Mind Authors
INNOVATING MINDS FOR EXCELLENCE

10th World Congress on

MATERIALS SCIENCE AND ENGINEERING

Theme:

"Accelerating Industrial and Societal Transformation through Innovations in Materials Science and Engineering"



Dates:
November 9 & 10, 2026 (In-Person at Hong Kong)

Venue:
Park Hotel Hong Kong

Mat Science 2026
https://materialsscience.mindauthors.com/

DAY 1

DAY 1 Monday November 09, 2026

08:15 - 08:45 Onsite Registration & Seating Arrangement

08:45 - 09:15 Introduction & Opening Ceremony

Plenary Presentation

09:15 - 09:45 **Prof. Claudia Letizia Bianchi** University of Milan, Italy
Title: *From Nanopowders to Floating Photocatalytic Platforms: Nanomaterial Design for Solar-Driven Wastewater Treatment*

09:45 - 10:15 **Prof. Jianghua Shen** Northwestern Polytechnical University, China
Title: *Oxygen and Interstitial Engineering for Next-Generation High-Performance Titanium Alloys*

Keynote Presentation

10:15 - 10:45 **Prof. Yiyuan Yang** National University of Singapore, Singapore
Title: *New Opportunities in Treatment of Neurodegenerative Diseases Enabled by Flexible Optogenetic Devices*

10:45 - 11:15 **Prof. Kwun Nam Hui** University of Macau, China
Title: *From Materials to Mechanisms: A Unified Framework for Lithium–Sulfur Battery Catalysis*

Refreshment & Coffee (11:15 - 11:35)

Keynote Presentation Cont.....

11:35 - 12:05 **Prof. James Wang** Nanyang Technological University, Singapore
Title: *Successful Flight Testing of a 3D-Printed, 3-Meter Wingspan, 25-Kilogram VTOL Unmanned Aircraft*

12:05 - 12:35 **Prof. Olivier Bonnaud** University of Rennes & GIP-CNFM, France
Title: *The Challenges in Nanotechnology and Materials Science To Deal With Energy Consumption and the Sustainability of Information Technology Hardware*

12:35 - 13:05 **Dr. Yumei Wang** National University of Singapore Chongqing Research Institute, China
Title: *Interfacial Design: Advanced Polymer Composite Electrolytes for Stable Solid-State Batteries*

Oral Presentation

13:05 - 13:30 **Prof. Anders Gustafsson** INA, SUSTech, China and Solid State Physics, Lund University, Sweden
Title: *Micron-Sized III-Nitride Platelets studied by Hyperspectral and Time-Resolved Cathodoluminescence*

Memorable Group Photo & Tempting Buffet lunch (13:30 – 14:15)

Oral Presentation Cont.....

14:15 - 14:40 **Mr. Qixin Shen** Zhejiang University, China
Title: *Formation Mechanisms of Continuous Gradients in Cu-Ag Alloys Under Hypergravity Solidification*

14:40 - 15:05 **Dr. Haiyang Li** Beijing Institute of Technology, China
Title: *Ductilizing a Low-Density Refractory High-Entropy Alloy via Precipitate-Mediated Deformation Mode Transition*

15:05 - 15:30 **Dr. Yue Ma** Northwestern Polytechnical University, China
Title: *Synergistic Regulation of Hydrogenation/Dehydrogenation Kinetics by in Situ Mg_2Ni and Ndh_2 in Mg-Ni-Nd Alloys*

15:30 - 15:55 **Prof. Javier Mendez** Materials Science Institute of Madrid, Spain
Title: *Physicochemical Processes of Organic Molecules on Surfaces: An STM Study From Self-Assembly to On-Surface Chemistry*

15:55 - 16:20 **Prof. Ping (Peter) ZHANG** University of Macau, Macau SAR
Title: *Engineering Functional Membranes with Scale Inhibitor Nanomaterials for Sustainable Water Treatment*

Refreshment & Coffee (16:20 - 16:40)

Oral Presentation Cont.....

16:40 - 17:05 **Prof. Haomin Song** University of Macau, China
Title: *Planar Nanocavity-Enabled 2D-Perovskite Photodetectors: High-Speed, Self-Powered Operation with Exceptional Ambient Stability*

17:05 - 17:30 **Ms. Yidie Tan** Zhejiang University, China
Title: *Extreme-Temperature Oxidation Behavior of Nickel-Based Superalloys up to 1345 °C and the Magnetic Properties of Their Oxide Layers*

17:30 - 17:55 **Mr. Kai Li** Zhejiang University, China
Title: *Hypergravity-Induced Solute Redistribution and $Al_{11}Ce_3$/α-Al Eutectic Evolution in a Hypoeutectic Al-Ce Alloy*

******End of Day 1 Conference*****

DAY 2

DAY 2 Tuesday November 10, 2026

08:30 - 09:00	Onsite Registration & Seating Arrangement

Plenary Presentation

09:00 - 09:30	**Dr. Hugo Perez-Garza** DENSsolutions BV, Netherlands ***Title:*** *A Modular Mems Ecosystem Enabling Correlative in Situ Microscopy Across Different Platforms, Length Scales, and Environments*
09:30 - 10:00	**Prof. Denvid Lau** City University of Hong Kong, Hong Kong ***Title:*** *Ai-Assisted Material Modeling for Advanced Cementitious Composites*

Refreshment & Coffee (10:00 - 10:20)

Keynote Presentation

10:20 - 10:50	**Prof. Joon Myong Song** Seoul National University, South Korea ***Title:*** *Revolutionizing Drug Delivery of Liposomal Nanoparticles Using Low-Intensity Pulsed Ultrasound*
10:50 - 11:20	**Prof. Hendrik Heinz** University of Colorado Boulder, USA ***Title:*** *Integrating Simulation, Experiment, and AI to Understand Biomolecular Recognition and Nanostructure Assembly*
11:20 - 11:50	**Prof. Dae Dong Sung** Korea University, South Korea ***Title:*** *Mechanisms of Cellular Therapeutic Responses to Drugs for Chronic Diseases*
11:50 - 12:20	**Prof. Federica Fernandez** University of Palermo, Italy ***Title:*** *Nanotechnology in Architecture: Advanced Materials for Low-Impact and Durable Sustainable Design*
12:20 - 12:50	**Prof. Cheng-Te Lin** Ningbo Institute of Materials Technology and Engineering (NIMTE), Chinese Academy of Sciences ***Title:*** *Next-Generation Thermal Management Materials for High-Power AI Chips and Server Electronics*
12:50 - 13:20	**Prof. Yongmei Zheng** Beihang University, China ***Title:*** *Bioinspired Surfaces and Materials for Liquid Motion Control and Water Capture*

Memorable Group Photo & Tempting Buffet lunch (13:20 - 14:10)

Keynote Presentation Cont.....

14:10 - 14:40	**Prof. Lin Wang** Nanjing Tech University, China ***Title:*** *Intelligent Iodide-Based Two-Dimensional Semiconductors for Next-Generation Optoelectronics*
14:40 - 15:10	**Prof. Alois K. Schlarb** RPTU Kaiserslautern-Landau, Germany ***Title:*** *Microfibrillar Composites (MFC) 3.0: Manufacturing, Opportunities, and Challenges*
15:10 - 15:40	**Prof. Ge Wang** University of Science and Technology Beijing, China ***Title:*** *LLM-Driven Discovery of Metal–Organic Frameworks: From Inverse Design to Synthesis Optimization*

Oral Presentation

15:40 - 16:05	**Prof. Win-long Chia** Fu Jen Catholic University, Department of Chemistry, Taiwan ***Title:*** *OLED, The Future Display*
16:05 - 16:30	**Ms. Xu Mingzhen** University of Electronic Science and Technology of China, China ***Title:*** *Design and Construction of Multifunctional Nanomaterial Fillers for Thermal Management, Flame Retardancy, and Electromagnetic Wave Absorption*

Refreshment & Coffee (16:30 - 16:50)

Oral Presentation Cont.....

16:50 - 17:15 — **Dr. Yan li** Taiyuan University of Technology, China
Title: *Structural Evolution and Catalytic Performance of Silica-supported Copper Nanocatalysts for Green Methanol Dehydrogenation to Methyl Formate*

Group Presentation

17:15 - 17:45 — **Dr. Xiaofeng Qin & Mr. Jiangnan Zhu** Taiyuan University of Technology, China
Title: *Microstructural Response to Local Stress Fields in the Vicinity of Rolling Contact Fatigue Cracks in Cr5 Steel*

Poster Presentation (17:45 - 18:25)

ANS 261 — **Prof. Yang Zhao** Central South University, China
Title: *Key Factors for Enhancing the Service Performance of Al-Mg-Si Alloy Conductors via Tailoring the Composition and Microstructure of Strengthening Phases in Nano-scale*

ICMSEAR 261 — **Prof. Jan Fořt** Czech Technical University in Prague, Czechia
Title: *Waste Materials as a Sustainable Medium for High-Temperature Thermal Energy Storage*

ICMSEAR 262 — **Dr. Petr Hotěk** Czech Technical University in Prague, Czech Republic
Title: *Performance and Environmental Optimization of Alkali-Activated Slag Binders*

ICMSEAR 263 — **Dr. Martin Mildner** Czech Technical University in Prague, Czech Republic
Title: *Upcycling Recycled Brick Powder into Alkali Activated Binders*

ANS 262 — **Mr. Shicong Gao** Xiamen University, China
Title: *Dual-MembranePerturbation Amplifies Ferroptosis-Driven Antitumor Immunity*

****End of the 2 Conference****


DAY 3

DAY 3 Wednesday November 11, 2026

06:00 - 06:20 Introduction & Opening Ceremony — GMT(Greenwich Mean Time)

Keynote Presentation

06:20 - 06:50 **Prof. Yoshiyuki Kawazoe** New Industry Creation Hatchery Center, Tohoku University, Japan
Title: *Ultimate Molecular Dynamics*

06:50 - 07:20 **Prof. Dou Zhang** Harbin Institute of Technology, China
Title: *Mechanics of Fiber Microbuckling in Shape Memory Polymer Composites*

07:20 - 07:50 **Prof. Takashi Saito** Health Sciences University of Hokkaido, Japan
Title: *From Bond Strength to Biofunction: Interfacial Mineralization and Antibacterial Effects of a Calcium Salt–Functionalized Adhesive*

07:50 - 08:20 **Prof. Wang Jiangtao** Peking University, China
Title: *Synthesis, Integration and Application of Low-Dimensional Materials*

Poster Presentation

08:20 - 08:30 **Prof. Sang-Hyeon Im** Dong-Eui University, Republic of Korea
Title: *Comparison of Magnetic Hysteresis Characteristics of SS400 and HY80 Steels*

08:30 - 08:40 **Prof. Sang-Hyeon Im** Dong-Eui University, Republic of Korea
Title: *Influence of Ship Model Configuration on Magnetic Field Distribution: A Numerical Study*

Oral Presentation

08:40 - 09:05 **Prof. Wenliang Wang** South China University of Technology, China
Title: *Gan Hetero-Epitaxial Materials and Devices*

Plenary Presentation

09:05 - 09:45 **Prof. Sonia P. M. Ventura** University of Aveiro, Portugal
Title: *From Blue Biorefinery Processes to Bioactive-Driven Sustainable Biomaterials*

Eye Relaxation Break 09:45 - 10:00 GMT (Greenwich Mean Time)

Oral Presentation

10:00 - 10:25 **Dr. Giuseppe Forte** University of Catania, Italy
Title: *Computational Study of Structure–Property Relationships in Graphene-Like Models of Photoactive Carbon Nanomaterials*

Plenary Presentation

10:25 - 11:05 **Prof. Lim Way Foong** Universiti Sains Malaysia, Malaysia
Title: *Rare Earth Oxide High-K Dielectrics: Tb4O7 for Next-Generation Power Device Passivation*

Keynote Presentation

11:05 - 11:35 **Mr. Albin Kaelin, CEO** epeaswitzerland gmbh, Switzerland
Title: *Cradle to Cradle Design Innovations*

11:35 - 12:05 **Prof. Kriveshini Pillay** University of Johannesburg, South Africa
Title: *Heavy-Metal Loaded Nanocomposites as Novel Photocatalysts for the Degradation of Organic Pollutants*

12:05 - 12:35 **Prof. Eugene Stephane Mananga** The City University of New York and New York University, USA
Title: *Electrochemical Transformations of 2-Propanol in Aqueous Solutions Using the Cosmo Solvation Model*

12:35 - 13:05 **Prof. Kenji Uchino** The Pennsylvania State University, USA
Title: *Common Misconceptions of Piezoelectric Researchers*

Oral Presentation

13:05 - 13:30	**Dr. Alfred Hagemeyer** Alva Consulting, USA ***Title:*** *Zirconia-Bound Zirconia, Titania, Ceria Extrudates*
13:30 - 13:55	**Prof. Vladimir Sobolev** South Dakota School of Mines & Technology, USA ***Title:*** *Enhancement of Piezoelectric Properties of Perovskite Solid Solutions via Control of Ordering Process*
13:55 - 14:20	**Mr. Vojtech Smola** Czech Technical University in Prague, Czech Republic ***Title:*** *Effects of Argon Ion Bombardment on the Surface Properties of Titanium and Ti-Nb Alloys*

******End of the 3 Conference******

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