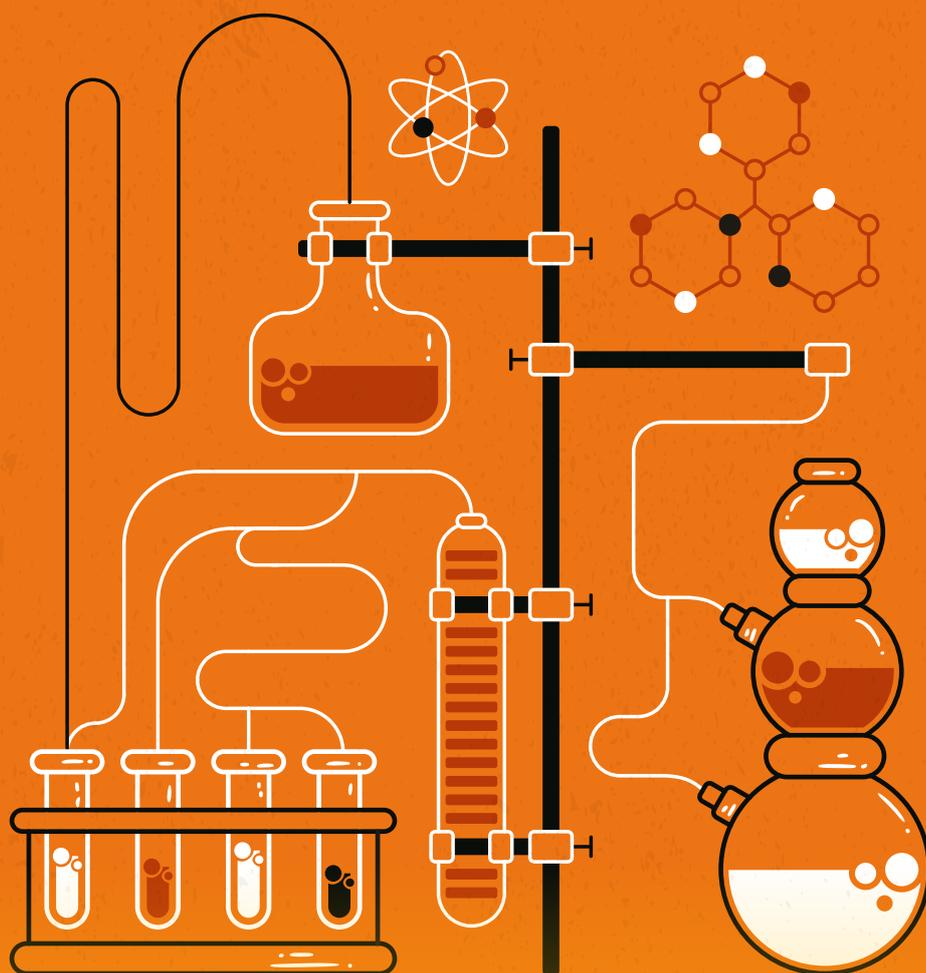


PROGRAM

10th International Conference on **Catalysis and Chemical Engineering™** **(CCE-2026)**

March 9-11, 2026 | Boston, MA | Hybrid

**Venue: Four Points by Sheraton Wakefield
Boston Hotel & Conference Center, Boston, MA**



EXHIBITORS



**WORK IN
FINLAND**

<https://catalysis.unitedscientificgroup.org/>

EXHIBITOR



Complete Catalysis Characterization Platform

Advanced Measurement Instruments (AMI) provides a fully integrated **catalysis characterization platform** designed to give researchers complete insight into catalyst performance, surface chemistry, and reaction behavior.

Our technology portfolio spans **chemisorption analyzers** for TPR, TPO, TPD, pulse chemisorption, and dynamic BET; **physisorption systems** for surface area and pore structure analysis; **high-precision microreactors** for kinetic and breakthrough studies; **gravimetric sorption systems** for high-pressure adsorption; **thermal analysis (TGA/STA)** for compositional and stability evaluation; **true density analyzers** for material structure validation; and **X-ray diffraction (XRD)** for crystalline phase identification. Together, these complementary techniques provide a seamless workflow—from catalyst design and surface active site quantification to reaction testing and structural confirmation—making AMI a comprehensive, end-to-end solution for advanced catalysis research and development.

WEBSITE: WWW.AMI-INSTRUMENTS.COM PH: +1 262-877-3600 EMAIL: INFO@AMI-INSTRUMENTS.COM

Join the meeting

<https://us06web.zoom.us/j/84815929310?pwd=fBDncaxrRMD1SFEqpywtEg2zzxXwGj.1>

Meeting ID: 848 1592 9310

Passcode: 665025

07:30-08:20 Registrations and Badge Pickup

08:20-08:30 Opening Ceremony

Plenary Presentation

Chair: Sebania Libertino, CNR-IMM Sede Principale, Italy
Nataša Novak Tušar, National Institute of Chemistry, Slovenia



08:30-09:15
Sustainable Catalysis Routes for Greenhouse Gas Valorization to Value-added Chemicals
Sibudjing Kawi, National University of Singapore, Singapore

Keynote Presentations



09:15-09:45
Recent Advances in Asymmetric Catalysis
Erick Carreira, ETH Zurich, Switzerland



09:45-10:15
Electrocatalysis in Rechargeable Lithium Metal Batteries
Jorge Seminario, Texas A&M University, College Station, TX



10:15-10:30
Exhibitor: AMI - Advanced Measurement Instruments
Caroline Chism, AMI - Advanced Measurement Instruments, Twin Lakes, WI

10:30-11:00 Coffee Break & Visit to Exhibition @ Ballroom Foyer & Wakefield Foyer



11:00-11:30
Synergistic Effects of *Ex-Situ* Doping and *In-Situ* Ion Insertion in Electrochemical Ammonia Synthesis
Huixin He, The State University of New Jersey, New Brunswick, NJ



11:30-12:00
Methane to C1 Conversion using a Tandem Enzymatic/Fe-ZSM-5 Catalyst: Implications for Reactor Design
Michael S. Strano, Massachusetts Institute of Technology, Boston, MA



12:00-12:30
Achieving Molecular Complexity via Metal-Free Domino Reactions
Svetlana B. Tsogoeva, Friedrich-Alexander Universität Erlangen-Nürnberg (FAU), Germany



12:30-12:45
Exhibitor: Find Your Superposition in Finland
Alex Romanovich, Work in Finland, Finland

12:45-13:45 Group Picture & Networking Lunch @ Restaurant

Keynote Presentations

Chair: Maria Vittoria Diamanti, Politecnico di Milano, Italy
Anna Marsicano, ISIS Neutron and Muon Source, United Kingdom



13:45–14:15

Prospects for Carbon Nanomaterials in Catalyzed Industrial Applications. Towards Sustainable Production Models

Francisco J. Maldonado-Hodar, University of Granada, Spain



14:15–14:45

Efficient Precious Metal Catalysts for SOFC Systems

Hans-Jörg Wölk, Heraeus Precious Metals GmbH & Co. KG, Germany



14:45–15:15

The Gold Standard of Excellence in Reporting Experimental Results of Permeability in Closed Conduits

Hubert M. Quinn, Wrangler Group LLC, Boston, MA



15:15–15:45

Iridium Pincer Catalysts: A 30 Year Odyssey

Craig M. Jensen, University of Hawaii, Honolulu, HI

15:45–16:00 Coffee Break & Visit to Exhibition @ Ballroom Foyer & Wakefield Foyer



16:00–16:30

Design Bio-active Molecule for Drug Development

Jun Qi, Dana-Farber Cancer Institute, Boston, MA



16:30–17:00 (Virtual)

**Climate Change & Renewable Energy: Science, Technology, Economics, & Reality
Advanced Concepts for Highly Efficient Solar Photon Conversion into
Photovoltaics & Fuels**

Arthur J. Nozik, University of Colorado, Boulder, CO

17:00–18:00 Networking Reception @ Ballroom Foyer & Wakefield Foyer

End of Day-1

Join the meeting

<https://us06web.zoom.us/j/84815929310?pwd=fBDncaxrRMD1SFEqpywtEg2zzxXwGj.1>

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International Women's Day Special Session "Women of Catalysis"

Chair: Huixin He, The State University of New Jersey, New Brunswick, NJ
Svetlana B. Tsogoeva, Friedrich-Alexander Universität Erlangen-Nürnberg (FAU), Germany

09:00–09:25 **Electrochemical Sensors for Monitoring Nitrogen Compounds in Water: Advances and Applications**

Sebania Libertino, CNR-IMM Sede Principale, Italy

09:25–09:50 **High Throughput Experimentation to Accelerate Chemo & Biocatalysis Applications**

Juliette Martin, SEQENS, France

09:50–10:15 **Engineering of Photo-Fenton-like Catalysts for Removal of Organic Pollutants from Water under Sunlight**

Nataša Novak Tušar, National Institute of Chemistry, Slovenia

10:15–10:40 **Synergistic Photocatalytic-Photothermal Mechanisms in Interfacial Solar Distillation for VOC and SVOC Rejection**

Maria Vittoria Diamanti, Politecnico di Milano, Italy

10:40–11:10 Coffee Break & Visit to Exhibition @ Ballroom Foyer & Wakefield Foyer

11:10–11:35 **On the Stability and Photocatalytic Efficiency of Water-based Titania Sol-gels**

MariaPia Pedferri, Politecnico di Milano, Italy

11:35–12:00 **Multi-technique *in situ* Assessment of Local and Long-range Stability of Metal-Organic Frameworks in Alkaline Environments**

Anna Marsicano, ISIS Neutron and Muon Source, United Kingdom

12:00–12:25 **Stable Dry Reforming of Methane Enabled by High-Entropy Oxides via Synergistic Redox Exsolution and Strong Metal-Support Interaction**

Zhenzhen Yang, Oak Ridge National Laboratory, Oak Ridge, TN

12:25–13:30 Lunch & Networking @ Restaurant

Session 1: Catalysis and Chemical Engineering

Chair: Francisco J. Maldonado-Hodar, University of Granada, Spain
Craig M. Jensen, University of Hawaii, Honolulu, HI

13:30–13:55 **The Use of *de novo* Asymmetric Synthesis for Natural Product and Oligosaccharide Medicinal Chemistry**

George O'Doherty, Northeastern University, Boston, MA

13:55–14:20 **SBA-15 Synthesis: On the Thermal Behavior During Calcination and Pyrolysis, and Recyclability of the P123 Template. Application to Tobacco Smoke Toxicants Reduction**

Antonio Francisco Marcilla Gomis, University of Alicante, Spain

- 14:20–14:45 **Integrated Continuous-flow Organic Synthesis Using Highly Active Heterogeneous Bimetallic Nanoparticle Catalysts**
Hiroyuki Miyamura, National Institute of Advanced Industrial Science and Technology (AIST), Japan
- 14:45–15:10 **Advancements in XPS Depth Profiling using Femtosecond Laser Ablation (fs-LA) for Surfaces Relevant for Catalysis**
James Lallo, Thermo Fisher Scientific, Cranbury, NJ
- 15:10–15:35 **Evolution from the Titration Curve Equation through the Invention of the Diode Based on a Frozen Electrolyte Solution to the Formulation of a New Law of Electrolytic Ionization**
Stanislav V. Yefimov, Pharmetric Laboratory, Largo, FL
- 15:35–16:00 **Automated Software for Homogeneous Catalyst Design**
Pavel Dub, Schrödinger, Inc., San Diego, CA
- 16:00–16:25 **Catalytic Methane Splitting Technology: A Decarbonization Pathway**
Prem Kumar Seelam, Hycamite TCD Oy, Finland

Coffee & End of Day-2

@ Ballroom Foyer & Wakefield Foyer

Day 3 In-Person

Wednesday, March 11, 2026

Room: Colonial Ballroom – A

Join the meeting

<https://us06web.zoom.us/j/84815929310?pwd=fBDncaxrRMD1SFEqpywtEg2zzxXwGj.1>

Meeting ID: 848 1592 9310

Passcode: 665025

Session 2: Catalysis and Chemical Engineering

- 09:00–09:20 **Photocatalytic α -ketoaziridine Intermolecular Ring Expansion to Synthesize Dihydrofuran Derivatives**
Vittoria Martini, Universität Münster, Germany
- 09:20–09:40 **Highly Stable Defect-free HZSM-5 Nanocrystals for Enhanced Conversion of Biomethanol to SAF Components**
Judith Hernandez Cabello, Luleå University of Technology, Sweden
- 09:40–10:00 **Expanding Sulfur Ylide Chemistry for the Synthesis of Cyclopropane**
Arsala Kamal, Universität Münster, Germany
- 10:00–10:20 **Embedded Correlated Wave Function Theory for Accurate Predictions of Adsorption Energies on Transition Metal Surfaces**
Connor Fawcett, Northeastern University, Boston, MA
- 10:20–10:20 **Efficient Visible-Light Photocatalysis of Textile Dyes via Multi-Block Doped Anatase Nanocrystals**
Yahya Absalan, University of Georgia, Athens, GA
- 10:40–11:00 **Designing High Entropy Janus Particles (HEJPs) For Economical Catalytic Conversion of Polystyrene to BTX**
Kyuri (Kyla) Kim, Kyunghee University, South Korea
- 11:00–11:20 **Virtual: Synthetic Fuels and Chemicals from Plastic Waste with Scalability**
Gillian Goh, Agency for Science, Technology and Research, A*STAR, Singapore

Lunch & In-Person Departures

PROGRAM

Join the meeting

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Meeting ID: 848 1592 9310

Passcode: 665025

Session 3: Catalysis and Chemical Engineering

11:50–12:00 Introduction – Virtual Session

12:00–12:20 **Elucidating the Formation Mechanism of Yellowing During the Production of Bio-based Poly(ethylene furanoate)**

Wangyang Lu, Zhejiang Sci-Tech University, China

12:20–12:40 **Visible Light-Mediated Organic Photoredox-Catalyzed S-Difluoromethylation and S-Trifluoromethylation of Aromatic and Heteroaromatic Thiols**

Aditya Bhattacharyya, Syngene International Ltd., India

12:40–13:00 **Green Catalytic Hydrogenation—Challenges and Opportunities**

Mahesh Dalal, Sayaji Industries Ltd., India

13:00–13:20 **Simulating Electrocatalytic Thermodynamics and Kinetics through DFT-based Methods**

Marko Melander, University of Jyväskylä, Finland

13:20–13:40 **Divergent Sequential Reactions of β -(2-Aminophenyl)- α,β -ynones: Brønsted Acid vs Transition Metal Catalysis**

Marco Chiarini, Università Degli Studi di Teramo, Italy

13:40–14:00 **Electrochemical and Microstructural Investigation on Palladium-based Clusters as Active Electrocatalysts for H_2O_2 Production**

Lihua Zhang, Brookhaven National Laboratory, Upton, NY

14:00–14:20 **Coupled “Molecular – Collective” Investigation of Electrode Processes and the Electrode-solution Layer, Mini-Review**

Victor Mairanowski, Sci Soc WiGB, Berlin, Germany

14:20–14:30

Break

14:30–14:50 **Exploring Innovations in Ethylene/CO Polymerization through DFT Calculations: Advancing Sustainable Polymer**

Lucia Caporaso, University of Salerno, Italy

14:50–15:10 **Synthesis of Polyesters Using Surfactant Catalysts in Microemulsions: The Role of Micelle Shape**

Eloi Alves da Silva Filho, UFES, Brazil

15:10–15:30 **Automated Reaction Discovery of Laser-Driven Fragmentation Pathways in Diaminomaleonitrile (DAMN)**

Marta Castineira Reis, University of Alcalá, Spain

15:30–15:50 **Potential Molecular Based Transistors**

Ruihua Cheng, Indiana University Indianapolis, Indianapolis, IN

15:50–16:10 **High Surface Area Zinc Oxide**

Alfred Hagemeyer, Alva Consulting, Mountain View, CA

16:10–16:30 **Onion-Like Carbon as a Robust Support for Pd and Pd–Ni Catalysts in Low-Temperature Methane Oxidation**

Aboubakr M. Abdullah, Qatar University, Qatar

- 16:30–16:50 **Zeolites Effect of La-promoted Fe/TiO₂ Catalyst for Production of C²⁺ Hydrocarbons in CO₂ Hydrogenation**
Aliu A. Adeleke, University of Pretoria, South Africa
- 16:50–17:10 **Metal Oxide Nanocomposites for Dye Removal from Water**
Thamer Adnan Abdullah, University of Technology, Iraq
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Closing Remarks & End of Day-3

We wish to see you at

CCE-2027

February 17–19, 2027 | Huston, TX

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