

Joint Event on
**CATALYSIS,
CHEMICAL
ENGINEERING
AND GREEN
CHEMISTRY**

22-23 May, 2023

Tokyo, Japan



IN-PERSON

ANA Crowne Plaza Narita 68,
Horinouchi, Narita-Shi, Chiba,
286-0107, Tokyo, Japan



VIRTUAL

EDT
Time Zone



Date	Time Zone	Hall Name
22-May-23	Japan Standard Time (JST)	Orchid B
23-May-23	Eastern Time (EDT)	Virtual Room 1
23-May-23	Eastern Time (EDT)	Virtual Room 2
23-May-23	Eastern Time (EDT)	Virtual Room 3

- The first day (May 22) of the program will take place in-person and will be scheduled according to the Japan Standard Time.
- The second day will be virtual presentations scheduled according to the Eastern time zone.
- Slight changes in Program may arise due to technical issues or no shows, presenters are requested to stay available on the entire day of presentation.
- When the program refers to Local Timings, it means that the timing mentioned is based on the time zone of the presenter's country.



DAY 1

IN-PERSON

MAY 22, 2023
Monday

KEYNOTE PRESENTATIONS

JST Time Zone

@ORCHID B

08:00-08:50 | Registrations

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

Moderator:

Rohit Kumar, Indian Institute of Technology (Banaras Hindu University), India

Sessions on:

Catalysis, Chemical Engineering and Technology

09:00-09:30

Christine Hahn

Texas A&M University-Kingsville,
United States

Title: Development of an efficient acid-free palladium(II) catalyzed hydroarylation of acetylene

09:30-10:00

Venko Beschkov

Bulgarian Academy of Sciences,
Bulgaria

Title: Catalytic carbon dioxide recycling to chemical products in fuel cells

ORAL PRESENTATIONS

Chair:

Christine Hahn, Texas A&M University-Kingsville, United States

10:00-10:20

Hagsoo Kim

Fine Chemical Materials
Technology Research Center,
Korea

Title: Development of air-stable oxysulfide-based solid electrolytes green technology

10:20-10:40

Anna Wenda-Piesik

PBS Bydgoszcz University of
Science and Technology, Poland

Title: The organic nGMO soybeans as a raw material in soy milk innovation production

Group Photo

10:40-11:00 | Coffee Break @Foyer

11:00-11:20

Rohit Kumar

Indian Institute of Technology
(Banaras Hindu University), India

Title: Evaluation of hydrotalcite-derived Ni catalysts for tri-reforming of methane process for CO₂ conversion

11:20-11:40

Dariusz Piesik

PBS Bydgoszcz University of Science and Technology, Poland

Title: Induction of volatile organic compounds in wheat plants following infection by different rhizoctonia pathogens

11:40-12:00

Debjani Nag

Tata Steel Limited, India

Title: Role of catalyst in metallurgical industry

12:00-12:20

Nattaphon Hongrutai

Chulalongkorn University, Thailand

Title: Time-evolving growth of 3D-nanocrystalline carbon from the electro-reduction of acetic acid with in-situ electrodeposited Ag at ambient conditions

12:20-12:40

Ashkan Bahadoran

Chinese Academy of Sciences, China

Title: High-entropy transition-metal sulfide nanoparticles deposited on ultra-thin- C_3N_4 nanosheets for efficient CO_2 photoreduction

12:40-13:00

Donghee Lee

Saint-Petersburg Mining University, Russia

Title: A study on cascade cycle natural gas liquefaction process using polar sea temperature

13:00-13:40 | Lunch Break

KEYNOTE PRESENTATIONS

Sessions on:

Green Chemistry and Renewable Energy

13:40-14:10

Kenji Sorimachi

Dokkyo Medical University, Japan

Title: Strategy for climate crisis: An artificial forest model

14:10-14:40

Hossam A Gabbar

Ontario Tech University, Canada

Title: Advances in plasma-based waste treatment for sustainable communities

14:40-15:10

Anthony Halog

The University of Queensland, Australia

Title: Advancing (environmental) life cycle analysis for green chemistry and sustainable future

ORAL PRESENTATIONS

15:10-15:30

Arkadiusz Dyjakon Wroclaw
University of Environmental and
Life Sciences, Poland

Title: Bioenergy cooperatives as a sustainable solution of households heating in rural areas using local biomass resources

15:30-15:50

Olivier Coulembier
University of Mons-Umons,
Belgium

Title: The organocatalysis: An efficient tool in ring-opening polymerization-valuable interests of DBU & TBD superbases

15:50-16:10

Long Yu
Henan Academy of Sciences,
China

Title: Development of Starch-based Materials and Applications

16:10-16:30

Debashrita Mahana
CSIR National Physical
Laboratory, India

Title: Development and characterization of CuO and ZnO/CuO based CO gas sensors

16:30-16:50

Helmi Hamdi
Qatar University, Qatar

Title: Agricultural reuse of gas-to-liquid sludge to promote fiber crop cultivation under extreme desert conditions

16:50-17:10

Diana Rakhmawaty Eddy
Universitas Padjadjaran,
Indonesia

Title: Synthesis of TiO₂ (anatase-brookite)/Ag₂O/Ag₂CO₃ composites for photodegradation of metformin under visible light

17:10-17:30

Vandana Sakhre, Manipal
University, United Arab Emirates

Title: Synthesis of bioplastics and their characteristics

17:30-17:50 | Coffee Break @Foyer

(17:30-17:50) POSTER PRESENTATIONS

PP01

Chen-Wei Liu
Industrial Technology Research
Institute, Taiwan

Title: Development of chemical recycling method for circularity of thermoset composite waste

JST Time Zone

PP02

Hao Dang
Tsinghua University, China

Title: Using electric field to regulate the flow of nano-confined liquid

PP03

Yu-Chuan Liu
Taipei Medical University, Taiwan

Title: Enhanced hydrogen and oxygen evolution reactions utilizing pure plasmon-activated water

PP04

Fu-Der Mai
Taipei Medical School, Taiwan

Title: Green energy production via active pure water with reduced hydrogen bonds

PP05

Long Yu
Henan Academy of Sciences,
China

Title: Development of slow releasing fertilizer with water retention function using starch-based hydrogel

End of Day 1

DAY 2

VIRTUAL ROOM 01

MAY 23, 2023

Tuesday

KEYNOTE PRESENTATIONS

@VIRTUAL ROOM 01

EDT Timings Local Timings

05:30-06:00 EDT | AV check

Moderator:
Shweta Vyas, University of Kota, India

06:00-06:30 12:00-12:30

Stanislaw Dzwigaj
Sorbonne University, France

Title: Application of metal single-site zeolite catalysts in heterogeneous catalysis

06:30-07:00 16:00-16:30

Tokeer Ahmad
Jamia Millia Islamia, India

Title: Designing materials for nanocatalysis

07:00-07:30 08:00-08:30

Marta Litter
University of General San Martin,
Argentina

Title: TiO₂ photocatalytic removal of hexavalent chromium and arsenic

07:30-08:00 15:00-15:30

Yarub Al-Douri
American University of Iraq, Iraq

Title: Optoelectronic characterization of quaternary alloy

ORAL PRESENTATIONS

08:00-08:20 14:00-14:20

Mohammed M Bettahar
Lorraine University, France

Title: The hydrogen spillover effect influencing parameters

08:20-08:40 21:20-21:40

Vempuluru Navakoteswara Rao
Korean Institute of Science and
Technology, Korea

Title: Monodispersed core/shell nanospheres of ZnS/NiO with enhanced H₂ generation and quantum efficiency at versatile photocatalytic conditions

08:40-09:00 18:10-18:30

Varadhan S R
Netaji IAS Academy, India

Title: FTIR band interpretation of hydrocarbon oils and oil spill identification



EDT Timings Local Timings

09:00-09:20 08:00-08:20

Xin Cui

Mississippi State University,
United States

Title: Selective and sustainable catalysis for transforming C-H bonds

09:20-09:40 08:20-08:40

Orlando Elguera

National University of
Engineering, Peru

Title: Review of research topics for scaling-up of sonochemical reactors (sono-reactors)

09:40-10:00 08:40-09:00

Haibo Ge

Texas Tech University,
United States

Title: Distal functionalization via transition metal catalysis

10:00-10:20 17:00-17:20

Gheorghe Viorel

Gas and Petroleum University,
Romania

Title: Growth kinetic of scgp-cultures for CBM and toxicological risk assessment

10:20-10:40 19:50-20:10

Tulshi Shiyani

Saurashtra Research Institute,
India

Title: Solar fuel generation using hybrid electrodes

10:40-11:00 20:10-20:30

Bandyopadhyay Sujoy

Indrashil University, India

Title: Conjugated porous organic polymers: Fluorescence-based sensing, photocatalysis and energy storage

11:00-11:20 20:30-20:50

Suresh C Ameta

Paher University, India

Title: Photocatalysis: An emerging approach for conservation of environment

11:20-11:40 18:20-18:40

Vasily Ivanovich Lutsyk

Russian Academy of Sciences,
Russia

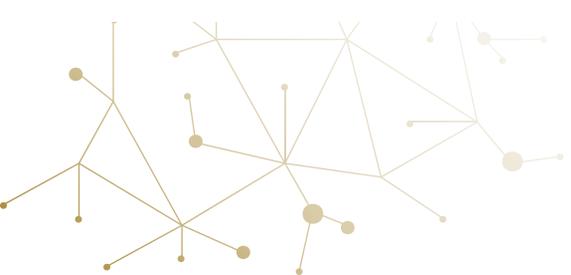
Title: Phase diagrams 3D computer models as a novel tool to design the catalytic materials

11:40-12:00 21:10-21:30

Jeevan dontulwar

Shri Mathuradas Mohota College
of Science, India

Title: Synthesis and applications of biodegradable polymers based on starch and dextrin





EDT Timings Local Timings

12:00-12:20 21:30-21:50

Shweta Vyas
University of Kota, India

Title: Agrowaste-based nano-biosorbent for removal of cadmium ions (Cd II) from aqueous media

12:20-12:40 19:50-20:10

Mohammad Amin Makarem
Shiraz University, Iran

Title: Application of biomaterials in catalysis synthesis

12:40-13:00 17:40-18:00

Fouad El Mansouri
Abdelmalek Essaadi University,
Morocco

Title: Efficient removal of eriochrome black T dye using activated carbon of waste hemp (Cannabis Sativa L.) grown in northern morocco enhanced by new mathematical models

POSTER PRESENTATION

13:00-13:10 20:00-20:10

Serhiy Pyshyev
Lviv Polytechnic National
University, Ukraine

Title: Methods of used tire recycling with the aim of commercial fuels obtaining



End of Virtual Room 01 Session

DAY 2

VIRTUAL ROOM 02

MAY 23, 2023

Tuesday

KEYNOTE PRESENTATIONS

@VIRTUAL ROOM 02

EDT Timings Local Timings

05:30-06:00 EDT | AV check

Moderators:

Divya Tripathy, Galgotias University, India
Chitra, CSIR- National Physical Laboratory, India

06:00-06:30 20:00-20:30

Leon Burgess
Technology Director CalAISil,
Australia

Title: CalAISil® feldspar polymers – sustainable, high-performance structural nanomaterials

06:30-07:00 12:30-13:00

Donatella Termini
University of Palermo, Italy

Title: Vegetation as sustainable green material

07:00-07:30 12:00-12:30

Belchior Rocha Helena
ISCTE-University Institute of
Lisbon, Portugal

Title: Health and environmental risks to cities

07:30-08:00 17:00-17:30

Madhusudan Hiranman Fulekar
Parul University, India

Title: Climate change: Mitigation of green house gases in control environment

08:00-08:30 08:00-08:30

Anne M Gaffney
University of South Carolina,
United States

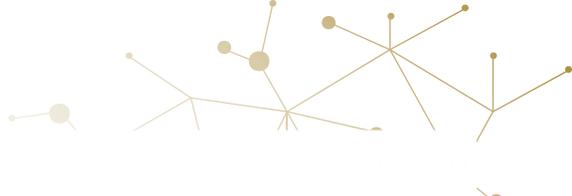
Title: Plastic trash to monomers and intermediates – PTMI

ORAL PRESENTATIONS

08:30-08:50 20:30-20:50

Yuehua Li
University of Science and
Technology Beijing, China

Title: Mass transfer in porous media and the technique of water-heat management for proton exchange membrane fuel cells



08:50-09:10 20:50-21:10

Jinsong Wu

Guilin University of Electronic Technology, China

Title: Environmental sustainability and intelligence as well as general green technologies

09:10-09:30 22:10-22:30

Dai-Yeun Jeong

Jeju National University, Korea

Title: Carbon neutrality as a strategy responding to climate change

09:30-09:50 19:00-19:20

V B Murali Krishna

National Institute of Technology Andhra Pradesh, India

Title: An experimental study on electric generators for small-scale renewable energy systems

09:50-10:10 19:20-19:40

Ashanendu Mandal

University of Calcutta, India

Title: Removal of phenol from wastewater using biological and industrial wastes as adsorbents

10:10-10:30 16:10-16:30

Jan Moneita

Maritime University of Szczecin, Poland

Title: The effect of natural deterioration on selected properties of rapeseed oil methyl esters

10:30-10:50 16:30-16:50

Devic Gordana

University of Belgrade, Serbia

Title: Urban sustainability at risk due to soil pollution by heavy metals and oil products

10:50-11:10 20:20-20:40

Gangaraju Gedda

Presidency University, India

Title: Green synthesis of metal/carbon dot nanocomposites for environmental remediation

11:10-11:30 20:40-21:00

Chitra

CSIR- National Physical Laboratory, India

Title: Gases and particulate matter emission during extraction of various materials from waste silicon solar panels by thermal treatment process

11:30-11:50 18:30-18:50

Hasan Saygili

Vocational School of Technical Sciences, Turkey

Title: Environmental performance of hydrochar-derived magnetic carbon composite for heavy metal removal

11:50-12:10 20:50-21:10

Shahid Adeel

Government College University Faisalabad, Pakistan

Title: Ultrasonic-assisted extraction & application of bio-colorant from neem bark (*Azadirachta Indica*) for green mordanted wool fabric





EDT Timings Local Timings

12:10-12:30 21:10-21:30

Shumaila Kiran
Government College University,
Pakistan

Title: Mitigation of direct orange 26 dye using copper nanoparticles synthesized from tilapia fish scales: An environmental remedial approach

12:30-12:50 17:30-17:50

Ndzana Arnauld Philippe
Yaounde Urban Council,
Cameroon

Title: Takeover of the FSM in yaounde

12:50-13:10 22:20-22:40

Divya Tripathy
Galgotias University, India

Title: Surfactants enhanced soil remediation

13:10-13:30 20:10-20:30

Ozcan Koysuren
Ankara University, Turkey

Title: Preparation of $B_4C/AgFe_2O_4$ heterostructures for photoreduction of Cr (VI)

13:30-13:50 20:30-20:50

Igor V Shevchenko
Semenenko Institute of
Geochemistry Mineralogy and
Ore Formation, Ukraine

Title: Influence of the sun on water dependence on geometry of solution and its position in space

13:50-14:10 14:50-15:10

**Fabiano Andre Narciso
Fernandes**
Federal University of Ceara,
Brazil

Title: Cold plasma catalyzed degradation of diazinon in aquatic environment



End of Virtual Room 02 Session

DAY 2

VIRTUAL ROOM 03

MAY 23, 2023

Tuesday

KEYNOTE PRESENTATIONS

@VIRTUAL ROOM 03

EDT Timings Local Timings

05:30-06:00 EDT | AV check

Moderator:
Rajesh Kumar, B R A Bihar University, India

06:00-06:30 12:00-12:30

Victor Cerda

University of the Balearic Island, Spain Title: Automated in-chip catalytic spectrophotometric methods

06:30-07:00 11:30-12:00

Kevin Kendall

Hydrogen United in Birmingham, United Kingdom Title: Green hydrogen UK by 2030: Progress and prospects

07:00-07:30 14:00-14:30

Cristian Ravariu

University Politehnica of Bucharest, Romania Title: Nanostructured materials used for the fabrication of an AcHE biosensor for pesticide detection

07:30-08:00 14:30-15:00

Osman Adiguzel

Firat University, Turkey Title: Shape recovery and crystallographic reactions in shape memory alloys

ORAL PRESENTATIONS

08:00-08:20 14:00-14:20

Victor Cerda

University of the Balearic Island, Spain Title: Automated flow techniques for environmental analysis

08:20-08:40 21:20-21:40

Seong Sik Shin

Korea Atomic Energy Research Institute, Korea Title: Effect of transition metal oxides in silver tellurite glass



EDT Timings Local Timings

08:40-09:00 21:40-22:00

Ga yeong Kim
Chungnam National University,
Korea

Title: Synthesis of Cs pollucite ceramic waste form and long-term leaching behavior

09:00-09:20 22:00-22:20

Amelia Christina Atmowidjo
Kyoto University, Japan

Title: Characterization of glycosyltransferase from rhizobium pusense useful for regioselective production of resveratrol 4'-O- α -D-glucoside

09:20-09:40 16:20-16:40

Adib Gareyev
Bashkirs State University, Russia

Title: Control theory of electric centrifugal pump in oil production

09:40-10:00 19:10-19:30

Kilivelu Ganesan
Presidency College, India

Title: Non-toxic, inexpensive and recyclable second-generation ionic liquids as a catalyst for one pot multicomponent organic reactions

10:00-10:20 17:00-17:20

Grigory Korablev
Izhevsk State Agricultural
Academy, Russia

Title: Unity and correlations of entropic components in physical and chemical regularities

10:20-10:40 19:50-20:10

Rajesh Kumar
B R A Bihar University, India

Title: Chemo-enzymatic approach to synthesis of modified nucleosides

10:40-11:00 09:40-10:00

Victor Ramos
University of Engineering and
Technology, Peru

Title: Use of stipa ichu as a reinforcement in the manufacture of biodegradable films for food packaging

11:00-11:20 09:00-09:20

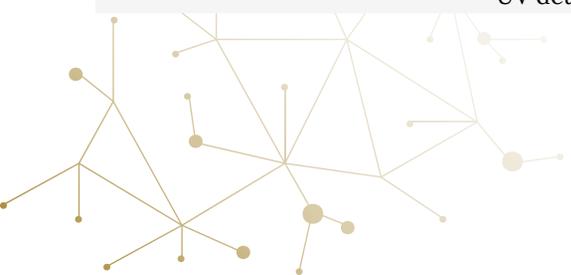
Mihaela Leonida
Fairleigh Dickinson University,
United States

Title: Catalase enhanced using two green processes

11:20-11:40 20:50-21:10

V K Jain
Amity University, India

Title: Fabrication of heterojunctions on silicon nanowires on Si Chip, CdS/p-Si for electricity generation from moisture and n-SnO₂/p-Si for UV detection



11:40-12:00 18:40-19:00

Amira Mohamed Taher Hegazy
Beni-Suef University, Egypt

Title: Development and validation of two robust simple chromatographic methods for estimation of tomatoes specific pesticides residues for safety monitoring prior to food processing line and evaluation of local samples

12:00-12:20 18:00-18:20

Pieter Samyn
Ghent University, Belgium

Title: Biomimetics in composite interface engineering: Opportunities for interface monitoring and life-time extension

12:20-12:40 18:20-18:40

Hans Jorgen Federsel
RISE Research Institutes of
Sweden, Sweden

Title: Against all odds the development of a unique asymmetric sulfide oxidation

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Questions? Contact

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