Upcycling of Plastic Waste via Biochar-Enhanced Microwave-Assisted Co-Pyrolysis
	Matteo Francavilla, University of Foggia, Italy
15:40–16:10	Coffee Break
	Oral Talks
16:10–16:25	Title: Catalytic Decarboxylation of Lignin-Derived Cinnamic Acids
	Borys Palianytsia, Chuiko Institute of Surface Chemistry, National Academy of Sciences of Ukraine
16:25–16:40	Title: Transformation of α -Pinene to High Value-Added Molecules on Carbon-Supported Noble Metals
	Filippo Ravasio, Leibniz Institute for Catalysis e.V., Germany
16:40–16:55	Title: Stereoselective Bio-Organocatalytic Cascade to Chiral Amides as API Intermediates Using ω -Transaminase and Choline Chloride Under Microwave Irradiation
	Salvatore Romano, University of Amsterdam, Netherlands
16:55–17:10	Title: Advanced MnO _x -Based Catalysts for PROX: Bridging Theory and Application
	Alessandro Cajumi, CNR-ITAE, Italy
17:10–17:25	Title: Partial Hydrogenation of Alkynes using Carbohydrates as Alternative Hydrogen Source on Pt/C
	Till De Cahsan, Leibniz Institute for Catalysis e. V., Germany
17:25–17:40	Title: Catalytic Pyrolysis of Mixed Plastic Waste in a Two-Stage Fluidized Bed Reactor
	Piotr Trochimczyk, Warsaw University of Technology, MARTEX, Poland
17:40–17:55	Title: Fatty Acid Upgrading to Linear Olefins Over Aminophosphine-Derived Precatalysts
	Sibongile Pikoli, University of South Africa, South Africa
18:00 ONWARDS	Closing