

4<sup>th</sup> Global Conference on

# MATERIALS SCIENCE & ENGINEERING

**February 26-27, 2026**

**Ambassador Hotel, Bangkok, Thailand**

# 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	<b>Prof. Giovanni Perillo</b> <i>University of Naples Parthenope, Italy</i> Title: <i>Development of New Materials: Innovation and Future Perspectives</i>	<b>Saving energy by using nontraditional materials and complementary techniques in antenna development</b>
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10:35 - 11:10	<b>Prof. Yen-Ho Chu</b> <i>National Chung Cheng University, Taiwan</i>	<b>Smart Ionic Liquid Materials</b>
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11:10 - 11:30 Refreshment & Coffee

Keynote Presentations		
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11:30 - 12:00	<b>Prof. Hyunjung Shin</b> <i>Sungkyunkwan University, Korea</i> Title: <i>Centrosymmetry breaking in a-FAPbI<sub>3</sub> films with highly oriented grains for perovskite solar cells</i>	<b>Development of New Materials: Innovation and Future Perspectives</b>
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12:00 - 12:30	<b>Prof. Kimihisa YAMAMOTO</b> <i>Institute of Science Tokyo, Japan</i>	<b>Synthesis of multi-metallic nanoparticles using a dendrimer reactor</b>
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12:30 - 13:00	<b>Prof. Byungchan Han</b> <i>Yonsei University, South Korea</i>	<b>Design of efficient eco-materials for electrochemical conversion and storage systems using integrated platform of the first-principles calculations and machine learning techniques</b>
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13:00 - 13:30	<b>Dr. Marina Aghayan</b> <i>A.B. Nalbandyan Institute of Chemical Physics NASRA, Armenia</i>	<b>A.B. Nalbandyan Institute of Chemical Physics NASRA, Armenia</b>
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Memorable Group Photo & Selfie

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

Oral Presentations		
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14:15 - 14:35	<b>Prof. David Chapelle</b> <i>Université Marie et Louis Pasteur, France</i>	<b>Hydrogen storage on metallic materials: technology, maturity, state of the art and challenges</b>
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14:35 - 14:55	<b>Dr. Hak-Min Kim</b> <i>Donaseo University, Korea</i>	<b>Role of Yolk-Shell ZnCo<sub>2</sub>O<sub>4</sub> Spinel Catalysts in the Water-Gas Shift Reaction of Water Derived CO</b>
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14:55 - 15:15	<b>Naiara Poli Veneziani Sebbe</b> <i>ISEP - Polytechnic of Porto, Portugal</i>	<b>Wear behaviour study of TaC-coated tools in milling of CFRP/Al/CFRP stacks</b>
15:15 - 15:35	<b>Dr. Yishay Feldman</b> <i>Weizmann Institute of Science, Israel</i>	<b>From ordered layers to fullerene-like nanoparticles: Insights from X-RAY diffraction</b>
15:35 - 15:55	<b>Prof. Hiroyuki Aoki</b> <i>High Energy Accelerator Research Organization, Japan</i>	<b>Structure and dynamics in ultra-thin films of poly(alkyl methacrylate) prepared by spin-coating method</b>

**15:55 - 16:15 Refreshment & Coffee**

**Oral Presentations Cont..**

16:15 - 16:35	<b>Prof. Ghada Mohamed Taha Ibrahim</b> <i>National Research Centre, Egypt</i>	<b>Fabrication, characterization, and evaluation of guar gum-Grafted tannic acid based polymer composite for the removal of Pb(II) from wastewater</b>
16:35 - 16:55	<b>Beata Wodecka-Dus</b> <i>University of Silesia, Poland</i>	<b>Synthesis, microstructural evolution and dielectric properties of BLT ceramics modified with a special glass admixture</b>
16:55 - 17:15	<b>Jolanta Makowska</b> <i>University of Silesia, Poland</i>	<b>Influence of Zr<sup>4+</sup> substitution on the functional properties of Ba(ZrxTi<sub>1-x</sub>)O<sub>3</sub> ceramics</b>
17:15 - 17:35	<b>Ermin Riskiani</b> <i>Gadjah Mada University, Indonesia</i>	<b>Recent progress in magnetic adsorbents for cationic dye removal: A systematic review</b>
17:35 - 17:55	<b>Dr. Hans Ågren</b> <i>Uppsala university, sweden</i>	<b>Ultrafine nanoparticle plasmonics</b>

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

# Day-2 February 27, 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. Vladimir A. Levchenko**  
*Taizhou University, China*  
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**  
*North Carolina State University, USA*  
Water-activated polymers to address global challenges in the healthcare, energy and environment sectors

11:10 - 11:30 Refreshment & Coffee

Keynote Presentations		
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11:30 - 12:00 **Prof. Tohru Higuchi**  
*Tokyo University of Science, Japan*  
All-Solid-State electric double layer transistor with high switching response speed by interface control

12:00 - 12:30 **Prof. Eunsang Kwon**  
*Tohoku University, Japan*  
Investigating the structure and potential applications of metal-ion endohedral [C60] fullerenes

12:30 - 13:00 **Prof. Nicola Daldosso**  
*University of Verona, Italy*  
Porous silicon as a multimodal platform for nano-theranostics

Memorable Group Photo & Selfie

13:00 - 13:40 - Tempting Buffet Lunch & Photo Session

Keynote Presentations		
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13:40 - 14:10 **Dr. Tomohiro Nobeyama**  
*Kyoto University, Japan*  
Gold nano-butterfly development toward the regulation of biological condensates

14:10 - 14:40 **Dr. Olivier BONNAUD**  
*University of Rennes, France*  
The future of higher education in microelectronics and nanotechnology in the evolving digital world

Oral Presentations		
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14:40 - 15:00 **Benjamin P Burton**  
*National Institute of Standards and Technology (NIST), USA*  
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**  
*University of North Dakota, Grand Forks, ND, USA*  
Comparison of DFT functionals for computing energies and dipole moments of various amino acids

15:20 - 15:40	<b>Prof. Zhongsheng Guo</b> <i>Northwestern A &amp; F University, China</i>	Photovoltaic sand control
15:40 - 16:00	<b>Prof. Marek Hebda</b> <i>Cracow University of Technology, Poland</i>	Sustainable cu-based composite powders for additive manufacturing of advanced materials
16:00 - 16:20	<b>Prof. Halima Alem</b> <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	<b>Prof. Rajendra K. Singh</b> <i>Dankook University, South Korea</i>	Nanomaterials-layered biopolymer scaffolds for tissue engineering
17:10 - 17:40	<b>Prof. Amir Saar</b> <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

	<b>Prof. Lyne St-Georges</b> <i>University of Quebec in Chicoutimi, Canada</i>	Characterization of Ru-Pt multilayer coatings: A study on their microstructure for glass molding applications
	<b>Dr. Awais Akhtar</b> <i>The Hong Kong Polytechnic University, Hong Kong, China</i>	Friction stir welding: a tool for improving the mechanical behavior and life of aluminum structures
	<b>Shreyas Kumar Jain</b> <i>Dankook University, South Korea</i>	Topography-mediated enhancement of nanoparticle-doped extracellular vesicle for skeletal muscle therapeutics
	<b>Suparna Bhattacharya</b> <i>Dankook University, South Korea</i>	Cationic antioxidant nanoparticles for controlling inflammatory diseases through dual scavenging of ROS and Cell-Free DNA
17:40- 18:20	<b>Dong Hwan Son</b> <i>Pukyong National University South Korea</i>	Strategic engineering of carbazole-based self-assembled monolayers to simultaneously improve efficiency and Light-Induced stability in organic solar cells
	<b>Kyeongmin Baek</b> <i>Seoul National University South Korea</i>	Selective ammonia oxidation over Pt-Cu/ZSM-5 catalysts prepared by ball-milling
	<b>Hyun Jeong Song</b> <i>Seoul National University, South Korea</i>	Nitrous oxide reduction over Pd/CeO catalysts by H <sub>2</sub> -SCR
	<b>Yewon Kim</b> <i>Seoul National University, South Korea</i>	CFD model validation for hazardous gas management in semiconductor manufacturing

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

# Day-3 February 28, 2026 (Greenwich Mean Time)

07:50 - 08:00 Opening and Introduction

Time	Name & Affiliation	Title
Plenary Presentations		

08:00 - 08:30	<b>Dr. Benigno Rodríguez Díaz</b> Universidad de la República, Uruguay	<b>Saving energy by using nontraditional materials and complementary techniques in antenna development</b>
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08:30 - 09:00	<b>Dr. M. A. martin Luengo</b> <i>Institute of Materials Science of Madrid, Spain</i>	<b>From thrush to treasure. Circular economy to fight climate change</b>
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Keynote Presentations		
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09:00 - 09:30	<b>Mr. Gunther Van Kerckhove</b> OCSiAl Europe Sarl, Luxembourg	<b>Importance of exposure assessment along life cycle of nanocomposites</b>
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09:30 - 10:00	<b>Prof. Mehmet Odabaşı</b> Aksaray University, Turkey	<b>Preparation, characterization and applicationsof newly generated peptide-based nanomaterials</b>
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10:00 - 10:30	<b>Dr. Anna leo</b> University of salerno , Italy	<b>Fast Quantum-Mechanical Predictions of Radiative and Non-Radiative Rates in Organic Optoelectronics</b>
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10:30 - 11:00	<b>Raman Singh</b> Monash University, Australia	<b>Pristine Graphene Coatings on Metals: A Disruptive Approach to Remarkable and Durable Corrosion Resistance</b>
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11:00 - 11:30	<b>Thomas J. Webster</b> Hebei University of Technology, China	<b>30,000 Nano Implants in Human with No Failures...And Still Counting</b>
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11:30 - 11:50 (Eye Relaxation Break & Breakout Rooms - Greenwich mean Time)

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

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

**Oral Presentations Cont..**

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

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



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