

Joint Event20th Edition of International Conference on**CATALYSIS, CHEMICAL
ENGINEERING AND
TECHNOLOGY &**5th Edition of International Conference on**GREEN CHEMISTRY AND
RENEWABLE ENERGY**

JUNE 02-04,

2025
ROME, ITALY**IN-PERSON:**NH Villa Carpegna, Via Pio IV,
6, 00165 Roma RM, Italy**VIRTUAL:**Central European Summer
Time (CEST)

(In-Person) - Leonardo A Room

DAY 01	Monday		JUNE 02
		08:00-08:50	Registrations
		08:50-09:00	Opening Ceremony and Introduction
		09:00-11:00	In-person Keynote Presentations
		11:30-16:50	In-person Oral Presentations
		16:50-17:20	In-person Poster Presentations
		11:00-11:30-Coffee Break	12:50-13:50-Lunch Break
			16:50-17:20-Coffee Break

(In-Person) - Leonardo A Room

DAY 02	Tuesday		JUNE 03
		08:30-09:00	AV Check and Introduction
		09:00-11:00	In-person Keynote Presentations
		11:30-17:10	In-person Oral Presentations
		11:00-11:30-Coffee Break	12:50-13:50-Lunch Break
			17:10-17:40-Coffee Break

(Virtual) - Virtual Zoom Meeting

DAY 03	Wednesday		JUNE 04
		08:30-09:00	AV Check
		09:00-11:00; 18:40-20:00	Virtual Keynote Presentations
		11:00-18:00; 20:00-20:20	Virtual Oral Presentations
		18:00-18:40	Virtual Poster Presentations

Important Note

- The conference follows Central European Summer Time, (CEST) for both In-Person sessions and 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 Leonardo A Room @NH Villa Carpegna 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.

Moderator: Eleonora Di Salvo,
University of Messina, Italy

Chairs: Stanislaw Dzwigaj, Sorbonne University, France
Dai Yeun Jeong, Jeju National University, South Korea

Central European Summer Time (CEST)

In-person	09:00-09:40	Keynote Presentations
Stanislaw Dzwigaj, Sorbonne University, France		
Title: Application of metal single-site zeolite catalysts in heterogeneous catalysis		
In-person	09:40-10:20	
Dai Yeun Jeong, Jeju National University, South Korea		
Title: The roles and capacity building of NGOs as agents responding to climate change		
In-person	10:20-11:00	
Junwang Tang, Tsinghua University, China		
Title: From photocatalysis to photon-phonon co-driven catalysis for inert molecules activation		
Group Photo		
11:00-11:30 Coffee Break @Foyer		
In-person	11:30-11:50	Oral Presentations
Marina Ratova, Manchester Metropolitan University, United Kingdom		
Title: Visible light-active bismuth oxide-based photocatalytic coatings and their potential against biological contaminants		
In-person	11:50-12:10	
Duran Albert Pujol, Aalborg University, Denmark		
Title: Direct air capture cost reduction and market development via process intensification. Establishing the DAC inseting concept		
In-person	12:10-12:30	
Misganaw Alemu Zeleke, University of Limerick, Ireland		
Title: Eco-friendly synthesized SnO ₂ @Cu(O,S) nanocomposite catalysts for (Photo-)catalytic removal of selected chemical pollutants		
In-person	12:30-12:50	
Luigi Antonio Pezone, Santa Maria Capua Vetere, Italy		
Title: Global cooling is not a cost but the best economic investment of the world's people		
12:50-13:50 Lunch Break @Restaurant		
In-person	13:50-14:10	
Javier Tobajas, CNH2, Spain		
Title: Smart predictive control for sustainable and resilient hybrid microgrids		
In-person	14:10-14:30	
Eleonora Di Salvo, University of Messina, Italy		

Title: Investigating specialized metabolism as an integral factor to improve oxidative stress resilience in native plants exposed to metalloids naturally contaminated soils

In-person 14:30-14:50

Pablo Tovillas Greca, Footwear Technology Center of La Rioja (CTCR), Spain

Title: Bio-based polyol synthesis from vegetable oils for polyurethane materials in footwear applications

In-person 14:50-15:10

Rachele Carafa, Toronto Metropolitan University, Canada

Title: Functionalization of lignin-derived monomers for polyurethane production

In-person 15:10-15:30

Amarendra Kumar, Indian Institute of Technology (IIT) Tirupati, India

Title: Design and optimization of a thermal air sterilizer prototype for airborne pathogen deactivation: A CFD approach

In-person 15:30-15:50

Michal Vastyl, Institute of Environmental Technology, CEET, VSB – Technical University of Ostrava, Czech Republic

Title: Microwave transformation of high-density polyethylene to hydrogen: The role of CoFeAlOx catalyst

In-person 15:50-16:10

Rawia Nasri, University of Tunis El Manar, Tunisia

Title: Photocatalytic activities under solar light of $\text{NaLi}_{1.07}\text{Co}_{2.94}(\text{M}_0\text{O}_4)_5$ nanoparticles

In-person 16:10-16:30

Maria Candeia Kuliakita Sakukuma, Higher Institute of Education Sciences in Lubango/Hulla (ISCED-HUILA), Angola

Title: Studies towards the synthesis of (+)-Adenophorine

In-person 16:30-16:50

Orchidea Maria Lecian, Sapienza University of Rome, Italy

Title: The multidimensional topological shift of the KRASG12D proteins in catalytic environments and pertinent drugs-targeting

16:50-17:20 | Coffee Break @Foyer

In-person PP01

(16:50-17:20) Poster Presentations

Maria Iniguez Barrio, Footwear Technology Center of La Rioja (CTCR), Spain

Title: Chemical and biological recycling strategies for polyurethane foams: Toward a circular footwear industry

In-person PP02

Tarek Kamal Motawi, Cairo University, Egypt

Title: Potential serum biomarkers for early detection of diabetic nephropathy

In-person PP03

Xueli Su, Jingchu University of Technology, China

Title: Challenges and trends of green chemistry in the era of artificial intelligence

Moderator: Elsa Justino,
Iscte-IUL/CIES, Portugal

Chairs: Belchior Rocha Helena, ISCTE-Instituto Universitário de Lisboa, Portugal
Thomas J J Muller, Heinrich-Heine-Universität Dusseldorf, Germany

Central European Summer Time (CEST)

In-person	09:00-09:40	Keynote Presentations
Belchior Rocha Helena, ISCTE-Instituto Universitário de Lisboa, Portugal		
Title: Empowering communities: Green chemistry and renewable energy for sustainable development		
In-person	09:40-10:20	
Thomas J J Muller, Heinrich-Heine-Universität Dusseldorf, Germany		
Title: One-pot multicomponent syntheses of functional chromophores - Synthetic efficiency meets functionality design		
In-person	10:20-11:00	
Sergey V Suchkov, N.D. Zelinskii Institute for Organic Chemistry of the Russian Academy of Sciences, Moscow, Russia & Centro de Estudios de la Fotosíntesis Humana, Aguascalientes, México		
Title: Personalized and Precision Medicine (PPM) as a unique healthcare model via design-driven bio- and chemical engineering view of biotech		
		Group Photo
11:00-11:30 Coffee Break @Foyer		
In-person	11:30-11:50	Oral Presentations
Christoph Ellert, HES-SO Valais-Wallis, Switzerland		
Title: Plasma-chemical recycling of household waste		
In-person	11:50-12:10	
Elsa Justino, Iscte-IUL/CIES, Portugal		
Title: Empowering human rights through green chemistry and renewable energy in a climate challenged world		
In-person	12:10-12:30	
Anthony Fasulo, Toronto Metropolitan University, Canada		
Title: Valorization of alginic acid from sargassum for bioplastics		
In-person	12:30-12:50	
Camilla Zaratti, Tor Vergata University, Italy		
Title: Prediction of green solvent applicability in cultural heritage using hansen solubility parameters, cremonesi method and integrated toxicity index		
12:50-13:50 Lunch Break @Restaurant		
In-person	13:50-14:10	
Sergey V Suchkov, N.D. Zelinskii Institute for Organic Chemistry of the Russian Academy of Sciences, Moscow, Russia & Centro de Estudios de la Fotosíntesis Humana, Aguascalientes, México		
Title: Antibody-proteases as a generation of unique biomarkers, potential targets and translational tools towards design-driven bio- and chemical engineering and personalized and precision medical practice		

In-person	14:10-14:30	Hillary Kasedde and John Baptist Kirabira, Makerere University, Uganda Title: Design and modeling of an energy village for rural off grid communities in Uganda
In-person	14:30-14:50	Camilla Zaratti, Tor Vergata University, Italy Title: Developing innovative apolar gels based on cellulose derivatives for cleaning metal artworks
In-person	14:50-15:10	Mauricio Orantes Montes, National Autonomous University of Mexico, Mexico Title: Intensified microalgal biomass production in HRAP using nutrient-rich waste water
In-person	15:10-15:30	Hossam Ahmed Aly Moustafa Tieama, Abu Qir fertilizers Company, Egypt Title: Understanding membrane fouling and chemical cleaning performance for cleaning agents, a review article
In-person	15:30-15:50	Mabatho Moreroa, University of South Africa, South Africa Title: Co-digestion of abattoir effluent and rumen content for waste management and biogas production – A case study
In-person	15:50-16:10	Rahul Hajare, Sandip University, India Title: Careful investigation of some biomolecules that might be successful in preventing sars-cov-2/ covid-19 using in-silico analysis: Preliminary research
In-person	16:10-16:30	Rajeshree Liya, Ahmedabad University, India Title: Platinum-incorporated nickel Iron oxide as a high-performance electrocatalyst for the oxygen evolution reaction: Elucidating substitutional and support strategy
In-person	16:30-16:50	Louise McCulloch, Omya International AG, Switzerland Title: Biobased specialty chemicals for the mineral industry
In-person	16:50-17:10	Dae Dong Sung, Korea University Sejong Campus, South Korea Title: New methods for identifying in vivo biomedical reaction mechanism
17:10-17:40 Coffee Break @Foyer		

	Central European Summer Time (CEST)	Local Timings	
Virtual	09:00-09:40	15:00-15:40	Keynote Presentations
	Tomayess Issa, Curtin University, Australia		
	Title: An overview of Australia's sustainability opportunities and challenges		
Virtual	09:40-10:20	09:40-10:20	
	Yarub Al Douri, European Academy of Sciences, Belgium		
	Title: An overview of future nanotechnology		
Virtual	10:20-11:00	11:20-12:00	
	Cristian Ravariu, National University of Science and Technology Politehnica Bucharest, Romania		
	Title: Using green chemistry routes to fabricate green n-type organic semiconductors for the transistor construction		
Virtual	11:00-11:20	12:00-12:20	Oral Presentations
	Osman Adiguzel, Firat University, Turkey		
	Title: Memory characteristics and crystallography of reversibility in shape memory alloys		
Virtual	11:20-11:40	17:20-17:40	
	Collin G Joseph, Universiti Malaysia Sabah, Malaysia		
	Title: Detergent wastewater treatment using catalytic and non-catalytic ozone gas: Current updates and future directions		
Virtual	11:40-12:00	19:40-20:00	
	Chitra Sulkan, Elecsome Pty Ltd, Australia		
	Title: Sustainable solutions for end-of-life bifacial photovoltaic panels: Paving the way for circular economy		
Virtual	12:00-12:20	18:00-18:20	
	Reyna Claire C. Dizon, Science and Technology Education Leaders in Learning and Research, Philippines		
	Title: Non-toxic one-pot synthesis of carbon quantum dots from pomelo (Citrus maxima) peel Waste as a polychromatic fluorescent robe for acute and astute detection of Cu^{2+} , K^+ , Ca^{2+} , Mg^{2+} , & Fe^{2+}		
Virtual	12:20-12:40	15:50-16:10	
	Amarta Kumar Pal, North-Eastern Hill University, India		
	Title: Approaches towards the development of green and sustainable protocols for the synthesis of organic molecules		
Virtual	12:40-13:00	16:10-16:30	
	Ayan Chatterjee, Medhavi Skills University, India		
	Title: Climate change and its vulnerability mapping - A case study from West Bengal in the context of raising ambient temperature		

	Central European Summer Time (CEST)	Local Timings
Virtual	13:00-13:20	13:00-13:20
Davide Frumento, RomaTre University, Italy Title: Cultivating Chlorella vulgaris in tubular photobioreactors: A potential lipid source for biodiesel generation		
Virtual	13:20-13:40	16:50-17:10
Darshit S Upadhyay, Nirma University, India Title: Evaluation of an improved biomass cookstove performance and the traditional stoves of India: A comparative study		
Virtual	13:40-14:00	17:10-17:30
Girijesh Kumar Verma, Deen Dayal Upadhyaya Gorakhpur University, India Title: DMAP catalyzed heterocycle synthesis		
Virtual	14:00-14:20	19:00-19:20
Parfenova Maria, Institute of Physical Materials Science, Siberian Branch of the Russian Academy of Sciences, Russia Title: Crystallization processes in Li,M,K Cl (M=Nd,Pr) systems: Digital twins of phase diagrams, cross-validation of horizontal and vertical material balances, DTA spectrum simulation		
Virtual	14:20-14:40	14:20-14:40
Ahmet Lokurlu, CEO, North Rhine Westphalia, Germany Title: Integration of Parabolic Trough Collectors (PTC) in Solid Oxide Electrolysis Cells (SOEC) for green hydrogen production		
Virtual	14:40-15:00	18:10-18:30
Seiko Jose, ICAR – Central Sheep and Wool Research Institute, India Title: Preparation and characterization of coarse wool reinforced natural rubber green composite		
Virtual	15:00-15:20	18:30-18:50
Suresh C Ameta, Paher University, India Title: Photocatalysis: An emerging route for waste water treatment		
Virtual	15:20-15:40	18:50-19:10
Madhusudan Hiranman Fulekar, Parul University, India Title: Biodiesel production from microalgal biomass using bio-nano based approaches		
Virtual	15:40-16:00	19:10-19:30
Rajesh Kumar, Babasaheb Bhimrao Ambedkar Bihar University, India Title: Chemo-enzymatic synthesis of bridged nucleosides		
Virtual	16:00-16:20	17:00-17:20
Delia Teresa Sponza, Dokuz Eylul University, Turkey Title: Photocatalytic hydrogen energy recovery from sulfide-containing wastewater using thiol-UiO-66 / Mn _{0.5} Cd _{0.5} S nanocomposites		

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Virtual	16:20-16:40	15:20-15:40	
Mbemba Kiele Molingo, University Marien Ngouabi, Congo			
Title: Development of a process for producing zirconium rich alkali-resistant glasses containing heavy metals present in fly ashes from municipal solids waste incineration			
Virtual	16:40-17:00	08:40-09:00	
Flavia Gutierrez, Instituto de Ingenieria, Universidad Nacional Autonoma de Mexico, Mexico			
Title: SiO ₂ -amino adsorbents from geothermal silica waste with potential application in direct CO ₂ air capture			
Virtual	17:00-17:20	10:00-10:20	
Haibo Ge, Texas Tech University, United States			
Title: Distal functionalization via transition metal catalysis			
Virtual	17:20-17:40	11:20-11:40	
Jinsong Wu, University of Chile, Chile			
Title: Environmental sustainability and intelligence as well as general green technologies			
Virtual	17:40-18:00	10:40-11:00	
Tirath Raj, University of Illinois, Urbana Champaign, United States			
Title: Natural deep eutectic solvents (NADESs) deconstruction of advanced bioenergy crops to enhance recovery of lipids and sugars			
Virtual	18:00-18:10	21:00-21:10	Poster Presentations
Mikhail Petrovich Kashchenko, Ural State Forest Engineering University, Russia			
Title: Universal mechanism of catalysis of low-temperature nuclear fusion			
Virtual	18:10-18:20	13:10-13:20	
Pagano Marcela, Universidade Federal de Minas Gerais, Brazil			
Title: Use of mycorrhizae for eco-friendly cultivation			
Virtual	18:20-18:30	19:20-19:30	
Oleksandr Lozovskyi, Institute of Colloid Chemistry and the Chemistry of Water, Ukraine			
Title: Processing of polyethylene into hydrocarbon fuels by catalytic cracking on Pillared Interlayered Clays (PILC)			
Virtual	18:30-18:40	10:30-10:40	
Zoe Wang, University of Colorado Boulder, United States			
Title: From bench to atmosphere: New materials for Direct Air Capture (DAC) of CO ₂ using electro-swing chemistry			

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Virtual	18:40-19:20	12:40-13:20	Keynote Presentations
Hossam A Gabbar, Ontario Tech University, Canada			
Title: Advances in plasma-based waste treatment for sustainable communities			
Virtual	19:20-20:00	14:20-15:00	
Marta Irene Litter, National University of General San Martin, Argentina			
Title: Use of iron nanomaterials for the treatment of metals, metalloids and emergent contaminants in water			
Virtual	20:00-20:20	23:30-23:50	Oral Presentations
Nayana Brahmbhatt, Vitthalbhai Patel & Rajratna P T Patel Science College, India			
Title: Algal biomass in agriculture: A green solution for soil enhancement and crop improvement			

Notes:

*We wish to meet you again at our
upcoming events*

21st Edition of Global Conference on

Catalysis, Chemical Engineering & Technology

September 11-13, 2025 | Valencia, Spain

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

6th Edition of International Conference on

Green Chemistry and Renewable Energy

June 2026 | Barcelona, Spain

<https://magnusconferences.com/green-chemistry/>

Questions? Contact

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