

4th Global Conference on

MATERIALS SCIENCE & ENGINEERING

February 26-27, 2026

Ambassador Hotel, Bangkok, Thailand

@ Room Garden 3

Materials World 2026

<https://materialsworld.scientifink.com/>

SCIENTIFIC PROGRAM

Day-1

Day-1 February 26, 2026

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

09:30 - 10:00 Introduction & Open Ceremony

Time	Name & Affiliation	Title
Plenary Presentations		

10:00 - 10:35	Prof. Giovanni Perillo <i>University of Naples Parthenope, Italy</i>	Development of New Materials: Innovation and Future Perspectives
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10:35 - 11:10	Prof. Yen-Ho Chu <i>National Chung Cheng University, Taiwan</i>	Smart Ionic Liquid Materials
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11:10 - 11:30 Refreshment & Coffee

Keynote Presentations

11:30 - 12:00	Prof. Hyunjung Shin <i>Sungkyunkwan University, Korea</i>	Centrosymmetry Breaking in α-FAPbI₃ Films with Highly Oriented Grains for Perovskite Solar Cells
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12:00 - 12:30	Prof. Kimihisa YAMAMOTO <i>Institute of Science Tokyo, Japan</i>	Synthesis of multi-metallic nanoparticles using a dendrimer reactor
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12:30 - 13:00	Prof. Byungchan Han <i>Yonsei University, South Korea</i>	Design of efficient eco-materials for electrochemical conversion and storage systems using integrated platform of the first-principles calculations and machine learning techniques
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13:00 - 13:30	Dr. Marina Aghayan <i>A.B. Nalbandyan Institute of Chemical Physics NASRA, Armenia</i>	A.B. Nalbandyan Institute of Chemical Physics NASRA, Armenia
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Memorable Group Photo & Selfie

13:30 - 14:15 Tempting Buffet Lunch & Photo Session

Oral Presentations

14:15 - 14:35	Prof. David Chapelle <i>Marie and Louis Pasteur University, France</i>	Hydrogen storage on metallic materials: technology, maturity, state of the art and challenges
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14:35 - 14:55	Dr. Hak-Min Kim <i>Dongseo University, Korea</i>	Role of Yolk-Shell ZnCo₂O₄ Spinel Catalysts in the Water-Gas Shift Reaction of Waste-Derived Syngas
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14:55 - 15:15	Naiara Poli Veneziani Sebbe <i>ISEP - Polytechnic of Porto, Portugal</i>	Wear behaviour study of TaC-coated tools in milling of CFRP/Al/CFRP stacks
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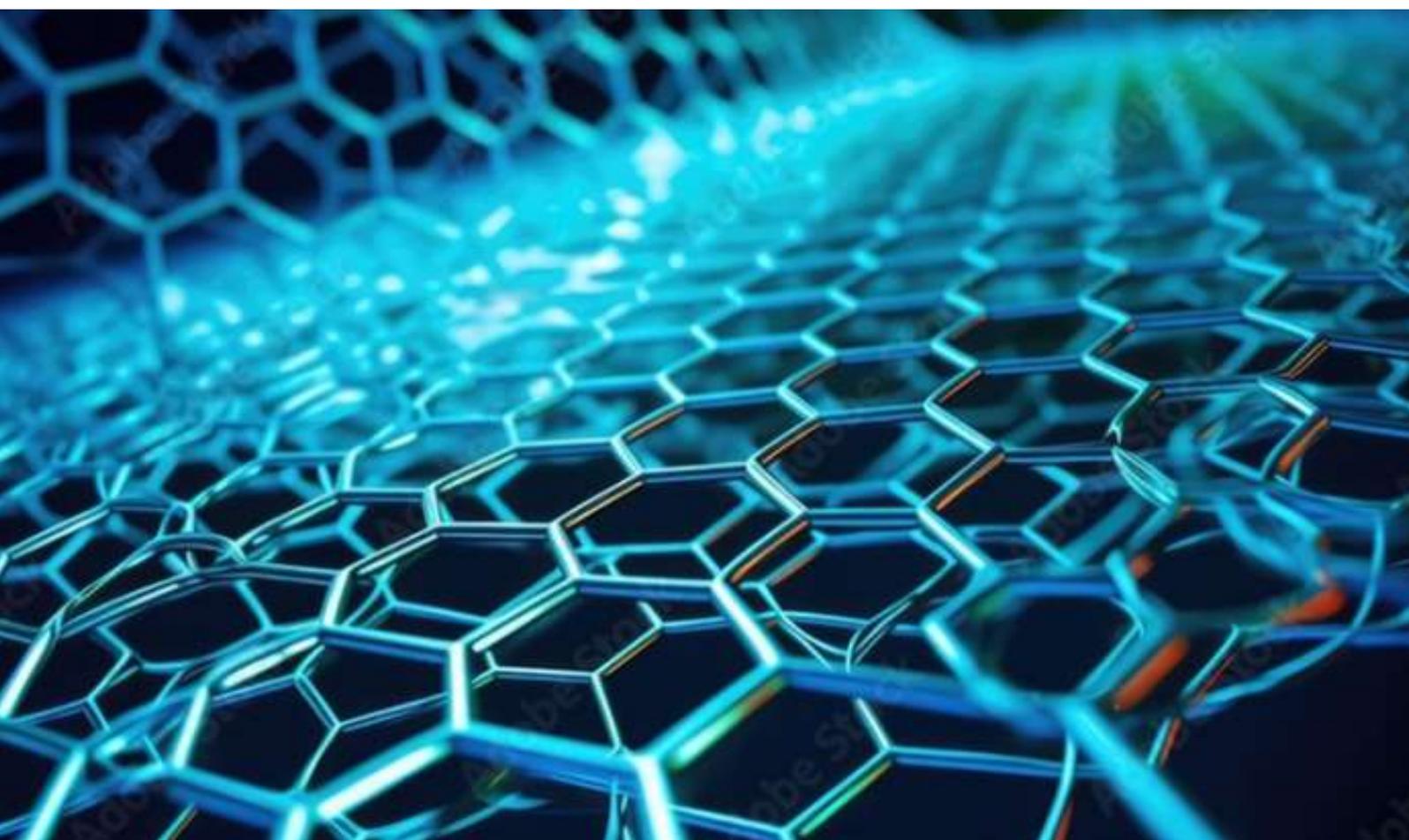
15:15 - 15:35	Dr. Yishay Feldman <i>Weizmann Institute of Science, Israel</i>	From ordered layers to fullerene-like nanoparticles: Insights from X-RAY diffraction
15:35 - 15:55	Prof. Hiroyuki Aoki <i>High Energy Accelerator Research Organization, Japan</i>	Structure and dynamics in ultra-thin films of poly(alkyl methacrylate) prepared by spin-coating method

15:55 - 16:15 Refreshment & Coffee

Oral Presentations Cont..

16:15 - 16:35	Prof. Ghada Mohamed Taha Ibrahim <i>National Research Centre, Egypt</i>	Fabrication, characterization, and evaluation of guar gum-Grafted tannic acid based polymer composite for the removal of Pb(II) from wastewater
16:35 - 16:55	Beata Wodecka-Dus <i>University of Silesia, Poland</i>	Synthesis, microstructural evolution and dielectric properties of BLT ceramics modified with a special glass admixture
16:55 - 17:15	Jolanta Makowska <i>University of Silesia, Poland</i>	Influence of Zr⁴⁺ substitution on the functional properties of Ba(Zr_xTi_{1-x})O₃ ceramics
17:15 - 17:35	Ermin Riskiani <i>Gadjah Mada University, Indonesia</i>	Recent progress in magnetic adsorbents for cationic dye removal: A systematic review
17:35 - 17:55	Dr. Hans Ågren <i>Uppsala university, sweden</i>	Ultrafine nanoparticle plasmonics

*** End of Day 1 Conference ***



SCIENTIFIC PROGRAM

Day-2

Day-2 February 27, 2026

09:30 - 10:00 Onsite Registration & Seating Arrangement

Time	Name & Affiliation	Title
Plenary Presentations		
10:00 - 10:35	Prof. Vladimir A. Levchenko <i>Taizhou University, China</i>	The impact of artificial intelligence on vacuum coating production: an analysis of state-of-the-art wear-resistant materials
10:35 - 11:10	Prof. Richard Spontak <i>North Carolina State University, USA</i>	Water-activated polymers to address global challenges in the healthcare, energy and environment sectors
11:10 - 11:30 Refreshment & Coffee		
Keynote Presentations		
11:30 - 12:00	Prof. Tohru Higuchi <i>Tokyo University of Science, Japan</i>	All-Solid-State electric double layer transistor with high switching response speed by interface control
12:00 - 12:30	Prof. Eunsang Kwon <i>Tohoku University, Japan</i>	Investigating the structure and potential applications of metal-ion endohedral [C60] fullerenes
12:30 - 13:00	Prof. Nicola Daldosso <i>University of Verona, Italy</i>	Porous silicon as a multimodal platform for nano-theranostics
Memorable Group Photo & Selfie		
13:00 - 13:40 - Tempting Buffet Lunch & Photo Session		
Keynote Presentations		
13:40 - 14:10	Dr. Tomohiro Nobeyama <i>Kyoto University, Japan</i>	Gold nano-butterfly development toward the regulation of biological condensates
14:10 - 14:40	Dr. Olivier BONNAUD <i>University of Rennes, France</i>	The future of higher education in microelectronics and nanotechnology in the evolving digital world
Oral Presentations		
14:40 - 15:00	Benjamin P Burton <i>National Institute of Standards and Technology (NIST), USA</i>	First Principles Studies of the Bulk 3D- and 2D-Mo(S1-XTeX)2 TMD-Alloy: Adsorbed on Sapphire, or Graphite, or Sandwiched Between Layers of Graphene
15:00 - 15:20	Dr. Mark R. Hoffmann <i>University of North Dakota, Grand Forks, ND, USA</i>	Comparison of DFT functionals for computing energies and dipole moments of various amino acids

15:20 - 15:40	Prof. Zhongsheng Guo <i>Northwestern A & F University, China</i>	Photovoltaic sand control
15:40 - 16:00	Prof. Marek Hebda <i>Cracow University of Technology, Poland</i>	Sustainable cu-based composite powders for additive manufacturing of advanced materials
16:00 - 16:20	Prof. Halima Alem <i>Universite Lorraine, France</i>	PDAC-on-Chip MODEL : 3D assembly vs 3D bioprinting

16:20 - 16:40 Refreshment and coffee

Keynote Presentations

16:40 - 17:10	Prof. Rajendra K. Singh <i>Dankook University, South Korea</i>	Nanomaterials-layered biopolymer scaffolds for tissue engineering
17:10 - 17:40	Prof. Amir Saar <i>Hebrew University of Jerusalem, Israel</i>	From laser-based digital printing of silicon nanostructures to printed nano- transistors up to digitally-printed integrated electronic circuits

Poster Presentations(17:40 - 18:20)

MW01	Prof. Lyne St-Georges <i>University of Quebec in Chicoutimi, Canada</i>	Friction stir welding: a tool for improving the mechanical behavior and life of aluminum structures
MW02	Dr. Awais Akhtar <i>The Hong Kong Polytechnic University, Hong Kong, China</i>	Characterization of Ru-Pt multilayer coatings: A study on their microstructure for glass molding applications
NV01	Shreyas Kumar Jain <i>Dankook University, South Korea</i>	Topography-mediated enhancement of nanoparticle-doped extracellular vesicle for skeletal muscle therapeutics
NV02	Suparna Bhattacharya <i>Dankook University, South Korea</i>	Cationic antioxidant nanoparticles for controlling inflammatory diseases through dual scavenging of ROS and Cell-Free DNA
MW03	Dong Hwan Son <i>Pukyong National University, South Korea</i>	Charge transport and stability mechanisms in non-halogenated phenothiazine SAMs for 19.7% ORGANIC SOLAR CELLS
MW04	Kyeongmin Baek <i>Seoul National University, South Korea</i>	Selective ammonia oxidation over Pt-Cu/ZSM-5 catalysts prepared by ball-milling
MW05	Hyun Jeong Song <i>Seoul National University, South Korea</i>	Nitrous oxide reduction over Pd/CeO catalysts by H₂-SCR
MW06	Yewon Kim <i>Seoul National University, South Korea</i>	CFD model validation for hazardous gas management in semiconductor manufacturing

***** End of Day 2 Conference *****

SCIENTIFIC PROGRAM

Day-3

07:50 - 08:00 Opening and Introduction

Time	Name & Affiliation	Title
Plenary Presentations		

08:00 - 08:30	Dr. Benigno Rodríguez Díaz <i>Universidad de la República, Uruguay</i>	Saving energy by using nontraditional materials and complementary techniques in antenna development
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08:30 - 09:00	Dr. M. A. martin Luengo <i>Institute of Materials Science of Madrid, Spain</i>	From thrush to treasure. Circular economy to fight climate change
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Keynote Presentations

09:00 - 09:30	Mr. Gunther Van Kerckhove <i>OCSiAl Europe Sarl, Luxembourg</i>	Importance of exposure assessment along life cycle of nanocomposites
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09:30 - 10:00	Prof. Mehmet Odabaşı <i>Aksaray University, Turkey</i>	Preparation, characterization and applications of newly generated peptide-based nanomaterials
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10:00 - 10:30	Dr. Anna leo <i>University of salerno, Italy</i>	Fast Quantum-Mechanical Predictions of Radiative and Non-Radiative Rates in Organic Optoelectronics
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10:30 - 11:00	Raman Singh <i>Monash University, Australia</i>	Pristine Graphene Coatings on Metals: A Disruptive Approach to Remarkable and Durable Corrosion Resistance
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11:00 - 11:30	Thomas J. Webster <i>Hebei University of Technology, China</i>	30,000 Nano Implants in Human with No Failures...And Still Counting
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11:30- 11:50 (Eye Relaxation Break & Breakout Rooms - Greenwich mean Time)

Oral Presentations

11:50-12:15	Prof. Yi Zheng <i>University of Sherbrooke, canada</i>	Nanomedicine: Role of low-energy electrons in targeted cancer radiotherapy
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12:15-12:40	Dr. Nini Rose Mathews <i>Institute of Renewable Energy, UNAM, Mexico</i>	AgSbS₂ thin films derived from stoichiometric nanoparticles synthesized via a solvothermal process and the photodetector properties
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12:40-13:05	Prof. Orchidea Maria Lecian <i>Sapienza University of Rome, Italy</i>	Statistical analyses of heterogeneous data sets
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13:05-13:30	Prof. V.G. Plekhanov <i>Fonoriton Sci. Lab., Garon Ltd., Estonia</i>	Isotope - Based Materials Science
13:30-13:55	Prof. Vladimir Chigrinov <i>Hong Kong University of Science and Technology, Hong Kong</i>	Liquid crystal photolainment on azodye nanolayers: new nanotechnology for liquid crystal display and photonics devices

13:55 - 14:15 (Eye Relaxation Break & Breakout Rooms - Greenwich Mean Time)

Oral Presentations Cont..

14:15-14:40	Dr. Osman Adiguzel <i>Firat University, Elazig, Turkey</i>	Reversible characteristics and crystallographic transformations in shape memory alloys
14:40-15:05	Prof. Raymond C Jagessar <i>University of Guyana, Guyana</i>	Nanocarriers advancing nanotechnology
15:05-15:30	Damla DUMLU <i>Eskişehir Technical University, Türkiye</i>	Microwave-Assisted Synthesis of MOF-74 Framework

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





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