

22ND
EDITION OF

GLOBAL CONFERENCE ON

CATALYSIS & REACTION ENGINEERING



*“Advancing **Catalysis & Chemical Engineering**: From Principles to Practice”*

October 05-07, 2026 | Tokyo, Japan



IN-PERSON:

Hilton Tokyo Narita Airport
456 Kosuge Narita City Chiba 286-0127
Tokyo, Japan

VIRTUAL:

Central European Summer Time (CEST)

**MONDAY
OCTOBER 05
2026**

DAY 01 | IN-PERSON @PEARL MEETING HALL

08:00-08:50	Registrations
08:50-09:00	Opening Ceremony and Introduction
09:00-11:00	Keynote Presentations
11:00-11:30	Coffee Break
11:30-12:50	Oral Presentations
12:50-13:50	Lunch Break
13:50-16:30	Oral Presentations
16:30-17:00	Coffee Break

**TUESDAY
OCTOBER 06
2026**

DAY 02 | VIRTUAL ROOM @ZOOM

08:30-09:00	AV Check and Introduction
09:00-11:40	Keynote Presentations
11:40-15:00	Oral Presentations
15:00-15:10	Poster Presentation

**WEDNESDAY
OCTOBER 07
2026**

DAY 03 | VIRTUAL ROOM @ZOOM

08:30-09:00	AV Check and Introduction
09:00-12:00	Oral Presentations
12:00-12:10	Poster Presentation
12:10-14:50	Keynote Presentations
14:50-15:10	Oral Presentation

Important Note

The conference follows Japan Standard Time (JST) for In-Person sessions and Central European Summer Time (CEST) for Virtual sessions.

When the program refers to "Local Timings" it means that the timing mentioned is based on the time zone of the presenter's country.

In-person presentations will take place in the Pearl Meeting Hall @Hilton Tokyo Narita Airport and Virtual presentations will take place in Zoom meetings.

Please remain accessible in the hall or on Zoom throughout the day as there could be minor program adjustments due to technical issues or presenter no-shows.

Keynote Speakers



Stanislaw Dzwigaj
Sorbonne University, France



Dai Yeun Jeong
Asia Climate Change Education Center,
South Korea



Thomas J Webster
Brown University, United States



Enrico Paris
Council for Agricultural Research and
Economics (CREA), Italy



Hanna Kierzkowska-Pawlak
Lodz University of Technology, Poland



Yarub Al-Douri
European Academy of Sciences, Belgium



Vladimer Tsitsishvili
Tbilisi State University, Georgia



Sergey Suchkov
N.D. Zelinskii Institute for Organic Chemistry,
Russia



Guo-Wei He
TEDA International Cardiovascular Hospital,
China



Tokeer Ahmad
Jamia Millia Islamia, India



Ram Sambhar Shukla
Central Salt and Marine Chemicals Research
Institute (CSIR), India

Day 01 – Pearl Meeting Hall

October 05, Monday

JAPAN STANDARD TIME (JST)

08:00-08:50	Registrations
08:50-09:00	Opening Ceremony and Introduction

Moderator:
Maria Konnova, Hamad Bin Khalifa University, Qatar

Chairs:
Dai-Yeun Jeong, Asia Climate Change Education Center, South Korea
Hanna Kierzkowska-Pawlak, Lodz University of Technology, Poland

09:00-09:40

Keynote Session

Dai-Yeun Jeong, Asia Climate Change Education Center, South Korea

Title: The concept and implications of low-carbon green growth

09:40-10:20

Keynote Session

Hanna Kierzkowska-Pawlak, Lodz University of Technology, Poland

Title: Plasma-deposited nanocomposite thin films as integrated catalytic systems on structured packings: Concepts and applications

10:20-11:00

Keynote Session

Sergey Suchkov, N.D. Zelinskii Institute for Organic Chemistry, Russia

Title: Personalized and Precision Medicine (PPM) as a unique healthcare model via biodesign, bio- and chemical engineering, translational applications, and upgraded business modeling to secure the human healthcare and biosafety

11:00-11:30

Coffee Break @Foyer | Group Photo

11:30-11:50

Oral Session

Abu Md. Mehdi Hassan, Lincoln University College, Malaysia

Title: A model fitting approach for the investigation of thermo-kinetic parameters of rice straw - A viable renewable energy resource in Bangladesh

11:50-12:10

Oral Session

Eun-Han Lee and Shin-Kun Ryi, Korea Institute of Energy Research (KIER), South Korea

Title: Ultrastable ZnAlPO₄ catalyst for stable CF₄ hydrolysis over 3700 hours

12:10-12:30

Oral Session

Jiri Dedecek, J. Heyrovský Institute of Physical Chemistry of the Czech Academy of Sciences, Czech Republic

Title: Distant binuclear vanadium V(II) cationic sites in zeolites and their reactivity

12:30-12:50

Oral Session

Maria Konnova, Hamad Bin Khalifa University, Qatar

Title: Catalytic potential and practical limitations of N-doped nanomaterials in plastic depolymerization

12:50-13:50

Lunch Break @Restaurant

13:50-14:10

Oral Session

Sergey Suchkov, N.D. Zelinskii Institute for Organic Chemistry, Russia

Title: Antibody-proteases as a generation of unique biomarkers, biocatalysts, potential targets and translational tools towards nanodesign-driven biochemical engineering and precision medical practice

14:10-14:30

Oral Session

Jiri Dedecek, J. Heyrovský Institute of Physical Chemistry of the Czech Academy of Sciences, Czech Republic

Title: Oxidation of methane to methanol over pairs of transition metal ions stabilized in the zeolite matrices

14:30-14:50

Oral Session

Rustem Zairov, Arbuzov Institute of Organic and Physical Chemistry, Russia

Title: Unraveling the critical role of surface intermediates in methane reforming over Mo-based catalysts

14:50-15:10

Oral Session

Mabatho Moreroa, University of South Africa, South Africa

Title: Enzymatic pre-treatment of red meat abattoir effluent to reduce fat, oil, and grease while enhancing biogas generation

15:10-15:30

Oral Session

Shailza Sharma, RMIT University, AustraliaTitle: Catalytic CO₂ hydrogenation over additively manufactured metal structures under ambient conditions

15:30-15:50

Oral Session

Jiale Xiao, Zhejiang University, China

Title: Spontaneous deposition of boron oxide on a rhodium nanostructure for selective conversion of syngas to ethanol

15:50-16:10

Oral Session

Xianhu Long, Sun Yat-sen University, China

Title: One-step strategy to maximize single-atom catalyst utilization in nitrate reduction via bidirectional optimization of mass transfer and electron supply

16:10-16:30

Oral Session

Muhammad Ashraf Sabri, Khalifa University of Science and Technology, United Arab EmiratesTitle: HF-free hydrothermal synthesis of 2D-on-2D MBene@g-C₃N₄/g-C₃N₅ photo (electro) catalysts for furfural upgrading to sustainable aviation fuel

16:30-17:00

Coffee Break @Foyer

End of Day 1

Day 2 – @Zoom Meeting

October 06, Tuesday

Central European Summer Time (CEST)

08:30–09:00

AV Check and Introduction

Moderators:

Rafia Ahmad, King Abdullah University of Science and Technology, Saudi Arabia

Subhashree Choudhury, Siksha 'O' Anusandhan University, India

TIME (CEST)

PRESENTER
LOCAL TIME

09:00–09:40

09:00–09:40

Keynote Session

Stanislaw Dzwigaj, Sorbonne Université, France

Title: Application of vanadium, tantalum and chromium single-site zeolite catalysts in catalysis

09:40–10:20

15:40–16:20

Keynote Session

Guo-Wei He, TEDA International Cardiovascular Hospital, China

Title: Post-translational modifications of proteins in cardiovascular diseases

10:20–11:00

12:20–13:00

Keynote Session

Vladimer Tsitsishvili, Petre Melikishvili Institute of Physical and Organic Chemistry, Georgia

Title: Oxidation of 4-methoxytoluene over copper-containing BEA-type zeolite catalyst

11:00–11:40

11:00–11:40

Keynote Session

Enrico Paris, Council for Agricultural Research and Economics (CREA), Italy

Title: Influence of various catalysts on H₂ enhancement and CO₂ capture during syngas upgrading

11:40–12:00

17:40–18:00

Oral Session

Vladimir G. Chigrinov, Hong Kong University of Science and Technology, Hong Kong

Title: Photoaligned azodye nanolayers: New nanotechnology for liquid crystal devices

TIME (CEST)

PRESENTER
LOCAL TIME

12:00-12:20

18:00-18:20

Oral Session

Chen Wu, Institute of Zhejiang University-Quzhou, China

Title: Development of specialty amines derived from acrylonitrile: A case study of N, N-dimethyl-1,3-propanediamine

12:20-12:40

15:50-16:10

Oral Session

Subhashree Choudhury, Siksha 'O' Anusandhan (Deemed to be University), India

Title: AI-driven energy conversion and storage: From electrocatalytic processes to intelligent renewable energy systems

12:40-13:00

16:10-16:30

Oral Session

K. Y. Sandhya, Indian Institute of Space Science and Technology, India

Title: Modifying titanium dioxide photocatalysts for sustainable wastewater remediation

13:00-13:20

16:00-16:20

Oral Session

Maqsood Ur Rahman, University of Engineering and Technology, Pakistan

Title: The use of environmental catalysis for wastewater treatment: Advancement and future perspectives

13:20-13:40

14:20-14:40

Oral Session

Osman Adiguzel, Firat University, Turkey

Title: Memory characteristics and diffusionless phase transformations in shape memory alloys

13:40-14:00

14:40-15:00

Oral Session

Rafia Ahmad, King Abdullah University of Science and Technology, Saudi ArabiaTitle: DFT insight into Rh-stabilized oxygen-vacancy ensembles on In_2O_3 for selective propanal hydrogenation to 1-propanol

14:00-14:20

14:00-14:20

Oral Session

Ruchi Sharma, ATLANT 3D, Denmark

Title: Nanometer-thin DALP®-Pt electrocatalysts with ultralow platinum loading for efficient hydrogen evolution reaction

TIME (CEST)

PRESENTER
LOCAL TIME

14:20-14:40

08:20-08:40

Oral Session

Rahat Javaid, University of South Carolina, United States

Title: Catalytic hydrogen production: Unlocking ammonia as a hydrogen carrier

14:40-15:00

08:40-09:00

Oral Session

Ling Yin, Weill Cornell Medicine, United States

Title: Single-cell RNA sequencing reveals vascular heterogeneity and immune crosstalk in the glioma blood-tumor barrier

15:00-15:10

18:00-18:10

Poster Session

Mikhail Petrovich Kashchenko, Ural Federal University, Russia

Title: Generation of a macroscopic number of compact massive electron (ee) pairs with increasing electron density and cold nuclear reactions

End of Day 2

Day 3 – @Zoom Meeting

October 07, Wednesday

Central European Summer Time (CEST)

08:30–09:00

AV Check and Introduction

Moderators:

Justine Osei Owusu, University of West London, United Kingdom

Laxmi J. Hathiya, Saurashtra University, India

TIME (CEST)

PRESENTER
LOCAL TIME

09:00–09:20

15:00–15:20

Oral Session

Collin G. Joseph, Universiti Malaysia Sabah, Malaysia

Title: From bauxite waste to value: Technologies for red mud reuse

09:20–09:40

15:20–15:40

Oral Session

Sachin Sharma Ashok Kumar, Taylor's University, Malaysia

Title: Enhancing corrosion resistance and adhesion properties of acrylic-epoxy composite coatings on steel substrates using graphene-based nanomaterials

09:40–10:00

13:10–13:30

Oral Session

Laxmi J. Hathiya, Saurashtra University, India

Title: Magnetic $\text{Mn}_x\text{Ni}_{1-x}\text{Fe}_2\text{O}_4$ nanoparticles for environmental remediation: Dye adsorption, adsorption mechanism, and recovery of the adsorbents

10:00–10:20

13:30–13:50

Oral Session

Bashir Ahmad Dar, Government Degree College Uri, India

Title: Reusable clay–Cu catalysts: Green routes to key organic transformations

10:20–10:40

13:50–14:10

Oral Session

Abhishek Bansal, New Era Consultancy Services, India

Title: Protein and enzyme conformational dynamics as catalytic state transitions: A B-Bio/B-Chem framework demonstrated using BVIDAL clinical software suite

10:40–11:00

14:10–14:30

Oral Session

L. P. R. J. Wijesinghe, Department of National Community Water Supply, Sri Lanka

Title: Management of Kelani River basin through multi-stakeholder partnership

October 07, Wednesday

TIME (CEST)

PRESENTER
LOCAL TIME

11:00-11:20

12:30-12:50

Oral Session

Fatemehsadat Mirmohammadmakki, Shahid Beheshti University of Medical Sciences, Iran

Title: Reduction of lead, cadmium, and nickel accumulation in edible herbs grown in contaminated soil using horticultural waste residues

11:20-11:40

12:20-12:40

Oral Session

Rabeharitsara Andry Tahina, Antananarivo University, MadagascarTitle: The Fe-PNP-15%-H₂O catalyst reduction catalytic test and its valorisation as acid catalyst to the methylal synthesis

11:40-12:00

10:40-11:00

Oral Session

Justine Osei Owusu, University of West London, United KingdomTitle: Catalytic pathways for clean energy transition: Advancing CO₂ conversion and hydrogen production toward a net-zero future

12:00-12:10

11:00-11:10

Poster Session

Asma M. O. Aldajani, The University of Liverpool, United Kingdom

Title: Polyoxometalate-derived molybdenum catalysts for the reverse water-gas shift reaction

12:10-12:50

15:40-16:20

Keynote Session

Tokeer Ahmad, Jamia Millia Islamia, IndiaTitle: Advanced nanostructures for carbon neutrality and sustainable H₂ energy

12:50-13:30

16:20-17:00

Keynote Session

Ram Sambhar Shukla, Central Salt and Marine Chemicals Research Institute (CSIR), India

Title: Advances in heterogeneous catalysis for green conversion of propene to aldehydes and alcohols

13:30-14:10

13:30-14:10

Keynote Session

Yarub Al-Douri, European Academy of Sciences, Belgium

Title: Morphological studies of quaternary alloys

October 07, Wednesday

TIME (CEST)

PRESENTER
LOCAL TIME

14:10-14:50

08:10-08:50

Keynote Session

Thomas J. Webster, Brown University, United States

Title: Nanomaterials to fight cancer, cysts, infection, and numerous other health ailments: Human data

14:50-15:10

20:50-21:10

Oral Session

Xue Cai, Zhejiang University of Technology, China

Title: One hydroxyl flip: Biocatalytic isomerization unlocks high-value chemicals

End Note

WE WISH TO MEET YOU AGAIN AT OUR UPCOMING EVENT

22nd Edition of International Conference on
Catalysis, Chemical Engineering and Technology (CCT 2027)

June 21-23, 2027 | Rome, Italy | Hybrid Event

<https://catalysis-conferences.com>

23rd Edition of Global Conference on
Catalysis & Reaction Engineering (CAT 2027)

September 2027 | Valencia, Spain | Hybrid Event

<https://catalysis-conferences.magnusgroup.org/>



TOKYO, JAPAN



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