

Global Materials Science Community and Network

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8TH EDITION OF

ADVANCED MATERIALS SCIENCE WORLD CONGRESS

MARCH 30-31, 2026 | ROME, ITALY

Theme: "Transforming Materials Science through Synergy and Sustainability:

Bridging Research, Technology, and Industry"

ADV. MATERIALS SCIENCE 2026

SUB THEMES

- Pioneering the Circular Economy: Sustainable Material Innovations
- The Intersection of AI and Materials Science
- Advanced Materials in Healthcare: From Bench to Bedside
- Smart and Functional Materials

EDUCATIONAL

SESSIONS

- Securing the Future: Advanced Materials in Defense and Security
- Electrifying Innovation: Materials for Energy Storage and Conversion
- The Policy Perspective: Regulatory Challenges and Opportunities

AHY TO ATTENDS What you take Attending a Materials Science conference offers a valuable opportunity to connect with experts, explore cutting-edge research, and discover sustainable innovations shaping the future of materials science and engineering. Whether you're from academia, industry, or research, you'll deepen your knowledge of advanced materials, nanotech, and composites, while gaining insight into real-world applications across various sectors. The event also fosters collaboration, professional growth, and global networking opportunities. Conference **FEATURED SPEAKERS NETWORKING EVENTS INTERNATIONAL SPEAKERS**



Materials Engineers
Materials Scientists

Nanotechnologists
Physicists and Chemists

Metallurgists
Geotechnical Engineers

Biomedical Engineers
Academicians and Students

Policy Makers Industries Entrepreneurs
Students

Materials Science Colleges
Materials Companies

Nanotechnology Companies
Training Institutes

Associations
Chemical Companies

Experts and Researchers (of Biotechnology, Physics, Materials Science,
Nanotechnology, Biology, Environment, Medicine, Ceramics, Energy, Liquid Crystals,
Plasma, Polymers Semiconductors)



Dear Colleague,

Face-to-face opportunities to collaborate with professors, researchers, scientists, engineers, and entrepreneurs from around the globe are exceedingly rare. Professionals in Advanced Materials Science and related fields will gather in Rome, Italy, March 30-31, 2026, for the 8th Edition of the Advanced Materials Science World Congress. This event offers a unique opportunity to collaborate with leading experts, exchange transformative insights, innovations, groundbreaking results, and visionary perspectives on the trajectory of advanced materials.

If your work involves 2D materials, quantum materials, advanced polymers, nanophotonics, Al/machine learning for materials discovery and R&D, fusion reactor materials, biomaterials, medicine, textiles, innovative construction materials, sustainability, or even cognitive and neuroscience that influence advanced materials innovation, Rome is your essential destination next March. You will present your research, share findings, and engage in dynamic and productive peer-to-peer discussions. Imagine the "AHA!" moments you will experience firsthand!

The need for global collaboration has never been greater. Your participation will contribute significantly to shaping a narrative with immense, positive impacts on this rapidly evolving field.

As a speaker and participant in the 2025 World Congress, I found it one of the most satisfying and stimulating professional experiences of my long career. Participating in the 8th Edition of the Advanced Materials Science World Congress will be among your most impactful professional decisions—a further opportunity to significantly advance this critical field.

Non vediamo l'ora di avervi con noi a Roma!

Warm regards,

Gary J. Dickelman

CEO, EPSScentral LLC, USA



Louisiana Tech University, USA



As an invited speaker in the "7th Edition of the Advanced Materials Science World Congress" on March 24-25, 2025 in London UK, I was very impressed by the conference. It brought together researchers, scientists, academicians, and industry professionals from all over the world (including Algeria, Austria, Azerbaijan, Brazil, Bulgaria, Canada, China, France, Georgia, Germany, India, Italy, Portugal, Spain, Tajikistan, Ukraine, Uruguay, USA, and many other countries) to foster knowledge sharing, idea exchange, and exploration of the latest advancements in the challenging field of advanced materials. I am deeply grateful for the conference organization for the excellent event. I applaud the conference organization for their continuous efforts to hold the "8th Edition of the Advanced Materials Science World Congress", scheduled in March 2026 in the enchanting city of Rome, Italy. For all those who are passionately dedicated to the field of advanced materials, I highly recommend you to participate the forthcoming 8th Edition World Congress and provide your insights that contribute to your research work and the development of ground-breaking advancements.

I hope to see you in Rome, Italy.

Weizhong Dai Louisiana Tech University, USA



Distinguished guests, esteemed scholars, researchers, and industry professionals,

It is a great honor to welcome you all to the Advanced Materials Science World Congress 2026. This esteemed event serves as a multidisciplinary platform where professionals from different fields converge to share their knowledge, exchange experiences, and foster collaborations that will drive innovative ideas in future.

Throughout this conference, we will explore groundbreaking advancements in materials science, bridging the gap between research, industry, and education. The innovative methods and cutting-edge projects presented by the speakers span across various domains—ranging from business-driven applications to investigative research, ultimately influencing and shaping the future of education. These discussions will help academicians, decision makers address new challenges and evolving demands in the respective fields while enhancing academic programs to meet the needs of tomorrow's cities, Architecture, Design, etc.

One of the most remarkable aspects of this congress is the dynamic synergy between leading scholars, academicians, and practitioners. Together, we form a strong alliance, ensuring that the knowledge and expertise shared here transcend beyond these sessions and into real-world applications.

This conference is not only a platform for knowledge dissemination but also a catalyst for economic development across multiple industries. By fostering new collaborations and supporting innovative ideas, we collectively contribute to the growth of scientific research, sustainable technological advancements, and the expansion of business opportunities.

As we embark on this exciting journey in 2026, let us seize this opportunity to showcase our work, engage in meaningful discussions, and lay the foundation for future scientific and industrial clusters. I encourage you all to connect, collaborate, and innovate—because it is through our combined efforts that we can truly push the boundaries of materials science and its applications.

Once again, welcome to the Advanced Materials Science World Congress 2026! Let's make this event a milestone in the advancement of our field.

Thank you! Nino Chachava Georgian Technical University, Georgia





Facultad de Ingeniería Universidad de la República, Montevideo, Uruguay

Dear Colleagues,

Last 24-25 March, 2025 we have had the "7th Edition of the Advanced Materials Science World Congress", in London, UK. It was a fantastic Congress, with the assistance of distiguished researchers from all the globe. It was an incredible opportunity to listen, see and ask about the advances in different research areas related to materials. It had an excellent organization and unique atmosphere of cooperation among this very diverse team of colleagues.

The next March 30-31, 2026, in Rome, Italy, the "8th Edition of Advanced Materials Science World Congress" will take place, I think this is an event that you should not lose. This represents a great opportunity for transversal contact between different areas of research related to the science of materials.

See you in Rome!

Dr.-Ing. Benigno Rodríguez Díaz Facultad de Ingeniería, Universidad de la República Montevideo, Uruguay

PRESENTATION FORUM

01

KEYNOTE FORUM / MINI-PLENARY SESSIONS

Presentations under Keynote Forum or Mini-Plenary Sessions includes abstracts with remarkable research value selected by the program committee. These significant speeches are delivered by globally recognized honorable speakers and it is open to all registrants.

DISTINGUISHED SPEAKERS FORUM (ORAL ABSTRACT SESSIONS)

In this forum, speakers and experts of the research field gets an opportunity to showcase their noble research work that involves comprehensive research findings. These formal oral presentations include a wide range of talks covering basic research to advanced research findings in accordance to the theme and scientific sessions of the conference.



03

STUDENT FORUM / POSTER SESSION

This session is particularly introduced to encourage more number of student participation at international conferences, however it is not restricted only to students since it is also available for the participants with language barrier. There are specific guidelines to be followed to prepare the poster. Poster topic should be selected only from relevant scientific sessions with in-depth technical details.

YOUNG INVESTIGATORS FORUM

An exclusive opportunity for students and young investigators to present their research work through a formal oral presentation. Young Investigators Forum provides a global platform for young researchers and scholars to showcase their valuable contribution to the scientific world and to get acknowledged by the global scientific community of experts. It is an excellent opportunity to recognize young scientific assets with promising research ideas. These oral presentations are of shorter time duration with 10-15 minutes of informative and precise presentations in relevant scientific sessions.





EDUCATIONAL WORKSHOPS/RESEARCH WORKSHOPS/CORPORATE WORKSHOPS/MINI- SYMPOSIA

With an aim of transferring knowledge among the participants, workshops are introduced as a part of international conferences. These interactive and occasionally practical sessions gives an opportunity for participants to engage in detail discussion. Workshops are mostly scheduled for 60 to 90-minutes. It may range from learning about a specific topic relevant to international education, products and research which sometimes involves practical demonstration. It helps in enhancing skills, knowledge and understanding of the research field in depth through interactive discussions.

HIGHLIGHTS OF THE DAY SESSIONS

"Highlights of the Day Sessions" is introduced to discuss and focus a ray upon previous day ORAL ABSTRACT presentations by experts to summarise the key findings. It helps in getting better insights into the various dimensions of the topic.





MEET THE PROFESSOR @ NETWORKING SESSIONS

This session involves open discussion between the experts and session attendees, it gives enough time for getting answers to specific questions and doubts. It is an opportunity for attendees to increase their professional networking, sometimes also leads to an excellent collaboration opportunity.

EDUCATIONAL SESSIONS/ TRAINING PROGRAMS

Educational Sessions or training programs are specifically designed for a better understanding of the latest findings and technologies. These are generally 45-minute sessions that gives an exposure to the multidisciplinary field, that provides in-depth learning experiences and address educational needs.



ACADEMIC REGISTRATIONS

Speaker Registration

COMBO A

(Registration + 2 Night Accommodation)

COMBO B

(Registration + 3 Night Accommodation)

Delegate Registration

BUSINESS REGISTRATIONS

Speaker Registration

COMBO A

(Registration + 2 Night Accommodation)

COMBO B

(Registration + 3 Night Accommodation)

Delegate Registration



STUDENT REGISTRATIONS

Registration

YIF

COMBO A

(Registration + 2 Night Accommodation)

COMBO B

(Registration + 3 Night Accommodation)

Posters

ADDITIONAL REGISTRATIONS

Accompanying Person

E-Poster

Virtual Presentation

Workshops

Start-Ups



REGISTER & PARTICIPATE

ADV. MATERIALS SCIENCE 2026

CONCURRENT EDUCATIONAL SESSIONS

MONDAY - MARCH 30, 2026



- Materials Science and Engineering
- Nanomaterials and Nanotechnology



- Polymer Science and Technology
- Surface Science and
 - Engineering

GROUP PHOTO | COFFEE BREAK



- Smart Materials and Applications
- Energy Materials



- Computational Materials Science
- Crystallography

LUNCH BREAK



- Advanced Materials and Nanotechnology
- Biomaterials and Medical Devices



- Materials Physics
- Materials Chemistry

GROUP PHOTO | COFFEE BREAK



- Ceramic Materials
- Composite Materials
- Carbon and 2D Materials



- Glass Science and Engineering
- Graphene Technology
- Green Technologies

CONCURRENT EDUCATIONAL SESSIONS

TUESDAY - MARCH 31, 2026



- Materials Synthesis And Processing
- Materials Characterization
- Condensed matter physics



- Theory And Modeling
- Optics
- Artificial Intelligence
- Robotics

GROUP PHOTO | COFFEE BREAK



- Metals and Alloys
- Bioinspired materials and Systems
- Synthesis and Catalysis



- Mineralogy
- Chemistry
- Semiconductors
- Biocatalysis

LUNCH BREAK



- Metallurgical and Materials Engineering
- Topological Insulators
- Energy Production and Storage



- Electronics and Photonics
- Electronic, Optical and Magnetic Materials
- Nanostructured and Structural Materials

GROUP PHOTO | COFFEE BREAK



- Perovskites
- Materials Informatics
- Selective Laser Sintering
- Metamaterials



- Dichalcogenides
- Advances In Dielectric,
- Piezoelectric Materials and Electronic Devices

8th EDITION OF **ADVANCED** MATERIALS SCIENCE WORLD CONGRESS



March 30-31, 2026 **ROME, ITALY**

https://www.materialsscienceconference.com/

Featured Speakers	Presentation Titles
Gary J. Dickelman EPSScentral LLC, USA	On an Optimal AI Framework for Materials Research, Discovery, and Application
Christopher L. Hale North Carolina A&T State University, USA	Influence of Differential Speed Rolling and Post Annealing on the Microstructure and Mechanical Properties of Mg-based Alloys
Svitlana Fialkova North Carolina A&T State University, USA	Understanding Corrosion Resistance in Magnesium Alloys: Insights from Scanning Kelvin Probe Force Microscopy
Afsaneh Rabiei North Carolina State University, USA	Advanced Lightweight Materials for Future Energy Efficiency
Ebenezer Fanijo Georgia Institute of Technology, USA	Assessment of Corrosion Onset in Low- Carbon Steel under Chloride Exposure
Chance M. Glenn Alabama A&M University, USA	Overcoming the Negative Energy Density Requirement in the Alcubierre Warp Drive Metric Using a Complex Dielectric Media
S. A. K. V. M. Piyathilake Colorado State University, USA	Degradation and Nano-Scale Structural Evolution of Geopolymers: Effect of Temperature, Stress and Mine Process Solutions
Debendra K. Das University of Alaska Fairbanks, USA	Performance Evaluation of Hydronic Air Coil for Building Heating with Nanofluids of Varying Concentrations Via Theoretical Analysis and Experimental Characterization
Saurabh Aggarwal Autodesk Inc, USA	TF-ViS-CvC: an automated Transforming Vision based Cervical Cancer Screening with Pap Smear Analysis



Martin Schmal Federal University of Rio de Janeiro, Brazil	The Cu-ZrO2@SiO2 core-shell and CeZr/MWCNT, SBA-15 catalyst for the CO2 hydrogenation into methanol and DME
Fernando Cruz de Moraes Federal University of São Carlos, Brazil	Smart materials based semiconductors to be used in photo-electrocatalysis for environmental applications
Luiz Carlos Branquinho Caixeta Ferreira Federal Institute of Education, Brazil	Wireless Communication Protocols for the IoT -How to Choose the Best Option
Fernando Luiz Martinechen Beghetto Federal University of Technology, Brazil	Dynamic Analyses (Modal and Forced Vibration) in a Railway Vehicle Model with 25 Degrees of Freedom
Carla Winter Afonso Universidade Católica de Petrópolis, Brazil	Proposal for an Optimized Model for Customer Satisfaction
Fábio dos Santos Borges FISEPE Faculty, Brazil	Brazilian Endolaser: Subdermal Laser Technique with Fiber Optic That Evolved from Serious Injuries and Sequelae to Impactful Aesthetic Results.
Carlos Alberto Guerrero-Fajardo Universidad Nacional de Colombia, Colombia	Pea Pod Valorization: Exploring the Influence of Biomass/Water Ratio, Particle Size, Stirring, and Catalysts on Chemical Platforms and Biochar Production
Rosa M. de la Cruz Universidad Carlos III de Madrid, Spain	Pseudo disorder effects on optical and electrical properties in GaAs nanowires array
Konstantin Zsukovszki Wigner Research Centre for Physics, Hungary	Ionization Dynamics in Matter with Resonant Nanoantennas Irradiated by Intense Laser Shots
Dariusz Jacek Jakóbczak Koszalin University of Technology, Poland	Reconstruction of Multidimensional Data on Intelligent Technology and Artificial Intelligence
Lucjan Kozielski University of Silesia in Katowice, Poland	Recent advances in lead-free ceramics materials for energy storage
Orestis Ioannidis Aristotle University of Thessaloniki, Greece	Use of indocyanine green fluorescence imaging in the extrahepatic biliary tract surgery
Miriam Vázquez Universidad Michoacana de San Nicolás de Hidalgo, Mexico	Structural and Modal Analysis of a Small Wind Turbine Blade Considering Composite Material



José Murillo Centro de Investigación en Materiales Avanzados, Mexico	Visualization and Parameters Determination of Supersonic Flows in Convergent-Divergent Micro-Nozzles Using Schlieren Z-Type Technique
Alfredo C. Benítez-Rojas Instituto Politécnico Nacional, Mexico	Recent Biotechnological Applications of Whey: Review and Perspectives
Ahad Janahmadov Azerbaijan National Academy of Aviation, Azerbaijan	Synergetics of Fracture and Evolution of Interrelationship with Multi-Level Self-Organizing Processes in Material Destruction
Igor Chyzh National Technical University of Ukraine, Ukraine	Calculation of RMS radiuses of the Point Spread Function using Zernike Fringe Coefficients
Orest M. Ivasishin G.V.Kurdyumov Institute for Metal Physics, Ukraine	In Situ Ti6Al4V/TiB Composites Prepared by Hydrogen-Assisted Sintering of Blends Containing TiH2
V.G. Plekhanov Fonoriton Science Lab., Garon Ltd, Estonia	Isotope - Based Materials Science
Valery Ya. Rudyak Novosibirsk State University of Architecture and Civil Engineering, Russia	Electrical conductivity of nanofluids with carbon nanotubes
Remsh Nasser Alqahtani King Saud University, Saudi Arabia	Female Computer Teachers Training by the (TAWOCK) Model
Adjmi Chahd Rahyl King Fahd University of Petroleum and Minerals, Saudi Arabia	Design And Simulation of A Metamaterial- Based Microstrip Antenna For Defect Detection In Composite And Metallic Materials
Alexander Trubayev National Technical University, Ukraine	Analysis of Elevator Structures Taking Into Account Technological Deviations
Zeyad Muhammad Abdulhamid Abdulfattah Khalifa University, United Arab Emirate	MoS2/ZnFe2O4 Nanocomposites: A New Approach to Improve Ion/Charge Transfer in Supercapacitors
Omar Chaalal Abu Dhabi University, United Arab Emirates	Global Green Process for Methanol Production
Yoshiharu Uchimoto Kyoto University, Japan	Development of ultra-high-capacity cathode materials for all-solid-state fluoride batteries



Hoi-Sing Kwo The Hong Kong University of Science and Technology, Hong Kong	Recent Progress in Ferroelectric Liquid Crystals and Applications to AR/VR
Tsogbayar Dashdendev Hanyang University, South Korea	Multimodal Double-Helix Fiber Sensor for Independent Pressure and Strain Detection in Wearable Sensory Applications
Gangaram Mandaloi Rewa Engineering College, India	Next-Gen ISF: Feature-Guided Deformation and Hybrid Machining Techniques
Jayakumar S Sri Manakula Vinayagar Engineering College, India	Enhancing the Mechanical Performance of Recycled Aggregate Concrete: The Synergistic Effects of Micro Titanium Dioxide and Steel Fibres
Nav Deepak Exide Energy Solutions Itd., India	Synergistic Interaction of Siloxene and Polyaniline Nanocomposite for High Performance Supercapacitor Electrodes
Neelam Rawat Uttarakhand Space Applications Centre (USAC), India	Naulas of Uttarakhand: Geo-Cultural Water Harvesting Structures as Sustainable Green Technologies in the Central Himalayas
Ruba Palanivelu SASTRA Deemed University, India	Effect of Fire and Cooling on RC Columns Strengthened using BFRP based BFEFC Materials
R. A. Kalaivani Vels Institute of Science Technology & Advanced Studies, India	Design and fabrication of Punica granatum peel-derived NSCQD/ Iron hexacyanoferrate ternary composite for simultaneous detection of ascorbic acid, uric acid, and resorcinol
M. Archana Annamalai University, India	Automatic Play-Field Analyzing and Player Tracking in Broadcast Tennis Video using Improved Kalman Filter
Pedda Naraiah Rairala Brilliant Institute of Engineering and Technology, India	GNSS Multipath Error Analysis Based on Improved CEEMDAN and Detrended Fluctuation Analysis
Avtar Singh Lovely Professional University, India	From Waste to Win: Assessing Biodegradable Sportswear's Role in Sustainability and Athlete Performance
K. Sushruth Samson Kumar Chaitanya Bharathi Institute of Technology, India	Co-Teacher - A Tool Used for Learning Using LLMs



Shubhangi Indian Institute of Technology (BHU), India	Smart Deployable Stacked MOFs as Environmental Pollutant Sensors
Sanjay Kumar S M SJB Institute of Technology, India	Thermal Analysis of Aluminium Graphite Composite Heatsink
Aditya Agrawal Prestige Institute of Engineering Management & Research Indore, India	Enhancing Recycled Concrete Aggregate (RCA) Concrete Performance Using Jute Fiber as a Sustainable Reinforcement
Subhranil Das UPES, Dehradun, India	Advancements in Face Recognition Using Deep Learning Techniques: Methods and Advantages
Sanjay Kumar S M SJB Institute of Technology, India	Thermal Analysis of Aluminium Graphite Composite Heatsink
Dawood Ahmed Desai Tshwane University of Technology	Prediction of thermal bending and vibration of a bright steel turbine rotor
Ahmed Mourtada Elseman Central Metallurgical Research and Development Institute (CMRDI)	Sustainable Recycling of Spent Lead-Acid Batteries into Perovskite Thin Films via Inkjet Printing for Solar Energy
Hersh F Mahmood University of Halabja	Eco-Friendly Concrete Solutions the Role of Natural and Recycled Liquid Admixtures in Sustainable Construction
Susan Sharma Kathmandu University	Phytochemicals screening, antimicrobial activities and statistical validation of bioactive compounds of Morella rubra Sieb.et Zucc
Mohammad Eskandarinasab Siahkoohi Islamic Azad University	Quantum-Leap Decarbonization of Steel: SelfHealing Microstructures, Plasma Catalysis & Blockchain-Embedded Circularity
Kanhaiya Bhayana Thapar Institute of Engineering and Technology	Adverse Weather Object Detection Using Customized YOLO Models
Mann Elate Lea Mbassi Yves University of Yaounde	Positive effect of Cu2+ and Ca2+ on the thermostability of Bambara groundnut peroxidase A6, and its catalytic efficiency toward the oxidation of 3,3,5,5 -tetramethyl benzidine



Tesfaye Feyisa Adama Science and Technology University	Near Infrared Thermal Emitter Based On Nano Scale Grating Metamaterial For ThermoPhotovoltaic Power Generation
Habib Mohamad	Online and multi-objective trajectory
Tarbiat Modares University	planner for robotic systems

GLIMPSES INTO









GLIMPSES INTO



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HONORING DISTINGUISHED SPEAKERS



MEET THE PROFESSOR SESSIONS















YOUNG RESEARCHER SESSIONS























BOOK LAUNCHES











WE LOVE & SUPPORT

MATERIALS SCIENCE CONFERENCES



NETWORKING... CONFERENCING... FOSTERING

Attending a Conference isn't all about Learning and Networking

DISCOVERING

A right choice of conference destination is an important aspect of any international conference and keeping that in consideration, *Adv. Materials Science 2026* is scheduled in the Beautiful city "Rome'.

ROME

Rome, the capital of Italy, is a city steeped in history, culture, and architectural marvels. Often referred to as "The Eternal City," Rome seamlessly blends its ancient heritage with modern vibrancy, making it one of the most captivating destinations in the world

As the heart of the Roman Empire, Rome boasts an extraordinary past dating back over 2,500 years. Iconic landmarks such as the Colosseum, Pantheon, and Roman Forum stand as testaments to its glorious history. The Vatican City, an independent city-state within Rome, is the spiritual and administrative center of the Roman Catholic Church and home to St. Peter's Basilica and the Sistine Chapel, featuring Michelangelo's breathtaking frescoes.

Rome is a haven for art lovers, with world-renowned museums such as the Borghese Gallery and Capitoline Museums housing masterpieces by artists like Caravaggio, Raphael, and Bernini. The city's architecture reflects various periods, from classical Roman to Renaissance and Baroque styles.

Italian cuisine thrives in Rome, where traditional dishes like carbonara, cacio e pepe, amatriciana, and supplì (fried rice balls) are must-tries. The city's lively piazzas, such as Piazza Navona and Campo de' Fiori, offer a charming atmosphere filled with cafés, restaurants, and street performers.



Castel Sant'Angelo



Rome Pantheon



The Roman Colosseum



The Spanish Steps



Trevi Fountain



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