

Plenary / Keynote				
October 26, Sunday	No.	Title (Room: The Lecture Hall. Chair(s): Jinn P. Chu / Jia-Hong Huang)	Presenter	Affiliation
14:00~14:50	H-I-131	Powering a Greener Future: MEA-based Green Hydrogen Production and Energy-Saving Hydrogen Production via Waste-to-Value Conversion	Jyh-Ming Ting	National Cheng Kung University
14:50~15:30	H-I-417	High-Entropy Ferroelectric/Piezoelectric Epitaxial Films	Ying-Hao Chu	National Tsing Hua University
October 27, Monday	No.	Title (Room: The Lecture Hall. Chair(s): Jenq-Gong Duh / Fu-Hsing Lu)	Presenter	Affiliation
09:00~09:40	H-I-82	Exploring Plasma Science through Thin Film Technology and Manufacturing Innovation	Masaru Hori	Nagoya University
09:40~10:20	H-I-166	Materials science-based guidelines to develop robust hard coatings	Paul Mayrhofer	TU Wien
October 28, Tuesday	No.	Title (Room: The Lecture Hall. Chair(s): Jyh-Wei Lee / Fan-Yi Ouyang)	Presenter	Affiliation
09:00~09:50	H-I-37	Discovery of Goldene Comprising Single-atom Layer Gold; Prospects for Novel Noble Metallenes	Lars Hultman	Linköping University
09:50~10:30	H-I-145	Coating Materials Design for Harsh Environments – Are Protective Coatings Predictable?	Jochen M. Schneider	RWTH Aachen University
October 29, Wednesday	No.	Title (Room: The Lecture Hall. Chair(s): Yin-Yu Chang / Ren-Jei Chung)	Presenter	Affiliation
09:00~09:40	H-I-192	Carbon-based nanocomposites	Sven Ulrich	Karlsruhe Institute of Technology
09:40~10:20	H-I-177	Surface modification for functions of biomolecule recognition for biomedical devices	Madoka Takai	The University of Tokyo

Symposium A. Coatings for Sustainable Energy				
October 26, Sunday	No. (A)	Title (Room: R304. Chair(s): Chen-Hao Wang)	Presenter	Affiliation
15:50-16:10	A-I-67	Electrochemical Reduction of Furfural on Copper Electrode Enhanced by Metal–Organic Framework Overlayer	Wen-Yueh Yu	National Taiwan University
16:10-16:30	A-I-137	Direct bonding between Single Atom Ag, PF3T nanocluster and TiO ₂ leads the Ultra-stable Visible-Light-Driven Photocatalytic H ₂ Production	Tsan-Yao Chen	National Tsing Hua University
16:30-16:45	A-O-262	Green Electrode Engineering for Vanadium Redox Flow Batteries using Atmospheric Pressure Plasma Jet-Deposited Bimetallic Co–Ni Oxide Catalysts	Ahmad Nur Riza	National Taiwan University of Science and Technology
16:45-17:00	A-O-301	Development of cost-efficient and impurity-free V ^{3,5+} electrolytic material for all vanadium redox flow battery	Hailegnaw Gizaw Workie	National Taiwan University of Science and Technology
17:00-17:20	A-I-509	Modification of fuel electrode for efficient co-electrolysis process	Piotr Jasiński	Gdańsk University of Technology

October 27, Monday	No. (A)	Title (Room: R304. Chair(s): Chih-Liang Wang)	Presenter	Affiliation
13:30-13:50	A-I-401	Advancing Hybrid Sn–Pb Perovskite Solar Cells via Interfacial Engineering, Crystal Growth Control, and Transport Layer Optimization	Chieh-Ting Lin	National Chung Hsing University
13:50-14:10	A-I-52	Tailoring the Lithium Deposition on Cu Substrate by a Functionalized-polysiloxane Layer	Fu Ming Wang	National Taiwan University of Science and Technology
14:10-14:25	A-O-81	Facile fabrication of Multilayer porous catalytic electrode using Plasma Electrolytic oxidation	Yu-Yang Chen	National Taipei University of Technology
14:25-14:40	A-O-129	Biochar-derived hard carbon anode coated with a nitrogen-doped carbon layer for high-performance lithium-ion batteries.	H.K Tseng	National Tsing Hua university
14:40-14:55	A-O-75	Perovskite Solar Cells Fabrication via Reuse of Recovered Lead Iodide	Jin-Wei Chang	National Chung Hsing University
14:55-15:10	A-O-80	Investigation of the Degradation Behavior of AlGaIn LEDs under Salt Spray Conditions Using Electrical and Material Characterization, with Novel Insights for Protective Circuit Design	Shao-Ruei Yang	National Chi Nan University

October 27, Monday	No. (A)	Title (Room: R304. Chair(s): Tzu-Ying Lin)	Presenter	Affiliation
15:30-15:50	A-I-121	Characterizing the Microstructure of Electrodeposited Mg Layers for Anode-Free Rechargeable Mg Batteries	Peng-Wei Chu	National Tsing Hua University
15:50-16:10	A-I-353	Engineering Heterogeneous Electrode Coating to Enhance Proton Exchange Membrane Water Electrolyzer Performance	Patcharawat Charoen-amornkitt	King Mongkut's University of Technology Thonburi
16:10-16:30	A-I-506	Oxidation of Silver and Rhodium Surfaces	Daniel R. Killelea	Loyola University Chicago
16:30-16:45	A-O-245	Defect-engineered copper-based materials for electrocatalytic nitrate reduction	Ting- Chun Hung	National Cheng Kung University
16:45-17:00	A-O-303	Non-Precious Metal Alloy/Oxide Heterostructure Electrocatalysts for HER in Anion Exchange Membrane Water Electrolyzer	Jian-An Wu	National Cheng Kung University

October 28 Tuesday	No. (A)	Title (Room: R304. Chair(s): Wei-Ren Liu)	Presenter	Affiliation
10:50-11:10	A-I-199	Oxide-Based Quasi-Solid-Electrolyte Layers for High-Energy-Density Lithium Batteries	Jeng-Kuei Chang	National Yang Ming Chiao Tung University
11:10-11:25	A-O-9	Facile Hydrothermal-Sintering Synthesis of $\text{Fe}_x\text{Co}_{3-x}\text{V}_3\text{O}_8$ for High-Efficiency Lithium Storage	S. Kishore Babu	Chung Yuan Christian University
11:25-11:40	A-O-172	Enhancing Vanadium Redox Flow Battery Performance with Molybdenum-Doped Nickel Cobalt Oxide Modified Graphite Felt Electrodes	Zih-Jhong Huang	National Taiwan University of Science and Technology
11:40-11:55	A-O-381	Hydrothermally Synthesized Spinel CoCr_2O_4 for Photodegradation of Organic Dyes	YuHao Chen	Institute of Science Tokyo

October 28, Tuesday	No. (A)	Title (Room: R304. Chair(s): Hsin-Chih Huang / Shao-Ju Shih)	Presenter	Affiliation
13:30-13:50	A-I-174	Soft Sputtering of Multi-Component TCO Top Electrodes for Semi-Transparent Perovskite Photovoltaics in Smart Windows and Electric Vehicles	Han-Ki Kim	Sungkyunkwan University
13:50-14:10	A-I-40	Large-Scale 2D Transition Metal Dichalcogenides-based thin film heterostructures for Photoelectrochemical water splitting	Heng-Jui Liu	National Chung Hsing University
14:10-14:30	A-I-136	Mapping Electrochemical and Structural Properties of 2D Materials	He-Yun Du	Ming Chi University of Technology
14:30-14:50	A-I-135	Methods to improve the stability and catalytic activity of biogas-fed Direct Internal Reforming Solid Oxide Fuel Cells: the role of catalytic layers and exsolved metallic nanoparticles	Beata Bochentyn	Gdansk University of Technology
14:50-15:05	A-O-296	Enhancing thermoelectric properties of Sn-doped β -Zn ₄ Sb ₃ Films by Ion Beam-Assisted Deposition	Bo-Chen Tang	Ming Chi University of Technology
15:05-15:20	A-O-297	Toward High-Quality ZnSb Thermoelectric Thin Films via HiPIMS: Role of Duty Cycle on Crystallization and Stability	Min-Chen Chuang	Ming Chi University of Technology
15:20-15:35	A-O-183	CsPbI ₃ Thin Films Prepared by Co-Sputtering and Post-Annealing for All-Vacuum-Processed Perovskite Solar Cells	Yewon Lee	Sungkyunkwan University
15:35-15:50	A-O-5	Study of magnetic field-induced martensite variant reorientation behaviors of the Ni-Mn-Ga particles thin film composites	Wan-Ting Chiu	Institute of Science Tokyo

October 28, Tuesday	No. (A)	Title (Room: R304. Chair(s): He-Yun Du / Heng-Jui Liu)	Presenter	Affiliation
16:00-16:20	A-I-358	Heterostructured Catalysts Derived from Layered Double Hydroxides for Enhanced Oxygen Evolution Reaction Activity	Hsin-Chih Huang	National Formosa University
16:20-16:40	A-I-27	Mesoporous SiO ₂ and PMMA composite thick films for radiative cooling applications	Shao-Ju Shih	National Taiwan University of Science and Technology
16:40-16:55	A-O-295	Preparation and characterization of crystal Si film on Si (001) substrate through chemical transport in high-pressure and narrow gap hydrogen plasma	Hiromasa Ohmi	The University of Osaka
16:55-17:10	A-O-430	Multifunctional Cu ₂ Y ₂ O ₅ Nanofiber@MXene Composite Coated Ni Foam Electrode for sensitive Electrochemical Detection of Tert-Butyl Hydroquinone and Efficient OER	Akhila Chappagattil	National Taipei University of Techcology
17:10-17:25	A-O-463	Fabrication of Complementary Electrochromic Devices with Predeposited PANI and in-situ Polymerized PEDOT Using UV-Cured Electrolytes	Cheng-Lan Lin	Tamkang University
17:25-17:40	A-O-466	Substrate Temperature-Dependent Nanomechanical and Thermoelectric Properties of TiNiSb Thin Films Deposited by DC Magnetron Sputtering	Phuoc Huu Le	Ming Chi University of Technology

Symposium B. Nanostructured and Nanocomposite Coatings

October 26, Sunday	No. (B)	Title (Room: R201. Chair(s): Jin Kawakita / Nguyen Hoang Luong)	Presenter	Affiliation
15:50-16:10	B-I-32	Quenched-produced diamond (Q-dia) films by physical vapor deposition and their applications	Tsuyoshi Yoshitake	Kyushu University
16:10-16:30	B-I-97	SrVO thin films for opto-electronic applications	Gourbilleau Fabrice	CIMAP/Ensicaen
16:30-16:50	B-I-48	Raising Photocatalytic activity using metal/semiconductor oxide nanocomposites for the photodegradation of organic pollutants	Pankaj Koinkar	Tokushima University
16:50-17:05	B-O-30	Enhanced Thermal Stability and Oxidation Resistance via Triple-Sublayer Multilayer Coatings	Van-Tien Tang	National Formosa University
17:05-17:20	B-O-89	High-sensitivity reflectometric interference spectroscopy of glucose label-free detection	Chung-Yu Yu	National Cheng Kung University

October 27, Monday	No. (B)	Title (Room: R201. Chair(s): Chen-Kuei Chung / Akihiko Fujiwara)	Presenter	Affiliation
10:40-11:00	B-I-270	Enhanced Moisture Detection Using Nanocoated Micro-Galvanic Arrays with Submicron Gaps	Jin Kawakita	National Institute for Materials Science
11:00-11:20	B-I-106	Tailoring magnetic properties of FePt thin films through annealing conditions	Nguyen Hoang Luong	University of Science, Vietnam National University
11:20-11:35	B-O-90	Enhanced Corrosion Resistance of Mg-Based Alloys Using Quenched Diamond (Q-dia) Coatings.	Ahmed Hamed Oraby	Interdisciplinary Graduate School of Engineering Sciences
11:35-11:50	B-O-138	Synthesis and evaluation of g-C ₃ N ₄ /BiOI nanocomposite for organic dye photodecomposition by simple precipitation method	Yasuyuki Maeda	Tokushima university
11:50-12:05	B-O-156	A high regularity porous SERS substrate prepared by two-step mild and hard anodization for sorbic acid detection	Chin-An Ku	National Cheng Kung University

October 27, Monday	No. (B)	Title (Room: R201. Chair(s): Hiroshi Masumoto / Bui Nguyen Quoc Trinh)	Presenter	Affiliation
13:50-14:10	B-I-179	Advances in the Fabrication of Nanoporous Anodic Aluminum Oxide and Its Applications to Sensors	Chen-Kuei Chung	National Cheng Kung University
14:10-14:25	B-O-170	High-Performance SLIPS Based on Metallic Nanotube Arrays for Anti-Icing Applications	Helmi Son Haji	National Taiwan University of Science and Technology
14:25-14:40	B-O-250	Nanostructured ITO thin films for dynamic windows	Jerome K. Hyun	Ewha Womans University
14:40-14:55	B-O-257	Optical generation of spin current in two-dimensional metallic TMDCs	Katsunori Wakabayashi	Kwansei Gakuin University
14:55-15:10	B-O-431	Synergistic Visible-Light Driven CeS ₂ Nanostructures coated on Nickel foam for Dual-Functional Supercapacitor and Dye Degradation Applications.	Joel Skaria Joseph	National Taipei University of Technology

October 27, Monday	No. (B)	Title (Room: R201. Chair(s): Tae-Wook Kim / Fan-Yi Ouyang)	Presenter	Affiliation
15:30-15:50	B-I-361	Full Solution-processed Metal Oxide Semiconductor devices: Issues and Perspectives	Akihiko Fujiwara	Kwansei Gakuin University
15:50-16:05	B-O-391	Nanotwinned Silver Thin Films on Silicon Carbide: Bias-Controlled Growth and Performance for High-Power Applications	Ding-Peng Lin	National Tsing Hua University

October 28, Tuesday	No. (B)	Title (Room: R201. Chair(s): Pham Duc Thang / Yoshitada Morikawa)	Presenter	Affiliation
10:50-11:10	B-I-383	Effect of Low-energy Ion Irradiation on GdBa ₂ Cu ₃ O _y Superconducting Thin Films	Toshinori Ozaki	Kwansei Gakuin University
11:10-11:30	B-I-410	Self-assembled monolayers for high-reliability Ag interconnects: A new approach to suppress electrochemical migration	Fan-Yi Ouyang	National Tsing Hua University
11:30-11:45	B-O-181	Scalable Fabrication of Rhombic Nanotube Arrays as High-Sensitivity SERS Substrate	Man-Yun Hsu	National Taiwan University of Science and Technology

October 28, Tuesday	No. (B)	Title (Room: R201; Chair(s): Tsuyoshi Yoshitake / Gourbilleau Fabrice)	Presenter	Affiliation
13:30-13:45	B-O-176	Understanding the Sensing Mechanism of a ZnMoO ₄ integrated on GO Nanocomposite Towards electrochemical detection of Nitrofurantoin in environmental and biological matrices	Amulya Garadi	National Taipei University of Technology
13:45-14:00	B-O-228	Tunable Nanostructured Stainless-Steel Coatings for High-Performance Oil/Water Separation Membranes	Kong Fanhua	National Taiwan University of Science and Technology
14:00-14:20	B-I-272	Novel Phenomena in Magnetic Metal Nanogranules-Insulating Ceramics Nanocomposite Thin Films	Hiroshi Masumoto	Tohoku University
14:20-14:40	B-I-387	Co-Doping CuO-Based Thin Films: Simulation and Experiment Correlation	Bui Nguyen Quoc Trinh	Vietnam National University
14:40-15:00	B-I-344	Energy Harvesting: Piezoelectric Materials for Sustainable Environmental Monitoring and Energy Conversion	Nguyen Thi Nghi Nhan	National Formosa University
15:00-15:15	B-O-282	Flexible Sensing Substrate Based on Silver Nanoparticles /Polyurethane Nanofibers for the Ultrasensitive Detection of Organic Pollutants	Riju suyesh .S	National Taipei University of Technology
15:15-15:30	B-O-260	Non-Hermitian Skin Effects in Two-dimensional Photonic Crystals	Huyen Thanh Phan	Kwansei Gakuin University
15:30-15:45	B-O-429	Low-Temperature Supercritical Nitrogen Passivation for Surface Trap Suppression and Improved Performance of Recessed-Gate AlGaIn/GaN MIS-HEMTs	An-Chen Liu	National Yang Ming Chiao Tung University

October 28, Tuesday	No. (B)	Title (Room: R201. Chair(s): Toshinori Ozaki / Thi Nghi Nhan Nguyen)	Presenter	Affiliation
16:00-16:20	B-I-122	Giant 2D Single-Crystalline Metallic Nanosheets: Synthesis and Assembly	Tae-Wook Kim	Jeonbuk National University
16:20-16:40	B-I-475	Origin for the Colossal Permittivity in doped TiO ₂	Yoshitada Morikawa	The University of Osaka
16:40-16:55	B-O-435	Phosphorus Doped Graphene CuCoO ₂ Nanocomposites Coated Multifunctional Electrodes for High-Performance Supercapacitors and Ultrasensitive 4-Nitrophenol Detection	Aishwarya Naik	National Taipei University of Technology
16:55-17:10	B-O-423	Comparative Study of SiO ₂ Thin Films Deposited by RF Sputtering and HiPIMS: Structural and Optical Properties	Jin-Yu Shih	National Tsing Hua University
17:10-17:25	B-O-436	Interface Modulation of Zn MOF/Mn-Zn Layered Double Hydroxide Heterostructure Thin Films for the Sustainable Electrocatalysis of Hydrogen Evolution Reaction	Surya Rajendran	National Taipei University of Technology

Symposium C. Semiconductor, Optoelectronic and Flexible Device Films				
October 26, Sunday	No. (C)	Title (Room: The Lecture Hall. Chair(s): Ying Hao Chu / Chang-Hyun Kim)	Presenter	Affiliation
15:50-16:10	C-I-42	Beyond 0 and 1: Thin-Film Transistors for Multi-Valued Logic Circuits	Chang-Hyun Kim	University of Ottawa
16:10-16:30	C-I-59	Controlling effective Schottky barrier height by inserting various ultrathin insulators between aluminum and germanium	Dong Wang	Kyushu University
16:30-16:45	C-O-139	Current path characterization in channel of graphene FET by EBAC toward high carrier mobility	Takatoshi Yamada	National Institute of Advanced Industrial Science and Technology
16:45-17:00	C-O-320	Sensing properties of graphene chemristor with Metal-Isolator-Graphene contacts	Ondřej Šik	Brno university of technology
17:00-17:15	C-O-372	Nitrogen-Doped ITZO Thin-Film Transistors with Enhanced Electrical Performance and Stability	Wei-Sheng Liu	Yuan Ze University
17:15-17:30	C-O-393	Enhanced Electromigration Resistance in Cu-Doped Nanotwinned Ag Joints for next-generation packaging technologies	Cheng-Yi Lai	National Tsing Hua University

October 27, Monday	No. (C)	Title (Room: The Lecture Hall. Chair(s): Shih-Nan Hsiao / Chien-Yie Tsay)	Presenter	Affiliation
10:40-11:00	C-I-140	Anisotropic Atomic Layer Etching of HfO ₂ at Room Temperature using Halogen-Free Plasmas	Shih-Nan Hsiao	Nagoya University
11:00-11:15	C-O-308	The innovative breakthrough of atomic layer deposited AlN thin films via the microwave-enhanced plasma technique	Jia-Qi Xu	Jimei University
11:15-11:30	C-O-464	Scalable Synthesis of Janus WSe Monolayers via MOCVD and Hydrogen Plasma-Enabled Atomic Substitution	Tzu-Hsuan Yu	National Yang Ming Chiao Tung University

October 27, Monday	No. (C)	Title (Room: The Lecture Hall. Chair(s): Sheng-Kuei Chiu / Myungjae Lee)	Presenter	Affiliation
13:30-13:50	C-I-19	Ultrathin waveguides for van-der-Waals optoelectronics	Myungjae Lee	Seoul National University
13:50-14:10	C-I-210	Enhanced Physical Properties of Magnetron Sputtered Ga ₂ O ₃ Thin Films via Sn Doping and Their Application in Self Powered Solar Blind Photodetectors	Chien-Yie Tsay	Feng Chia University
14:10-14:25	C-O-195	Preliminary Study on Nanopillar Fabrication for Low-Loss Selectively Grown Active Nano-Pixel Waveguide	Haisong Jiang	Kyushu University
14:25-14:40	C-O-206	High-Energy X-ray Sensing with β -Ga ₂ O ₃ Thin Films Grown by RF Magnetron Sputtering	Deveshwar Sasikumar	Yuan Ze University
14:40-14:55	C-O-313	Physical properties of La-doped SnO ₂ transparent conducting oxide thin films for optoelectronic device applications	Harish Sharma Akkera	BMS Institute of Technology and Management, Bangalore
14:55-15:10	C-O-74	ZnO/ZnS Heterostructures on Flexible Polyimide for Visible-Light and Gas Sensing Applications	Xian-Yu Chen	National Chi Nan University

October 27, Monday	No. (C)	Title (Room: The Lecture Hall. Chair(s): Chia-Yun Chen)	Presenter	Affiliation
15:30-15:50	C-I-397	Pasting Photoresist Film with Latent Image for Patterning 3D Samples Beyond Diffraction Limit	Minoru Sasaki	Toyota Technological Institute
15:50-16:05	C-O-307	New Insight about Effect of Bathocuproine on Efficiency Improvement of Metal-organic Halide Perovskite Solar Cells	Yi-Jia Chen	National Dong Hwa University

October 28, Tuesday	No. (C)	Title (Room: R205. Chair(s): Ying-Chih Lai)	Presenter	Affiliation
10:50-11:10	C-I-44	Thin soft air and sweat permeable electronics for healthcare monitoring	Xinge Yu	City University of Hong Kong
11:10-11:25	C-O-249	Deposition of VO ₂ thin films by multi-pulse HiPIMS and control of the oxygen ion flux	Erdong Chen	Tokyo Metropolitan University
11:25-11:40	C-O-141	Effect of Indium Addition on the Microstructure and Properties of Sn-31Bi Alloy	Chih-Hsiang Liu	Feng Chia University

October 28, Tuesday	No. (C)	Title (Room: R205. Chair(s): Daisuke Kiriya / Yi-Chia Chou)	Presenter	Affiliation
13:30-13:45	C-O-268	Super hydrophobic ZnO/PVDF-HFP Nanofiber film for Triboelectric Nanogenerator Applications	Jun-Jie Zhang	Ming Chi University of Technology
13:45-14:00	C-O-355	Diamond synthesis from a solid carbon source by chemical transport using narrow gap microwave plasma	Rurii Higuchi	The university of Osaka
14:00-14:20	C-I-132	Low dimensional nitride-based material system for neuromorphic computing	Yi-Chia Chou	National Taiwan University
14:20-14:40	C-I-167	Molecular Modulation of Transition Metal Dichalcogenides	Daisuke Kiriya	The University of Tokyo
14:40-15:00	C-I-479	Tellurium-Based Electronics	Johnny Ho	City University of Hong Kong
15:00-15:15	C-O-184	Large-Area Synthesis of Two-Dimensional WS ₂ via Isolated Plasma Soft Deposition for Advanced Temperature Sensors	Jun-Hyeok Kang	Sungkyunkwan University
15:15-15:30	C-O-285	Flexible MoS ₂ -PVDF Piezoelectric Nanogenerators for High-Efficiency Mechanical Energy Harvesting and sensor	Huang-Kai Zhou	National Sun Yat-Sen University
15:30-15:45	C-O-347	Enhanced Power Factor of MXene/Bi ₂ Te ₃ Composite Thin Films for Wearable Thermoelectric Applications	Sai charan Dharavath	University of Hyderabad

October 28, Tuesday	No. (C)	Title (Room: The Lecture Hall. Chair(s): Heng-Jui Liu)	Presenter	Affiliation
16:00-16:20	C-I-333	Flexible Composite Films Based on Inorganic Particles Embedded Polymers for Energy Harvesting and Sensing Applications	Jae Su Yu	Kyung Hee University
16:20-16:40	C-I-398	Synthesis of Sliding ferroelectric van der Waals materials for 2D memory transistors	Yann-Wen Lan	National Taiwan Normal University
16:40-16:55	C-O-396	Flexible Electrochemical Sensor Based on Graphene Oxide/Stainless Steel Nanocomposite for Sensitive Detection of Arsenic Compounds	Chun-Wei Chang	National Taiwan University of Science and Technology
16:55-17:10	C-O-457	Deposition of dielectric oxide/2D TMD stack by combined thermal ALD/MOCVD	Shih-Hao Tseng	National Yang Ming Chiao Tung University
17:10-17:30	C-I-152	Leading edge semiconductor plasma processing with energy-efficient, environmentally benign, evolutionary, and educational (E4) assurance	Kenji Ishikawa	Nagoya University

Symposium D. Tribological and Protective Coatings				
October 26, Sunday	No. (D)	Title (Room: R204. Chair(s): Bo-Shiuan Li / Kuan-Che Lan)	Presenter	Affiliation
15:50-16:10	D-I-198	Selective Carbon Ion Acceleration as a Pathway for Stress-Controlled DLC Film Growth	Tetsuhide Shimizu	Tokyo Metropolitan University
16:10-16:30	D-I-445	Stress and Electrical Resistivity Evolution in Sputtered ITO Thin Films	Jun Zhang	KLA Corporation
16:30-16:45	D-O-171	Improving Wear and Corrosion Resistance of Al/AlN/CrAlN Films on ZE53 Magnesium Alloy by DC Magnetron Sputtering	Po-Hsun Wu	National Taiwan University
16:45-17:00	D-O-233	Effect of Target Power Output Modes on the Plasma Characteristics, Microstructure, and Mechanical Properties of Titanium Diboride Thin Films	Yi-Hsiang Yang	Ming Chi University of Technology
17:00-17:15	D-O-197	Mechanical properties of quaternary boride films	Guan-Ting Lu	National Taiwan Ocean University

October 27, Monday	No. (D)	Title (Room: R204. Chair(s): Yu-Jen Chou / Bo-Shiuan Li)	Presenter	Affiliation
13:30-13:50	D-I-148	Residual stress, defect, and micromechanical characterization of ion irradiated SiC	Alex Leide	UK Atomic Energy Authority
13:50-14:10	D-I-231	Nitriding CoCrNi Medium-Entropy Alloy with Atmospheric Pressure Plasma Jet: Enhancements in Wear Performance	Yu-Lin Kuo	National Taiwan University of Science and Technology
14:10-14:25	D-O-63	Wear-Resistant and Low-Friction Quenched Produced Diamond Coatings on Pure Titanium for Biomedical Applications	Mahmoud Talaat Youssef	Kyushu University
14:25-14:40	D-O-155	Vacuum Sintering on the Microstructure and Properties of Ti6Al4V on 316 Stainless Steel Applied by Cold Spray and Slurry Paint	Jung-Ting Tsai	National Taiwan University of Science and Technology
14:40-14:55	D-O-22	Influence of Duty Cycle on Surface Characteristic and Adhesion of CuO Composite PEO on AA 6061 Aluminum Alloy	Sasithon Kaentown	National Taipei University of Technology
14:55-15:10	D-O-478	Pulsed Cathodic Arc Evaporation For Greater Control Over Ion Energy	Fedor F. Klimashin	EMPA

October 27, Monday	No. (D)	Title (Room: R204. Chair(s): Kuan-Che Lan / Alex Leide)	Presenter	Affiliation
15:30-15:50	D-I-50	Quenched-produced Diamond Coatings at Room Temperature: Tribological and Corrosion Resistance Performance	Abdelrahman Zkria	Kyushu University
15:50-16:05	D-O-83	Fabrication of a Multifunctional Corrosion-Resistant Composite Coating on AZ31 Magnesium Alloy	Wei-Lun Hsiao	National Tsing Hua University
16:05-16:20	D-O-11	Tribological and corrosion properties of TiN-based multilayer PVD coatings combined with nano-ceramic coating on magnesium alloys for automotive applications	Adrian Claver	Universidad Pública de Navarra (UPNA)
16:20-16:35	D-O-130	Minor Bi and In Additions to Sn Matrix: Enhancing Properties and Enabling Corrosion Protection of FeCoNiMnCu	Jia-Xiang Gao	Feng Chia University

October 28, Tuesday	No. (D)	Title (Room: R204. Chair(s): Fan-Bean Wu / Alex Leide)	Presenter	Affiliation
16:00-16:15	D-O-68	Impact Fatigue and Mechanical Properties of TiSiN Multilayer Coatings under Different Bias Voltages with Compositional Design	Tsung-Yuan Li	National Formosa University
16:15-16:30	D-O-273	Integration of a blue energy harvesting module with seawater electrolysis for sustainable hydrogen production	Chieh-Jui Li	National Taipei University of Technology
16:30-16:45	D-O-366	Influence of Second Phases on MAO Coating Behavior and Corrosion Resistance of ZE51/ZE53 Mg Alloys: Strategies for Discharge Uniformity	Po-Han Wu	National Taiwan University
16:45-17:05	D-I-127	Towards a Deeper Understanding of Reactive HiPIMS Discharges Through Ionization Region Modeling	Daniel Lundin	Linköping University
17:05-17:20	D-O-51	Effects of Nitrogen Flow Ratio on the Mechanical Properties of Cosputtered (TiZrHfW) _{N_x} Films	Hsiu-Ming Chang	National Taiwan Ocean University
17:20-17:35	D-O-17	Microstructure and Tribological Performance of Magnetron Co-Sputtered MoTiNiCrVSi _x Thin Film High Entropy Alloys	Jhu-Cyuan Chiang	National Taiwan University of Science and Technology

Symposium E. Organic and Biological Coatings				
October 26, Sunday	No. (E)	Title (Room: R205. Chair(s): Sandra E. Rodil / Yung Chang)	Presenter	Affiliation
15:50-16:10	E-I-10	Surface Engineering for Orthopaedic and Dental Implants: Tailoring Osteoinduction, Inflammation, and Antibacterial Properties	Sandra E. Rodil	Universidad Nacional Autónoma de Mexico
16:10-16:30	E-I-227	Bio-inspired Zwitterionic Interface	Yung Chang	Chung Yuan Christian University
16:30-16:45	E-O-16	Addictive Sr-doped thin-film bioactive glass surface modification to enhance biocompatibility and osteointegration of metallic implants	Sudharshan PG	National Taiwan University of Science and Technology
16:45-17:00	E-O-248	Multifunctional Surface Modification of Pure Titanium via Micro-Arc Oxidation and Thermosensitive Hydrogel for Enhanced Antibacterial Activity and Osseointegration	Min-Che Hsieh	Tamkang University
17:00-17:15	E-O-289	Fabrication of Glutathione-Supplemented Polylactic Acid via Oxygen Plasma Functionalization for Wound Dressing Applications	Anindita Bhar	Ming Chi University of Technology
17:15-17:30	E-O-311	Self-assembled polypeptide nanofibers integrated within a sodium alginate hydrogel for retinal biomedical engineering	Chia-Hsien Lee	Ming Chi University of Technology

October 27, Monday	No. (E)	Title (Room: R205. Chair(s): Yoshinori Sunaga / Kuang-Chih Tso)	Presenter	Affiliation
13:30-13:50	E-I-103	Biocompatible Film Coated Implantable Devices for In Vivo Neural Imaging and Optical Stimulation	Yoshinori Sunaga	Nara Institute of Science and Technology
13:50-14:10	E-I-124	Scalable Artificial Vision Device Using CBD-IrO _x Electrodes and Smart CMOS for High-Resolution Retinal Stimulation	Kuang-Chih Tso	Nara Institute of Science and Technology
14:10-14:25	E-O-343	Enhancing the Accuracy of AI Drug Identification in Pharmaceutical Packaging through Anti-Reflective Polymer Coatings	Pin-Yuan Wang	National Taipei University of Technology
14:25-14:40	E-O-362	Influence of polypyrrole morphology electrodeposited in supercritical CO ₂ emulsified electrolyte on its electrochemical properties	Punvinai Vinaisuratarn	Institute of Science Tokyo
14:40-14:55	E-O-403	Resistive Switching Characteristics of Micrometer-Scale Cylindrical Pectin-Based RRAM Devices	En-Yang Tsai	National Taipei University of Technology
14:55-15:10	E-O-471	Ordered DNA Fragmentation over UV-patterned SU-8 Using Tn5 Transposase	Kevin Zhang	Shenzhen College of International Education

October 28, Tuesday	No. (E)	Title (Room: R205. Chair(s): Fang Xie / Peng Chen)	Presenter	Affiliation
16:10-16:30	E-I-66	Plasmonic Nanostructure Arrays for Enhanced Fluorescence: Biosensing and Bioimaging Applications	Fang Xie	Imperial College London
16:30-16:50	E-I-426	Smart Surface Functionalization of Titanium for Dual Antibacterial and Osteoconductive Functions	Peng Chen	Tohoku University
16:50-17:10	E-I-450	Bioactive Surface Modification for Bio-implant	Han-Cheol Choe	Chosun University
17:10-17:25	E-O-185	A Portable Sensor for the Simultaneous Detection of Catechol and Vanillin in Food and Water Samples Using Ag ₂ Se@f-CB Composite.	Naveenkumar	National Taipei University of Technology
17:25-17:40	E-O-258	Electrodeposition of Cu/Polyaniline Composite Electrode for Non-Enzymatic Electrochemical Glucose Sensors	Runze Huang	Institute of Science Tokyo

Symposium F. Medium/High-entropy Coatings for Functional Applications				
October 26, Sunday	No. (F)	Title (Room: R303. Chair(s): Shih-Hsun Chen / Hung-Wei Yen)	Presenter	Affiliation
15:50-16:10	F-I-422	Tailoring CoCrNi Medium-Entropy Alloys through Silicon Alloying for Enhanced Hydrogen Embrittlement Resistance	Hung-Wei Yen	National Taiwan University
16:10-16:30	F-I-461	Versatile Applications of High-Entropy Nitride Thin Films	Chuan-Feng Shih	National Cheng Kung University
16:30-16:45	F-O-315	Structural Integrity and Electrical Behavior of Lightweight High Entropy Nitride Thin Films under 300 keV Ar ⁺ Irradiation	June-Hung Hsiao	National Tsing Hua University
16:45-17:00	F-O-142	Investigating Interfacial Reactions and Shear Strength of Sn-3.5Ag / FeCoNiMn Alloy	Tzu-Hsiang Liao	Feng Chia University
17:00-17:15	F-O-253	High Performance Methanol Oxidation Enabled by Metal Organic Framework-Derived Electrocatalysts	Po Chen Chang Chien	National Cheng Kung University
17:15-17:30	F-O-395	Unlocking the Potential of High-Entropy Prussian Blue for Superior Photo-Fenton Oxidation	Sheng-Wei Lin	National Cheng Kung University

October 28, Tuesday	No. (F)	Title (Room: R204. Chair(s): Jyh-Wei Lee / Pavel Souček)	Presenter	Affiliation
13:40-14:00	F-I-125	Epitaxy and twinning in sputter-deposited cantor alloy thin films	Erik Lewin	Uppsala university
14:00-14:20	F-I-39	Refractory metal-based high entropy (CrHfMoTaW) _x N _y ceramics deposited by HiPIMS	Pavel Souček	Masaryk University
14:20-14:40	F-I-287	Medium to High Entropy Alloy Coatings for High Temperature Applications	Hideyuki Murakami	National Institute for Materials Science
14:40-14:55	F-O-264	Synthesis of AlCoCrFeNi nanoparticles using high-power pulsed hollow cathode sputtering	Kosei Kikuchi	Tokyo Metropolitan University
14:55-15:10	F-O-472	Unlocking High-Efficiency Electro-Fenton Oxidation with Phase-Controlled Oxide-Sulfide Heterostructure	Yemima Purba	National Cheng Kung University
15:10-15:25	F-O-47	Impact of Al, Ti and Nb Composition on the Thermal Stability and Oxidation Resistance of AlTiNbSiCrN High-Entropy Nitride Coatings	Duc Manh Nguyen	National Formosa University
15:25-15:40	F-O-386	Microstructures and electrocatalytic properties of AlCoCrFeNiTiN high entropy alloy thin films	Gao Zheng Dai	Ming Chi University of Technology

Symposium G. Advancing Coatings and Thin Films through Characterization, Simulation, Modeling, and Data Science

October 27, Monday	No. (G)	Title <small>(Room: R303. Chair(s): Chao-Cheng Kaun / Jen-Chuan Tung)</small>	Presenter	Affiliation
13:30-13:50	G-I-373	Multi-method workflow for simulating tensorial properties of amorphous thin films: case studies of a-SiN and a-WBC thin films	David Holec	Montanuniversität Leoben
13:50-14:10	G-I-94	Data-Driven Design of Multi-Element Thermal Insulating Thin Films for Advanced Thermal Management	Yen-Ju Wu	National Institute for Materials Science
14:10-14:25	G-O-14	Interfacial Atomic Engineering for Unprecedented Direct Adhesion of Noble Metal Electrodes to Oxide Substrates	Jungheum Yun	Korea Institute of Materials Science
14:25-14:40	G-O-357	Wafer-Scale Low-Temperature Growth of Monolayer MoS ₂ on SiO ₂ /Si Substrates	Yi-Ting Huang	National Central University
14:40-14:55	G-O-160	Electromigration Reliability of Eutectic Bi-Sn Micro Joints with Different Surface Coatings over Cu Pads	Zhao-Yu Yang	Yuan Ze University
14:55-15:10	G-O-498	Vacancy-concentration-dependent thermal stability of fcc-(Ti,Al)N _x predicted via chemical-environment-sensitive diffusion activation energies	Ganesh Kumar Nayak	Materials Chemistry, RWTH Aachen

October 27, Monday	No. (G)	Title <small>(Room: R303. Chair(s): Chao-Cheng Kaun / Jen-Chuan Tung)</small>	Presenter	Affiliation
15:30-15:50	G-I-402	Compression vs. Tension-Induced Wrinkle Formation on Thin Film/Compliant Substrate Structures: A Numerical Simulation Study	Yu-Lin Shen	University of New Mexico
15:50-16:05	G-O-26	Exploring Ionized Metal Flux Fraction in Magnetron Sputtering: Insights from Laboratory and Industrial Applications	Vasina Petr	Masaryk University
16:05-16:20	G-O-359	Integration of Machine Learning in Optimizing Plasma Polymerized Hexamethyldisilazane for Long-Term Corrosion Protection of Stainless Steel	Danang Tri Hartanto	National Taiwan University of Science and Technology
16:20-16:35	G-O-168	Predicting Sb ₂ Se ₃ Solar Cell Efficiency: A Machine Learning Approach Based on Crystalline Structure and Band Engineering	Yu-Jen Hung	National Changhua University of Education

October 28, Tuesday	No. (G)	Title (Room: R303. Chair(s): David Holec / Po-Liang Liu)	Presenter	Affiliation
13:30-13:50	G-I-126	In situ Scanning Electron Microscopy Studies of Graphene Growth on Molten Metals	Suneel Kumar Kodambaka	Virginia Polytechnic Institute and State University
13:50-14:10	G-I-146	Hydrogen Charge-State Tuning in Metal-Hydride Thin Films and Application of an Autonomous Thin-Film Growth System	Ryota Shimizu	Institute for Molecular Science
14:10-14:25	G-O-230	In-situ Deposition Rate Measurement and Real-time Thickness Estimation for Arc Ion-plating	Gun Hwan Lee	Korea Institute of Materials Science
14:25-14:40	G-O-123	Nanoscale electrochemistry of WSe ₂ -coated NbS ₂ metal–semiconductor heterostructures	Septia Kholimatussadiyah	National Taiwan University
14:40-14:55	G-O-291	Investigation of Surface Reconstruction Mechanisms Across Semiconductors, Metals, and Metal Oxides: a review	Cheng-Hsi Yeh	National Tsing Hua University
14:55-15:10	G-O-356	Investigation of Deposition Techniques and Potential Applications of Hexagonal Boron Nitride Thin Films	Bo-Jing Shi	National Central University

October 28, Tuesday	No. (G)	Title (Room: R303. Chair(s): David Holec / Po-Liang Liu)	Presenter	Affiliation
16:00-16:20	G-I-428	Cutting-Edge Process Monitoring Techniques for Thin Film Coatings for Process Development, Production Control and Machine Learning (ML)	Thomas Schütte	PLASUS GmbH
16:20-16:35	G-O-322	Interfacial Effects of Substrate-Dependence in Van der Waals Epitaxy of Sb ₂ Se ₃ and InSe on Sapphire, SiO ₂ , and WS ₂	Soe Min Htet	Tatung University
16:35-16:50	G-O-404	CuO-Based Semi-Transparent Solar Cells with DMD Top Electrodes: Fabrication and Simulation Insights	Deveshwar Sasikumar	Yuan Ze University
16:50-17:05	G-O-354	GeSn Narrowband Filters for Short-Wavelength Infrared via Low-Temperature Deposition	Song-Ying Wu	National Central University
17:05-17:20	G-O-157	Impact of Copper Oxidation on Transmission Performance of mmWave Microstrip Antenna	Yu-Hsun Chang	Yuan Ze University