

ENVIRONSUMMIT2025

AICCEC2025

*Annual International Conference on*

**CHEMICAL ENGINEERING AND  
CATALYSIS**

*&  
2<sup>nd</sup> World Summit on*

**ENVIRONMENTAL SCIENCE AND  
ENGINEERING**

June 05-06, 2025 | Hôtel Mercure Paris 15  
Porte de Versailles, Paris, France

**AGENDA HIGHLIGHTS:**

- Plenary Talks
- Keynote Talks
- Invited Talks
- Live Q&A sessions

**FINAL PROGRAM**



+91-9885-871-872  
[www.synergiasummits.com](http://www.synergiasummits.com)



**SYNERGIA SUMMITS**  
...fostering collaborations

- 09:00-09:15 Registrations & Badge Pick Up
- 09:15-09:30 Introduction & Opening Ceremony

## PLENARY SESSION

Moderator: **Greg Naterer**, University of Prince Edward Island, Canada

- 09:30-10:10 Title: Design and Control of Catalytic Shells  
**Monica Olvera de la Cruz**, Northwestern University, USA
- 10:10-10:50 Title: The Sociotechnical Dynamics and Risks of Negative Emissions, Carbon Removal, and Solar Geoengineering  
**Benjamin Sovacool**, Boston University, USA

10:50-11:05

COFFEE BREAK

- 11:05-11:45 Title: Conversion of Waste to Energy and Resource: A Chemical Engineering Perspective  
**Chi-Hwa Wang**, National University of Singapore, Singapore
- 11:45-12:25 Title: Heterocatalytic activation of persulfate for organic pollutants degradation  
**Zhimin Ao**, Beijing Normal University, China
- 12:25-13:05 Title: The Sulfur Story: An Influencer Or Active Participant Tocarbon Surface Activity?  
**Teresa J Bandoz**, The City College of New York, USA

13:05-13:15

Group Photograph

13:15-14:20

LUNCH BREAK

- 14:20-15:00 Title: Toxic Legacies: Mercury, Arsenic & PFAS in a Changing Ocean  
**Jörg Feldmann**, University of Graz, Austria
- 15:00-15:40 Title: Abrupt Changes in the Pattern of the Global Sea Ice Cover  
**Josefino Comiso**, NASA/GSFC, USA
- 15:40-16:20 Title: Doing Power Differently: Harness Gender Empowerment to Achieve Climate Justice and Accelerate Sustainability  
**Jin In**, 4GGL, USA
- 16:20-16:45 Title: Integration of Thermochemical Hydrogen Production and Carbon Capture for Carbon Dioxide Recycling  
**Greg Naterer**, University of Prince Edward Island, Canada

16:45-17:00

COFFEE BREAK &amp; END OF DAY-1

### BREAKOUT ROOM- **Salon Blomet** | ENVIRONMENTAL SCIENCE

#### KEYNOTE TALKS

Moderator: **Tham C. Hoang**, Auburn University, USA

- 09:30-10:00 Title: Green Safety System for Human Settlements ---from the Perspective of the Garden City Movement in England  
**Weimin Que**, Peking University, China
- 10:00-10:30 Title: Sustainable and Environmentally Friendly Approaches to Monitoring the Entire Mining Life Cycle, Based on EO Data  
**Ana Cláudia Teodoro**, Universidade do Porto, Portugal
- 10:30-11:00 Title: Determining the Main Routes of Population Exposure to Environmental Nickel and Associated Metals: A Challenge in New Caledonia  
**Peggy Gunkel-Grillon**, University of New Caledonia, New Caledonia

11:00-11:15

COFFEE BREAK

- 11:15-11:45 Title: Historical Emissions of Fluorinated Gases: Implications for the Ozone Layer and Climate  
**Xuekun Fang**, Zhejiang University, China
- 11:45-12:15 Title: The Potential Role of Altered Sperm DNA Methylation in The Effects of Air Pollution Exposure on Semen Quality And Offspring Birth Outcomes: Evidence From A Cohort Study  
**Wei Wu**, Nanjing Medical University, China
- 12:15-12:45 Title: Recent developments of biometallurgy technologies for the recovery of critical metals  
**Eric D. van Hullebusch**, Université Paris Cité, France
- 12:45-13:15 Title: Environmental stressors and biological aging  
**Cui Guo**, The University of Hong Kong, Hong Kong

13:15-14:00

LUNCH BREAK

Moderator: **Peihao Wu**, Nanjing Medical University, China

- 14:00-14:30 Title: From Regulation to Revolution: Paving the Road to 2050 in Clean Transport Policy  
**Yoann Bernard**, International Council on Clean Transportation, Germany

- 14:30–15:00 Title: EnviCrime in Europe: state of play, influence in other world regions and future  
**José Antonio Alfaro Moreno**, EUROPOL, The Netherlands
- 15:00–15:30 Title: Plastic pollution and management to support sustainability: where are we now?  
**Tham C. Hoang**, Auburn University, USA

#### INVITED TALKS

- 15:30–15:55 Title: Luminescence nanothermometry and high-contrast multi-surface imaging of latent fingerprints using nanophosphors  
**Hendrik Swart**, University of the Free State, South Africa
- 15:55–16:20 Title: Transforming Business: Redefining Profit-Driven Business Models for Sustainable Impact  
**Adina – Iuliana Deacu**, Research Institute for Sustainability (RIFS) Potsdam, Germany

16:20–16:35

COFFEE BREAK

- 16:35–17:00 Title: Controlled Field Study of Impact of Neonicotinoid Insecticides on Soil Environment  
**Yadong Li**, Jackson State University, USA
- 17:00–17:25 Title: Parental Exposure to Air Pollution and Adverse Birth Outcomes in Offspring: Insights from Two Cohorts  
**Peihao Wu**, Nanjing Medical University, China

#### VIRTUAL KEYNOTE TALK

- 17:25–17:55 Title: Transitioning to sustainable and regenerative building materials: challenges of definitions and perceptions  
**Emina Kristina Petrović**, Victoria University of Wellington, New Zealand

END OF SESSION

**BREAKOUT ROOM-Salon Vaugirard | CHEMICAL ENGINEERING****PLENARY TALKS**

Moderator: Julian Atilio Puszkiel, Helmholtz-Zentrum Hereon, Germany

- 09:30-10:10     Title: High-Entropy Oxide and Alloy Nanoparticles Synthesized by Continuous Supercritical Hydro/Solvothermal Flow Process  
**Hiroshi Kitagawa**, Kyoto University, Japan
- 10:10-10:50     Title: Carbon-Supported Catalysts for Food Waste Biorefinery  
**Dan Tsang**, Hong Kong University of Science and Technology, Hong Kong

10:50-11:05

COFFEE BREAK

**KEYNOTE TALKS**

- 11:05-11:35     Title: Neuromorphic physical computation by molecular networks  
**Takuya Matsumoto**, Osaka University, Japan
- 11:35-12:05     Title: Liquid Crystal Self-Assembly of Positively Charged  $\pi$ -Electronic Molecules for Photocatalytic Applications  
**Bin Mu**, Northwestern Polytechnical University, China
- 12:05-12:35     Title: CO<sub>2</sub> hydrogenation to methanol as a hydrogen carrier for sustainable low-carbon energy supply chain  
**Jeffrey C. S. Wu**, National Taiwan University, Taiwan
- 12:35-13:05     Title: Photocatalytic materials to optimize the use of solar resources  
**Gael Plantard**, University of Perpignan Via Domitia, France

13:05-14:00

LUNCH BREAK

- 14:00-14:30     Title: Development of hydride-based coupled systems for the hydrogen economy  
**Julian Atilio Puszkiel**, Helmholtz-Zentrum Hereon, Germany
- 14:30-15:00     Title: Predictive chemistry as a step forward in catalysis  
**Albert Poater Teixidor**, University of Girona, Spain

**INVITED TALKS**

- 15:00-15:25     Title: Nanoscale electrode design for CO<sub>2</sub> electrolysis and its application to DAC-U system  
**Miho Yamauchi**, Kyushu University, Japan

15:25–15:50 Title: Design of ultra-low loading Pt-based defect catalyst for catalytic oxidation of CO in flue gas  
**Yongqi Zhao**, Institute of Process Engineering, CAS, China

15:50–16:20 POSTER PRESENTATION

P001 Title: Two decades of high-pressure hydrogen solid-state storage research  
**Farida Lamari**, CNRS LSPM, University Sorbonne Paris Nord, France

P002 Title: Hydrogenation on Molybdenum Sulfide Clusters Encapsulated in Alkali Cation-Exchanged Zeolites  
**Yunxiang Sheng**, Technical University of Munich, Germany

16:20–16:45 AWARD CEREMONY & END OF CONFERENCE



\*\*\*\*LOOKING FORWARD TO SEE YOU ALL AT NEXT EDITION\*\*\*\*

## This image shows a full page of white paper with horizontal dashed lines, typical of primary-ruled notebook paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

# NEXT EDITION

*2<sup>nd</sup> Annual International Conference on*

## CHEMICAL ENGINEERING AND CATALYSIS

June 24-26, 2026 | Rome, Italy

---

*3<sup>rd</sup> World Summit on*

## ENVIRONMENTAL SCIENCE AND ENGINEERING

June 24-26, 2026 | Rome, Italy

**CONTACT US**

SYNERGIA SUMMITS PVT LTD

Hyderabad, India

Phone: +91-9885-871-872

Email: [contact@synergiasummits.com](mailto:contact@synergiasummits.com)