

# Materials Science Conference 2025



## SCIENTIFIC PROGRAM

8th International Conference on Materials Science  
& Engineering

November 28-29, 2025 at London, UK & Virtual (Hybrid)

**Delight Scientific Conferences**

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<https://materials.delightscientific.com/>

# SCIENTIFIC PROGRAM

Material Science Conference 2025,  
November 28-29, 2025 | London, UK & Virtual (Hybrid)

**Day 01: November 28, 2025**

**Opening Ceremony | 09:00-09:05 AM | London, UK Time**

## Keynote Speaker Session

09:05-9:30

**Dr. Mohamed AlSofian**, Saudi Standards, metrology and quality organization (SASO), Saudi Arabia

**Presentation Title:** The Effect of Toxicity, Physical and Thermal Properties of Fire Blanket Made of Glass Fiber on Its Quality as Small Fire Suppression Tool

09:30-9:55

**Dr. Dener da Silva Souza**, São Paulo State University, Brazil

**Presentation Title:** Recycling of Post-Consumer Silica Gel Desiccants as Reinforcing Filler in Natural Rubber Composites: The Effect of Coupling Agents and Comparison with Commercial Silicas

09:55-10:20

**Dr. Mohammed Alamri**, Umm Al-Qura University, Saudi Arabia

**Presentation Title:** Graphene/WS<sub>2</sub> heterostructure on Plasmonic Ag Nanoparticles for Enhanced Photodetector

10:20-10:45

**Dr. Zhang Jiahao**, ZhengZhou University, People's Republic of China

**Presentation Title:** Characterization of PVDF crystal morphology by using polarizing microscope

10:45-11:10

**Dr. Hailong Zou**, School of Materials Science & Engineering, Zhengzhou University, China

**Presentation Title:** Effect of Annealing Conditions on Lamellar Thickening and Melting-Recrystallization Behavior in Poly(ethylene oxide) Ultrathin Films

11:10-11:35

**Dr. Meriem DEHBI**, University of Picardie Jules Verne, Innovative Technologies Laboratory (LTI), France

**Presentation Title:** Advancing Bio-Insulation: Impact of Mycelial Microstructure on the Hygrothermal Properties of Mycomposites

11:35-12:00

**Dr. Panagiotis Loukakos**, Foundation for Research and Technology - Hellas, Heraklion, Greece

**Presentation Title:** Laser-surface processing for green Hydrogen energy storage

## Plenary Speaker Session

## Scientific Sessions

- Session 01: Materials Science and Engineering**
- Session 02: Nanomaterials and Nanotechnology**
- Session 03: Materials for Energy and Environmental Sustainability**
- Session 04: Electrical, Optical, and Magnetic Materials**
- Session 05: Ceramics and Magnetic Materials**
- Session 06: Metallurgy, Corrosion and Mining**
- Session 07: Emerging Smart Materials**
- Session 08: Advances in Instrumentation Technology**

## Sessions Chairperson

**Dr. Hailong Zou, School of Materials Science & Engineering, Zhengzhou University, China**  
**Dr. Panagiotis Loukakos, Foundation for Research and Technology - Hellas, Heraklion, Greece**

**12:00-12:25**

**Dr. Ana Rita Marques, Pólo de Inovação em Engenharia de Polímeros, Guimarães, Portugal**  
**Presentation Title:** Next-Generation Bio-Based Thermoplastics with Microcellular Structures for Sustainable Industrial Applications

**12:25-12:50**

**Dr. Georgios Manginas, National Centre of Scientific Research Demokritos, Greece**  
**Presentation Title:** Sulfur-Doped ZnO as Cathode Interlayer for Efficient Inverted Organic Solar Cells

**12:50-13:15**

**Dr. Sergiu PARI, Scientific Center of Medicines of the "Nicolae Testemitanu" State University of Medicine and Pharmacy, Chisinau, Republic of Moldova**  
**Presentation Title:** Preclinical research optimization of medicinal products with action of the inner ear.

**13:15-13:40**

**Dr. Shumaila Ashraf, Beijing Institute of Technology, Beijing PR China**  
**Presentation Title:** Multifunctional COF Architectures as potential membrane materials for Greenhouse and acidic Gas Removal and ion conducting Energy devices

**13:40-14:05**

**Dr. Rispani, Department of Mechanical Engineering, Faculty of Engineering, Universitas Andalas, Indonesia**  
**Presentation Title:** Advanced optimization of optical carbon dioxide sensor through sensitivity enhancement in anodic aluminum.

**14:05-14:30**

**Dr. Licia De Vito, Sapienza University of Rome, Italy**  
**Presentation Title:** Unearthing Durability: Field Testing as a Key Validation Tool for Earthen Materials in Sustainable Construction and Heritage Preservation

## Poster Presentation (14:30 -16:30)

**P001**

**Dr. Lourenço Manuel Ferreira Bastos, PIEP - Centre for Innovation in Polymer Engineering, Portugal**  
**Presentation Title:** Mechanical Modelling of Bio-Based Thermoplastic Foams

**P002**

**Dr. Karaoui Mostapha**, Team of Innovative Materials and Mechanical Manufacturing Processes, “Ecole Nationale Supérieure d’Arts et Métiers”—ENSAM, University Moulay Ismail, Morocco

**Presentation Title:** Study of the Physico-Chemical Properties of Injection-Molded Polypropylene Reinforced with Spent Coffee Grounds

P003

**Dr. Mohammad Reza Vaziri Sereshk**, Central Connecticut State University, USA

**Presentation Title:** Development of Instrumentation for Measuring Absorption Properties in Lattices.

P004

**Dr. Panagiotis Loukakos**, Foundation for Research and Technology - Hellas, Heraklion, Greece

**Presentation Title:** Transient absorption spectroscopy of the Fucoxanthin-Chlorophyll a/c (FCPs) Proteins of the Marine Diatoms *Fragilariopsis* sp and *P. tricornutum*

P005

**Dr. Seongwoo Woo**, Manufacturing Technology, Mechanical Technology Faculty, Ethiopian Technical University, Ethiopia

**Presentation Title:** Improving the Fatigue Design of Mechanical Systems such as Refrigerator.

P006

**Dr. Shabir Ali**, College of Mechanical and Energy Engineering, Beijing University of Technology, China

**Presentation Title:** First-principles exploration of layer-dependent physical properties in vanadium-based MXene

Refreshment Break

16:30-17:00

### Plenary Speaker Session -2

17:00-17:25

**Dr. Janiffer Nyambura Gichuki**, Kenyatta University, Kenya;

**Presentation Title:** Open Source Low Cost Phototherapy Device

17:25-17:50

**Dr. Fahad Mohammed Alghannam**, King Abdulaziz City for Science and Technology, Saudi Arabia

**Presentation Title:** Advances in Glass Microfluidic Device Fabrication: Insights from Pulsed Laser Micromachining and Material Considerations

17:50-18:15

**Dr. Gabriela Berkowicz-Platek**, Faculty of Chemical Engineering and Technology, Cracow University of Technology, Interdisciplinary Center for Circular Economy, Poland

**Presentation Title:** From FTIR spectra to Concentrations Profiles in TG-FTIR Analysis of Polyolefin Decomposition

18:15-18:40

**Dr. Rodrigo Kenzo Hashimoto Barreto de Araújo**, Department of Environmental Engineering, Polytechnic University of Viseu, Portugal

**Presentation Title:** Kinetics and Isotherm Study of Ceftriaxone Removal Using Functionalized Biochar Combined with Photocatalysis

18:40-19:05

**Dr. Shashi Knat Bhatia**, College of Engineering, Konkuk University, Institute for Ubiquitous Information Technology and Applications, South Korea

**Presentation Title:** Toward Green Bioplastics: Seaweed Biomass Valorization via Halomonas sp. YLGW01.

**19:05-19:30**

**Dr. Talah Abohalkuma**, Petroleum Research Center, Libya ,Institute of Media Technology and Light Industry; Material Science Engineering, Hungary

**Presentation Title:** Control of carbon steel, stainless steel 304, stainless steel 316, and aluminum metal surfaces corrosion by phosphonic acid nano-layers.

**End of Session\_Day 01**

**Awards & Closing Ceremony**

# SCIENTIFIC PROGRAM

**Day 02: November 29, 2025**

**Opening Ceremony | 09:00-09:05 AM | London, UK Time**

## Keynote Speaker Session

09:00-9:25

**Dr. Xiaodong Wang**, University of the Chinese Academy of Science, China

**Presentation Title:** Impact of High-Frequency traveling Magnetic Fields on Low-Conductivity Liquids Investigation and Potential Applications in the Chemical Industry

09:25-9:50

**Dr. A. Simonyan**, Innovation Center of Nanoscience and Technologies, A.B. Nalbandyan Institute of Chemical Physics, NAS RA, 5/2 P. Sevak Str., Yerevan 0014, Armenia

**Presentation Title:** Integrated Synthesis and Functionalization of Carbon Nanotubes for Advanced Applications

09:50-10:15

**Dr. Victor Garcia Garcia**, Tecnológico Nacional de México/Instituto Tecnológico de Morelia, México

**Presentation Title:** Optimization of WAAM parameters to improve mechanical properties and mitigate distortion-residual stress levels using numerical-experimental and statistical methods

10:15-10:40

**Dr. Mina Popovic**, Faculty of Ecology and Environmental Protection, University Union-Nikola Tesla, Cara Dušana 62-64, 11158 Belgrade, Serbia

**Presentation Title:** Two new strains isolated from *Cyprinus carpio*, from the *Hafnia* genus as potential probiotics in the biodegradation of microplastics

10:40-11:05

**Dr. Rui Xu**, Zhengzhou University, China

**Presentation Title:** Crystallization Morphology of PEO-b-P2VP in the Ultrathin Film

11:05-11:30

**Dr. Orkhan Gulahmadov**, Nano Research Laboratory, Baku State University, Azerbaijan.

**Presentation Title:** Optimizing Triboelectric Nanogenerator Performance with Magnetic Field-Aligned Nylon/ $\text{Fe}_3\text{O}_4$  Nanocomposites

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## Sessions Chairperson

**Dr. Rui Xu, Zhengzhou University, China**

**11:30-11:55**

**Dr. Huang Xiaowei**, Jiangsu University, China

**Presentation Title:** Intelligent packaging based on bio-based materials for fruit and vegetable preservation

**11:55-12:20**

**Dr. Yu-Deh Chao**, National Taiwan University of Science and Technology, Taiwan

**Presentation Title:** Development of 17-4 PH Stainless Steel for Low-Power Selective Laser Sintering

**12:20-12:45**

**Dr. Kassahun Lewetegn**, Arba Minch University, Ethiopia

**Presentation Title:** Synthesis of  $Zn_{0.87}(Fe, Al)_{0.065}O - MO$  ( $MO = NiO, Fe_2O_3, CuO, \text{ and } CoO$ ) nanocomposites: structural, vibrational, optical and antibacterial studies

**12:45-13:10**

**Dr. Silvana Alfei**, University of Genoa, Italy

**Presentation Title:** Synthesis and Characterization of Amine Containing Copolymers: New Green Crosslinking Agents to Reinforce Gelatine for Tissue Engineering Application

**13:10-13:35**

**Dr. Laura Chianese**, University of Salerno, Italy

**Presentation Title:** Gadolinium-Doped Bismuth Ferrite for the Photocatalytic Oxidation of Arsenite to Arsenate under Visible Light

**13:35-14:00**

**Dr. David Servando Cantú-Fernández**, University of Monterrey, Mexico

**Presentation Title:** Mechanical Properties of a Structural Component Processed in High-Pressure Die Casting (HPDC) with a Non-Heat-Treated Aluminum Alloy

**End of Session\_Day 02**

**Awards & Closing Ceremony**

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