

**Joint Event**20<sup>th</sup> Edition of International Conference on**CATALYSIS, CHEMICAL  
ENGINEERING AND  
TECHNOLOGY &**5<sup>th</sup> 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

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

(In-Person) - Leonardo A Room

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

(Virtual) - Virtual Zoom Meeting

<b>DAY 03</b>	<b>Wednesday</b>	<b>08:30-09:00</b>	AV Check	<b>JUNE 04</b>	
		<b>09:00-11:00;</b> <b>18:40-20:00</b>	Virtual Keynote Presentations		
		<b>11:00-18:00;</b> <b>20:00-21:00</b>	Virtual Oral Presentations		
		<b>18:00-18:40</b> <b>21:00-21:10</b>	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
<b>Stanislaw Dzwigaj, Sorbonne University, France</b>		
Title: Application of metal single-site zeolite catalysts in heterogeneous catalysis		
In-person	09:40-10:20	
<b>Dai Yeun Jeong, Jeju National University, South Korea</b>		
Title: The roles and capacity building of NGOs as agents responding to climate change		
In-person	10:20-11:00	
<b>Junwang Tang, Tsinghua University, China</b>		
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
<b>Marina Ratova, Manchester Metropolitan University, United Kingdom</b>		
Title: Visible light-active bismuth oxide-based photocatalytic coatings and their potential against biological contaminants		
In-person	11:50-12:10	
<b>Duran Albert Pujol, Aalborg University, Denmark</b>		
Title: Direct air capture cost reduction and market development via process intensification. Establishing the DAC insetting concept		
In-person	12:10-12:30	
<b>Misganaw Alemu Zeleke, University of Limerick, Ireland</b>		
Title: Eco-friendly synthesized SnO <sub>2</sub> @Cu(O,S) nanocomposite catalysts for (Photo-)catalytic removal of selected chemical pollutants		
In-person	12:30-12:50	
<b>Luigi Antonio Pezone, Santa Maria Capua Vetere, Italy</b>		
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	
<b>Javier Tobajas, CNH2, Spain</b>		
Title: Smart predictive control for sustainable and resilient hybrid microgrids		
In-person	14:10-14:30	
<b>Eleonora Di Salvo, University of Messina, Italy</b>		
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 at the synthesis of (+)-Adenophorine

In-person 16:30-16:50

**Orchidea Maria Lecian, Sapienza Univeristy of Rome, Italy**

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

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

In-person PP01

(16:50-17:20) Poster Presentations

**María 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	<b>Keynote Presentations</b>
<b>Belchior Rocha Helena, ISCTE-Instituto Universitário de Lisboa, Portugal</b>		
Title: Empowering communities: Green chemistry and renewable energy for sustainable development		
In-person	09:40-10:20	
<b>Thomas J J Muller, Heinrich-Heine-Universität Dusseldorf, Germany</b>		
Title: One-pot multicomponent syntheses of functional chromophores - Synthetic efficiency meets functionality design		
In-person	10:20-11:00	
<b>Sergey V Suchkov, N.D. Zelinskii Institute for Organic Chemistry of the Russian Academy of Sciences, Moscow, Russia &amp; Centro de Estudios de la Fotosíntesis Humana, Aguascalientes, México</b>		
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	<b>Oral Presentations</b>
<b>Christoph Ellert, HES-SO Valais-Wallis, Switzerland</b>		
Title: Plasma-chemical recycling of household waste		
In-person	11:50-12:10	
<b>Elsa Justino, Iscte-IUL/CIES, Portugal</b>		
Title: Empowering human rights through green chemistry and renewable energy in a climate challenged world		
In-person	12:10-12:30	
<b>Anthony Fasulo, Toronto Metropolitan University, Canada</b>		
Title: Valorization of alginic acid from sargassum for bioplastics		
In-person	12:30-12:50	
<b>Camilla Zaratti, Tor Vergata University, Italy</b>		
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	
<b>Sergey V Suchkov, N.D. Zelinskii Institute for Organic Chemistry of the Russian Academy of Sciences, Moscow, Russia &amp; Centro de Estudios de la Fotosíntesis Humana, Aguascalientes, México</b>		
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	<b>Keynote Presentations</b>
	<b>Tomayess Issa, Curtin University, Australia</b>		
	Title: An overview of Australia's sustainability opportunities and challenges		
Virtual	09:40-10:20	09:40-10:20	
	<b>Yarub Al Douri, European Academy of Sciences, Belgium</b>		
	Title: An overview of future nanotechnology		
Virtual	10:20-11:00	11:20-12:00	
	<b>Cristian Ravariu, National University of Science and Technology Politehnica Bucharest, Romania</b>		
	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	<b>Oral Presentations</b>
	<b>Osman Adiguzel, Firat University, Turkey</b>		
	Title: Memory characteristics and crystallography of reversibility in shape memory alloys		
Virtual	11:20-11:40	17:20-17:40	
	<b>Collin G Joseph, Universiti Malaysia Sabah, Malaysia</b>		
	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	
	<b>Chitra Sulkan, Elecsome Pty Ltd, Australia</b>		
	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	
	<b>Reyna Claire C. Dizon, Science and Technology Education Leaders in Learning and Research, Philippines</b>		
	Title: Non-toxic one-pot synthesis of carbon quantum dots from pomelo ( <i>Citrus maxima</i> ) peel Waste as a polychromatic fluorescent robe for acute and astute detection of $\text{Cu}^{2+}$ , $\text{K}^+$ , $\text{Ca}^{2+}$ , $\text{Mg}^{2+}$ , & $\text{Fe}^{2+}$		
Virtual	12:20-12:40	15:50-16:10	
	<b>Amarta Kumar Pal, North-Eastern Hill University, India</b>		
	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	
	<b>Ayan Chatterjee, Medhavi Skills University, India</b>		
	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
<b>Daide Frumento, RomaTre University, Italy</b>		
Title: Cultivating <i>Chlorella vulgaris</i> in tubular photobioreactors: A potential lipid source for biodiesel generation		
Virtual	13:20-13:40	16:50-17:10
<b>Darshit S Upadhyay, Nirma University, India</b>		
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
<b>Girijesh Kumar Verma, Deen Dayal Upadhyaya Gorakhpur University, India</b>		
Title: DMAP catalyzed heterocycle synthesis		
Virtual	14:00-14:20	19:00-19:20
<b>Parfenova Maria, Institute of Physical Materials Science, Siberian Branch of the Russian Academy of Sciences, Russia</b>		
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
<b>Ahmet Lokurlu, CEO, North Rhine Westphalia, Germany</b>		
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
<b>Seiko Jose, ICAR – Central Sheep and Wool Research Institute, India</b>		
Title: Preparation and characterization of coarse wool reinforced natural rubber green composite		
Virtual	15:00-15:20	18:30-18:50
<b>Suresh C Ameta, Paher University, India</b>		
Title: Photocatalysis: An emerging route for waste water treatment		
Virtual	15:20-15:40	18:50-19:10
<b>Madhusudan Hiranman Fulekar, Parul University, India</b>		
Title: Biodiesel production from microalgal biomass using bio-nano based approaches		
Virtual	15:40-16:00	19:10-19:30
<b>Rajesh Kumar, Babasaheb Bhimrao Ambedkar Bihar University, India</b>		
Title: Chemo-enzymatic synthesis of bridged nucleosides		
Virtual	16:00-16:20	17:00-17:20
<b>Delia Teresa Sponza, Dokuz Eylul University, Turkey</b>		
Title: Photocatalytic hydrogen energy recovery from sulfide-containing wastewater using thiol-UiO-66 / Mn <sub>0.5</sub> Cd <sub>0.5</sub> S nanocomposites		



Central  
European  
Summer Time  
(CEST)      Local Timings

Virtual	16:20-16:40	15:20-15:40	
	<b>Mbemba Kiele Molingo, University Marien Ngouabi, Congo</b>		
	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	
	<b>Flavia Gutierrez, Instituto de Ingenieria, Universidad Nacional Autonoma de Mexico, Mexico</b>		
	Title: SiO <sub>2</sub> -amino adsorbents from geothermal silica waste with potential application in direct CO <sub>2</sub> air capture		
Virtual	17:00-17:20	10:00-10:20	
	<b>Haibo Ge, Texas Tech University, United States</b>		
	Title: Distal functionalization via transition metal catalysis		
Virtual	17:20-17:40	11:20-11:40	
	<b>Jinsong Wu, University of Chile, Chile</b>		
	Title: Environmental sustainability and intelligence as well as general green technologies		
Virtual	17:40-18:00	10:40-11:00	
	<b>Tirath Raj, University of Illinois, Urbana Champaign, United States</b>		
	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
	<b>Mikhail Petrovich Kashchenko, Ural State Forest Engineering University, Russia</b>		
	Title: Universal mechanism of catalysis of low-temperature nuclear fusion		
Virtual	18:10-18:20	13:10-13:20	
	<b>Pagano Marcela, Universidade Federal de Minas Gerais, Brazil</b>		
	Title: Use of mycorrhizae for eco-friendly cultivation		
Virtual	18:20-18:30	19:20-19:30	
	<b>Oleksandr Lozovskyi, Institute of Colloid Chemistry and the Chemistry of Water, Ukraine</b>		
	Title: Processing of polyethylene into hydrocarbon fuels by catalytic cracking on Pillared Interlayered Clays (PILC)		
Virtual	18:30-18:40	10:30-10:40	
	<b>Zoe Wang, University of Colorado Boulder, United States</b>		
	Title: From bench to atmosphere: New materials for Direct Air Capture (DAC) of CO <sub>2</sub> using electro-swing chemistry		

Central  
European  
Summer Time  
(CEST)      Local Timings

Virtual	18:40-19:20	12:40-13:20	Keynote Presentations
<b>Hossam A Gabbar, Ontario Tech University, Canada</b>			
Title: Advances in plasma-based waste treatment for sustainable communities			
Virtual	19:20-20:00	14:20-15:00	
<b>Marta Irene Litter, National University of General San Martin, Argentina</b>			
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
<b>Nayana Brahmabhatt, Vitthalbhai Patel &amp; Rajratna P T Patel Science College, India</b>			
Title: Algal biomass in agriculture: A green solution for soil enhancement and crop improvement			
Virtual	20:20-20:40	23:20-23:40	
<b>Saule Myrzalieva, National Center on complex processing of mineral raw materials of the Republic of Kazakhstan, Kazakhstan</b>			
Title: New sorbents based on natural mineral raw materials of Kazakhstan for after treatment of industrial wastewater from heavy metal ions			
Virtual	20:40-21:00	19:40-20:00	
<b>Ayoub Boualli, Cadi Ayyad University, Morocco</b>			
Title: Contribution to the valorization of tetraclinis articulata (Thuya) wood sawdust: hemisynthesis and anticancer activity of natural and hemisynthetic products			
Virtual	21:00-21:10	20:00-20:10	Poster Presentations
<b>Ayoub Boualli, Cadi Ayyad University, Morocco</b>			
Title: Synthesis and anticancer activity of new chalcone derivatives from tetraclinis articulata (Thuya) wood sawdust			

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

21<sup>st</sup> Edition of Global Conference on

**Catalysis, Chemical Engineering & Technology**

September 11-13, 2025 | Valencia, Spain

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

6<sup>th</sup> Edition of International Conference on

**Green Chemistry and Renewable Energy**

June 2026 | Barcelona, Spain

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

**Questions? Contact**

Phone: 1 (702) 988 2320 | Whatsapp: 1 (540) 709 1879

E-mail: [secretary@magnusconference.com](mailto:secretary@magnusconference.com)