

Plenary / Keynote				
November 12, Sunday	No.	Title (Room: The Lecture Hall. Chair(s): Li-Chyong Chen / Jinn P. Chu)	Presenter	Affiliation
14:00~14:50	0001	Observing dislocations during epitaxial growth of colloidal crystals	Frans Spaepen	Harvard University
14:50~15:30	0205	Negative ion bombardment: how research and literature allows quantification	Diederik Depla	Ghent University
November 13, Monday	No.	Title (Room: The Lecture Hall. Chair(s): Jyh-Wei Lee / Jia-Hong Huang)	Presenter	Affiliation
09:00~09:40	0017	Self-healing ceramic coatings that operate in extreme environments	Samir Aouadi	University of North Texas
09:40~10:20	0425	Development of functional high entropy alloy thin films by high power impulse magnetron sputtering technique	Jyh-Wei Lee	Ming Chi University of Technology
November 14, Tuesday	No.	Title (Room: The Lecture Hall. Chair(s): Jenq-Gong Duh)	Presenter	Affiliation
09:00~09:50	0204	Electronic Thin Film Reliability in 3D IC Technology	King-Ning Tu	City University of Hong Kong
09:50~10:30	0207	Superhard (MoSiTiVZr) _x high-entropy nitride coatings	Sam Zhang	Harbin Institute of Technology
November 15, Wednesday	No.	Title (Room: The Lecture Hall. Chair(s): Ludvik Martinu / Jyh-Ming Ting)	Presenter	Affiliation
09:00~09:40	0366	Multifunctional Protective Coatings for Harsh Environments	Jolanta Klemberg-Sapieha	Polytechnique Montreal
09:40~10:20	0206	AI-Enhanced Sensors and Applications from AIoT to Metaverse	Chengkuo Lee	National University of Singapore

Symposium A. Coatings for Sustainable Energy

November 12, Sunday	No. (A)	Title (Room: R204. Chair(s): Yu-Lin Kuo and Sheng-Heng Chung)	Presenter	Affiliation
15:50-16:10	0387	Electrical performance improvement of large-area anode-supported solid oxide fuel cell by incorporating GDC diffusion barrier layer via atmospheric-pressure plasma jet	Yu-Lin Kuo	National Taiwan University of Science and Technology
16:10-16:30	0057	Metal/Sulfur Energy-storage Materials for High-energy-density Batteries	Sheng-Heng Chung	National Cheng Kung University
16:30-16:50	0401	Strong lattice anharmonicity of organic-inorganic hybrid perovskites	Pai-Chun Wei	National Cheng Kung University
16:50-17:05	0332	Disordered Rocksalt-Type High Entropy Oxide Cathode in Li-Ion Battery	Brahmanu Wisnu Saputro	National Cheng Kung University
17:05-17:20	0177	An Effective Method Derived from Metal-Organic Framework for Electrode Modification on Vanadium Redox Flow Battery	Yun-Ting Ou	National Taiwan University of Science and Technology
17:20-17:40	0326	Enhancing Stability and Performance of Lithium Metal Anodes in Rechargeable Batteries: A Protective Composite Coating as an Artificial SEI Layer	Yu-Sheng Su	National Yang Ming Chiao Tung University

November 13, Monday	No. (A)	Title (Room: R204. Chair(s): Tsu-Chin Chou and Amr Sabbah)	Presenter	Affiliation
10:40-11:00	0457	Tailoring Metal Dichalcogenides Semiconductors for Sustainable CO ₂ Conversion	Amr Sabbah	Academia Sinica
11:00-11:20	0328	Preparation of Cu _x Pd _{1-x} Solid Solution Catalysts by Using Electrochemical Pulse Deposition for Electrochemical CO ₂ Reduction to Ethanol	Tsu-Chin Chou	National Tsing Hua University
11:20-11:35	0307	Co ₃ O ₄ -based Oxygen Evolution Reaction and Oxygen Reduction Reaction Bifunctional Electrocatalysts	Muhammad Ghufron	National Cheng Kung University
11:35-11:50	0310	Cation and Anion Co-Doped Iron Oxide for Improved Electro-Fenton Degradation	Yemima Purba	National Cheng Kung University
11:50-12:05	0418	Heterojunction Few-layer Co-MoS ₂ /WS ₂ Thin film as a Bifunctional Electrocatalyst for Hydrogen evolution and Oxygen evolution reactions	Balasubramanian Akila	National Taipei University of Technology

November 13, Monday	No. (A)	Title (Room: R204. Chair(s): Tsan-Yao Chen and Kuan-Wen Wang)	Presenter	Affiliation
13:30-13:50	0222	Local collaboration between oxygen vacancy and active site in atomic metal oxide clusters with outstanding oxygen reduction activity	Tsan-Yao Chen	National Tsing Hua University
13:50-14:10	0294	Innovative (100) Surface Configuration Enhances Oxygen Reduction Performance of Pt ₃ Co Nanodendrite Catalysts.	Kuan-Wen Wang	National Central University
14:10-14:25	0324*	Probing the impact of high entropy alloy oxide film thickness on the performance improvement of VRFB graphite felt electrodes	Krishnakant Tiwari	National Taiwan University of Science and Technology
14:25-14:45	0033	Nano-etching and Fe–N–C thin film coating on carbon surface for enhancement of oxygen evolution reaction	Jun Maruyama	Osaka Research Institute of Industrial Science and Technology
14:45-15:00	0304	Electrocatalytic Properties Evaluation of VNbMoTaWN _x High Entropy Alloy Thin Films	Zhi-Ting Liu	National Taiwan University of Science and Technology
15:00-15:15	0036	Enhanced H ₂ gas detectability of PdCo films via magnetic anisotropy optimization	Takashi Harumoto	Tokyo Institute of Technology

November 13, Monday	No. (A)	Title (Room: R204. Chair(s): Meng-Lin Tsai and Pai-Chun Wei)	Presenter	Affiliation
15:30-15:50	0031	Nontoxic/ Earth-abundant Metal Chalcogenide Materials for Solar Cell applications: Cu ₂ ZnSn(S,Se) ₄ and Cu ₂ BaSn(S,Se) ₄	Cheng-Ying Chen	National Taiwan Ocean University
15:50-16:10	0420	Development of New Working Electrodes for Enhancing Power Conversion Efficiencies of both Perovskite and Dye-sensitized Solar Cells	Jin-Hyo Boo	Sungkyunkwan University
16:10-16:30	0005	Halide Perovskite/Cellulose Nanocrystal Films for High Stability Optoelectronic Applications	Meng-Lin Tsai	National Taiwan University of Science and Technology
16:30-16:45	0129	A PDMS-Al triboelectric nanogenerator using two-pulse laser to enhance effective contact area and its application.	You-Jun Huang	National Cheng Kung University
16:45-17:00	0510	Porous Nanostructured Cobalt Sulfide as Polysulfide Absorber for Lithium Sulfur Battery	Chang Shu-Hao	Chung Yuan Christian University

November 14, Tuesday	No. (A)	Title (Room: R204. Chair(s): Po-Chun Chen and Mutsumi Sugiyama)	Presenter	Affiliation
10:50-11:10	0422	Iridium Oxide Based Thin Film as an Electrode for Bio-Interface Applications	Po-Chun Chen	National Taipei University of Technology
11:10-11:30	0066	Fabrication of visible-light-transparent devices using NiO thin films	Mutsumi Sugiyama	Tokyo University of Science
11:30-11:45	0011	Dual-function electrochromic smart window based on PEDOT:PSS /graphene/ CsWO ₃ for transmittance modulation and near infrared shielding	Kai-Sheng Hsiao	National Sun Yat-sen University
11:45-12:00	0431	The Switching Improvement on Transition Temperature of ALD-Deposited MoO _x Cap for VO ₂ Thermo-chromic Devices	Hsuan-Yu Lin	Ming Chi University of Technology

November 14, Tuesday	No. (A)	Title (Room: R204. Chair(s): Yu-Ching Huang and Ming-Hsien Li)	Presenter	Affiliation
13:30-13:50	0054	Effect of crown ether additive in doctor-bladed perovskite solar cells	Ming-Hsien Li	National Chi Nan University
13:50-14:10	0405	Enhancing the Reproducibility of Self-Assembled Monolayer-Based Perovskite Solar Cells by Interface Engineering at the Buried Interface	Chieh-Ting Lin	National Chung Hsing University
14:10-14:30	0349	Towards Highly Efficient 4-Terminal Perovskite/Si Tandem Solar Cell	Yu-Ching Huang	Ming Chi University of Technology
14:30-14:45	0195	Effect of Ag incorporation in the sulfurization after selenization (Ag,Cu)(In,Ga)(S,Se) ₂ solar cell	Wei-Chih Lin	National Tsing Hua University
14:45-15:00	0299	Transparent Low Moisture Permeable Coating for Encapsulating Perovskite Solar Cell	Chieh-Ming Tsai	National Taiwan University

Symposium B. Nanostructured and Nanocomposite Coatings				
November 12, Sunday	No. (B)	Title (Room: R201. Chair(s): Chuan-Pu Liu and Sven Ulrich)	Presenter	Affiliation
15:50-16:10	0024	Development of carbon-based nanocomposites by means of HiPIMS: through nanoscale constitution and microstructure to adjustable mechanical and tribological properties	Sven Ulrich	Karlsruhe Institute of Technology
16:10-16:25	0128	Changes in Microstructure and Mechanical Properties of ZrCuTi Metallic Glass Films Prepared by Magnetron Sputtering at Different Power	Yu Huang	National Chung Hsing University
16:25-16:40	0131	Effect of Thickness Ratio on Residual Stress of Cu/W and Cu/Cr Multilayer Thin Films Deposition by HiPIMS	Zhen-Yi Zeng	National Chung Hsing University
16:40-16:55	0148	Mechanical and cutting tool properties of (TiW)N hard coatings deposited by reactive sputtering	Chia-Chin Hsieh	National Yang Ming Chiao Tung University
16:55-17:10	0231	Improving thermal shock resistance of AlTiSiN hard coatings using a multilayer architecture	Chung En Chang	National Formosa University
17:10-17:25	0316	Preparation of polypyrrole film with various morphology using supercritical carbon dioxide assisted emulsified electrode	Punvinai Vinaisuratarn	Tokyo Institute of Technology

November 13, Monday	No. (B)	Title (Room: R201. Chair(s): Ying-Hao Chu and Pei-Chen Su)	Presenter	Affiliation
10:40-11:00	0389	Nanoparticle Additives for 4D Printed Parts with Improved Dimensional Accuracy	Pei-Chen Su	Nanyang Technological University
11:00-11:15	0127	Fabrication of Au/Poly(3-methoxythiophene) Hybrid Material toward Application in Electrocatalysts for Alcohol Oxidation	Tomoyuki Kurioka	Tokyo Institute of Technology
11:15-11:30	0158	Hydrothermal synthesis of Au decorated BiFeO ₃ for high-efficient photocatalytic degradation.	JHEN-YANG WU	Tokyo Institute of Technology
11:30-11:45	0515	Highly-sensitive magnetically-controllable Ag@TiO ₂ @Fe ₃ O ₄ hollow spheres and their application in photocatalytic degradation	Chih-Yu Lee	National Chung Hsing University
11:45-12:00	0071	Influence of Plasmonic Resonance and Size Effect on Photocatalysis of MoS ₂ /Gold Hybrid Nanostructures for Water Splitting	Yi-Hsueh CHEN	National Cheng Kung University

November 13, Monday	No. (B)	Title (Room: R201. Chair(s): Hong-Ying Chen and Hailin Sun)	Presenter	Affiliation
13:30-13:50	0208	Aging effects on Antimicrobial Properties with Nano-Cluster-Doped Low Friction Amorphous Carbon Coatings for Space Applications	Hailin Sun	Teer Coatings Ltd
13:50-14:10	0003	Benefits of metal-ion irradiation for nanostructure and phase control during thin film growth by magnetron sputtering	Grzegorz Greczynski	Linköping University
14:10-14:25	0078	Optimization of Laser Annealing Parameters Using Numerical Simulation and Machine Learning to Enhance the Optoelectronic Performance of ITO/Ag/ITO Electrodes	Keh-Moh LIN	Southern Taiwan University of Science and Technology
14:25-14:40	0117	Nickel thickness dependent structural, and magnetic properties of Ni/rubrene bilayers	R G Tanguturi	National Taiwan Normal University
14:40-14:55	0055	Growth of Quenched-produced Diamond by Coaxial Arc Plasma Deposition for Biomedical Applications	Abdelrahman Zkria	Kyushu University
14:55-15:10	0144	Green light and CO gas dual sensors of zinc oxide nanorods incorporating organic BDT (dithiophene)-OC ₈ H ₁₇ -Ph	Deng-Yi Wang	National Chi Nan University

November 13, Monday	No. (B)	Title (Room: R201. Chair(s): Hong-Ying Chen and Yong-Jin Yoon)	Presenter	Affiliation
15:30-15:50	0391	SOFC for Enhancing Time of Flight of Drone Operation with ALD thin film coating	Yong-Jin Yoon	Korea Advanced Institute of Science & Technology
15:50-16:05	0218	Study on field emission properties of gate vertically aligned carbon nanotube thin film	Chin-Pao Chuang	National United University
16:05-16:20	0027	Work Function Changes by 2D Material coatings on LaB ₆	Shuichi Ogawa	Nihon University
16:20-16:35	0297	Solution-gated graphene field-effect transistors that exhibit percolation phenomena	Yu-Hsiu Lin	Ming Chi University of Technology
16:35-16:50	0337	Hydrothermal fabrication of template-assisted perovskite-nanostructured films and their electric properties	Yen-Lun Chiu	National Cheng Kung University

November 14, Tuesday	No. (B)	Title	Presenter	Affiliation
		(Room: R201. Chair(s): Po-Chun Chen and Chih Chen)		
10:50-11:10	0209	Low contact resistivity Cu/SiO ₂ hybrid bonding using (111)-oriented nanotwinned Cu	Chih Chen	National Yang Ming Chiao Tung University
11:10-11:25	0101	Facile Nanofabrication of SERS Substrate with Tunable Structure Color for High Enhancement Factor	C. Y. Yu	National Cheng Kung University
11:25-11:40	0409	Fabrication of Nanorods structures of Surface-Enhanced Raman Substrate for Environmental and Biomedical Detection	Wei-Han Lo	Ming Chi University of Technology
11:40-11:55	0503	Development of discarded DVDs reuse and transfer flexible 3D-SERS substrates by oblique angle deposition for wastewater pollutant detection.	Yu-Hsiang Huang	Ming Chi University of Technology

November 14, Tuesday	No. (B)	Title	Presenter	Affiliation
		(Room: R201; Chair(s): Kuan-Che Lan and Fan-Yi Ouyang)		
13:30-13:45	0108	Nanoporous alumina for modifying the surface optical properties of ITO glass	C. K. Chung	National Cheng Kung University
13:45-14:00	0233	A Metal-based Half Mirror With Green LED Mirror Tunnel Effect	Nan-Ming Lin	TYC Brother Industrial Co., Ltd
14:00-14:15	0040	Piezo-Phototronic Nano-Newton Force Sensor based on Double Schottky ZnO Nanorod Arrays	Yi-Miao Lin	National Cheng Kung University
14:15-14:30	0163	Study of Co-intercalated Muscovite	E-Han Li	National Tsing Hua University
14:30-14:45	0061	Novel Layered Composite: Creation of Magnetism in Muscovite by Intercalation	Bo-Sheng Chen	National Tsing Hua University
14:45-15:00	0362	Application of Fe ₃ O ₄ @MoS ₂ for electrocatalytic nitrogen reduction in the magnetic field	Shao-Che Wang	National Taipei University of Technology

Symposium C. Semiconductor, Optoelectronic and Flexible Device Films

November 12, Sunday	No. (C)	Title (Room: Hall. Chair(s): Ying-Hao Chu and Hsin-Ying Lee)	Presenter	Affiliation
15:50-16:10	0174	Funcitonal Oxide Films Fabricated on Flexible Substrate By Wet Process -Ferrite, ZnO and Cu ₂ O Films by Spin-Spray Method-	Nobuhiro Matsushita	Tokyo Institute of Technology
16:10-16:30	0032	Effect of Absorption/Desorption of Oxygen on Thin-Film Transistor Performance	Akihiko Fujiwara	Kwansei Gakuin University
16:30-16:45	0029	Exploring Analog Resistive Switching and Interfacial Effects in InGaZnO-based Resistive Memory Structures for Cognitive Computing	Hyeon-Jun Lee	Daegu Gyeonbuk Institute of Science & Technology
16:45-17:00	0087	Epitaxial Growthy of the 2D Bi ₂ O ₂ Te Layer	Jen-Hua Chang	National Tsing Hua University
17:00-17:15	0190	Bandgap grading via sputtering and post-selenization using SeS ₂ powder enabling Sb ₂ (S,Se) ₃ solar cells with 7.1% efficiency	Yu-Jen Hung	National Changhua University of Education
17:15-17:30	0196	The Characterizations on Current Conduction of Al-doped HfO ₂ Films Fabricated by Atomic Layer Deposition	De-Hao Li	Ming Chi University of Technology

November 13, Monday	No. (C)	Title (Room: Hall. Chair(s): Dong-Sing Wu and Vincent Tung)	Presenter	Affiliation
10:40-11:00	0237	Wafer-scale Epitaxy Growth of 2D Semiconducting Films with Continuous Single Crystallinity	Vincent Tung	The University of Tokyo
11:00-11:15	0155	Thickness-dependent magnetotransport and ultrafast dynamic properties of topological insulator Bi ₂ Se ₃ thin films grown using pulsed laser deposition	Phuoc Huu Le	Ming Chi University of Technology
11:15-11:30	0189	Interfacial Characterization of Si-Doped HfO ₂ Thin-Film Prepared by Atomic Layer Deposition	Wei-Zei Wang	Ming Chi University of Technology
11:30-11:45	0215	Hydrogenation of bi-layer Graphene thin film for future “Magnonics” application	SC RAY	University of South Africa
11:45-12:00	0234	Effects of Process Conditions on Carrier Concentration in ZnGa ₂ O ₄ Thin Films Deposited by RF-Magnetron Sputtering and MOCVD	Shiming Huang	Nation Chung Hsing University

November 13, Monday	No. (C)	Title (Room: Hall. Chair(s): Kao-Shuo Chang and Bui Nguyen Quoc Trinh)	Presenter	Affiliation
13:30-13:50	0487	Cupric Oxide Based Thin Films: Simulation, Experiment and Application Approaches	Bui Nguyen Quoc Trinh	Vietnam National University, Hanoi
13:50-14:05	0063	Delaminated Manganese Phosphorus Trisulfide with multiple layers coupled with Si featuring ultrahigh UV photodetection performances	Tsung-Yen Wu	National Cheng Kung University
14:05-14:20	0238	Investigating thin ITO films for light detectors at cryogenic temperatures	Giorgio Keppel	Istituto Nazionale di Fisica Nucleare
14:20-14:35	0037	Influence of Oxygen Plasma treatment on Polymer Derived Ceramics and Polyimide film of Surface Roughness and Surface Energy	Te-Rung Chi	National Sun Yat-sen University
14:35-14:50	0460	Piezoelectric performance enhancement of MgZnO thin films by selective etching of Magnesium	Bruno Rao	National Cheng Kung University
14:50-15:05	0381	Investigation of Excess Oxygen SiO _x Thin Films Grown by Inductively Coupled Plasma Enhanced Deposition	Ondřej Šik	Brno University of Technology

November 13, Monday	No. (C)	Title (Room: Hall. Chair(s): Chia-Yun Chen and Nguyen Ngoc Dinh)	Presenter	Affiliation
15:30-15:50	0188	3D bio-printing of blood vessel-like structures using umbilical cord stem cells	Nguyen Ngoc Dinh	Vietnam National University
15:50-16:05	0247*	Evaluation of Cross-Sectional Geometry Effect of Au Polycrystalline Micro-cantilever on Bending Strength	Ryohei Hori	Tokyo Institute of Technology
16:05-16:20	0226*	MIM capacitors featuring low EOT and low leakage current density by nitrogen-incorporated HfO ₂ /ZrO ₂ /HfO ₂	Huan Wu	National Tsing Hua University
16:20-16:35	0325*	Nitrogen doped High entropy Ba(Zr,Ti,Ta,Hf,Mo)O _{3-x} N _x Films based ZnSnO Thin Films Transistors for UV sensing	Van Dung Nguyen	National Cheng Kung University
16:35-16:50	0007*	Enhanced Adhesion Strength between Electroplated Cu and ABF Substrate with Thermal Treatment	Pei-Chia Hsu	Yuan Ze University

November 14, Tuesday	No. (C-1)	Title (Room: Hall. Chair(s): Ju-Liang He and Ludvik Martinu)	Presenter	Affiliation
10:50-11:10	0475	Low Global Warming Gases for Plasma Etching Processes	Heeyeop CHAE	Sungkyunkwan University (SKKU)
11:10-11:30	0529	Multifunctional optical coatings for flexible substrates	Ludvik Martinu	Polytechnique Montreal
11:30-11:45	0322	Enhanced performance of p-n binary crystals in photocatalytic water splitting upon the aid of plasmonic coupling	Kun-Ta Lin	National Cheng Kung University
11:45-12:00	0380	Gas flow sputtering prepared Y2O3 for plasma etching resistance	Tzu-Chun Lin	Feng Chia University

November 14, Tuesday	No. (C-2)	Title (Room: R205. Chair(s): Chuan Li and Chia-Feng Lin)	Presenter	Affiliation
10:50-11:05	0187	Experimental Study for Vanadium Oxynitride Thin Films by Reactive Sputtering	Chuan Li	National Yang Ming Chiao Tung University
11:05-11:20	0077	Fabrication of Bi ₂ O ₂ S Epitaxial Thin Films and Their Novel Optical Properties	Chuan Chuang	National Tsing Hua University
11:20-11:35	0456	Ultraconfined Space-Capped VLS-Grown of 2L SV-Mo _{1-x} V _x S ₂ for CO ₂ Photoreduction	Mohammad Qorbani	National Taiwan University
11:35-11:50	0053	Non-volatile Modulation on the Electronic Potential of the 2D Bi ₂ O ₂ Se Layer via Ferroelectric Polarization	Yong Jyun Wang	National Tsing Hua University

November 14, Tuesday	No. (C-1)	Title (Room: R303. Chair(s): Wei-Sheng Liu and Chih-Ping Chen)	Presenter	Affiliation
13:30-13:45	0107	High-efficiency perovskite solar cells with efficiencies exceeding 20% are developed by employing phenanthrene [9,10-D] imidazole-based undoped interfacial layer films.	Chung-Ming Liu	Ming Chi University of Technology
13:45-14:00	0184	Application of Non-fullerene Acceptor Materials in Electron Transport Layer Additive of High-performance Perovskite Solar Cells	Chien-Yu Lung	Ming Chi University of Technology
14:00-14:15	0280	Enhancing the efficiency of non-fullerene organic solar cells through a processing method that using a non-halogenated solvent	Zih-Ruei Huang	Ming Chi University of Technology
14:15-14:30	0286	Research on the Application of the Interface Layer of Small Molecule Materials in High-efficiency Inverted-Perovskite Solar Cells	You-Wei Cao	Ming Chi University of Technology
14:30-14:45	0303	Study on ultra-thin metal transparent electrode in visible light absorbing semi-transparent organic solar cells	Anjali Chandel	Ming Chi University of Technology
14:45-15:00	0354	A Small-Molecule Donor with Versatility for Fabricating High-Performance Ternary Organic Photovoltaics Based on Sequential Solution Deposition.	Pei-Jui Weng	Ming Chi University of Technology
15:00-15:15	0517	Terahertz optoelectronics using ultrafast carrier lifetime in germanium thin films	Dhanashree Chemate	Indian Institute of Technology, Bombay
15:15-15:30	0008	Exploring the role of sulfur induced sputtering targets for the fabrication of $\text{Cu}_2\text{ZnSnS}_4$ absorber layer based thin film solar cells	Balaji Gururajan	Yuan Ze University

November 14 Tuesday	No. (C-2)	Title (Room: R303. Chair(s): Chun-Yuan Huang and Hsiang Chen)	Presenter	Affiliation
13:30-13:45	0143	Application of an Automated Monitoring System for LED Degradation in Extreme Environments	Yao-Hong Huang	National Chi Nan University
13:45-14:00	0466	Vertically Aligned hollow-GaN grown by single step using CVD for Multisource Energy Harvest by Piezo-Photo-Pyroelectric Coupled Nanogenerators	J.V. Spandana Rao	National Cheng Kung University
14:00-14:15	0392	All-Solution-Processed Inverted Quantum Dot-Light-Emitting Diodes by Architecting the Functionized Polyethylenimine Ethoxylated (PEIE) Layer	Li-Tzu Wang	National Taitung University
14:15-14:30	0379	Effect of Target Power on the Microstructure and Properties of Cu-Ag Thin Films	Yu-Chieh Wang	National Tsing Hua University
14:30-14:45	0068	Fabrication of superconductive muscovite via MgB_2 intercalation	Shu-Hua Kuo	National Tsing Hua University
14:45-15:00	0353	Ternary near-infrared organic photodetector with high-efficiency sensing capability	YI-YANG HSU	Ming Chi University of Technology
15:00-15:15	0079	$\text{Mn}_4\text{N}(111)$ film grown on glass substrate with AlN/Al buffer layer and its magnetic properties	Si Yun	Tokyo Institute of Technology
15:15-15:30	0213	The Physical and Electrical Characterizations of $\text{Al}/\text{MoO}_x/\text{p-Si}$ (MIS) Structures	Cheng-Wei Lin	Ming Chi University of Technology

Symposium D. Tribological and Protective Coatings

November 12, Sunday	No. (D)	Title (Room: R202. Chair(s): Fan-Bean Wu and Chau-Chang Chou)	Presenter	Affiliation
15:50-16:10	0221	Industrial Scale Reactive HIPIMS - Applications and Active Process Control	Ralf Bandorf	Fraunhofer Institute for Surface Engineering and Thin Films IST
16:10-16:25	0197	Highly-impermeable AlON moisture barrier films deposited by high power impuled magnetron sputtering	Sheng-En Lin	Ming Chi University of Technology
16:25-16:40	0157	Deposition of diamond-like carbon using high-power pulsed magnetron sputtering	Takayuki Ohta	Meijo university
16:40-16:55	0318	Properties evaluation of TiO _x thin films grown by superimposed HiPIMS and MF system	Shih-Yang Hsu	National Taipei University of Technology
16:55-17:10	0277	Microstructure and Corrosion Resistance Evaluation of TiWZrB Boride Films	WEI-XIANG FANG	Ming Chi University of Technology

November 13, Monday	No. (D)	Title (Room: R202. Chair(s): Shih-Chen Shi and Simizu Tetuhide)	Presenter	Affiliation
10:40-11:00	0388	Recent Advances of Atmospheric Pressure Plasma Nitriding for Surface Hardening on Metals	Yu-Lin Kuo	National Taiwan University of Science and Technology
11:00-11:15	0259	Characterization and Corrosion Studies of Environmentally-Friendly Conversion Coating as Chromate Free on 6061 Aluminum Alloy	Yu-Cheng Liu	Ming Chi University of Technology
11:15-11:30	0273	Enhancing mechanical properties of surface hardness and surface free energy by nitriding using atmospheric pressure plasma jet	Fikiru Tafase Mosisa	National Taiwan University of Science and Technology
11:30-11:45	0178	Effect of increasing residence time of methane on amount of exhausted methane in DLC coating with plasma CVD	Ito Chinatsu	Gifu University
11:45-12:00	0260	Development of a Ce Thin Film Covered on Mn-Ce-P Conversion Coating for Excellently Corrosion Resistance Improvement on LZ91 Magnesium Alloy	Chin-Jou Chang	Ming Chi University of Technology

November 13, Monday	No. (D)	Title (Room: R202. Chair(s): Bo-Shiuan Li and Fan-Bean Wu)	Presenter	Affiliation
13:30-13:50	0438	Hard Coating on Refillable Solid State Hydrogen Storage Chamber	Chien-Chon Chen	National United University
13:50-14:05	0198*	Fabrication of Anion-Exchangeable Electrodeposited Zn-Al Layered Double Hydroxides (LDHs) Coating on ZX21 Mg Alloy	Wei-Lun Hsiao	National Tsing Hua University
14:05-14:20	0186	Evaluating the Effect of Thickness of ZrN Thin Film Deposited on Zircaloy-4 on Hydrogen Resistance	Yi-Fan Tseng	National Tsing Hua University
14:20-14:35	0138	Fe modified CrAlN coatings for tribological applications	Kalscheuer	RWTH Aachen University
14:35-14:50	0142	Degradation of ZnO-based Photodetectors in Salty Water Vapor	Cheng-Shan Chen	National Chi Nan University
14:50-15:05	0170	On the growth of Ti and Al films on inner-wall of millimeter-sized hole by DC magnetron sputtering	Hidetoshi Komiya	Tokyo Metropolitan University

November 13, Monday	No. (D)	Title (Room: R202. Chair(s): Bo-Shiuan Li and Fan-Bean Wu)	Presenter	Affiliation
15:30-15:50	0365	Microstructure and tribological properties of cold sprayed CoCrFeNiMox high entropy alloy coatings	Shuo Yin	Trinity College Dublin
15:50-16:05	0348	Investigating the corrosion resistance of Zn and Al coating deposited by arc thermal spraying process	Tai-Cheng Chen	National Taiwan University
16:05-16:20	0439	Improve AISI 1020 Steel Surface Hardness and Corrosion Resistance by Thermal Spray Anodic Film	Chien-Chon Chen	National United University
16:20-16:35	0400	A predictive modeling for cold spray deposition and the resulting microstructure toward additive manufacturing using polymeric templates	Jung-Ting Tsai	National Taiwan University of Science and Technology
16:35-16:50	0289	The Effects of Cr Content to the Microstructure and Mechanical Properties of TiVNbCrXTa Refractory High-Entropy Alloy Coatings	Yong-Ze Xue	National Sun Yat-sen University

November 14, Tuesday	No. (D)	Title	Presenter	Affiliation
		(Room: R202. Chair(s): Simizu Tetuhide and Fan-Bean Wu)		
10:50-11:10	0009	Mechanical and Electrochemical Properties of Polymer derived Silicon Oxycarbonitride ceramic film by Pre ceramic Polysilazane Precursor Coating	Lung-Hao Hu	National Sun Yat-sen University
11:10-11:25	0030	High Temperature Properties of High-Speed PVD Deposited Thick α - and γ -Al ₂ O ₃ Coatings	Parisa Hassanzadegan Aghdam	RWTH Aachen University
11:25-11:40	0171	Effect of carbon nano material on the resistance and adhesion of pogo pin at different thicknesses of titanium adhesive layer	Hsuan-Ting Lin	National United University
11:40-11:55	0173	Improved durability of water lubrication characteristics exhibited by Si-DLC film supporting silica nanoparticles	Shuzo Kuzuya	Gifu University

November 14, Tuesday	No. (D)	Title	Presenter	Affiliation
		(Room: R202. Chair(s): Fan-Bean Wu and Chau-Chang Chou)		
13:30-13:50	0446	Control of Composition, Microstructure, and Properties of Sputter-Deposited Transition Metal Diborides	Ivan Petrov	University of Illinois
13:50-14:05	0252	Study on Mechanical Properties and Corrosion Resistance of TiZrNbTaFeC High Entropy Alloy Carbide Coatings	Ismail Rahmadtulloh	National Taiwan University of Science and Technology
14:05-14:20	0428	Super-Hard Nanodiamond Composite Coatings Deposited via Eco-Friendly PVD Coaxial Arc Plasma Deposition on WC-Co Substrates for Cutting Tool Advancements	Mohamed Ragab Diab	Kyushu University
14:20-14:35	0433	Effect of sodium tungstate on growth mechanism and wear resistance of micro-arc oxidation coatings formed on AZ31 magnesium alloy	Shih-Yen Huang	National Taiwan University
14:35-14:50	0073	Synthesis and characterization of the ceramic refractory metal high entropy nitride and carbide thin films from Cr-Hf-Mo-Ta-W system	Pavel Soucek	Masaryk University
14:50-15:05	0239	High temperature age hardening mechanism of multilayered AlCrBN/AlTiSiN hard coatings	He-Qian Feng	National Formosa University
15:05-15:20	0023	High Al content TiAlCrSiN HPPMS coatings for cutting tool applications	Muhammad Tayyab	Surface Engineering Institute
15:20-15:35	0287	Effects of TiB ₂ contents on the properties of AlCrNbSiTiBN high entropy alloy nitride coatings	Igamcha Moirangthem	National Taiwan University of Science and Technology

Symposium E. Organic and Biological Coatings				
November 12, Sunday	No. (E)	Title	Presenter	Affiliation
		(Room: R303. Chair(s): Her-Hsiung Huang and Peng Chen)		
15:50-16:10	0136	Improve the Osteoconductivity and Antibacterial Properties of Metallic Dental Implants through Smart Surface Designing	Peng Chen	Tohoku University
16:10-16:25	0507	Antimicrobial activity of CuO/ZnO hybridized with nano silicate platelets	Yu-Han Chen	National Chung Hsing University
16:25-16:40	0445	Surface Zwitterionic Modification of Cellulose Hydrogel for Posterior Capsule Opacification Prophylaxis	Cheng-Jui Yang	National Tsing Hua University
16:40-16:55	0508	Surface Modification of Polylactic Acid Nonwoven by a Tailored Acrylic Acid Remote Atmospheric Pressure Plasma for Improving Protein Immobilisation	Wei-Yu Chen	Ming Chi University of Technology
16:55-17:10	0516	Eel-inspired Slippery Coatings and Their Functions Under Water	Li-Wei-Teng	National University of Kaohsiung
November 13, Monday	No. (E)	Title	Presenter	Affiliation
		(Room: R303. Chair(s): Yusuke Tsutsumi and Ying-Sui Sun)		
10:40-11:00	0311	Development of multi-biofunctionalized titanium surface by two-step micro-arc oxidation	Yusuke TSUTSUMI	National Institute for Materials Science
11:00-11:15	0452	Non-Stick High Biocompatibility Thin-Film Metallic Glass (TFMG) Coating for Medical Devices	Helmi Son Haji	National Taiwan University of Science and Technology
11:15-11:30	0340	Biocompatibility and mechanical properties of ZrTiNbFe medium entropy alloy thin films	Chung Shao Kai	Ming Chi University of Technology
11:30-11:45	0320	Preparation of hydrogenated CoCrMo alloy for orthopedic implant application	Yun-Qing Sun	National Taipei University of Technology
November 13 Monday	No. (E)	Title	Presenter	Affiliation
		(Room: R303. Chair(s): Han-Cheol Choe and Jr-Jeng Ruan)		
13:30-13:50	0501	Functional Surface Modification for Dental Implant	Han-Cheol Choe	Chosun university
13:50-14:05	0317	Data-driven prediction of protein adsorption on organic surfaces	Tomohiro Hayashi	Tokyo Institute of Technology
14:05-14:20	0421	Application of Differential Muller Matrix for MicroRNA Detection	Yi-Cheng Pan	National United University
14:20-14:35	0298	Gold nanoparticles decorated on graphene oxide for electrochemical biosensors	Shao-Yang Lu	Ming Chi University of Technology
14:35-14:50	0334*	Visible-light Disinfection Study of Ag@TiO ₂ Against Bacteriophage MS2	Chih-Tieh Wu	National Cheng Kung University

Symposium F. Metallic and High-entropy Alloy Coatings

November 13, Monday	No. (F)	Title (Room: R205. Chair(s): Yi-Chia Chou and Jyh-Wei Lee)	Presenter	Affiliation
10:40-11:00	0019	Multi-component and high-entropy materials – bonding, disorder and possibilities	Erik Lewin	Uppsala University
11:00-11:15	0165	Microstructures and mechanical properties of (CoCrNi) _{100-x-y} MoxTiy medium entropy alloy films	Pin-Yu Chen	National Taiwan University
11:15-11:30	0278	Effect of bilayer period on the mechanical properties and corrosion resistance of TiZrNbTaFeN/TiN high entropy alloy nitride multilayer thin films	Sheng-Yuan Hung	Ming Chi University of Technology
11:30-11:45	0474	Influence of working gas pressure on the microstructure and mechanical properties of sputter-deposited MoNbTaW multi-principal element alloy thin films	B BHARATH KUMAR	University of Hyderabad
11:45-12:00	0093	Effect of Composition and Preparation conditions on the Structure and Properties of High Entropy Alloy Films	Boya Li	Tokyo Institute of Technology

November 13, Monday	No. (F)	Title (Room: R205. Chair(s): Junko Hieda and Shih-Hsun Chen)	Presenter	Affiliation
13:30-13:50	0427	Investigation of Superior Properties of High Entropy Alloys using Transmission Electron Microscopy and Possible Medical Application	Yi-Chia Chou	National Taiwan University
13:50-14:05	0122	Mechanical properties and corrosive resistance of (ZrBSiCr)N thin films	Li-Zhu Wang	National Taiwan Ocean University
14:05-14:20	0292	The Potential of DC-Atmospheric Pressure Plasma Jet (DC-APPJ) on The Metals Deposition	Ahmad Nur Riza	National Taiwan University of Science and Technology
14:20-14:35	0336	The influence of oxygen and nitrogen flow ratio on structure and properties of AlCrTaTiZr oxynitride films	Yung-Chu Liang	National Tsing Hua University
14:35-14:50	0272	Properties evaluation of TiZrNbTaFeBN high entropy alloy boron nitride thin films	Meng-Hsueh Chuang	National Taiwan University of Science and Technology
14:50-15:05	0338*	Supercritical CO ₂ -Assisted Ni-P Electroless Plating of PEI 3D Components	Ami Iwasaki	Tokyo Institute of Technology

November 13, Monday	No. (F)	Title (Room: R205. Chair(s): Erik Lewin and Pak-Man Yiu)	Presenter	Affiliation
15:30-15:50	0249	Development of titanium-magnesium alloy films for biomedical applications	Junko Hieda	Nagoya University
15:50-16:05	0075	Magnetron Sputtered Ta-W-B Amorphous Refractory Alloy Thin Film For Tribological Applications	Shaoyu Lu	Ming Chi University of Technology
16:05-16:20	0146	THE EFFECTS OF PULSED-CURRENT DENSITIES ON ELECTRODEPOSITION OF CoCrFeNiSn HIGH ENTROPY ALLOYS THIN FILMS	Sakdipat Jaturapronperm/Aphichart Rodchanarowan	Kasetsart University
16:20-16:35	0194	Zr-based Metallic Glass Thin Films: A Study of Time and Temperature-Dependent Mechanical Properties Using Bulge Test	Tra Anh Khoa Nguyen	National Chung Hsing Univeristy
16:35-16:50	0271	Fabrication of TiZrNbSiMoN high entropy alloy thin films using a high power impulse magnetron sputtering technique: Effects of nitrogen addition	REN ZONG LIN	Ming Chi University of Technology
16:50-17:05	0149	Effect of substrate bias on the microstructure and properties of (AlCrSiNbZr)N _x high entropy nitride thin film	Yi-Jun Yan	National Tsing Hua University

November 14, Tuesday	No. (F)	Title (Room: R205. Chair(s): Heng-Jui Liu and Shih-Hsun Chen)	Presenter	Affiliation
10:50-11:05	0110	Supercritical CO ₂ -Assisted Ni-P Electroless Plating of UHMW-PE Fibers	Hikaru Kondo	Tokyo Institute of Technology
11:05-11:20	0520	Optimization of plasma-electrolytic polished surface on pitting resistance in 304 stainless steel	Chun-Wei Chang	Ming Chi University of Technology
11:20-11:35	0414	Applications of Ni and Ag Metallizations at the Solder/Cu Interfaces in Advanced High-power Automobile Interconnects: An Electromigration Study	Meng-Chun Chiu	National Taiwan University of Science and Technology
11:35-11:50	0396	Nonequal molar AlCrNbSiBC High Entropy Nitride Coating with superior oxidation resistance deposited by DC Reactive Magnetron Sputtering	Pei-Yen Huang	National Tsing Hua University

Symposium G. Topical Symposium: theory, simulation, and modeling; quantitative surface analysis

November 12, Sunday	No. (G)	Title (Room: R205. Chair(s): Ming-Tzer Lin and Po-Liang Liu)	Presenter	Affiliation
15:50-16:05	0135	First-principle Molecular Dynamics Simulations of the Properties for Boron-doped Diamond-like Carbon	Yue Qiang	Okayama University
16:05-16:20	0018	Simulations of Wrinkle Patterns on Thin Films Attached to Compliant Substrates	Yu-Lin Shen	University of New Mexico
16:20-16:35	0236	Differences in Curing Behavior of Polyurethane Adhesives at the Interface and in the Bulk	Seito Yamazaki	Chiba University
16:35-16:50	0477	Ab-initio Materials Selections of Interlayers for the Interface Stabilization of Solid-state Electrolytes and Lithium Anodes in Solid-state Lithium Batteries	Cheng-Man Wang	National Taiwan University of Science and Technology
16:50-17:05	0006	Effect of Cu Interconnect Roughness on the High-frequency Transmission Performance at 1–40 GHz	Ying-Chih Chiang	Yuan Ze University