# TACT 2015 International Thin Films Conference POSTER Program Book



TACT 2015 International Thin Films Conference November 15~18, 2015, National Cheng Kung University, Tainan, Taiwan

#### 2015.11.16 11:00-13:00

### Poster Presentations 1- Symposia A & G POSTER SYMPOSIUM A

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Poster No	Title	Author	Affiliation	
P-A17- 0423	Fabrication of Zn(S, O) buffer layer for CIGS solar cells by highly deposited rate chemical bath deposition process	Sheng-Wen Chan, Wei-Tse Hsu, Yun-Feng Chen, Lung-Teng Cheng, Chia- Ming Chang, Chou-Cheng Li, Song-Yeu Tsai	Industrial Technology Research Institute, Taiwan	
P-A18- 0424	Fabrication of Zn(S, O) buffer layer for CIGS solar cells by highly deposited rate chemical bath deposition process	Sheng-Wen Chan, Wei-Tse Hsu, Yun-Feng Chen, Lung-Teng Cheng, Chia- Ming Chang, Chou-Cheng Li, Song-Yeu Tsai	Industrial Technology Research Institute, Taiwan	
P-A23- 0478	Sputter-deposited 20 mol% Gadolinia- doped Ceria Films on 8 mol% Yttria- stabilized Zirconia Tapes for Improved Electrochemical Performance	Tzu-Tung Chang <sup>1</sup> , Li-Yu Wu <sup>1</sup> , Yu-Lin Kuo <sup>2</sup> , Kuang- Hui Chang <sup>2</sup> , Shao-Lin Lee <sup>1</sup> , Chun Huang <sup>1</sup>	<ul> <li>Yuan Ze University,         Taiwan     </li> <li>National Taiwan</li> <li>University of Science and Technology, Taiwan</li> </ul>	
P-A8- 0199	Non-precious metal catalysts used in anion exchange membrane water electrolysis	Guan-Cheng Chen, Hsin- Chih Huang, Chen-Hao Wang	National Taiwan University of Science and Technology, Taiwan	
P-A13- 0254	Optimization of Inverted Bulk- heterojunction Organic Photovoltaics by Morphology and Thickness of Electron Transfer Layer	Chih-Hung Chen, Chen- Hao Wang	National Taiwan University of Science and Technology, Taiwan	
P-A15- 0326	Hetero-nanostructured Ga <sub>2</sub> Te <sub>3</sub> /Sb <sub>2</sub> Te <sub>3</sub> films with enhanced thermoelectric performance	Tsung-Han Chen, Yu-Ting Hung, Chun-Hua Chen	National Chiao Tung University, Taiwan	
P-A11- 0234	The Preparation of Nb-doped TiO <sub>2</sub> Nanostructures and Their Applications as the Photoelectrode for DSSCs	Ya-Han Cheng <sup>1</sup> , Huei-Yu Liu <sup>1</sup> , Jenn-Ming Song <sup>1</sup> , Chih-Ming Chen <sup>2</sup> , and Wen-Fu Ho <sup>3</sup>	<ul> <li>Department of Materials         Science and Engineering,             National Chung Hsing             University, Taiwan         Department of Chemical         Engineering, National Chung         Hsing University, Taiwan         Department of Chemical         and Materials Engineering,         National University of         Kaohsiung, Taiwan     </li> </ul>	
P-A6- 0175	Functionalized Carbon Nanotubes as Supports of Platinum Nanoparticles for Electrocatalytic Reactions	Yu-Chun Chiang†*, Pai- Hsuan Wu, Heng-I Yueh	Yuan Ze University, Taiwan	
P-A19- 0446	Effects of shell thickness on the photoactivaed properties of ZnO-CdS core-shell nanostructures	Cheng-Chia Chung, Yuan- Chang Liang	National Taiwan Ocean University, Taiwan	
P-A4- 0157	Enhanced Rate Capability of Spinel LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub> Cathodes with Carbon Overlayer by Sputtering Method	Tan Hui Gee, Yu-Ting Hsiao, Wei-Yu Chou, Jeng- Gong Duh	National Tsing Hua University, Taiwan	
P-A34- 0346	ZnO Nanorods-based Hybrid Solar Cells Integrated Nanogenerator for Energy Harvesting	Yu-Jen Hsiao <sup>1</sup> , Liang-Wen Ji <sup>2</sup> , Wan-Lin Zhou <sup>2</sup> , Zi-Jun Zhao <sup>2</sup>	<sup>1</sup> National Applied Research Laboratories, Taiwan	

Poster No	Title	Author	Affiliation
			<sup>2</sup> National Formosa University, Taiwan
P-A35- 0365	A DSSC Performance Evaluation Study using ZnO Electrodes Grown by Low Pressure Chemical Vapor Deposition on Al	Yuneng Chang, Chengjang Wu	Lungwha University of Science and technology,
P-A33- 0290	The Fabrication and Characterization of Boron-Doped ZnO Thin Films Processed by Inductively-Coupled Plasma Reactor for Heterojunction Silicon Solar Cell Applications	Pi-Chun Juan <sup>1</sup> , Jung-Ruey Tsai <sup>2</sup> , Chia-Ming Yang <sup>3</sup> , and Tsung-Chia Ho <sup>1</sup>	<sup>1</sup> Department of Materials Engineering and Center for Thin Film Technologies and Applications, Ming Chi University of Technology, Taiwan <sup>2</sup> Asia University, Taiwan <sup>3</sup> Chang Gung University, Taiwan
P-A32- 0266	Atmospheric pressure plasma jet coated La <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3-δ</sub> material for solid oxide fuel cell application	Sagung Dewi Kencana <sup>1</sup> , Yu-Lin Kuo <sup>1</sup> , Hue-Ting Huang <sup>1</sup> , Yu-Ming Su <sup>1,2</sup>	<ul> <li>National Taiwan</li> <li>University of Science and Technology, Taiwan</li> <li>Institute of Nuclear</li> <li>Energy Research, Taiwan</li> </ul>
P-A21- 0448	Sputtering deposited ZnO-In2O3 composite thin films and their photo activated properties	Chia-Min Lee, Yuan- Chang Liang	National Taiwan Ocean University, Taiwan
P- A31- 0336	Preparation of titanium and aluminum zinc oxide thin films and applications in thin film solar cells	Shui-Yang Lien <sup>1</sup> , Chia- Hsun Hsu <sup>2</sup> , Pin Han <sup>2</sup>	<ul> <li>Da-Yeh University,</li> <li>Taiwan</li> <li>National Chung Hsing</li> <li>University, Taiwan</li> </ul>
P-A1- 0050	A Study on the Effects of Siloxane Derivatives as Co-adsorbents on the Performance of Dye-Sensitized Solar Cells	Cheng-Lan Lin, Chun- Ming Chu, Chih-Hsien Chen <sup>2</sup>	<ul> <li><sup>1</sup> Tamkang University, Taiwan</li> <li><sup>2</sup> Feng Chia University, Taiwan</li> </ul>
P-A2- 0051	Preparation and Characterization of Polyaniline/Tungsten Trioxide Complementary Electrochromic Devices with Succinonitrile/Polyethylene Glycol Composite Solid-state Electrolyte	Cheng-Lan Lin, An Chen	Tamkang University, Taiwan
P-A3- 0117	The spectral properties and thermal stability of CrN/CrAlN/Al <sub>2</sub> O <sub>3</sub> spectrally selective coating	Shu-Wei Yang <sup>1</sup> , Yu-Ly Lin <sup>1</sup> , Ting-Kan Tsai1 <sup>2</sup>	<ul> <li>Graduate Institute of Materials Science and Engineering, National Formosa University, Taiwan</li> <li>Department of Materials Science and Engineering, National Formosa University, Taiwan</li> </ul>
P-A12- 0244	Improvement of Efficiency of Cu(In,Ga)Se Solar Cells by Nanothick Mo Barrier Film	•	National Changhua University of Education, Taiwan
P-A14- 0325	A facile and green synthesis of copper zinc tin sulfide (CZTS) materials for thin film photovoltaics	Yi-Rung Lin <sup>1, 2</sup> , Ling-Kang Liu <sup>1, 3</sup> , Li-Chyong Chen <sup>4</sup> , Kuei-Hsien Chen <sup>5</sup>	<sup>1</sup> Department of Chemistry, National Taiwan University, Taipei, Taiwan <sup>2</sup> Nano Science and Technology Program,

Poster No	Title	Author	Affiliation
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P-A7- 0187	Low temperature deposition of composite ITiO/Ag thin films and their application in flexible dye-sensitized solar cells	Hsin-Chun Lu, Wan-Yu Hung, Chun-Hung Lin	Chang Gung University, Taiwan
P-A20- 0447	Coating CdS crystallites with different crystal features on Si and their photoactivity properties	Tsai-Wen Lung,Yuan- Chang Liang	National Taiwan Ocean University, Taiwan
P-A24- 0564	Mixed photoanodes incorporating ZnO nanocrystallite aggregates for dyesensitized solar cells	Sian-Yang Sie <sup>1</sup> , Sheng-Kai Sun <sup>1</sup> , Yen-Wei Lu <sup>1</sup> , Wei- Chen Chang <sup>2</sup> , Wan-Chin Yu <sup>1</sup> , Li-Wei Weng <sup>2</sup>	<ul> <li>National Taipei</li> <li>University of Technology,</li> <li>Taiwan</li> <li>Institute of Nuclear</li> <li>Energy Research, Taiwan</li> </ul>
P-A9- 0213	XPS Valence Band Studies of Nanocrystalline Zr-Pd Alloy Thin Films	J. Skoryna <sup>1,2,</sup> A. Marczyńska <sup>1,</sup> M. Werwiński <sup>1,</sup> S. Pacanowski <sup>1,3,</sup> A. Rogowska <sup>1,3,</sup> M. Wachowiak <sup>1,3,</sup> A. Rybacki <sup>1,3</sup> , L. Smardz <sup>1</sup>	<ul> <li>Institute of Molecular Physics, Polish Academy of Sciences, Poland</li> <li>NanoBioMedical Centre, Adam Mickiewicz University, Poland</li> <li>Faculty of Technical Physics, Poznań</li> <li>University of Technology, Poland</li> </ul>
P-A10- 0214	Correlation Between Interlayer Exchange Coupling and Hydrogen Absorption in V- Fe Layered Structures	J. Skoryna <sup>1,2</sup> , M. Wachowiak <sup>1,3</sup> , A. Marczyńska <sup>1</sup> , K. Synoradzki <sup>1</sup> , A. Rogowska <sup>1,3</sup> , S. Pacanowski <sup>1,3</sup> , B. Szymański <sup>1</sup> , T. Toliński <sup>1</sup> , L. Smardz <sup>1</sup>	<ul> <li><sup>1</sup> Institute of Molecular Physics, Polish Academy of Sciences, Poland</li> <li><sup>2</sup> NanoBioMedical Centre, Adam Mickiewicz University, Poland</li> <li><sup>3</sup> Faculty of Technical Physics, Poznań University of Technology Poland</li> </ul>
P- A27- 0174	The Innovative Patterning Processes for Ni/Cu Plated Silicon Solar Cells	Yu-Han Su, Wei-Yang Ma, Tsun-Neng Yang, Cheng-Si Tsao, Charn-Ying Chen	Institute of Nuclear Energy Research, Taiwan
P-A25- 0581	Promotion effect of Cotton-like TiO <sub>2</sub> light scattering layer to dye-sensitized solar cells	Bing-Hong Tang <sup>1</sup> , Wei- Chen Chang <sup>2</sup> , Ren-Jang Wu <sup>1</sup>	<sup>1</sup> Providence University, Taiwan <sup>2</sup> Institute of Nuclear Energy Research, Taiwan
P-A16- 0374	Infrared transparent NiCo <sub>2</sub> O <sub>4</sub> thin film as a Front Electrode for Solar Cells application		National Cheng Kung University, Taiwan

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P-A5- 0172	Synthesis of Pd <sub>3</sub> @Pt <sub>3</sub> Co/C core-shell structure as catalysts for oxygen reduction reaction	Kai-Chin Wang, Hsin-Chih Huang, Chen-Hao Wang	National Taiwan University of Science and Technology, Taiwan
P-A30- 0576	Influences of plasma spraying parameters on fabrication of tubular anode of SOFC	Po-Hao Wang, Yung-Chin Yang	National Taipei University of Technology, Taiwan
P-A29- 0211	Characteristic of CIG precursor with high Ga ratio selenized by the RTP process	Cheng-Han Wu, Shih- Chang, Liang, De-Ru Jung, Cuo-Yo Ni, Hui-Yun Bor	National Chung-Shan Institute of Science and Technology, Taiwan
P-A36- 0386	Spectroscopic ellipsometry study on compound-induced changes in structural and optical properties of In <sub>2</sub> O <sub>3</sub> :Sn-ZnO:Al films by alternating sputtering method for solar cells	Keh-moh Lin, Sin-Wei Wu, Sin-Bo Wang, Liang-Yan Li	Southern Taiwan University of Science and Technology, Taiwan
P-A26- 0104	Preparation of Pr <sub>2</sub> NiO <sub>4</sub> thin film by chemical solution deposition	Wei-Yi Yang, Han-Chia Lee, Te-Wei Chiu	National Taipei University of Technology, Taiwan
	Use silicon nitride thin film combined with metal-assisted chemical etching to enhance the performance of silicon nanopillar solar cells		National United University, Taiwan
P-A37- 0613	Electrodeposition synthesis of flower- shape NiCo <sub>2</sub> O <sub>4</sub> -3D graphene architectures as binder-free electrode for supercapacitor	Chunfei Zhang <sup>1</sup> , Joong Hee Lee <sup>2</sup> , Jong-Sung Yu <sup>1</sup>	<ul> <li>Department of Energy Systems Engineering, DGIST, Korea</li> <li>Chonbuk National University, Korea</li> </ul>
P- A28- 0201	The discussion on reaction mechanism for CIGS absorber layer by varying precursor structures	S.C.Liang, C.N.Wei , C.Y.Ni, and H.Y.Bor	National Chung-Shan Institute of Science and Technology, Taiwan
P-A38- 0618	Silicon nanowires with MoSx and Pt as electrocatalysts for hydrogen evolution reaction	S. H. Hsieh <sup>1</sup> , W. J. Chen <sup>2</sup> , S. T. Ho <sup>2</sup>	<ul> <li>National Formosa         University, Taiwan         <sup>2</sup> National Yunlin     </li> <li>University of Science and Technology, Taiwan</li> </ul>

#### 2015.11.16 11:00-13:00

### Poster Presentations 1- Symposia A & G POSTER SYMPOSIUM G

Poster No	Title	Author	Affiliation
P-G26- 0422	Effect of Ta underlayer on magnetic properties of FeMn/NiFe films	H.W. Chang <sup>1</sup> , M.T. Chiang <sup>2</sup> , M. C. Chan <sup>2</sup> , D.H. Wei <sup>2</sup> , C.Y. Shen <sup>3</sup> , C.R. Wang <sup>1</sup>	<ul> <li><sup>1</sup> Tunghai University, Taiwan</li> <li><sup>2</sup> National Taipei University of Technology, Taiwan</li> <li><sup>3</sup> Hsiuping University of Science and Technology, Taiwan</li> </ul>
P-G61- 0337	Fabrication and Photocatalytic Performance of Electrospun TiO <sub>2</sub> /PMMA Nanocomposite Textile	Shun-Hsiang Chan, Chiao-Wei Hsu, Ting-Han Lin, Ming- Chung Wu	Chang Gung University, Taiwan
P-G2- 0086	Preparation and Characterization on Cyclonic Plasma Deposited Biomedical 316 Stainless Steel	Li-Yu Wu <sup>1</sup> , Tzu-Tung Chang <sup>1</sup> , Yu-Lin Kuo <sup>2</sup> , Kuang-Hui Chang <sup>2</sup> , Shao-Lin Lee <sup>1</sup> , Chun Huang <sup>1</sup>	<ul> <li>Yuan Ze University, Taiwan</li> <li>D National Taiwan University of Science and Technology, Taiwan</li> </ul>
P-G31- 0477	A comparative study based on organosilicon precursors for SiO <sub>x</sub> anticorrosion layer on magnesium alloys by atmospheric pressure plasma jet	Kuang-Hui Chang <sup>1</sup> , Yu-Lin Kuo <sup>1</sup> , Chun Huang <sup>2</sup> , Kuan-Lin Chen <sup>1</sup> , Li-Yu Wu <sup>2</sup>	<ul> <li>National Taiwan University of Science and Technology, Taiwan</li> <li>Yuan Ze University, Chung-Li, Taiwan</li> </ul>
P-G48- 0035	Morphology-controllable and antireflective porous Si films prepared with metal-assisted chemical etching	Chia-Yun Chen	National Chi Nan University, Taiwan
P-G16- 0335	Influence of the oxygen partial pressure on the formation of the sol-gel derived crednerite- CuMnO <sub>2</sub> thin films	Hong-Ying Chen, Da-Je Hsu	National Kaohsiung University of Applied Sciences, Taiwan
P-G30- 0467	Near-Infrared Reflective TiO <sub>2</sub> Thin Films on Fabric Deposited by Roll-to-Roll High Power Impulse Magnetron Sputtering	Z. M. Chen1, T.T.N. Nguyen1, Y. H. Chen1, X. B. Tian2, K.B. Cheng3, J.L. He1	<ul> <li>Department of Materials</li> <li>Science and Engineering, Feng</li> <li>Chia University, Taiwan</li> <li>State Key Laboratory of</li> <li>Advanced Welding and Joining,</li> <li>Harbin Institute of Technology,</li> <li>China</li> <li>Department of Fiber and</li> <li>Composite Materials, Feng Chia</li> <li>University, Taiwan</li> </ul>
P-G40- 0535	Hydrophobic or Hydrophilic Modification of Polymers by HMDSZ and Oxygen Cold Plasma Treatment on Microporous UHMWPE	Bo-kai Chen, Ko-shao Chen, Li-dung Hung	Tatung University, Taiwan
P-G45- 0114	Depositing the Co <sub>3</sub> Pt alloy thin films with hexagonal structure with different underlayer	Yu-Shen Chen, Yi-Wei Hsu, and An-Cheng Sun	Yuan Ze University, Taiwan
P-G69-	Impact of Ion-beam Assisted	Sheng-Wen Fu, Hui-Ju Chen	National Cheng Kung
0413 P-G82- 0166	Sputtering on Al:ZnO Films High-Sensitivity Liquid Refractive Index Sensors By D- shaped fiber and IGZO	and Chuan-Feng Shih Rou-An Chen <sup>1</sup> , Chuen-Lin Tien <sup>1,2</sup> , Po-Jui Huang <sup>1</sup> , Bo-Wei Lee <sup>2</sup>	University, Taiwan <sup>1</sup> Department of Electrical Engineering, Feng Chia University, Taiwan

Poster No	Title	Author	Affiliation
	Coatings		<sup>2</sup> Institute of Electrical Engineering, Feng Chia University, Taiwan
P-G56- 0140	Characterization of a capacitively coupled H <sub>2</sub> plasma produced a narrow gap VHF discharge	Cheng-Yang Lien <sup>1</sup> , Chen-Jui Liang <sup>1</sup> , Chia-Fu Chen <sup>2</sup> , Yoshinobu Kawai <sup>1</sup> , Kuo-Feng Chiu <sup>1</sup> , Jen-Bin Shi <sup>2</sup> , Shui-Yang Lien <sup>3</sup> , Yu-Jer Tsai <sup>4</sup> and Ting- Kuei Lien <sup>5</sup>	<ul> <li>Department of Materials         Science &amp; Engineering, Feng             Chia University, Taiwan         Departments of Electronic             Engineering, Feng Chia                 University, Taiwan         Department of Electrical         Engineering, Da Yeh University,                 Taiwan         </li> <li>ULVAC Automation Taiwan</li></ul>
P-G3- 0107	Low Temperature Sputtered Indium Tin Oxide Thin Film with High Optoelectronic Performance	Wang-Ta Chiang, Chien-Hung Lin, Tsai-Hsing Tsai, Chao- Chung Chen, Tao-Yang Huang	Kingyoup Optronics Co., Ltd, Taiwan
P-G24- 0408	Cold Plasma Treated TPU non- woven for Improving Surface Graft Polymerization of Acrylic Acid and Their Function Properties	D. J. Chiu <sup>1</sup> , Ko-Shao Chen <sup>1</sup> , B. K. Chen <sup>1</sup> , Shu-Chuan  Liao <sup>2</sup>	<sup>1</sup> Tatung University <sup>2</sup> Center Thin Film Technologic and Applications, Ming Chi University of Technology, Taiwan
P-G42- 0550	The influence of p-type NiO <sub>x</sub> on shifting threshold voltage of high electron mobility transistor	Cheng-Wei Chou, Shyh-Jer Huang, Jyun-Hao Lin, Yan- Kuin Su and De-Long Chen	National Cheng Kung University, Taiwan
P-G22- 0383	Facile synthesis of alfa and delta MnO <sub>2</sub> for high performance of supercapacitors	Pei-Ru So, Fitri Nur Indah Sari, Che-Wei Chu, Jyh-Ming Ting	National Cheng Kung University, Taiwan
P-G55- 0097	Oxidation effect on the electrical properties of a NiCr thin film resistor	Nai-Chuan Chuang <sup>1</sup> , Jyi-Tsong Lin <sup>1</sup> , Huey-Ru Chen <sup>2</sup>	<ol> <li>National Sun Yat-Sen University, Taiwan</li> <li>Walsin Technology Corporation, Taiwan</li> </ol>
P-G67- 0402	Study on Photocatalytic Activity and Hydrophilic Mechanism of Titania Thin Film	Yao-Hsuan Tseng, Yu-Lun Chung	National Taiwan University of Science and Technology, Taiwan
P-G39- 0529	Instant and Dynamic Images of Magnetic Domain Structure on Iron Platinum (FePt) Film Surface by MOKE	Yu-Jie Hong <sup>1</sup> , Chin-Wei Lin <sup>1</sup> , Chiu-Hsien Wu <sup>1</sup> , Jai-Lin Tsai, <sup>2</sup> and Ken-Lin Chen <sup>1</sup>	<ul> <li>Department of Physics,         National Chung Hsing             University, Taiwan     </li> <li>Department of Materials         Science and Engineering,             National Chung Hsing             University, Taiwan.     </li> </ul>
P-G14- 0309	Thermal stability of Au/Pd/Cu and Au/Pd(P)/Cu multilayer during isothermal annealing	W. Z. Hsieh <sup>1</sup> , P. T. Lee <sup>1</sup> , H. K. Wang <sup>1,2</sup> , and C. E. Ho <sup>1</sup>	<ul> <li>Yuan Ze University, Taiwan</li> <li>Taiwan Uyemura Limited</li> <li>Company, Taiwan</li> </ul>
P-G34- 0503	The effect of oxygen plasma treatment on the sensitivity of nanocrystalline diamond films based pH sensor	Bohr-Ran Huang <sup>1</sup> ; Wen-Cheng Ke <sup>2</sup> ; Yu-Kang Wang <sup>1</sup>	<ul> <li>National Taiwan University of Science and Technology, Taiwan</li> <li>National Taiwan University of</li> </ul>

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			Science and Technology, Taiwan.
P-G44- 0612	Measurement of residual stress of ZrN thin film by using average X-ray strain method combined with nanoindentation.	Yun-Hsuan Chen, Ge-Ping Yu, Jia-Hong Huang	National Tsing Hua university, Taiwan
P-G64- 0352	Growth of highly c-axis oriented ScAlN films on Y-128° LiNbO <sub>3</sub> for high electromechanical coupling coefficient surface acoustic wave devices	Jow-Lay Huang <sup>1,2</sup> , Sean Wu <sup>3</sup> , Pin-Hung Chen <sup>1</sup> , Ding-Fwu Lii <sup>4</sup> , Zhi-Xun Lin <sup>3</sup>	<ul> <li>National Cheng Kung University, Taiwan.</li> <li>National University of Kaohsiung, Taiwan.</li> <li>Tung Fang Design Institute, Taiwan.</li> <li>Cheng Shiu University, , Taiwan.</li> </ul>
P-G76- 0490	The effect of glycerol concentration in the electrolyte on corrosion resistance of the AZ31B Mg alloy treated by micro-arc oxidation	Yong-Seon Jeon <sup>1</sup> , Hyung-Chul Kim <sup>1</sup> , Yu-Kyoung Kim <sup>2</sup> , Yong- Seok Jang <sup>2</sup> , Jeong-Mo Yoon <sup>1</sup> , Min-Ho Lee <sup>2</sup> , Il-Song Park <sup>1</sup>	<ul> <li>Chonbuk National University, Korea</li> <li>School of Dentistry, Chonbuk National University, Korea</li> </ul>
P-G68- 0407	Degradability of various Ca/P ratio Spray pyrolyzed bioglass	Parindra Kusriantoko, Nasim Kamely, Yu-Chien Lin, Shao- Ju Shih	Nation Taiwan University of Science and Technology, Taiwan
P-G36- 0510	Effect of hydrothermal treatment of double-layered calcium–phosphate coating on ZK60	Yu-Kyoung Kim <sup>1</sup> , Jeong-Hui Ji <sup>1</sup> , Ji-Bong Choi <sup>1</sup> , Seon-Mi Byeon <sup>1</sup> , Yong-Seok Jang <sup>1</sup> , Il- Song Park <sup>2</sup> , Dong-Joo Yoon <sup>3</sup> , Tae-Sung Bae <sup>1</sup> , Min-ho Lee <sup>1</sup>	<ul> <li>School of Dentistry, Chonbuk National University, Korea</li> <li>Research Center for Advanced Materials Development and Institute of Biodegradable Materials, Chonbuk National University, Korea</li> <li>Center for Practical Use of Rare Materials, Sunchon National University, Korea</li> </ul>
P-G37- 0512	Bioactive effect of alkali-heat treated TiO <sub>2</sub> nanotubes by water or acid treatment	Seo-Young Kim, Yu-Kyoung Kim, Yong-Seok Jang, Yu-Ri Lee, Somsanith Nithideth, Tae- Sung Bae, Min-Ho Lee	Chonbuk National University, Republic of Korea
P-G77- 0491	The effects of current density and temperature on the Cu electroplating for FCCL	Hyung-Chul Kim, Woo-Min Lee, Tae-Gyu Woo, Je-Shin Park, Kyeong-Won Seol, Jeong-Mo Yoon, Il-Song Park	Chonbuk National University, Republic of Korea
P-G6- 0167	Properties of IrO <sub>2</sub> -Ta <sub>2</sub> O <sub>5</sub> /Ti anodes prepared with different surface pretreatments of Ti substrate	Ching An Huang <sup>1</sup> , Shu Wei Yang <sup>1</sup> , Yu Zhen Lee <sup>1</sup> , Chien Ze Lin <sup>1</sup> , Fu-Yung Hsu <sup>2</sup>	<ul> <li>Chang Gung University,         Taiwan     </li> <li>Ming Chi University of         Technology, Taiwan     </li> </ul>
P-G66- 0379	Investigation of Carbon/Ceramic Multilayer for Metallic Bipolar Plate under Polymer Electrolyte Membrane Fuel Cells	Seokhee Lee <sup>1, 2</sup> , Sungpil Woo <sup>1,</sup> <sup>3</sup> , Youna Lee <sup>1, 3</sup> , Youngsoo Yoon <sup>1</sup>	<ul> <li>Gachon University, Korea</li> <li>Materials Research and</li> <li>Education Center, Auburn</li> <li>University, USA</li> <li>Yonsei University, Korea</li> </ul>
P-G13- 0274	A Study of Ni-Cr-Si-Al-X (X=W and Ti) Thin Film Resistors Prepared Using Co- sputtering	Dong-Yue Liou <sup>1</sup> , Jyun-Yan Li <sup>2</sup> , Tai-Kuang Lee <sup>3</sup> , Ying-Chieh Lee <sup>4</sup> , Lay-Gaik Teoh <sup>5</sup>	Department of Mechanical Engineering, National Pingtung University of Science &Technology, Taiwan

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P-G15- 0329	Investigation of Diamond-like Carbon Films Grown on Alumina by Microwave Plasma Jet Chemical Vapor Deposition	Chun-Hsi Su <sup>1</sup> , Fong-Si Li <sup>2</sup>	<ul> <li>Professor, Institute of Mechatronic Engineering,</li> <li>National Taipei University of Technology, Taiwan</li> <li>Student, Institute of Manufacturing Technology,</li> <li>National Taipei University of Technology, Taiwan</li> </ul>
P-G51- 0078	Analysis of Pores in MFI-like Silica Films Prepared with Different Concentrations of Tetrapropylammonium Hydroxide	Ting-Yi Li <sup>1</sup> , Chiung-Yun Chang <sup>1</sup> , Jihperng Leu <sup>2</sup> , and Ben-Zu Wan <sup>1</sup>	<ul> <li>National Taiwan University, Taiwan</li> <li>National Chiao Tung University, Taiwan</li> </ul>
P-G38- 0521	surface by HMDSZ-plasma and graft NIPPAm hydrogel	H.H.Liang, K.S.Chen, R.H.Yeh	Tatung University, Taiwan
P-G72- 0461	Fabrication of phosphor- embedded low temperature phosphate glass thin layer for lighting package	Jin-Hong Liao, Wun-Cyuan You, Fan-Bean Wu	National United University, Taiwan
P-G21- 0380	Correlation between seed layer characteristics and the structures and properties of ZnO nanowires synthesized by using chemical bath deposition	Tzu-Ling Chen, Duong Thi Kim Lien, Jyh-Ming Ting	National Cheng Kung University, Taiwan
P-G43- 0558	Cu <sub>2</sub> ZnSnS <sub>4</sub> thin films prepared by sintering hydrothermally synthesized Cu <sub>2</sub> ZnSnS <sub>4</sub> powders	Shih-Jen Lin	National Cheng Kung University, Taiwan
P-G49- 0042	Effect of PH with CBD-ZnS buffer layer for CIGS solar cell	Yi Chen Lin <sup>1</sup> , Huan-Hsin Sung <sup>1</sup> , Shih-Chang Lian <sup>2</sup> , Fuh- Sheng Shieu <sup>1</sup>	<ul> <li>National Chung Hsing University, Taiwan</li> <li>Chung-Shan Institute of Science and Technology, Taiwan</li> </ul>
P-G75- 0484	Exploration of synergistic piezophotocatalytic properties of ZnSnO <sub>3</sub> nanowires	Ya-Ting Wang, Hung-Ming Lin, Kao-Shuo Chang	Nation Cheng Kung University, Taiwan
P-G5-	Deposition of Electrochromic	Chang Liu, Shang-I Chuang	National Tsing Hua University,

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0154	Tungsten Oxide Thin films by Atmospheric Pressure Plasma Jet		Taiwan
P-G78- 0499	Study on improvement of corrosion resistance of landing gear via Cr-Cu-N coatings	Cheng-Hsun Hsu, Hong-Tsair Liu, Chun-Tai Hung	Tatung University, Taiwan
P-G60- 0314	Bio-inspired Superhydrophobic and Oleophobic Surface via a Facile Spray Coating Method	Yu-Hsiang Lo <sup>1</sup> , Ching-Yu Yang <sup>1</sup> , Hsin-Ming Cheng <sup>2</sup> , Po- Yu Chen <sup>1</sup>	<ul> <li>National Tsing Hua University, Taiwan</li> <li>Industrial Technology Research Institute of Taiwan, Taiwan</li> </ul>
P-G54- 0091	Effects of Mo films prepared via different sputtering conditions on the formation of MoSe <sub>2</sub> during selenization	Yong-Jian Liu and Chung-Hsin Lu	National Taiwan University, Taiwan
P-G62- 0344	Correlation of microstructure and electrical property for Mg- doped ceria thin film electrolytes prepared by spray coating	Chia-Yang Lu, Shao-Ju Shih	National Taiwan University of Science and Technology, Taiwan
P-G29- 0452	Effect of Cold Plasma Surface Treatment of PET film and TPU Nonwoven on Subsequent Graft Polymerization of NaSS	K. S. Chen, Tsz-Yi Luo, Chia- Yi Lin	Tatung University, Taiwan
P-G71- 0444	Modified Configuration of Magnetic Targets for Magnetron Sputtering System	H. W. Luo	National Tsing Hua University, Taiwan
P-G33- 0497	Aluminum nitride thin film formed by plasma nitridation of m-plane sapphire	Zhih-Cheng Ma, Kun-An Chiu, Li Chang	National Chiao Tung University, Taiwan
P-G63- 0350	Preparation of High Emissivity and Low Absorbance Heat Dissipation Coating on Aluminum Alloys for Smartphone	Kung-Jeng Ma <sup>1</sup> , Kai-Hung Shih <sup>2</sup> and Choung-Lee Chao <sup>3</sup>	<ul> <li>College of Engineering, Chung Hua University, Taiwan</li> <li>Department of Mechanical Engineering, Chung Hua University, Taiwan</li> <li>Mechanical and Electro- Mechanical Engineering,</li> <li>Tamkang University, Taiwan</li> </ul>
P-G27- 0436	Preparation of platinum/titanium nitride film for direct methanol fuel cells	Chia-Min Yo <sup>1</sup> , Chia-Yu Chen <sup>2</sup> , Fu-Hsing Lu <sup>2</sup> , Ying-Hsiao Mao <sup>1</sup> , Yu-Chen Tsai <sup>1</sup>	<ul> <li>Department of Chemical Engineering, National Chung Hsing University, Taiwan</li> <li>Department of Materials Science and Engineering, National Chung Hsing University, Taiwan</li> </ul>
P-G79- 0522	Effect of surface roughness on formation of TiO2 nanotube	Kyung-Kuk Min <sup>1</sup> , Tae-Gyu Woo <sup>1</sup> , Je-Shin Park <sup>1</sup> , Kyeong- Won Seol <sup>1</sup> , Jeong-Mo Yoon <sup>1</sup> , Min-Ho Lee <sup>2</sup> , Il-Song Park <sup>1</sup>	<ul> <li><sup>1</sup> Division of Advanced</li> <li>Materials Engineering, Research</li> <li>Center for Advanced Materials</li> <li>Development and Institute of</li> <li>Biodegradable Materials,</li> <li>Chonbuk National University,</li> <li>Korea</li> <li><sup>2</sup> School of Dentistry, Chonbuk</li> <li>National University, Korea</li> </ul>

Poster No	Title	Author	Affiliation
P-G57- 0235	Coatings of CuCrO <sub>2</sub> nano powders on stainless steel for antibacterial application	Yung-Tang Nien, Mon-Ru Hu	National Formosa University, Taiwan
P-G65- 0375	Evaluation on High Performance 3D Print Coating for Detail Layer Structure of Human Eye Model	Chung-Jen Ou <sup>1,2</sup> , Shao-En Hong <sup>2</sup> , Rebecca Han-Yin Sun <sup>3</sup>	<ul> <li>Hsiuping Solar</li> <li>Observatory/Linear® Dragon</li> <li>Field Laboratory</li> <li>Hsiuping University of Science and Technology, Taiwan</li> <li>Chung Shan Medical University, Taiwan</li> </ul>
P-G35- 0509	Multi-walled carbon nanotubes coating on alkali treated TiO <sub>2</sub> nanotubes surface for improvement of biocompatibility	Jung-Eun Park, Yong-Seok Jang, Hye-Jin Song, Nguyen Thi Thuy Duong, Ling-Min Yu, Tae-Sung Bae, Min-Ho Lee	Chonbuk National University, Republic of Korea
P-G74- 0482	Thermal CVD method for coating SiC on graphite suceptor of MOCVD reactor	Tsao Chun Peng <sup>1</sup> , Tomi T. Li <sup>2</sup>	<ul> <li>Department of Mechanical Engineering, National Central University, Taiwan</li> <li>Department of Mechanical Engineering, National Central University, Taiwan</li> </ul>
P-G70- 0425	Effect of Ti underlayer on the structure and magnetic properties of 300-nm-thick FePt films	C.Y. Shen <sup>1</sup> , H.W. Chang <sup>2</sup> , M.C. Lin <sup>2</sup> , Y.W. Wang <sup>2</sup> , C.L. Fan <sup>2</sup> , M.C. Chan <sup>3</sup> , C.R.Wang <sup>2</sup>	<ul> <li>Hsiuping University of Science and Technology, Taiwan.</li> <li>Tunghai University, Taiwan.</li> <li>National Taipei University of Technology, Taiwan</li> </ul>
P-G20- 0378	Tuning of the Magneto-optical Kerr Signal of NiFe films by a ZnO(0001) ferroelectric layer	Chin-Chung Yu, Hsin-Hua Ko, Jia-Sing Su, Li-Jing Wang, Chen-Hsu Chang	National University of Kaohsiung, Taiwan
P-G1- 0017	Investigation of CIGS thin film and device performance by three-stage process	Huan-Hsin Sung <sup>1</sup> , Du-Cheng Tsai <sup>1</sup> , Zue-Chin Chang <sup>2</sup> , Shih- Chang Liang <sup>3</sup> , Te-Ju Jung <sup>3</sup> , Fuh-Sheng Shieu <sup>1</sup>	<ul> <li>National Chung Hsing         University, Taiwan </li> <li>National Chin-Yi University of         Technology, Taiwan </li> <li>Material and Electron-Optics         Research Division, Chung-Shan         Institute of Science and         Technology, Taiwan     </li> </ul>
P-G9- 0223	The Interfacial Reactions on Pd/Au-coated and Pd-alloyed Cu wire bonds with Aluminum under HTST Reliability Test	Po-Hang Sung, Chen-Lu Yu, Jui-Chao Kuo, Kuo-Chang Lu	National Cheng Kung University, Taiwan
P-G50- 0052	Investigation of Ga gradient behavior in CIGS by prepare bilayer and multilayer stacked elemental layers.	Huan-Hsin Sung <sup>1</sup> , Chien- Cheng Lin <sup>3</sup> , Zue-Chin Chang <sup>3</sup> , Erh-Chiang Chen <sup>1</sup> , Du-Cheng Tsai <sup>1</sup> , Shih-Chang Liang <sup>2</sup> and Fuh-Sheng Shieu <sup>1</sup>	<ul> <li>National Chung Hsing         University, Taiwan     </li> <li>National Chin-Yi University of         Technology, Taiwan     </li> <li>Material and Electron-Optics     </li> <li>Research Division, Chung-Shan         Institute of Science and         Technology, Taiwan     </li> </ul>
P-G8- 0208	Fabrication of anodic aluminum oxide from low purity aluminum and aluminum alloy using hybrid pulse anodization at room	C.H. Tsai, B.Y. Chu, Y.C. Chung, and C.K. Chung	National Cheng Kung University, Taiwan

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P-G12- 0271	temperature Using Organic/Inorganic Improve Lifetime by Depositing Silicon Dioxide Composite Film Encapsulation	Yu-Sheng Tsai, Guan-Zhi Chen, Jing-yao Wang, Ming- Yug Hsu, De-Gang Wang and Fuh-Shyang Juang	National Formosa University, Taiwan
P-G18- 0373	Effect of Ni/Fe ratio variation on microstructure of tungsten heavy alloy	Shu-Yi Tsai <sup>1</sup> , Chung-Ta Ni <sup>1</sup> , Kuan-Zong Fung <sup>1</sup> , Chao- Nan Wei <sup>2</sup> and Hui-Yun Bor <sup>2</sup>	<ul> <li>National Cheng Kung         University, Taiwan     </li> <li>Chung-Shan Institute of         Science and Technology         (CSIST), Taiwan     </li> </ul>
P-G46- 0514	Characteristics of Metal-Gate MIS Capacitor with ZrN Capping Layer Fabricated by High Power Impulse Magnetron Sputtering	Jung-Ruey Tsai <sup>1</sup> , Pi-Chun Juan <sup>2</sup> , Po-Jen Chen <sup>1</sup>	<ul> <li>Asia University, Taichung,         Taiwan</li> <li>Department of Materials</li> <li>Engineering and Center for Thin         Film Technologies and         Applications, Ming Chi         University of Technology,</li></ul>
P-G4- 0150	Large Area Deposition and Surface Characterization of the SiOx Films by Low Temperature Atmospheric- Pressure Plasma Jet	Shin-Yi Wu, Yu - Chien Tseng, Chun Huang	Tuan Ze University, Taiwan
P-G81- 0547	Influence of oxygen flow on the optical, electrical and mechanical properties of DC sputtering ITO thin films	Yi-Hsuan Tseng <sup>1</sup> , Chuen-Lin Tien <sup>1,2</sup> , Po-Han Chen <sup>1</sup> , Chi- Hong Huang <sup>1</sup> , Sheng-Yun Wang <sup>2</sup> , Chun-Wei Yeh <sup>1</sup>	<ul> <li>Department of Electrical Engineering, Feng Chia University, Taiwan</li> <li>Institute of Electrical Engineering, Feng Chia University, Taiwan</li> </ul>
P-G10- 0226	Effect of the Concentration in Copper-Palladium Alloys on the Interfacial Reactions with Aluminum	Tang-Kuei Wang, Chen-Lu Yu, Sheng-Han Wang, Kwang- Lung Lin, Kuo-Chang Lu	National Cheng Kung University, Taiwan
P-G23- 0387	Characterizing the electrical and optical properties of AZO/AgPd/AZO multi-layer film using RF magnetron sputtering	Kun-Hsin Lu, Li-Ching Wang, and Yi-Cheng Lin	National Changhua University of Education, Taiwan
P-G41- 0548	Residual Stress Measurement on TiN Thin Films by Combing Nanoindentation and Average X-ray Strain (AXS) Method	An-Ni Wang <sup>1</sup> Jia-Hong Huang <sup>1</sup> Haw-Wen Hsiao <sup>1</sup> Ge-Ping Yu <sup>1,2</sup> Haydn Chen <sup>3</sup>	<ul> <li>National Tsing Hua University, Taiwan</li> <li>Institute of Nuclear Engineering and Science</li> <li>National Tsing Hua University, Taiwan</li> <li>Institute of Applied Physics and Materials Engineering University of Macau, China</li> </ul>
P-G80- 0617	Electric-field-assisted deposition of anti-reflection coating	Shing-Dar Wang, Yen-Cheng Peng	National Yunlin University of Science and Technology, Taiwan
P-G17- 0338	Atomically resolved interface structure between epitaxial TiN film and MgO substrate	and Li Chang	National Chiao Tung University, Taiwan
P-G25-	Use Surface-Graft Polymer and	Y1-Syuan We1 <sup>1</sup> , Ko-Shao	<sup>1</sup> Tatung University, Taiwan

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0412	Reduction to Immobilize Nanosilver Particles Composite of on the Substrate, and Antibacterial Properties	Chen <sup>1</sup> , Chih-Wei Chou <sup>2</sup>	<sup>2</sup> China Medical University, Taiwan
P-G52- 0083	Photocatalytic activity of bipolar pulsed magnetron sputter deposited TiO <sub>2</sub> /WO <sub>3</sub> thin films	Tai-Nan Lin <sup>1</sup> , Yi-Han Lin <sup>2</sup> , Chin Tan Lee <sup>2</sup> , Julian Chang <sup>3</sup> , Shu-Yi Yang <sup>3</sup> , Yu-Xiang Zhao <sup>4</sup> and Ko Wei Weng <sup>2</sup>	<ul> <li>Chemical Engineering Division, Institute of Nuclear Energy Research, Taiwan</li> <li>Department of Electronic Engineering, National Quemoy University, Taiwan</li> <li>Department of Applied English, National Quemoy University, Taiwan</li> <li>Department of Computer Science and Information Engineering, National Quemoy University, Taiwan</li> </ul>
P-G73- 0470	Exploration of Piezophototronic Characteristics of Nanostructured BiFeO <sub>3</sub>	Chia-Chen Wu <sup>1</sup> , Po-Jui Chiu <sup>1</sup> , and Kao-Shuo Chang <sup>1, 2</sup> ,	<ul> <li>Department of Materials</li> <li>Science &amp; Engineering, National</li> <li>Cheng Kung University, Taiwan</li> <li>Promotion Center for Global</li> <li>Materials Research (PCGMR),</li> <li>National Cheng Kung</li> <li>University, Taiwan</li> </ul>
P-G7- 0179	The preparation and characterization of high transparent VO <sub>2</sub> /ZnO thermochromic films	Yue-Lin Yang <sup>1</sup> , Thomas CK. Yang <sup>1</sup> , Rei-Cheng Juang <sup>2</sup> , Fan- Ru Shen <sup>1</sup>	<sup>1</sup> National Taipei University of Technology, Taiwan <sup>2</sup> Green Energy and Environmental Laboratories, Industrial Technology Research Institute, Taiwan
P-G28- 0445	Super Hydrophilic and Hydrophobic Modification of Wool Textile Front and Back Surface by Plasma Treatment	Chiao-Ning Yang <sup>1</sup> , Bo-Kai Chen <sup>1</sup> , Ko-Shao Chen <sup>1</sup> , N. Inagaki <sup>2</sup> , C. W. kan <sup>3</sup>	<sup>1</sup> Tatung University, Taipei, Taiwan <sup>2</sup> Faculty of Engineering, Shizuoka University, Japan <sup>3</sup> Institute of Texties&Clothing, The Hong Kong Polytechnic University
P-G53- 0090	Effects of the surface sulfurization reactions on the structural and photovoltaic properties of Cu(In,Ga)(Se,S) <sub>2</sub> solar cells	Shin-Hom Lin, Che-Yuan Yang and Chung-Hsin Lu	National Taiwan University, Taiwan
P-G59- 0306	Characteristics of pulsed laser produced plasma for deposition of Al-doped ZnO films	Yen Sian Lee <sup>1</sup> , Chen Hon Nee <sup>1</sup> , Kwan Chu Tan <sup>1</sup> , Teck Yong Tou <sup>1</sup> , Seong Ling Yap <sup>2</sup> and Seong Shan Yap <sup>1</sup>	<ul> <li>Faculty of Engineering, Multimedia University, Malaysia.</li> <li>Department of Physics, Faculty of Science, University of Malaya, Malaysia</li> </ul>
P-G32- 0480	Effect of Low Temperature Plasma Treatment and UV Light Grafted with Acrylic Acid to Bamboo Charcoal Surface of Nano Silver.	R. H. Yeh, K. S. Chen	Tatung University, Taiwan
P-G58-	Micro-Mechanical Properties of	Masahara Yoshiba <sup>1,2</sup> , Chun-Yi	<sup>1</sup> Department of Materials

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0281	Electrodeposited Gold Thin Films	Chen <sup>2,3</sup> , Takashi Nagoshi <sup>4</sup> ,Tso- Fu Mark Chang <sup>2,3</sup> , Daisuke Yamane <sup>2,3</sup> , Katsuyuki Machida <sup>2,3,5</sup> , Kazuya Masu <sup>2,3</sup> , Masato Sone <sup>1,2,3</sup>	Science and Engineering, Tokyo Institute of Technology, Tokyo Institute of Technology, Japan <sup>2</sup> CREST, Japan Science and Technology Agency, Japan <sup>3</sup> Precision and Intelligence Laboratory, Tokyo Institute of Technology, Japan <sup>4</sup> National Institute of Advanced Industrial Science and Technology, Japan <sup>5</sup> NTT Advanced Technology Corperation, Japan
P-G11- 0269	Resistance-Switching Behaviors of Fe-doped Beta- Bi <sub>2</sub> O <sub>3</sub> Films	Chin-Chung Yu	National University of Kaohsiung, Taiwan
P-G19- 0377	Structural and Ferroelectric Properties of BiFeO <sub>3</sub> Layers on ITO(111) and (211) films	Chin-Chung Yu	National University of Kaohsiung, Taiwan
P-G47- 0016	Ferroelectric and ferromagnetic properties of Er, Ti co-doped BiFeO <sub>3</sub> thin films prepared by chemistry solution deposition	Yinina Ma, Wenyu Xing, Yulong, Bai, Shifeng Zhao	Inner Mongolia University, China
P-G83- 0206	Reduction of copper oxide thin film by modified formic acid	Pei-Wen Chou <sup>1</sup> , Chia-Chen Kuo <sup>1</sup> , Jing-Yuan Lin <sup>2</sup> , Jenn- Ming Song <sup>1</sup>	<ul> <li>National Chung Hsing         University, Taiwan     </li> <li>Process &amp; Packaging         Department, Microsystems     </li> <li>Technology Center, Industrial</li> <li>Technology Research Institute,</li> <li>Taiwan</li> </ul>
P-G84- 0614	Synthesis of electroactive polyazomethine and its application in electrochromic property and electrochemical sensor	Tsao-Cheng Huang <sup>1, 3</sup> , Lu-Chen Yeh <sup>2</sup> , Guan-Hui Lai <sup>1</sup> , Ta-I Yang <sup>2</sup> An-Ya Lo <sup>1</sup> and Jui-Ming Yeh <sup>3</sup>	<ul> <li>National Chin-Yi University of Technology, Taiwan</li> <li>Department of Chemical Engineering, Chung Yuan Christian University, Taiwan</li> <li>Department of Chemistry and Center for Nanotechnology, Chung Yuan Christian University, Taiwan</li> </ul>

#### 2015.11.17 11:00-13:00

# Poster Presentation II: Symposium B, D, and E POSTER SYMPOSIUM B

Poster	IOSIER		
No	Title	Author	Affiliation
P-B51- 0284	The microstructure and magnetic behavior of GaFe nanostructured film prepared by low energy cluster beam deposition	Shifeng Zhao, Yulong Bai, Jieyu Chen	Inner Mongolia University, China
P-B27- 0488	Galvanic synthesis of SrTiO <sub>3</sub> thin films over TiN-coated substrates	Fu-Hsing Lu, Pei-Hsuan Chan, Yu-Hsiang Tsai	National Chung Hsing University, Taiwan
P-B5- 0085	Preparation of HMDS-modified silica/polyacrylate hydrophobic antiabrasive coatings on PMMA substrates	Chao-Ching Chang, Yu- Ting Wu, Zi-Min Lin, Liao-Ping Cheng	<ul> <li>Department of Chemical and Materials Engineering,</li> <li>Tamkang University, Taiwan</li> <li>Energy and OptoElectronic Materials Research Center,</li> <li>Tamkang University, Taiwan</li> </ul>
P-B12- 0153	Preparation of highly transparent fluorosilane-modified silica-acrylic resin hydrophobic coatings on plastic substrates	Chien-Han Wang <sup>1</sup> , Wei- Ting Tsai <sup>1</sup> , Liao-Ping Cheng <sup>1,2</sup> , Chao-Ching Chang <sup>1,2</sup>	<ul> <li>Department of Chemical and Materials Engineering,</li> <li>Tamkang University, Taiwan</li> <li>Energy and Opto-Electronic Materials Research Center,</li> <li>Tamkang University, Taiwan</li> </ul>
P-B17- 0289	Effects of the precipitants on the characteristics of the cobalt ferrite nanoparticles/reduced graphene oxide composites through hydrothermal process	Y. P. Chang <sup>1</sup> , W. N. Fan <sup>1</sup> , K. Y. Lin <sup>1</sup> , P. S. Chen <sup>1</sup> , G. W. Lin <sup>2,3</sup> , S. W. Lee <sup>2</sup>	<ul> <li>MingHsin University of Science and Technology, Taiwan</li> <li>National Central University Institute of Material Science and Engineering, Taiwan</li> <li>Chemical Defense Section, Chemical Systems Research Division, Chung-Shan Institute of Science Technology, Taiwan</li> </ul>
P-B19- 0384	Sulfurization of CuInSe <sub>2</sub> Films Prepared by Sintering Single-crystal CuInSe <sub>2</sub> Nanoparticles	Jyh-Ming Ting, Chih-Hui Chang, Shih-Jen Lin	National Cheng Kung University, Taiwan
P-B25- 0485	Competing exchange bias strengths in NiFe/CoO/Fe <sub>2</sub> O <sub>3</sub> trilayers with the different antiferromagnetic layers	Yu-Chi Chang <sup>1</sup> , Wei- Cheng Yeh <sup>1</sup> , Ryan Desautels <sup>2</sup> , Ko-Wei Lin <sup>1</sup> , Johan van Lierop <sup>2</sup>	<ul> <li>Department of Materials         Science and Engineering,         National Chung Hsing         University, Taiwan     </li> <li>Department of Physics and         Astronomy, University of         Manitoba, Canada     </li> </ul>
P-B45- 0205	Effect of growth temperature on morphology and field emission from ZnO nanowires by chemical vapor deposition properties	Li-Li Chang, Nai-Chieh Hsu, Su-Hua Yang	National Kaohsiung University of Applied Sciences, Taiwan
P-B55- 0384	Sulfurization of CuInSe <sub>2</sub> Films Prepared by Sintering Single-crystal CuInSe <sub>2</sub> Nanoparticles	Jyh-Ming Ting, Chih-Hui Chang, Shih-Jen Lin	National Cheng Kung University, Taiwan

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P-B60- 0466	The effects of post deposition magnetic field annealing for NiO/Co <sub>90</sub> Fe <sub>10</sub> thin films	Yu-Chi, Chang <sup>1</sup> , Jiann- Yeu Chen <sup>2</sup> , Ko-Wei Lin <sup>1,2</sup> , Ryan Desautels <sup>3</sup> , and Johan van Lierop <sup>3</sup>	<ul> <li>Department of Materials         Science and Engineering,             National Chung Hsing             University, Taiwan             <sup>2</sup> Research Center for             Sustainable Energy and             Nanotechnology, National             Chung Hsing University,</li></ul>
P-B1- 0020	Improvement of Conversion Efficiency of Multi-crystalline Silicon Solar Cells Using Reactive Ion Etching with Surface Post-etching	Wen-Hua Chen <sup>2</sup> , Hsin- Han Lin <sup>2</sup> , and Franklin Chau-Nan Hong <sup>1,3</sup>	<ul> <li>Department of Chemical Engineering, National Cheng Kung University</li> <li>Department of Materials Science and Engineering, National Cheng Kung University</li> <li>Micro-Nano Imprinting Technology and Device Center, National Cheng Kung University</li> </ul>
P-B4- 0072	Mechanical properties of internally oxidized Ru–Zr coatings	Yung-I Chen, Tso-Shen Lu	National Taiwan Ocean University, Taiwan
P-B13- 0210	Fabrication of inverse opal nanostructure of platinum nanoshells as a highly porous counter electrode of Dye-sensitized solar cells	Chien-Kuo Hsieh, Yi-Jing Chen	Ming Chi University of Technology, Taiwan
P-B14- 0257	Improvement of Conversion Efficiency of Multi-Crystalline Silicon Solar Cells by Reactive Ion Etching	Wen-Hua Chen <sup>2</sup> , Hsin- Han Lin <sup>2</sup> , and Franklin Chau-Nan Hong <sup>1,3,4</sup>	<ul> <li>Department of Chemical Engineering, National Cheng Kung University</li> <li>Department of Materials Science and Engineering, National Cheng Kung University</li> <li>Center for Micro/Nano Science and Technology, National Cheng Kung University</li> <li>Advanced Optoelectronic Technology Center, National Cheng Kung University</li> </ul>
P-B50- 0280	Nano-TiO <sub>2</sub> composite alignment layers for optically compensated bend LCD applications	G.M. Wu, C.T. Chen	Chang Gung University, Taiwan
P-B59- 0442	Microwave-assisted Hydrothermal Synthesis of Manganese Dioxide as Supercapacitor Electrode Material	Zu-Chen Huang <sup>1</sup> , Chia- Jung Tu <sup>1</sup> , Pin-Hung Li <sup>1</sup> , Wan-Yu Wu <sup>2</sup>	<sup>1</sup> MingDao University, Taiwan. <sup>2</sup> Da-Yeh University, Taiwan.
P-B3- 0066	Effects of sputtering mode on the microstructure and ionic conductivity of yttria-stabilized zirconia films	T.H. Yeh <sup>1</sup> , R.D. Lin <sup>2</sup> , B.R. Cherng <sup>2</sup> , J.S. Cherng <sup>1,2</sup>	<sup>1</sup> Center for Thin Film Technologies and Applications, Ming Chi

Poster No	Title	Author	Affiliation
210			University of Technology, Taiwan <sup>2</sup> Department of Materials Engineering, Ming Chi University of Technology, Taiwan
P-B7- 0101	Mechanical properties and high temperature oxidation of CrAlSiN/TiVN hard coatings synthesized by cathodic arc evaporation	Yin-Yu Chang, Wen-Tung Chiu, Jui-Pin Hung	National Formosa University, Taiwan
P-B22- 0411	Polyimide-inorganic hybrid materials for organic thin film transistor	Yang-Yen Yu <sup>1</sup> , Su-Nu Liu <sup>1</sup> , Chi-Ting Chiu <sup>1</sup>	<ul> <li>Department of Materials Engineering, Ming Chi University of Technology, Taiwan</li> <li>Center for Thin Film Technologies and Applications, Ming Chi University of Technology, Taiwan.</li> </ul>
P-B46- 0248	Rapid atmospheric-pressure-plasma- jet sintered nanoporous AlN	Yi-Fan Chiu <sup>1</sup> , , Chih-Hung Li <sup>1</sup> , Yi-Hsiuan Yu <sup>2</sup> , Jian- Zhang Chen <sup>1</sup> ,	<ul> <li>National Taiwan</li> <li>University, , Taiwan</li> <li>National Chung Shan</li> <li>Institute of Science and</li> <li>Technology, Taiwan</li> </ul>
P-B44- 0198	The effect of process pressure for the CVD grapheme growth on Cu substrate	Chien-Kuo Hsieh, Yu- Ching Chou	Ming Chi University of Technology, Taiwan
P-B32- 0194	Non-enzymatic Glucose Sensor Composed of Carbon Coated Nano Zinc Oxide	R.J. Chung <sup>1</sup> , H.Y. Wang <sup>2,3</sup> , K.Y. Chuang <sup>1</sup>	<ul> <li>National Taipei University of Technology, Taiwan</li> <li>Dentistry, Mackay Memorial Hospital, Taiwan</li> <li>Mackay Medicine, Nursing and Management College, Taiwan</li> </ul>
P-B40- 0041	Characterization of Multifunctional Iron Oxide-Pluronic Nanocarriers for Doxorubicin Targeted Delivery	Kuen-Song Lin, Tzu-Wei Chang, Khalilalrahman Dehvari	Yuan Ze University, Taiwan
P-B16- 0285	Characterization of cobalt ferrite nanoparticles/reduced graphene oxide composites as the microwave absorber	Wei Ni Fan <sup>1</sup> , Kui Yi Lin <sup>1</sup> , Yu Pei Cheng <sup>1</sup> , J. H. Han <sup>1</sup> , C. H. Peng <sup>1</sup> , P. S. Chen <sup>1</sup> , G. W. Lin <sup>2,3</sup> , S. W. Lee <sup>2</sup>	<ul> <li>MingHsin University of Science and Technology, Taiwan</li> <li>National Central University Institute of Material Science and Engineering, Taiwan</li> <li>Chemical Defense Section, Chemical Systems Research Division, Chung-Shan Institute of Science Technology, Taiwan</li> </ul>
P-B28- 0502	Enhanced electrochemical catalytic efficiencies of electrochemical deposited platinum nano-cottons as a counter electrode for dye-sensitized solar cell	Wen-Chien Fang <sup>1</sup> , Yu- Hsuan Wei <sup>1</sup> , Chuen- Horng Tsai <sup>1</sup> , Chien-Kuo Hsieh <sup>2</sup>	<sup>1</sup> NATIONAL TSING HUA UNIVERSITY, Taiwan, <sup>2</sup> MING CHI UNIVERSITY OF TECHNOLOGY, Taiwan

Poster No	Title	Author	Affiliation
P-B11- 0152	Effect of metal seed concentration of synthesis of silver nanowires by polyol method	Jian-Yang Lin <sup>1</sup> , Tsung- Cing Fu <sup>1</sup> , Jung-Jie Huang <sup>2</sup> , Yu-Lee Hsueh <sup>3</sup>	<ul> <li>Department of Electronic Engineering, National Yunlin University of Science and Technology, Taiwan</li> <li>Department of Industrial Engineering and Management, Da-Yeh University, Taiwan,</li> <li>Graduate School of Engineering Science and Technology, National Yunlin University of Science and Technology, Taiwan</li> </ul>
P-B49- 0260	The behavior of Si atoms on Ag/Si(111)- $\sqrt{3}$ x $\sqrt{3}$ surfaces	Tsu-Yi Fu, Po-I Hsieh, Jia- Yuan Wu	National Taiwan Normal University, Taiwan
P-B48- 0255	Solution-based growth and characterization of molybdenum trioxide nanoribbons	Jun-Jie Wang <sup>1</sup> , Da-Ren Hang <sup>1</sup> , Sk Emdadul Islam <sup>1</sup> , Krishna Hari Sharma <sup>1</sup> , Chun-Hu Chen <sup>2</sup> , Cheng-Zu Zhang <sup>1</sup> , Fong- Yao Su <sup>1</sup>	<ul> <li>Department of Materials and Optoelectronic Science, National Sun Yat-sen University, Taiwan</li> <li>Department of Chemistry, National Sun Yat-sen University, Taiwan</li> </ul>
P-B10- 0146	Visible and 1.5μm luminescence from SiO <sub>2</sub> thin films codoped with nc-Si and Er	H. Hara, K. Iwade and H. Katsumata	Meiji University, Japan
P-B54- 0353	Characterization of Debye behaviors of InGaN/GaN semiconductor heterosystems by Raman spectroscopy	Jui-Ju Hsiao <sup>1</sup> , Hung-Ing Chen <sup>1</sup> , Yi-Jen Huang <sup>1</sup> , Jen-Cheng Wang <sup>1</sup> , Bing- Yuh Lu <sup>2</sup> , Ya-Fen Wu <sup>3</sup> , and Tzer-En Nee <sup>1</sup>	<ul> <li>Chang Gung University,         <ul> <li>Taiwan</li> </ul> </li> <li>Tungnan University,             <ul> <li>Taiwan</li> </ul> </li> </ul> <li>Ming Chi University of Technology, Taiwan</li>
P-B37- 0010	BaTi <sub>5</sub> O <sub>11</sub> Dielectric Thin Films by Sol-Gel Method	Cheng-Hsing Hsu, Che-Yu Chan	National United University, Taiwan
P-B58- 0416	Magnetic properties and microstructure of FePt film with dual MoC intermediate layers	Jai-Lin Tsai, Keng-Chun Hu, Jie-Lin Tzeng	National Chung Hsing University, Taiwan
P-B21- 0410	Metal oxide hole transport materials for heterojunction solar cell applications	Yang-Yen Yu <sup>1,2</sup> , You-Jhe Wang <sup>1</sup> , Ting-Jie Huang <sup>3</sup> , Chi-Ching Kuo <sup>3</sup>	<ul> <li>Department of Materials         Engineering, Ming Chi         University of Technology,         Taiwan         <sup>2</sup> Center for Thin Film         Technologies and         Applications, Ming Chi         University of Technology,         Taiwan.     </li> <li>National Taiwan University,</li> <li>Taiwan</li> </ul>
P-B65- 0582	Polymer Coated Carbon Nanotube- Nanoparticle Network Films for Gas Sensors	I-Ju Teng <sup>1</sup> , Li-Chun Wang <sup>2</sup> , Cheng-Yo Yen <sup>1</sup> , Sheng-Rui Jian <sup>1</sup>	<ul> <li><sup>1</sup> I-Shou University, Kaohsiung, Taiwan</li> <li><sup>2</sup> Chung-Shan Institute of Science and Technology, Taoyuan, Taiwan</li> </ul>

Poster No	Title	Author	Affiliation
P-B34- 0524	Nano-structured Titanium Surface Deposited with DLC as an Electrode for Electrochemical Advanced Oxidation Processes	Yu-Zhi Jiang, Chia-Cheng Yeh, Pi-Wei Wang, Ying- Hung Chen, Ju-Liang He	Feng-Chia University, Taiwan
P-B61- 0500	Synthesis and characterization of Tin oxide on Activated Carbon using Liquid Phase Plasma process for Electrochemical Capacitor Applications	Sang-Chul Jung <sup>1</sup> , Byung Hoon Kim <sup>2</sup> , Heon Lee <sup>1</sup>	<sup>1</sup> Sunchon National University, Suncheon, Korea <sup>2</sup> Chosun University, Gwangju, Korea
P-B41- 0073	An Orthodontic Primer Containing Silver Nanoparticles for Enhanced Antibacterial Activity	Sang Jin Lee <sup>1,2</sup> , Dong Nyoung Heo <sup>1</sup> , Donghyun Lee <sup>1</sup> , Su A Park <sup>2</sup> , Ji-Hoi Moon <sup>1</sup> , Il Keun Kwon <sup>1</sup>	<ul> <li>Department of Maxillofacial Biomedical Engineering and Institute of Oral Biology, School of Dentistry, Kyung Hee University, Korea</li> <li>Department of Nature- Inspired Nanoconvergence Systems, Korea Institute of Machinery and Materials, Korea.</li> </ul>
P-B52- 0333	Influence of B <sub>4</sub> C layer on the microstructure and surface morphology of Mo/Si multilayer films for extreme ultraviolet lithography	Chao-Te Lee, Donyau Chiang, Po-Kai Chiu, Hung-Pin Chen, and Chien-Nan Hsiao	Instrument Technology Research Center, National Applied Research Laboratories, Taiwan
P-B63- 0539	A Simple Synthesis of Cu <sub>x</sub> O- decorated TiO <sub>2</sub> Powder Using Liquid Phase Plasma Process for Photocatalysis Application	Heon Lee <sup>1</sup> , Byung Hoon Kim <sup>2</sup> , Sang-Chul Jung <sup>1</sup>	<sup>1</sup> Sunchon National University, Suncheon, Korea <sup>2</sup> Chosun University, Gwangju, Korea
P-B31- 0545	Effective Improvements in Microstructure, Mechanical properties, and Electrical Properties of the IGZO Films by a Sputtering Deposition	Tse-Chang Li, Jen-Fin Lin	National Cheng Kung University, Taiwan
P-B64- 0571	Investigation on microstructure, superhardness effect and mechanism of NbSiN nanocomposite film	Wei Li <sup>1</sup> , Pengcan Chen <sup>2</sup> , Ping Liu <sup>1</sup> , Ke Zhang <sup>1</sup> , Fengcang Ma <sup>1</sup> , Xinkuan Liu <sup>1</sup> , Xiaohong Chen <sup>1</sup> , Daihua He <sup>1</sup>	<ul> <li>School of Materials Science and Engineering, University of Shanghai for Science and Technology, China</li> <li>School of Mechanical Engineering, University of Shanghai for Science and Technology, China</li> </ul>
P-B8- 0113	Formation of Less Reflective Nanowhisker on Textured Composite Dielectric	Chiung-Wei Lin, Jia-Wei Wang and Wei-Jei Chiou	Tatung University, Taiwan
P-B9- 0118	One-pot fast synthesis of microwave assisted hydrothermal process for cobalt ferrite nanoparticles/reduced graphene oxide composites	Pang Shiu Chen, Kui Yi Lin, Wei Ni Fan, Yu Pei Cheng	Minghisn University of Science and Technology, Taiwan
P-B15- 0265	Ultraviolet photodetectors based on ZnO nanoparticles prepared by thermal evaporation of Zn	Shyankay Jou, Ching-Che Lin, Wan-Jhen Song, Hsiu-An Kuo	National Taiwan University of Science and Technology, Taiwan
P-B24- 0474	Study of Effects on Texture Transformation in thin metal films	Ming-Tzer Lin, Ya-Chi Chen, Yue-Lin Le	National Chung Hsing University, Taiwan

Poster No	Title	Author	Affiliation
P-B6- 0098	Microstructures, electrical and magnetic properties of (Ga, Co)-ZnO films by radio frequency magnetron co-sputtering	Sheng-Chi Chen <sup>1</sup> , Chao- Feng Lu <sup>1</sup> , Chung-Hsien Wang <sup>1</sup> , Chia-Lung Tsai <sup>2</sup> , Tsung-Yen Kuo <sup>3</sup> , Yi- Keng Fu <sup>2</sup> and Yen-Hsiang Fang <sup>2</sup>	<ul> <li>Min Chi University of Technology, Taiwan</li> <li>Electronics and Optoelectronics Research Laboratories, Industrial Technology Research Institute, Taiwan.</li> <li>National Taiwan University, Taiwan</li> </ul>
P-B47- 0251	Preparation of nanoporous Fe <sub>2</sub> O <sub>3</sub> /CNT composites on flexible metal substrates using an atmospheric pressure plasma jet	Po-Yen Shen <sup>1</sup> , Chang-Han Xu <sup>1</sup> , Cheng-Che Hsu <sup>2</sup> , I-Chun Cheng <sup>3</sup> , Jian-Zhang Chen <sup>1</sup>	<ul> <li>Graduate Institute of Applied Mechanics, National Taiwan University, Taiwan</li> <li>Department of Chemical Engineering, National Taiwan University, Taiwan</li> <li>Department of Electrical Engineering &amp; Graduate Institute of Optoelectronics, Taiwan</li> </ul>
P-B2- 0027	Impact of catalytic metal element on silicon nanowire growth by high-pressure hydrogen plasma chemical transport	H.takemoto, Y.Ishikawa, H.kakiuchi, K.Yasutake, H.Ohmi	Osaka university, Japan
P-B56- 0385	Growths of Indium Nitride Nanorods by Plasma-assisted Chemical Vapor Deposition	Franklin Chau-Nan Hong, Wei-Che Tang	National Cheng Kung University, Taiwan
P-B33- 0417	Grain size effects on mechanical and tribological properties of carbon nanotube/copper nanocomposite coatings	Ping-Chi Tsai <sup>1,2</sup> , Yeau- Ren Jeng <sup>1,2</sup>	<sup>1</sup> Department of Mechanical Engineering, National Chung Cheng University, Taiwan <sup>2</sup> Advanced Institute of Manufacturing with High- Tech Innovations, National Chung Cheng University, Taiwan
P-B38- 0011	Properties of So-gel Derived ZnO-doped CeO <sub>2</sub> Dielectric Thin Films	Ching-Fang Tseng, Wen- Yu Hsu, Chun-Hung Lai	National United University, Taiwan
P-B39- 0040	Degradation of Antibiotics- contaminated Wastewaters Using Zero-valent Iron Nanoparticles / Photocatalyst / Activated Carbon Composites	Kuen-Song Lin, Yi-Chou Tseng	Yuan Ze University, Taiwan
P-B20- 0393	Enhancing brightness and efficiency of CdSe@ZnS/ZnS quantum dot light-emitting diodes with a poly-TPD/PVK hole transport bilayer	Hoang-Tuan Vu <sup>1</sup> , Hsin- Chieh Yu <sup>1</sup> , Chih-Jung Chen <sup>2</sup> , Ray-Kuang Chiang <sup>2</sup> , Chun-Yuan Huang <sup>3</sup> , Yan-Kuin Su <sup>1,4</sup>	<ul> <li>Institute of Microelectronics,         Department of Electrical         Engineering and Advanced         Optoelectronic Technology         Center, National Cheng-Kung             University, Taiwan         <sup>2</sup> Nanomaterials Laboratory,         Far East University, Taiwan         <sup>3</sup> Department of Applied         Science, National Taitung             University, Taiwan         <sup>4</sup> Department of Electrical             Engineering, Kun-Shan</li> </ul>

Poster No	Title	Author	Affiliation
			University, Taiwan
P-B26- 0487	Enhanced Field Emission Properties of Au-ZnO Nanosheets	Zi-Hao Wang <sup>1</sup> , Chih- Chiang Yang <sup>1</sup> , Ping-Chuan Chang <sup>2</sup> , Yan-Kuin Su <sup>12</sup>	<ul> <li>National Cheng Kung University, Taiwan</li> <li>Kun Shan University, Taiwan</li> </ul>
P-B53- 0347	Synthesis and characteristics of layered SnS <sub>2</sub> nanostructures via hot injection method	Hsin-I Wang <sup>1</sup> , Sheng- Chang Wang <sup>2</sup> , Jow-Lay Huang <sup>1,3</sup> , Po-Chia Huang <sup>1</sup>	<ul> <li>National Cheng Kung         University, Taiwan</li> <li>Southern Taiwan University         of Science and Technology,</li></ul>
P-B62- 0518	Edges of Graphene Nanoribbons Healed by Low Damage Plasma Treatment for Future Nanoelectronic Devices	Chi-Hsien Huang, Po- Chen Wu, Hsiang-En Cheng, Yin-Yin Wang	Ming Chi University of Technology, Taiwan
P-B29- 0505	Synthesis of Gold/Silica Oxide Core- Shell Microspheres	Yung-kuan Tseng <sup>1</sup> , Siou- hong Ye <sup>2</sup>	<ul> <li>Department of Cultural Heritage Conservation,</li> <li>National Yunlin University of Science and Technology, Taiwan</li> <li>Graduate School of Materials Science, National Yunlin University of Science and Technology, Taiwan</li> </ul>
P-B43- 0184	Fabrication of Plasmonics Si Solar Cell Based on Different Metallic Nanoparticles using Aluminum Oxide Template	Wen-Jeng Ho, Kuan-Yu Hsiao, Chien-Wu Yeh, Ruei-Siang Sue, Chia-Hua Hu, Yu-Jie Deng, and Y H.Chen	National Taipei University of Technology, Taiwan
P-B57- 0404	Indentation behavior of Cu-Zr-Al metallic-glass composite thin film via molecular dynamics	Yun-Che Wang, Nai-Hua Yeh, Zong-Han Lin	National Cheng Kung University, Taiwan
P-B23- 0468	Growth of (1 2 3 0) oriented non-polar ZnO films on LaAlO3 substrates	Tzu-Chun Yen, Yen-Teng Ho and Li Chang	National Chiao Tung University, Taiwan
P-B18- 0341	Deposition of ZnS and Zn(O, S) Thin Films by Atomic Layer Deposition	Yu-Hsuan Yu <sup>1</sup> , Chi-Chung Kei <sup>1</sup> , Wen-Chieh Li <sup>2</sup> , Cheng-Han Wu <sup>2</sup> , Shih- Chang Liang <sup>2</sup> , Cuo-Yo Ni <sup>2</sup> , Ming-Hua Shiao <sup>1</sup>	<sup>1</sup> Instrument Technology Research Center, National Applied Research Laboratories, Taiwan <sup>2</sup> National Chung-Shan Institute of Science and Technology, Taiwan
P-B30- 0526	Shape and size control of Ag nanoparticles on TiN thin film electrodes for SERS applications	Fu-Hsing Lu, Chung-Yuan Yu, Chia-Jung Yang	National Chung Hsing university, Taiwan
P-B42- 0137	Effect of Bias on the Structure and Properties of TiZrN Thin Films Deposited by Unbalanced Magnetron Sputtering	Yu-Wei Lin <sup>1,3</sup> , Hsi-An Chen <sup>1</sup> , Ge-Ping Yu <sup>1,2</sup> , Jia- Hong Huang <sup>1</sup>	<ul> <li>Department of Engineering and System Science, National Tsing Hua University, Taiwan,</li> <li>Institute of Nuclear Engineering and Science,</li> </ul>

Poster No	Title	Author	Affiliation
			National Tsing Hua
			University, Taiwan
			<sup>3</sup> Instrument Technology
			Research Center, National
			Applied Research
			Laboratories Taiwan
			<sup>1</sup> PCB "Argo", Beer Sheva,
P-B36-	Role of metal impurities in generation	Leonid Skatkov <sup>1</sup> , Valeriy	Israel
0009	of defects in anodic coatings Nb <sub>2</sub> O <sub>5</sub>	Gomozov <sup>2</sup>	<sup>2</sup> NTU "KhPI", Kharkov,
			Ukraine

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### Poster Presentation II: Symposium B, D, and E POSTER SYMPOSIUM D

Poster No	Title	Author	Affiliation
P-D1- 0019	Effect of Ti-N and Cr-N period number on the corrosion property of Ti-N/Cr-N Multilayer coatings	Yu-Sen Yang, Yi-Jhih Lin	National Kaohsiung First University of Science and Technology, Taiwan
P-D10- 0427	The mechanical properties and oxidation resistance of Ta <sub>1-x</sub> Zr <sub>x</sub> N <sub>y</sub> thin films by high power impulse magnetron sputtering	Li-Chun Chang <sup>1,2</sup> , Ching-Yen Chang <sup>1</sup> , Yung-I Chen <sup>3</sup> , Ya- Wen You <sup>1</sup>	<ul> <li>Department of Materials         Engineering, Ming Chi         University of Technology,         Taiwan         <sup>2</sup> Center for Thin Film         Technologies and Applications,         Ming Chi University of             Technology         <sup>3</sup> Institute of Materials         Engineering, National Taiwan         Ocean University, Taiwan     </li> </ul>
P-D8- 0294	Oxidation resistance and mechanical properties of Ta–Al–N coatings	Yung-I Chen <sup>1</sup> , Jun-Hsin Lin <sup>2</sup> , Yu-Ru Cheng <sup>1</sup> , Chau-Chang Chou <sup>2</sup>	<ul> <li><sup>1</sup> Institute of Materials         Engineering, National Taiwan         Ocean University, Taiwan     </li> <li><sup>2</sup> Department of Mechanical and         Mechatronic Engineering,         National Taiwan Ocean         University, Taiwan     </li> </ul>
P-D18- 0071	Influence of the anodizing current density on the microstructure and mechanical properties of anodic  TiO <sub>2</sub> layers	Zhaoxiang Chen, Xiaowen Qi, Yulin Yang, Limei Ren	Yanshan University, China
P-D24- 0498	Effect of nitrogen atmosphere heat treatment on structure and wear behavior of CrAlSiN coatings	Cheng-Hsun Hsu, Yih-Ming Chen, Yu-Ping Lee	Tatung University, Taiwan
P-D27- 0127	Experimental and numerical investigation of residual stress in thermally grown oxides on detonation-sprayed NiCrAlY coatings	Zhaoxiang Chen, Xiaowen Qi, Yulin Yang, Limei Ren	Yanshan University, China
P-D13- 0611	Effect of processing parameters on wear resistance and mechanical properties of thick ZrN film on D2 steel deposited by unbalanced magnetron sputtering	Ge-Ping Yu, Hung-Hao Chang, Jia-Hong Huang	National Tsing Hua university, Taiwan
P-D17- 0023	Corrosion properties of Al-N, Cr-N and Al-N/Cr-N coatings	Yu-Sen Yang <sup>1</sup> , Ting-Pin Cho <sup>2</sup> , Tzu-Yuan Chou <sup>1</sup>	<ul> <li>Department of Mechanical and Automation Engineering, National Kaohsiung First University of Science and Technology, Taiwan</li> <li>Metal Industries Research &amp; Development Centre, Taiwan</li> </ul>
P-D2- 0108	Tribological properties and high temperature oxidation of CrAlSiN/CrWN hard coatings	Yin-Yu Chang, Jun-Hao Chou, Chung-Yin Tu	National Formosa University, Taiwan

Poster No	Title	Author	Affiliation
P-D14- 0585	Developments of acoustic absorption coating by thermal spraying technique	Yung-Chin Yang, Min-Chi Tsai, I-Lun Chung	National Taipei University of Technology, Taiwan
P-D9- 0418	Increasing the Compatibility POM/PTFE Fiber Composites by Different Processes of Plasma- treated PTFEs	Chi-Yuan Huang , Mei-Chuan Kuo , Ming-Lih Roan	Tatung University, Taiwan
P-D25- 0584	Effects of post-annealing on microstructures and nanomechanical properties of Cu-doped In <sub>2</sub> O <sub>3</sub> thin films	Sheng-Rui Jian and Guo-Ju Chen	I-Shou University, Taiwan
P-D22- 0305	The study of tribological property, electrochemical behavior and biocompatibility of plasma nitrided and deposited Ti-DLC on AISI 316L.	W. H. Kao <sup>1</sup> , Y. L. Su <sup>2</sup> , K. X. Zhang <sup>2</sup> , Y. F.Hsiao <sup>1</sup>	<ul> <li>Chienkuo Technology         University, Taiwan.     </li> <li>National Cheng Kung         University, Tainan     </li> </ul>
P-D3- 0124	Adhesion Investigation of Stacked Thin Film in Organic Light- Emitting Diode Display Architecture	Chang-Chun Lee, Sen-Wen Cheng, Yan-Yu Liou	Chung Yuan Christian University, Taiwan
P-D6- 0221	Stability enhancement of lithium aluminum titanium phosphate solid electrolytes using RF-sputtered LiPON protective coatings	Zong-Han Li, Hsin-Chun Lu, Xin-Zhang Huang, Pradeep Kumar Panda	Chang Gung University, Taiwan
P-D20- 0149	Mechanical properties of CrSiN coatings by cathodic arc deposition with pulsed arc currents	Chien-Liang Lin, Wei-Yu Ho, Bo-Yi Chou, Yen-Shuo Chang	MingDao University, Taiwan
P-D11- 0531	A study of Chromium-doped diamond-like carbon thin films grown by a pulsed DC reactive magnetron sputtering method	Chaur-Jeng Wang <sup>1</sup> , De-Hsuan Kao <sup>1</sup> , Bih-Show Lou <sup>2</sup> , Jyh-Wei Lee <sup>3,4</sup>	<ul> <li>National Taiwan University of Science and Technology, Taiwan</li> <li>Chang Gung University, Taiwan</li> <li>Department of Materials Engineering, Ming Chi University of Technology, Taiwan</li> <li>Center for Thin Films</li> <li>Technologies and Applications, Ming Chi University of Technology, Taiwan</li> </ul>
P-D23- 0434	Nanoindentation of FePt thin films	CY. Yen <sup>1</sup> , CY. Shen <sup>2</sup> , SR. Jian <sup>3</sup> , HW. Chang <sup>4</sup> , TC. Lin <sup>5</sup> , DL. Chen <sup>5</sup> , PF. Yang <sup>5</sup> , TH. Tseng <sup>4</sup> and YW. Wang <sup>4</sup>	<sup>1</sup> I-Shou University, Taiwan <sup>2</sup> Hsiuping University of Science and Technology, Taiwan. <sup>3</sup> Department of Materials Science and Engineering, I- Shou University, Taiwan <sup>4</sup> Tunghai University, Taiwan <sup>5</sup> Central Product Solutions, Advanced Semiconductor Engineering, Taiwan
P-D4- 0217	Anomalous layer-thickening during micro-arc oxidation of 6061 Al alloy	Quang-Phu Tran <sup>1,2</sup> , Jian-Kai Sun <sup>1</sup> , Yu-Cheng Kuo <sup>1</sup> , Ju-Liang He <sup>1</sup> , Tsung-Shune Chin <sup>1</sup>	<sup>1</sup> Feng Chia University, Taiwan

Poster No	Title	Author	Affiliation
			Vietnam
P-D5- 0218	Processing effects on performance of MAO coating of 6061 Al Alloy	Quang-Phu Tran <sup>1,2</sup> , Jian-Kai Sun <sup>1</sup> , Yu-Cheng Kuo <sup>1</sup> , Ju-Liang He <sup>1</sup> , Tsung-Shune Chin <sup>1</sup>	<sup>1</sup> Feng Chia University, Taiwan <sup>2</sup> Hung Yen University of Technology and Education, Vietnam
P-D15- 0403	In-situ investigation of lateral junction growth by nanoindentation	Ping-Chi Tsai <sup>1,2</sup> , Yeau-Ren Jeng <sup>1,2</sup>	<ul> <li>Department of Mechanical Engineering, National Chung Cheng University, Taiwan</li> <li>Advanced Institute of Manufacturing with High-Tech Innovations, National Chung Cheng University, Taiwan</li> </ul>
P-D16- 0007	Characteristic Corrosion Studies on the MoN doping Ag Thin Film for Fabricated by Magnetron Sputtering Process	Chun-Chieh Wang <sup>1</sup> , Weng- Sing Hwang <sup>1</sup> , Chia-Hung Huang <sup>2</sup> , Chi-Wen Chu <sup>2</sup>	<ul> <li>National Cheng Kung         University, Taiwan </li> <li>Metal Industries Research &amp;         Development Centre, Taiwan     </li> </ul>
P-D12- 0610	Effect of Oxygen on the Fracture Toughness of Zr(N,O) Hard Coatings	Jia-Hong Huang, Haw-Wen Hsiao, Ge-Ping Yu	National Tsing Hus University, Taiwan
P-D7- 0246	A Study of Thin Film Metallic Glass Coating on the Shear-band Evolution in Bulk Metallic Glass under Fatigue Test.	Chia-Chi Yu1, Jinn P. Chu1, Hao-Ling Jia2, Peter K. Liaw2	1 National Taiwan University of Science and Technology, Taiwan 2 University of Tennessee, Knoxville, USA
P-D21- 0268	Enhancement of mechanical and corrosion properties of AISI 316 stainless steels by low temperature arc plasma nitriding	Min Zhang1, Yan-Hui Zhao2, Bao-Hai Yu2, Chao Sun2	1 School of Physics & Electronic Technology, Liaoning Normal University, China 2 Institute of Metal Research, Chinese Academy of Sciences, China
P-D28- 0615	Preparation of highly-ordered porous barium titanate films on titanium using plasma	Chu-Tsun Wu, Jie- Xiang Xie	National United University, Taiwan
P-D29- 0148	Comparison of CrN, AlCrN and AlCrON coating by cathodic arc deposition process	Chien-Liang Lin, Wei-Yu Ho, Pin-Hua Hsu	MingDao University, Taiwan

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### Poster Presentation II: Symposium B, D, and E POSTER SYMPOSIUM E

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Poster No	Tittle	Author	Affiliation	
P-E30- 0203	Fabrication of silver incorporated diamond-like carbon nanocomposite film for anti-bacterial applications	Chii-Ruey Lin <sup>1</sup> , Da-Hua Wei <sup>1</sup> , Minh-Khoa BenDao <sup>1,2</sup> , Ming- Hong Lin <sup>1</sup>	<ul> <li>National Taipei University of Technology, Department of Mechanical Engineering, Taiwan</li> <li>National Taipei University of Technology, Graduate Institute of Mechanical and Electrical Engineering, Taiwan</li> </ul>	
P-E9- 0183	Nano/Micro Hybrid Structured Film on the Ti-xNb Alloys.	Han-Cheol, Choe In-Seop Byeon	Chosun University, Republic of Korea	
P-E3- 0047	A Newly Neural-Chemical Interface with Reduced Graphene Oxide/Gold Oxide Nanocomposite for the Enhancement of Electrode Performance and Electrochemical Properties by Tuning the Interface		National Chiao Tung University, Taiwan	
P-E4- 0048	A Newly Neural-Chemical Interface with Reduced Graphene Oxide/Gold Oxide Nanocomposite for the Enhancement of Electrode Performance and Electrochemical Properties by Tuning the Interface		National Chiao Tung University, Taiwan	
P-E19- 0575	Conducting-Polymer-Based Convexity Arrays Embedded in Microchips for Detection of Circulating Tumor Cells	Yu-Sheng Hsiao*, Huan-Lin Chen†, Bo-Cheng Ho, Po-Jung Chen	Ming Chi University of Technology, Taiwan	
P-E24- 0026	Characteristics of Hybrid Titanium Dioxide /Polyimide Multilayered Thin Films	Jenq-Gong Duh, Ping-Wen Chen, Hsien-Wei Chen, Po-Yu Chen	National Tsing Hua University, Taiwan	
P-E34- 0359	Nanographene-based Carbon Nanofiber Arrays as 3D Bioelectronic Interfaces for Capture and Detection of Circulating Tumor Cells	Yu-Sheng Hsiao, Po-Jung Chen	Ming Chi University of Technology, Taiwan	
P-E12- 0303	Detection of Charged Proteins with a Silicon-based Thin Film Bio- Sensor Device	Shu-Ying Cheng, Kuan-Ting Chen, Shu-Tong Chang	National Chung Hsing University, Taiwan	
P-E36- 0537	Mussel-inspired polydopamine to assist in deposition of silver nanoparticles for antibacterial uses	Yi-Hong Chiu1, Min-Chen Li <sup>1</sup> , Yi-Chang Chung <sup>1,2</sup> , Wen- Hsuang Wang <sup>3</sup>	<ul> <li>Research Center of Biomimetics and Medicare Technology, National University of Kaohsiung, Taiwan</li> <li>Department of Chemical and Materials Engineering, National University of Kaohsiung, Kaohsiung, Taiwan</li> <li>ThinTech Materials</li> </ul>	

Poster No	Tittle	Author	Affiliation
			Technology Co., Ltd., Kaohsiung, Taiwan
P-E32- 0259	HMDSO Plasma Treatment and BMP-2/CHX Grafting on SS Mini- Screw Implants for Promotion of Osteointegration and Antibacterial Capability	Lin Win-Li <sup>1</sup> , Chun-Pin Lin <sup>3</sup> , Liao Shu Chuan <sup>1</sup> , <sup>2</sup> , Ching-Yen Chuang <sup>3</sup>	<sup>1</sup> National Taiwan University, Taiwan <sup>2</sup> Center Thin Film Technologic and Applications, Ming Chi University of Technology, Taiwan <sup>3</sup> School of Dentistry, National Taiwan University, Taiwan
P-E23- 0580	In Vitro Study of Rat Mesenchymal Stem Cell on Polyelectrolyte Multilayers Coated Titanium Alloy	R.J. Chung <sup>1</sup> , Keng-Liang Ou <sup>2,3,4,5</sup> , W.K. Tseng <sup>1</sup>	<ul> <li>National Taipei University of Technology, Taiwan</li> <li>School of Dentistry, College of Oral Medicine, Taipei Medical University, Taiwan</li> <li>Research Center for Biomedical Implants and Microsurgery Devices, Taipei Medical University, Taiwan</li> <li>Graduate Institute of Biomedical Materials and Tissue Engineering, Taipei Medical University, Taiwan</li> <li>Department of Dentistry, Taipei Medical University- Shuang Ho Hospital, Taiwan</li> </ul>
P-E13- 0420	Displaceable Biointerface Properties by Using Disulfide-Functionalized Poly-p-xylylene Coatings	Hsien-Yeh Chen, Zhen-Yu Guan	National Taiwan University, Taiwan
P-E20- 0577	3D Conducting Polymer-based Organic Electrochemical Transistors for Circulating Tumor Cells Isolating and Detecting	Yu-Sheng Hsiao, Bo Cheng Ho, Huan Lin Chen, Po Jung Chen	Ming Chi University of Technology, Taiwan
P-E22- 0586	Influences of surface treatments on the adhesion of zirconia dental bridge	Pei-Chi Hsu <sup>1</sup> , Shu-Tuan Yeh <sup>2</sup> , Yung-Chin Yang <sup>1</sup>	<ol> <li>National Taipei University of Technology, Taiwan</li> <li>Dental department, Mackay Memorial Hospital, Taiwan</li> </ol>
P-E5- 0087	An Optical Emission Analysis on Low Pressure CH <sub>2</sub> F <sub>2</sub> /Ar Plasma Polymerization Processing	Chun Huang, Chien-Hsuan Pan, Yo-Hao Huang, Po-Chih Yeh	Yuan Ze University, Taiwan
P-E6- 0095	The study of Creation of Polymerizable Species in RF Ethane Plasma Polymerization in a Closed Reactor System	Chun Huang, Yin-Che Huang, Qingsong Yu	Yuan Ze University, Taiwan
P-E26- 0536	Using Nitrogen Plasma Immersion Ion Implantation Treatment to Enhance Biological Response to Nanonetwork-structured Titanium Surface in Nasal Implant Applications	Her-Hsiung Huang, Wei-En Yang	National Yang-Ming University, Taiwan

Poster No	Tittle	Author	Affiliation
P-E10- 0185	Hydroxyapatite Precipitation on the Ti-30Ta-xHf Alloys for Biomedical Applications	Han-Cheol Choe, Jae-In Jang	Chosun University, Gwangju, Republic of Korea
P-E18- 0568	Smart Biomolecule-coated ZnO nanotube for Controlled Release	Y.D. Kang1†, Y.W. Chen1, C.S. Hsiao2 and S.Y. Chen1*	1 Department of Materials Science and Engineering, National Chiao Tung University, Hsinchu, Taiwan 2 BioFirst Corporation, Neihu Rd., Neihu District, Taipei, Taiwan
P-E29- 0180	Effects of Various Surface Modification on the Bonding Strength between Porcelain and Co- Cr Alloys.	Jung-In, Kang1, Mee-Kyoung, Son1, Han-Cheo <sup>1</sup> , Choe <sup>2</sup>	<ul> <li>Department of         Prosthodontics, College of             Dentistry, Chosun University,             Gwang ju, Republic of Korea             <sup>2</sup> Department of Dental             Materials, Research Center of             Nano-Interface Activation for             Biomaterials, &amp; Research             Center for Oral Disease             Regulation of the Aged college             of Dentistry, Chosun             University, Korea     </li> </ul>
P-E11- 0186	Electrochemically Mg-doped Hydroxyapatite Coatings on the Nanotubular Ti-25Ta-xHf Alloys for Dental Applications	Han Cheol Choe, Jeong-Jae Kim	Chosun University, Republic of Korea
P-E21- 0597	Surface Morphologies of Sr-doped Hydroxyapatite Coated on the Ti- 6Al-4V for Dental Applications	Han-Cheol Choe, Kang Lee	Chosun university, Republic of Korea
P-E28- 0062	Poly (lactic-co-glycolic acid) Nanofiber attached Gold Nanoparticles for Bone Tissue Engineering Applications	Il Keun Kwon, Donghyun Lee, Dong Nyoung Heo, Sang Jin Lee	Kyung Hee University, Republic of Korea
P-E1- 0025	Antibacterial property and cytocompatibility of Ta-Zn-O Coatings	Heng-Li Huang <sup>1</sup> , Ming-Tzu Tsai <sup>2</sup> , Yin-Yu Chang <sup>3</sup> , Yi-Jou Lin <sup>3</sup> , Jui-Ting Hsu <sup>1</sup> , Yi-Jyun Lin <sup>3</sup>	<ul> <li>China Medical University,         Taiwan     </li> <li>Hungkuang University,         Taiwan     </li> <li>National Formosa University,         Taiwan     </li> </ul>
P-E17- 0544	Characterization of strontium- substituted hydroxyapatite coatings prepared by plasma electrolytic oxidation	Fu-Hsing Lu, Hsin Yi Lin	National Chung Hsing University, Taiwan
P-E33- 0272	Adhesive property and bioactivity of bioactive glass coated alumina implants	Shao-Ju Shih,, Yu-Chien Lin, Jui-Che Lee	National Taiwan University of Science and Technology, Taiwan
P-E15- 0486	Nanoparticle Arrays for Label-Free and Raman-Enhanced Bio-detection		<ul> <li>Department of Materials Engineering, Ming Chi University of Technology, Taiwan</li> <li>Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan</li> <li>Center for Condensed Matter</li> </ul>

Poster No	Tittle	Author	Affiliation
			Sciences, National Taiwan University, Taiwan <sup>4</sup> Department of Physics, National Taiwan University, Taiwan
P-E35- 0464	Characterization of Flexible Transparent Conductive Films by Graphene/PEDOT:PSS Nanohybrids through Sulfuric Acid Second Treatment	Ting-Yu Liu, Che-Chun Liu, Kuan-Syun Wang	Ming Chi University of Technology, Taiwan
P-E31 0241	Oxidized Dopamine as the Interlayer between Heparin/Collagen Polyelectrolyte Multilayers and Titanium Substrate- an Investigation on the Coating's Adhesion and Hemocompatibility	Chau-Chang Chou <sup>1,2</sup> , Shang-Wen Hsin <sup>1</sup> , Chi-Hsiao Yeh <sup>3,4</sup> ,	<ul> <li>Department of Mechanical &amp; Mechatronic Engineering, National Taiwan Ocean         University, Taiwan         <sup>2</sup> Center for Marine         Mechatronic Systems         (CMMS), National Taiwan         Ocean University, Taiwan         <sup>3</sup> College of Medicine, Chang         Gung University, Taiwan         <sup>4</sup> Division of Thoracic and         Cardiovascular Surgery,         Chang Gung Memorial             Hospital, Taiwan         <sup>5</sup> Division of Cardiology,         Department of Internal         Medicine, Chang Gung         Memorial Hospital,</li> </ul>
P-E8- 0181	Nanotube Morphology Changes of Ti-29Nb-xHf Alloys with Various Anodization Factors	Han-Cheol Choe ,Seon-Yeong Park	Chosun University, Republic of korea
P-E14- 0437	Robust Coating of Functionalized Parylene on Biofunctional Surface Modification	Ho-Yi Sun, Cheng-Yuan Fang, Ting-Ju Lin, Yung-Chih Chen, Jiashing Yu, and Hsien-Yeh Chen	National Taiwan University, Taiwan
P-E25- 0508	Enhancing the Biological Response of Titanium Implants through the Immobilization of BMP-2 using the Natural Cross-linker Genipin	Her-Hsiung Huang, Ying-Sui Sun	National Yang-Ming University, Taiwan
P-E16- 0495	Biocompatibility of Gelatin Films on PEEK by Crosslinking with Genipin	Min-Yi Sung <sup>1</sup> , Chung-Yu Guo <sup>2</sup> , Ko-Shao Chen <sup>1</sup>	<sup>1</sup> DTatung University Taiwan <sup>2</sup> Dentistry, Taipei Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Taiwan
P-E2- 0044	Micro-arc Oxidation Treatment Enhanced the Biological Performance of Human Osteosarcoma Cell Line and Human Skin Fibroblasts Cultured on Titanium-Zirconium Films	Chang <sup>2</sup> , Yu-Hsuan Wu <sup>2</sup> ,	<ul> <li>Hungkuang University,         <ul> <li>Taiwan</li> </ul> </li> <li>National Formosa University,             <ul> <li>Taiwan</li> <li>School of Dentistry, China</li> <li>Medical University, Taiwan</li> <li>Department of Dental</li> <li>Hygiene, China Medical</li> <li>University, Taiwan</li> </ul> </li> </ul>

Poster No	Tittle	Author	Affiliation
P-E27- 0005	Electro-oxidation of Polyaniline in the Presence of Electronic Accepters and the Magnetic Properties of the Resulting Polyaniline	Jun Yano <sup>1</sup> , Akira Kitani <sup>2</sup>	<sup>1</sup> Niihama National College of Technology, Japan <sup>2</sup> Hiroshima University, Japan
P-E37- 0590	Specific Capture, Release, and Monitoring of Circulating Tumor Cells Using Poly(3,4- ethylenedioxythiophene)-based Nanofibers Bioelectronics	Yu-Sheng Hsiao, Jia-Zheng You, Hong-Xin Yan, and Po- Jung Chen	Ming Chi University of Technology, Taiwan
P-E7- 0122	Parametric Studies of a Phosphorescent Organic Light Emitting Diode	T. Y. Tou, Y. Y. Kee, T.S. Ong, S. S. Yap	Multimedia University, Malaysia
P-E38- 0049	Substrate-independent green synthesis of nanoparticle network films for gas sensor	Shih-Chen Shi, Wen-Ke Huang	National Cheng Kung University, Taiwan

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## Poster Presentation III: Symposium C and F POSTER SYMPOSIUM C

Poster	Title	Author	Affiliation
No		Author	Allillation
P-C71- 0014	Structural properties and optical constants dependence on thermal annealing of novel MR-Cu-PPHis nanocrystalline thin filmbased organic semiconductor	Ahmed. F. Al-Hossainy <sup>1</sup> and A. Ibrahim <sup>2</sup>	<sup>1</sup> Assiut University, Egypt <sup>2</sup> Tanta University, Egypt
P-C62- 0129	The influences of nitrogen doping on the properties of ZnO films	G. J. Chen, H.T. Chang	I-Shou University, Taiwan
P-C97- 0319	Large area growth of MoS2 thin film using thermal evaporation method	Tsung Shine Ko, Nai Wen Chang, Ding Jie Liao, Der Yuh Lin	National Changhua University of Education, Taiwan
P-C116- 0513	A Performance Study on DSSC using Copper Oxide Electrodes by Low Chemical Vapor Deposition	Yuneng Chang, Chengjang Wu, Shenmin Fu, Yujun Ohu, Szechi Huang, Tsianghao Tzeng	Lungwha University of Science and technology, Taiwan
P-C3- 0060	The Hydrobaric Effect on Cathodic Deposition of Tin Oxide Films	Chun-Yi Chen <sup>1,2</sup> , Tso-Fu Mark Chang <sup>1,2</sup> , Masato Sone <sup>1,2</sup>	<sup>1</sup> Tokyo Institute of Technology, Japan <sup>2</sup> Japan Science and Technology Agency, Japan
P-C19- 0145	Effect of Pushing Gas on Nitrogen Doped Zinc Oxide by Mist Chemical Vapor Deposition	Jen-Yueh Chen <sup>1</sup> , Yu- Chun Chien <sup>1</sup> , Chun-Ting Chou <sup>1</sup> , Wen-Jen Lin <sup>2</sup> , Wen-How Lan <sup>1</sup>	<ul> <li>National University of Kaohsiung, Taiwan</li> <li>National Chung-Shan Institute of Science &amp; Technology, Taiwan</li> </ul>
P-C70- 0525	Simple and precise measurement of thickness of organic and inorganic thin films by atomic force microscopy	Chun-Yuan Huang, Yi- Fang Chen, Jia-Hua Lai, Zih-Yan Yang, Tzu-Yeh Chen	National Taitung University, Taiwan
P-C80- 0076	Synthesis Eu doping BaY2ZnO5 films prepared by atmospheric-pressure plasma jet	Hao-Long Chen, Kuang- Wei Wang, Lin Cheng	Kao Yuang University, Taiwan
P-C89- 0277	The structural and characteristic of InN thin films grown on graphene template	Hung Pin Chen <sup>1,2</sup> , Wei Chun Chen <sup>1</sup> , Shih Hao Chan <sup>2</sup> , Chien Nan Hsiao <sup>1</sup> , Cheng Chung Lee <sup>2</sup>	<ul> <li><sup>1</sup> Instrument Technology Research Center, National Applied Research Laboratories, Taiwan</li> <li><sup>2</sup> National Central University, Taiwan</li> </ul>
P-C95- 0295	Effects of Seed Layer Structure on the Structural and Optical Properties of the ZnO Nanorods	Ming Cheng Kao, Po Yen Chen, Hone Zern Chen, Shang Lin Young, Chia Cheng Liao, Yau Shian Huang, Wei Jhou Chen, Meng Zhe Li, Yu Xing Hong, Yi Meng Wang	Hsiuping University of Science and Technology, Taiwan

Poster No	Title	Author	Affiliation
P-C105- 0390	The variations of substrate temperature on the structural and optical properties of CuIn1-xGaxSe2 thin films by coevaporation technology	Hung-Ing Chen <sup>1</sup> , Jui-Ju Hsiao <sup>1</sup> , Yi-Jen Huang <sup>1</sup> , Jen-Cheng Wang <sup>1</sup> , Wei- sheng Lin <sup>2</sup> , Tung-Po Hsieh <sup>2</sup> , Tzer-En Nee <sup>1</sup>	<ul> <li>Chang Gung University,         Taiwan     </li> <li>Green Energy and         Environment Research         Laboratories, Industrial     </li> <li>Technology Research Institute,         Taiwan     </li> </ul>
P-C88- 0264	Synthesis of CuInS2-ZnS quantum dots for different Cu/In ratios using polyetherarmine as solvent and its applications to GaN-based white light-emitting diodes	Wen-Jui Chiang <sup>1</sup> , You- Cheng Lin <sup>1</sup> , Yi-Hao Chen <sup>1</sup> , Chia-Chun Chen <sup>2</sup> , Yu-Chun Wu <sup>2</sup> and Shih- Chang Shei <sup>1</sup>	<ul> <li>Department of Electrical Engineering, National University of Tainan, Taiwan</li> <li>Department of Greenergy Technology, National University of Tainan, Taiwan</li> </ul>
P-C14- 0131	Preparation and Characterization of ZrO2 Thin Film via Direct Plasma Enhanced Atomic Layer Deposition at Low Temperature	Gu Young Cho <sup>1</sup> , Seungtak Noh <sup>1</sup> , Donghyun Kim <sup>2</sup> , Yoon Ho Lee <sup>1</sup> , Yongtaek Hong <sup>2</sup> , Jihwan An <sup>3</sup> , Suk Won Cha <sup>1</sup>	<ul> <li>Department of mechanical and aerospace engineering, Seoul National University, Seoul, Korea</li> <li>Department of electrical and computer engineering, Seoul National University, Korea</li> <li>Manufacturing Systems and Design Engineering Programme, Seoul National University of Science and Technology, Korea</li> </ul>
P-C39- 0358	Modulation of Flatband Voltage (VFB) and Equivalent Oxide Thickness (EOT) Controlled by Oxygen and Thickness in HfO2/TiN Gate Stack	Changhwan Choi	Hanyang University, Republic of Korea
P-C16- 0135	Uniformity Study of Alternative Supply Unit in Mist Chemical Vapor Deposition System in the Fabrication of Zinc Oxide	Chun-Ting Chou <sup>1</sup> , Jen- Yueh Chen <sup>1</sup> , Yu-Chun Chien <sup>1</sup> , Jia-Ching Lin <sup>2</sup> , Kuo-Jen Chang <sup>2</sup> , Wen- Jen Lin <sup>2</sup> , Wen-How Lan <sup>1</sup>	<ul> <li>National University of Kaohsiung, Taiwan</li> <li>National Chung-Shan Institute of Science &amp; Technology, Taiwan</li> </ul>
P-C27- 0209	Photoluminescence phenomenon of AAO from high and low purity of Al foils anodized at room temperature	C.K. Chung, B.Y. Chu, C.H Tsai	National Cheng Kung University, Taiwan
P-C67- 0182	Electrodeposition of zinc oxides with Cl-doped as window layer in CIGS solar cells	Rui Fu <sup>1</sup> , Jianping Ao <sup>1</sup> , Yi-Xian Chu <sup>2</sup> , Ming-Jer Jeng <sup>2</sup> , Jinlian Bi <sup>1</sup> , Liyong Yao <sup>1</sup> , Shoushuai Gao <sup>1</sup> , Guozhong Sun <sup>1</sup> , Yun Sun <sup>1</sup> , Liann-Be Chang <sup>2</sup>	<sup>1</sup> Institute of Photoelectronic Thin Film Devices and Technology and Tianjin Key Laboratory of Thin film Devices and Technology, Nankai University, Taiwan <sup>2</sup> Chang Gung University, Taiwan
P-C23- 0163	Effect of oxygen on the characteristics of RF-sputtered amorphous IGZO thin films and thin film transistors	Hsin-Chun Lu, Yu-Ting Chueh, Ting Tseng, Huseh-Chin Chen	Chang Gung University, Taiwan
P-C82- 0105	Fabrication of Cu2ZnSnSe4 Thin Films from nanoinks by non-vacuum solution method and by Rapid Thermal annealing	Shih-Chang Shei, Jian- Wei Du, Yi-Hao Chen,	National University of Tainan, Taiwan

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	Process		
P-C73- 0024	Electrical and optical properties of bandgap- enlarged Mg-AZO films	J.S. Fang <sup>1</sup> , D.R. Jung <sup>1</sup> , F.J. Po1, C.H. Hsu <sup>1</sup> , T.S. Chin <sup>2</sup>	<sup>1</sup> National Formosa University, Taiwan <sup>2</sup> Feng Chia University, Taiwan
P-C102- 0368	Optical Properties of New Polymeric Thin Films prepared by Spin-Coating Techniques	Yi-Kai Fang <sup>1</sup> , Chia- Hong Huang <sup>1</sup> , Kwang- Ming Lee <sup>2</sup> , Chia-Yu Chang <sup>2</sup> , Cheng-Yen Liu <sup>3</sup> , Chung-Cheng Chang <sup>3</sup> and Jung-Hui Tsai <sup>1</sup>	<ul> <li>Department of Electronic Engineering, National Kaohsiung Normal University, Taiwan</li> <li>Department of Chemistry, National Kaohsiung Normal University, Taiwan</li> <li>Department of Electrical Engineering, National Taiwan Ocean University, Taiwan</li> </ul>
P-C108- 0414	Improved Charge Storage Characteristics of Si Nanocrystals/SiO2 Superlattices Memory by Hydrogen Ion-beam Assisted Sputtering	Hui-Ju Chen, Sheng- Wen Fu and Chuan-Feng Shih	National Cheng Kung University, Taiwan
P-C15- 0134	Fabrication and optical characterization of p-ZnO:Cu,N/n-SiC heterojunctions	Y. Hirano, H. Katsumata	Meiji University, Japan
P-C104- 0388	Large area of few layer MoS2 growth by pulsed laser deposition	Yen-Teng Ho <sup>1</sup> , Tzu- Chun Yen <sup>1</sup> , Tien-Tung Luong <sup>1</sup> , Lin-Lung Wei <sup>1</sup> , Yung-Ching Chu <sup>1</sup> , Chao- An Jong <sup>2</sup> , Hung-Ru Hsu <sup>3</sup> , Meng-Wei Lin <sup>1</sup> , Hung-Yi Chen <sup>1</sup> , Yung- Yi Tu <sup>1</sup> , Tsu Chang <sup>4</sup> and Edward-Yi Chang <sup>1</sup>	<ul> <li>National Chiao Tung         University, Taiwan</li> <li>National Nano Device         Laboratories, Taiwan</li> <li>Industrial Technology         Research Institute, Taiwan</li> <li>National Chung-Shan         Institute of Science and         Technology</li> </ul>
P-C79- 0074	Atomic resolution structural characterization of multiple-quantum-wells by aberration-corrected STEM	C. N. Hsiao, Y. W. Lin, C. P. Lin, P. K. Chiu, F. Z. Chen, J. L. Andrew. Yeh	National Applied Research Laboratories , Taiwan
P-C111- 0463	The study of improving the SiO2/ITO for ARC of Crystalline Silicon Solar Cell by Post-deposition annealing and Hydrogen plasma treat Shih-Chih Chen1†, Yi-Wei Hsiao2*	Yi-Wei Hsiao, Shih-Chih Chen	National Yunlin University of Science and Technology, Taiwan
P-C28- 0228	Photoluminescence of sputtered silicon-rich- nitride on anodic aluminum oxide annealed at low temperature	Y.Y. Hsieh , C.H. Li , C.K. Chung	National Cheng Kung University, Taiwan
P-C55- 0573	Improving photovoltaic properties by using MoO3:Ag buffer layer in organic solar cells	Po-Ching Kao, Cheng- Chieh Hsieh, Wei-Chien Cheng, Chia-Yi Liu, Tse- Hui Chen	National Chiayi University, Taiwan

Poster No	Title	Author	Affiliation
P-C118- 0566	Effects of Ar, He, and Ne gases on the characteristics of SiH4+H2 ICP plasma and the resultant properties of nc-Si:H thin films	J. H. Hsieh, H. C. Lin, C. Y. Lin	Ming Chi University of Technology, Taiwan
P-C42- 0394	Improved High-quality ZnO Thin Films by Nanorods Seed Layer Using Ultrasonic Spray Pyrolysis	Yu-Ting Hsu <sup>1</sup> , Tzu-Yang Lin <sup>2</sup> , Wen-How Lan <sup>2</sup> , Kai-Feng Huang <sup>1</sup> , Jia- Ching Lin <sup>3</sup> , Kuo-Jen Chang <sup>3</sup>	<ul> <li>National Chiao Tung         University, Taiwan     </li> <li>National University of         Kaohsiung, Taiwan     </li> <li>National Chung-Shan         Institute of Science and         Technology, Taiwan     </li> </ul>
P-C22- 0159	The density control of InN nanodots on Si(111) by droplet epitaxy	Ing-Song Yu, Dang- Long Yang, Tseh-Wei Huang	National Dong Hwa University, Taiwan
P-C24- 0171	Bi-Layer Dielectric Structure of IGZO Thin- Film Transistor for Gate Stack and Passivation Layer Application	William Cheng-Yu Ma, Meng-Chien Lee, Chi- Yuan Huang	National Sun Yat-Sen University, Taiwan
P-C34- 0275	Electrical and optical properties of Ni-doped and undoped MoS2	Cheng-Ching Huang <sup>1</sup> , Nai-Wen Chang <sup>1</sup> , Shi- Ming Jian <sup>1</sup> , Tsung-Shine Ko <sup>1</sup> , Der-Yuh Lin <sup>1</sup> , and Ying Sheng Huang <sup>2</sup>	<ul> <li>National Changhua         University of Education,</li></ul>
P-C69- 0321	The luminous properties of ultraviolet light- emitting diodes packaging with spin-on- glass and epoxy	Ming-Jer Jeng, Shin- Huan Huang, Liann-Be Chang	Chang Gung University, Taiwan
P-C74- 0036	Cu-induced Dielectric Breakdown for Porous Low Dielectric Constant Film under Static and Dynamic Stress	Yi-Lung Cheng, Yao- Liang Huang	National Chi-Nan University, Taiwan
P-C75- 0037	Metal Gate Geometry Effect on Reliability Characteristics of Low Dielectric Constant Materials	Yi-Lung Cheng, Chi-Jia Huang	National Chi-Nan University, Taiwan
P-C112- 0473	Fabrication and nanoparticle-induced emission mode transition of efficient organic-inorganic light-emitting diodes with electron transporting ZnO nanoparticles	Chun-Yuan Huang, Meng-You Chen, Yi- Hsiu Hsieh, Jia-Hong Chan, Yi-Fang Chen	National Taitung University, Taiwan
P-C120- 0583	Properties of GaN Decomposition in Atmospheric Pressures	Shih-Yung Huang <sup>1, 2</sup> , Wei-Kai Wang <sup>3</sup> , and Po- Rung Lin <sup>4</sup>	<ul> <li>Department of Industrial Engineering and Management, Da-Yeh University, Taiwan</li> <li>Bachelor Program of Green Product Design, Da-Yeh University, Taiwan</li> <li>Department of Materials</li> <li>Science and Engineering, Da-Yeh University Taiwan</li> <li>Department of Materials</li> <li>Science and Engineering, Da-Yeh University Taiwan</li> <li>Department of Materials</li> <li>Science and Engineering, National Chung Hsing University, Taiwan</li> </ul>

Poster No	Title	Author	Affiliation
P-C121- 0587	Microstructure of GaN films grown on Si(100) and Si(111) substrates by pulsed laser deposition	Shih-Yung Huang <sup>1,2</sup> , Wei-Kai Wang <sup>3</sup> , and Dong-Sing Wuu <sup>3</sup>	<ul> <li>Department of Industrial Engineering and Management, Da-Yeh University, Taiwan</li> <li>Bachelor Program of Green Product Design, Da-Yeh University, Taiwan</li> <li>Department of Materials Science and Engineering, Da-Yeh University, Taiwan</li> </ul>
P-C81- 0102	Effects of annealing temperatures on characteristics of amorphous nickel carbon thin film alloys deposited on n-type silicon substrates by reactive sputtering	Sham-Tsong Shiue, Zih- Chen Hong	National Chung Hsing University, Taiwan
P-C93- 0292	Effect of annealing on structural and optical properties of the MoO3 thin film by reactive sputtering	Cheng De Hung, Hung Cheng Huang, Jeng Ying Wang, Pang Shiu Chen, Cheng-Hsiung Peng	Minghsin University of Science and Technology, Taiwan
P-C66- 0355	The role of highly phosphorus dopants in aluminum-induced crystallization of amorphous silicon films	J. D. Hwang <sup>1</sup> , L. C. Luo <sup>1</sup> , Sanjaya Brahma <sup>2</sup> and K. Y. Lo <sup>2,3</sup>	<ul> <li>Department of         Electrophysics, National         Chiayi University, Taiwan         <sup>2</sup> Department of Physics,         National Cheng Kung         University, Taiwan         <sup>3</sup> Advanced Optoelectronic         Technology Center, National         Cheng Kung University,</li></ul>
P-C103- 0370	The study of electrical properties of Graphene based transparent conductive layer on p-type GaN	Wen-Cheng Ke <sup>1</sup> , Zi- Hang Kuo <sup>1</sup> , Tsung-Wu Wang <sup>2</sup> and Ghih-Yung Chiang <sup>2</sup>	<ul> <li>National Taiwan University of Science and Technology, Taiwan</li> <li>Yuan Ze University, Taiwan</li> </ul>
P-C6- 0077	A Study of the Characteristics of Indium Tin Oxide After Chlorine Electro-chemical Treatment	Byoungdeog Choi, Moonsoo Kim	Sungkyunkwan University, Republic of Korea
P-C47- 0454	The Characteristics of the Solution Processed ZrO2 Dielectric with Hydrogen Peroxide	Byoungdeog Choi, Sangsub Kim	Sungkyunkwan University, Republic of Korea
P-C48- 0456	Effects of boron-doping on the dielectric characteristics of solution-processed aluminum oxide	Byoungdeog Choi, Hyunwoo Kim	Sungkyunkwan University, Republic of Korea
P-C7- 0089	Optical and structural properties of SixC1-x alloy thin films prepared by RF magnetron sputtering	Kusunoki Atsuki	Department of Electronics and Bioinformatics, School of Science and Technology, Meiji University, Japan
P-C11- 0121	Electrical properties of radio frequency- pulsed laser deposited IGZO film	Chih-Chang Lai, Chih- Wei Chang, Kai-Shin Wen	National Chi Nan University, Taiwan
P-C54- 0533	Temperature Dependence of Boron-doped ZnO Transparent Conductive Thin Films	Yi-Sheng Lai, Lian- Hong Wong and	National United University, Taiwan

Poster No	Title	Author	Affiliation
P-C12- 0123	STI Geometrical Influence of Recessed Surface on Array-Type Arrangements of Nano-Scaled Devices Strained by CESL and Ge-based Stressors	Chang-Chun Lee, Sen- Wen Cheng, Pei-Chen Huang	Chung Yuan Christian University, Taiwan
P-C13- 0125	Effects of oxygen flows and annealing temperature on properties of Co-sputtering In2O3-Ga2O3-Zn thin films	Yih-Shing Lee <sup>1</sup> , Sheng Yu Zhao <sup>1</sup> , Yuan-Zhe Lin <sup>2</sup> , and Glen Andrew Porter <sup>3</sup>	<sup>1</sup> Department of Optoelectronic System Engineering, Minghsin University of Science and Technology, Taiwan <sup>2</sup> Institute of Electronics, Minghsin University of Science and Technology, Taiwan <sup>3</sup> National Kaohsiung University of Applied Sciences, Taiwan
P-C18- 0138	Effects of ZnO Deposition Power on Optical and Residual Stress of Co-sputtering In2O3-Ga2O3-ZnO Films	Yih-Shing Lee <sup>1</sup> , Chih- Wei Wang <sup>1</sup> , Yuan-Zhe Lin <sup>2</sup> , Cheng-Chung Jaing <sup>1</sup>	<ul> <li>Department of Optoelectronic System Engineering, Minghsin University of Science and Technology Taiwan</li> <li>Institute of Electronics, Minghsin University of Science and Technology, Taiwan</li> </ul>
P-C52- 0519	Performance Improvement of Poly-Si Tunnel Thin-Film Transistor by Trap Passivation	Chi-Yuan Huang <sup>1</sup> , Meng-Chien Lee <sup>1</sup> , Yi- Hsuan Chen <sup>2</sup> , William Cheng-Yu Ma <sup>1</sup>	<ul> <li>National Sun Yat-sen         University, Taiwan     </li> <li>National Chiao-Tung         University, Taiwan     </li> </ul>
P-C53- 0520	A study of distributed Bragg reflectors made by ZrO2/MgO multilayer films	Tzu-Yao Lin <sup>1</sup> , Chi-Yu Lu <sup>1</sup> , Po-Chi Wang <sup>2</sup> , Yueh-Chien Lee <sup>3</sup> , Jyh- Wei Lee <sup>1, 4</sup> , Yung-Chin Yang <sup>5</sup>	<ul> <li>Department of Materials         Engineering, Ming Chi         University of Technology,</li></ul>
P-C63- 0299	Characteristics of nitrogen-doped titania synthesized by using titanium tetrachloride and ammonia water as precursor	Wen-Jen Lee <sup>1</sup> , Yawteng Tseng <sup>1</sup> , Jiann-Shing Lee <sup>1</sup> and Lay-Gaik Teoh <sup>2</sup>	<ul> <li>National Pingtung University, Taiwan.</li> <li>National Pingtung University of Science and Technology, Taiwan.</li> </ul>
P-C115- 0511	Phase segregation during the selenization of electrodeposited Cu-In metal film	Fong-Gang Guo <sup>1</sup> , Chiu- Yen Chiu <sup>2</sup> , Li-Ju Chen <sup>2</sup> , Chih-Hao Lee <sup>1</sup>	<sup>1</sup> National Tsing Hua University, Taiwan <sup>2</sup> Material and Chemical Research Laboratories, Taiwan

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P-C56- 0574	Nonvolatile organic bistable devices fabricated utilizing UV-ozone treated copper nanoparticles embedded in an organic layer	Po-Ching Kao, Hung- Chih Li, Cheng-Chieh Hsieh, Shu-Chi Chang, Po-Hao Ke	National Chiayi University, Taiwan
P-C65- 0164	Characteristic of CIGS solar cell fabricated with CdS and Zn(O,S) buffer layer in sputtering process	Wen Chieh, Li, Shih Chang, Liang, Cuo Yo Ni, Chao Nan, Wei, Hui Yun, Bor	National Chung-Shan Institute of Science and Technology, Taiwan
P-C107- 0409	Investigation of defect structures of GaN epilayers with different substrates	Shao-Yi Li, Hsin- Yen.Cheng, Chih-Tien Chen, Kuo-Jen.Chang, Jia-Ching Lin	National Chung-Shan Institute of Science and Technology, Taiwan
P-C64- 0112	Structural, electrical and optical properties of cosputter-deposited Zn-In-Sn-O (ZITO) composite film	K.D.Li, S.C.Liang, C.N.Wei , C.Y.Ni, and H.Y.Bor	National Chung-Shan Institute of Science and Technology, Taiwan
P-C110- 0428	Fabrication and characteristics of (PCBM/graphene/ITO)/MAPbI3 perovskite/silicon heterostructures	Lung-Chien Chen, Kai- Chien Liang, Chiao-Yu Weng	National Taipei University of Technology, Taiwan
P-C9- 0099	Influence of pure oxygen working pressure on optoelectronic properties of nickel oxide films deposited by reactive magnetron sputtering	S. C. Chen <sup>1</sup> , P. C. Lin <sup>1</sup> , C. K. Wen <sup>1</sup> , S. W. Hsu <sup>1</sup> , and T. Y. Kuo <sup>2</sup>	<ul> <li>Department of Materials         Engineering and Center for         Thin Film Technologies and         Applications, Ming Chi         University of Technology,         Taiwan     </li> <li>National Taiwan University,</li> <li>Taiwan</li> </ul>
	Fabrication and Characterization of (WNiB)Ox Switching Devices	Ta-Tung Lin <sup>1</sup> , Jinn P. Chu <sup>1</sup> , Sea F.Wang <sup>2</sup>	National Taiwan University     of Science and Technology,
P-C36- 0304	A comparative study of ink based CIGSe/CIGSeS thin film grown by using different thermal processes	Yi-Han Lin <sup>1,2</sup> , Yun-Feng Chen <sup>2</sup> , Sheng-Wen Chan <sup>2</sup> , Chou-Cheng Li <sup>2</sup> , Wei-Sheng Lin <sup>2</sup> , Yi-Jing Chen <sup>1,2</sup> , Lung-Teng Cheng <sup>2</sup>	<ul> <li>Ming Chi University of Technology, Taiwan</li> <li>Industrial Technology</li> <li>Research Institute, Taiwan</li> </ul>
P-C44- 0426	The effects of silver paste drying temperature on ink-based Cu(In,Ga)(S,Se) <sub>2</sub> sub-module	Wei-Sheng Lin, Lung- Teng Cheng, Chien- Rong Huang, Yun-Feng Chen, Chou-Cheng Li, Sheng-Wen Chan, Chia- Ming Chang, Chien-Chih Chiang, Tung-Po Hsieh, Song-Yeu Tsai	Green Energy and Environment Research Laboratories, Industrial Technology Research Institute, Taiwan
P-C45- 0432	UV photodetector and gas sensor based on amorphous In-Ga-Zn-O film	Chin-Wei Lin <sup>1</sup> ,Kuang-Lu Huang <sup>2</sup> ,Kai-Wei Chang <sup>1</sup> ,En-Ping Lin <sup>1</sup> ,Chiu-Hsien Wu <sup>1,2</sup>	<ul> <li><sup>1</sup> Institute of Nanoscience,</li> <li>National Chung Hsing</li> <li>University, Taiwan</li> <li><sup>2</sup> Department of Physics,</li> <li>National Chung Hsing</li> </ul>

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			University, Taiwan
P-C72- 0021	Effect of CuCr thickness on the structural and electro-optical properties of the AZO/CuCr/AZO transparent conductive film	Ping-Chin Kuo <sup>1</sup> , Bai- Jhong Jheng <sup>1</sup> , Wen- Chang Huang <sup>2</sup> , Tien- Chai Lin <sup>1</sup> , Fu-Chun Tsai <sup>2</sup>	<sup>1</sup> Department of Electrical Engineering, Kun Shan University, Taiwan <sup>2</sup> Department of Electro- Optical Engineering, Kun Shan University, Taiwan
P-C98- 0328	The Influences of Thickness on The Structure, Ferroelectric and Dielectric Properties of BiFeO3 Thin Films on FTO- coated glass substrates	Bing Feng Lin <sup>1</sup> , Hone Zern Chen <sup>2</sup> , Ming Cheng Kao <sup>2</sup> , San Lin Young <sup>2</sup> , Der Yuh Lin <sup>1</sup> , Jia Min Wu <sup>2</sup> , Zong Yue E <sup>2</sup> , Guan Xuan Liu <sup>2</sup> , Wei Xuan Xu <sup>2</sup> , Ching Chih Chen <sup>2</sup> , Yi Meng Wang <sup>2</sup> , Yu Xing Hong <sup>2</sup>	<ul> <li>National Changhua</li> <li>University of Education,</li> <li>Taiwan</li> <li>Hsiuping University of</li> <li>Science and Technology,</li> <li>Taiwan</li> </ul>
P-C109- 0415	Comparative study of the characteristics of atmospheric plasma-sprayed YF3 and Y2O3 coatings	Tzu-Ken Lin <sup>1</sup> , Wei-Kai	<ul> <li>Department of Materials         Science and Engineering,         National Chung Hsing         University, Taiwan     </li> <li>Department of Materials</li> <li>Science and Engineering, Da-Yeh University, Taiwan</li> <li>Department of Industrial</li> <li>Engineering and Management,</li> <li>Da-Yeh University, Taiwan</li> </ul>
P-C20- 0151	Properties of double-layer SiO2/TiO2 antireflection coatings by spin coating process	Menq-Jion Wu <sup>1</sup> , Ssu- Man Liu <sup>1</sup> , Jung-Jie Huang <sup>2</sup> , Dong- SingWuu <sup>3</sup> , Che-Chun Lin <sup>3</sup>	<ul> <li>National Changhua         University of Education,</li></ul>
P-C35- 0283	Preparation of TiO2/Oxidized-Nanoporous- Si Composite Layers on Si Substrates by Atomic Layer Deposition for Applications of Ultra-Violet Photodetectors	Kuen-Hsien Wu, Jung- Hsuan Liu, Chong-Wei Li, Yu-Sheng Huang	Southern Taiwan University of Science and Technology, Taiwan
P-C85- 0178	p-Type Characteristics of Lithium doped Zinc Oxide nanorod for optoelectronic devices	Ta-Min,Liu <sup>1</sup> , Yu-jen Hsiao, <sup>2</sup> , Liang-Wen Ji <sup>1</sup>	<ul> <li>National Formosa University, Taiwan.</li> <li>National Nano Device Laboratories, National Applied Research Laboratories, Taiwan</li> </ul>
P-C4- 0064	Deep-blue emitting pyrene-benzimidazole conjugates for solution processed organic light-emitting diodes		<ul> <li>National Formosa         University, , Taiwan. </li> <li>National Nano Device         Laboratories, National Applied         Research Laboratories, Taiwan.     </li> </ul>
P-C77- 0046	Low resistance of transparent tungsten trioxide based multilayer films with an silver layer on flexible substrate by e-gun deposition	Jei Wen Lo <sup>1</sup> , Kui Yi Lin <sup>1</sup> , Wei Ni Fan <sup>1</sup> , Cheng-Hsiung Peng <sup>1</sup> , Pang Shiu Chen <sup>1</sup> , Gze- Wei Lin <sup>2,3</sup> , S. W. Lee <sup>2</sup>	<ul> <li>MingHsin University of Science and Technology, Taiwan</li> <li>National Central University Institute of Material Science</li> </ul>

Poster No	Title	Author	Affiliation
			and Engineering, Taiwan <sup>3</sup> Chemical Defense Section, Chemical Systems Research Division, Chung-Shan Institute of Science Technology, Taiwan
P-C119- 0569	Terahertz Tunable Filter in a Photonic Crystal Containing a Ferroelectric Defect	Chien-Jang Wu,Cai- Chen Lu	National Taiwan Normal University, Taiwan
P-C114- 0506	Carrier Transport in Nano-crystalline Cu3N Thin Films Grown by Modified Activated Reactive Evaporation	Guruprasad Sahoo, Mahaveer K. Jain	Indian Institute of Technology Madras, India
P-C58- 0605	Spray Chemical Vapor Deposition of Undoped Tin Oxide Transparent Conducting Films Epitaxially Grown on Single Crystal Rutile Surfaces	Yutaka Sawada <sup>1</sup> , Yuta Hashimoto <sup>1</sup> , Meihan Wang <sup>2</sup> , Hao Lei <sup>3</sup> , Li- Xian SUN <sup>4</sup> , Keh-Moh Lin <sup>5</sup> , Kunio Yubuta <sup>6</sup> , Toetsu Shishido <sup>6</sup> , Yoichi Hoshi <sup>1</sup> , Takayuki Uchida <sup>1</sup> and Shin-ichi Kobayashi <sup>1</sup>	<ul> <li><sup>1</sup> Tokyo Polytechnic         <ul> <li>University, Japan</li> <li><sup>2</sup> Shenyang University,</li></ul></li></ul>
P-C25- 0191	Formation of amorphous Si/β-FeSi2 composite thin films by co-sputtering	Masashi Sawata, Hiroshi Katsumata	Meiji University, Japan
P-C8- 0094	Effect of ZnO Dopant on Microstructures and Dielectric Properties of Zn2SnO4 Thin Films by RF Magnetron Sputtering	Yan-Ru Shen, Yih-Chien Chen, Hong-Mine You, Chih-Hung Liand	Lunghwa University of Science and Technology, Taiwan
P-C59- 0606	Resistive Switching characteristics of Zinc Oxide Nanowire-based Resistive Random Access Memory	Guan-Hung Shen <sup>1</sup> , Gao- Feng Lin <sup>1</sup> , Franklin Chau-Nan Hong <sup>1,2,3,4</sup>	<ul> <li>Department of Chemical Engineering, National Cheng Kung University, Taiwan</li> <li>Advanced Optoelectronic Technology Center, National Cheng Kung University, Taiwan</li> <li>Center for Micro/Nano Science and Technology, National Cheng Kung University, Taiwan</li> <li>NCKU Research Center for Energy Technology and Strategy, National Cheng Kung University, Taiwan</li> </ul>
P-C40- 0369	Ultrathin Zinc Oxide Nanowires-Based Field-Effect Transistors	Guan-Hung Shen <sup>1</sup> , Andrew Ronaldi Tandio <sup>1</sup> , Franklin Chau- Nan Hong <sup>1,2,3,4</sup>	<ul> <li>Department of Chemical Engineering, National Cheng Kung University, Taiwan</li> <li>Advanced Optoelectronic Technology Center, National Cheng Kung University, Taiwan</li> <li>Center for Micro/Nano</li> </ul>

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			Science and Technology, National Cheng Kung University, Taiwan <sup>4</sup> NCKU Research Center for Energy Technology and Strategy, National Cheng Kung University, Taiwan
P-C1- 0012	The effect of Cu concentration in the photovoltaic efficiency of CIGS solar cells prepared by co-evaporation technique	Hung Hua Sheu <sup>1</sup> , Yu Tien Hsu <sup>1</sup> , Shih Chang Liang <sup>2</sup>	<sup>1</sup> National Defense University, Taiwan <sup>2</sup> National Chung-Shan Institute of Science and Technology, Taiwan
P-C60- 0103	Preparation and its properties of CuCr1- xFexO2 thin films by chemical solution deposition	Te-Wei Chiu, Jin-Han Shih, Chih-Hao Chang	National Taipei University of Technology, Taiwan
P-C91- 0286	Hydrogen doped aluminum zinc oxide deposited at room temperature by DC magnetron sputtering	Neng-Fu Shih <sup>1</sup> , Yun- Ching Tang <sup>1</sup> , Shu- Chuan Yeh <sup>2</sup> , San-Lin Young <sup>1</sup> , Chung-Yuan Kung <sup>2</sup>	<ul> <li>Hsiuping University of Science and Technology, Taiwan</li> <li>National Chung-Hsing University, Taiwan</li> </ul>
P-C94- 0293	Growth of ITO thin films on flexible substrates by RF sputtering	Wen-Ching Shih, Fu-Ren Hsieh	Tatung University, Taiwan
P-C86- 0192	Plasmonics Modulation of Si Solar Cell with a Matrix Deposited Pattern of Indium and Silver Nanoparticles	Wen-Jeng Ho, Yi-Yu Lee, Ruei-Siang Sue, Chien-Wu Yeh, Chia- Hua Hu, Yu-Jie Deng, Yu-Tang Shen	National Taipei University of Technology, Taiwan
P-C26- 0196	Annealing Time Effect on the Optoelectronic Properties of the p-type Transparent Conducting Cu-Cr-O films	Chung-Hsing Sun <sup>1</sup> , Du- Cheng Tsai <sup>1</sup> , Ruei-Sung Yu <sup>2</sup> , Yung-Sung Hsu <sup>1</sup> , Rong-Hsin Huang <sup>1</sup> ,Fuh- Sheng Shieu <sup>1</sup>	<sup>1</sup> National Chung Hsing University, Taiwan <sup>2</sup> Asia University, Taiwan
P-C29- 0242	Titanium Nitride Thin Film Prepared by Reactive High Power Impulse Magnetron Sputtering-Optical Property Characteristics	Keh-Chyang Leou, Ru- Jing Sun, Bo-Huei Liao	National Tsing Hua University, Taiwan
P-C41- 0391	Effects of Precursor Flow Rates on Characteristics of Low-k SiOC(H) Film Deposited by Plasma-Enhanced Chemical Vapor Deposition (PECVD)	Chung-Ren Sun <sup>1</sup> , Wen- Hsi Lee <sup>1</sup> , Hung-Jin Teng <sup>2</sup> , Chang-Chun Lee <sup>3</sup> , Yi-Lung Cheng <sup>2</sup> , Ying-Lang Wang <sup>4</sup>	<ul> <li>National Cheng-Kung         University, Taiwan</li> <li>National Chi-Nan University,         Taiwan</li> <li>Chung Yuan Christian         University, Taiwan</li> <li>National Chiao Tung         University, Taiwan</li> </ul>
P-C68- 0222	Effect of Annealing Temperature on Electrical and Reliability Characteristics of Stacked HfO2/Porous Low-k Dielectrics	Chung-Ren Sun <sup>1</sup> , Wen- Hsi Lee <sup>1</sup> , Kai-Chieh Kao <sup>2</sup> , Yi-Lung Cheng <sup>2</sup> and Ying-Lang Wang <sup>3</sup>	<ul> <li>National Cheng-Kung         University, Taiwan</li> <li>National Chi-Nan University,         Taiwan</li> <li>National Chiao Tung         University, Taiwan</li> </ul>

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P-C78- 0057	Effect of Substrate and Post-annealing Temperature on the Electrical and Optical Properties of Indium Tin Oxide Thin Films	Ta-Huang Sun, Yu-Chen Li, Min-Chuan Wang, Der-Jun Jan	Institute of Nuclear Energy Research, Taiwan
P-C61- 0061	Influences of selenium vapor flow rate on photovoltaic properties of Cu(In, Ga)Se2 thin films prepared via a facile solution coating process	Chung-Hsin, Lu, Jen- Cheng, Sung	National Taiwan University, Taiwan
P-C46- 0439	Synthesis and characterization of BaxSr1- xTiO3 films on TiN/Si by plasma electrolytic oxidation	Fu-Hsing Lu, Hong-Wen Hsu, Huan-Ping Teng	National Chung Hsing University, Taiwan
P-C5- 0065	Enabling a blue-hazard free general lighting based on candle light-style OLED	Jwo-Huei Jou, Huai- Ching Tsai, Sudhir Kumar	National Tsing Hua University, Taiwan
P-C92- 0287	The Electrical Properties of Induced High-k ZrHfO Crystallization with ZrN Cap by High Power Impulse Magnetron Sputtering in Metal-Gate MIS Structures	Jung-Ruey Tsai <sup>1</sup> , Pi- Chun Juan <sup>2</sup>	<sup>1</sup> Asia University, Taiwan <sup>2</sup> Department of Materials Engineering and Center for Thin Film Technologies and Applications, Ming Chi University of Technology, Taiwan
P-C2- 0022	Temperature-dependent electrical characterization of p-n GaN diode with all layers made by magnetron sputtering	Dong-Hau Kuo, Thi Tran Anh Tuan, Guan-Zhang Li, Cheng-Che Li, Kaifan Lin	National Taiwan University of Science and Technology, Taiwan
P-C57- 0579	Effects of O2 plasma treatment on HfOx gate dielectric and annealing on operation characteristics of amorphous In-Ga-Zn-O thin film transistors	Shun-Huei Wang <sup>1</sup> , Jiann- Shing Jeng <sup>2</sup> , Jen-Sue Chen <sup>1</sup>	<ul> <li>National Cheng Kung University, Taiwan</li> <li>National University of Tainan, Taiwan</li> </ul>
P-C84- 0177	Metal oxide semiconductor behavior of AZO-SnO2 composite films for environment gas sensor	Shi-Hao Wang <sup>1</sup> , Yu-Jen Hsiao <sup>2</sup> , Te-Hua Fang <sup>1</sup>	<ul> <li>National Kaohsiung         University of Applied             Sciences, Taiwan     </li> <li>National Applied Research         Laboratories, Taiwan     </li> </ul>
P-C113- 0481	Large area epitaxial of MoS2 and WS2 layer by chemical vapor deposition	Yi-Ping Wang <sup>1</sup> , Hung- Pin Hsu <sup>2</sup> , Fei-Sheng Huang <sup>1</sup> , Wei-Jhih Su <sup>1</sup> , Joanna Jadczak <sup>3</sup> , Piotr Sitarek <sup>3</sup> , Kuei-Yi Lee <sup>1</sup> , Ying-Sheng Huang <sup>1</sup>	<ul> <li>National Taiwan University of Science and Technology, Taiwan</li> <li>Ming Chi University of Technology, Taiwan</li> <li>Institute of Physics, Wroclaw University of Technology, Poland</li> </ul>
P-C117- 0530	A comparative study of GaN films grown on different substrates by pulsed laser deposition	Wei-Kai Wang <sup>1</sup> , Shih- Yung Huang <sup>2</sup> , Dong- Sing Wuu <sup>1</sup>	<ul> <li>Department of Materials</li> <li>Science and Engineering, Da-Yeh University, Taiwan</li> <li>Department of Industrial</li> <li>Engineering and Management,</li> <li>Da-Yeh University, Taiwan</li> </ul>

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P-C76- 0045	Low resistance of molybdenum trioxide films with an silver layer by sputtering at room temperature	Zheng Ying Wang <sup>1</sup> , Kai Wei Zhuang <sup>1</sup> , Yu Pei Cheng <sup>1</sup> , Cheng-Hsiung Peng <sup>1</sup> , Pang Shiu Chen, Gze-Wei Lin <sup>2,3</sup> , S. W. Lee <sup>2</sup>	<ul> <li>MingHsin University of Science and Technology, Taiwan</li> <li>National Central University Institute of Material Science and Engineering, Taiwan</li> <li>Chung-Shan Institute of Science Technology, Taiwan</li> </ul>
P-C83- 0106	Enhancement in Output Power of InGaN-based LED grown on Al <sub>2</sub> O <sub>3</sub> and Si with Codoped ZnO Thin Film	Yen-Hsiang Fang <sup>1</sup> , Sheng-Chi Chen <sup>2</sup> , Chia- Lung Tsai <sup>1</sup> , Rong Xuan <sup>1</sup> , Chao-Kuang Wen <sup>2</sup> Po- Chun Lin <sup>2</sup> , Chung-Hsien Wang <sup>2</sup> , Tsung-Yen Kuo <sup>3</sup> , and Jung-Chun-Andrew Huang <sup>4</sup>	<ul> <li>Industrial Technology Research Institute, Taiwan</li> <li>Ming Chi University of Technology, Taiwan</li> <li>National Taiwan University, Taiwan</li> <li>National Cheng Kung University, Taiwan</li> </ul>
P-C38- 0332	The Fabrication of antioxidant conductive copper paste and its application in HIT solar cells	Wei-Chen Chang, Li- Wei Weng, Jun-Xiang	Institute of Nuclear Energy Research, Taiwan
P-C10- 0119	Luminescence Mechanisms in Quaternary AlInGaN Multiple Quantum Wells	Hung-Pin Hsu <sup>1</sup> , Jiunn- Chyi Lee <sup>2</sup> , Yeu-Jent Hu <sup>2</sup> , Tzer-Ting Kuo <sup>2</sup> , Ya-Fen Wu <sup>1</sup>	<ul> <li>Ming Chi University of Technology, Taiwan</li> <li>Taipei Chengshih University of Technology, Taiwan</li> </ul>
P-C17- 0136	Studying Titanium doped GZO films deposited on glass substrate by DC magnetron sputtering system	T.L.Wu <sup>1</sup> , K.D.Li <sup>2</sup> , N.W. Pu <sup>1</sup> , S.C.Liang <sup>2</sup> , R.M. Xu <sup>1</sup> , S.D.Huang <sup>1</sup>	<ul> <li>Yuan Ze University, Taiwan</li> <li>National Chung-Shan</li> <li>Institute of Science and</li> <li>Technology Taiwan</li> </ul>
P-C30- 0247	Thermal Annealing Effect on the Performance of Triple-junction InGaP-based Photovoltaic Solar Cells	Hung-Pin Hsu <sup>1</sup> , Jiunn- Chyi Lee <sup>2</sup> , Yeu-Jent Hu <sup>2</sup> , Tzer-Ting Kuo <sup>2</sup> , Ya-Fen Wu <sup>1</sup>	<ul> <li>Ming Chi University of Technology, Taiwan</li> <li>Taipei Chengshih University of Technology, Taiwan</li> </ul>
P-C37- 0312	Surface morphology and characteristics of AZO/AuNPs/ZnO and ZnO/AuNPs/ZnO multilayer transparent thin films fabricated by RF magnetron sputtering and self-assembly process		Department of Materials and Energy Engineering, MingDao University, Taiwan  Photovoltaics Research Center, MingDao University, Taiwan  Straits College of Engineering of Fujian University of Technology, China
P-C32- 0270	Anomalous Magnetic properties of Mn-doped InN thin films	P. H. Chang <sup>1</sup> , T. P. Yang <sup>2</sup> , C.H. Li <sup>2</sup> , S. Y. Hong <sup>2</sup> , M. J. Lee <sup>2</sup> , C. W. Lin <sup>2</sup>	<ul> <li>Department of Materials and Mineral Resources</li> <li>Engineering, National Taipei University of Technology, Taiwan</li> <li>Institute of Mineral Resources Engineering,</li> <li>National Taipei University of Technology, Taiwan</li> </ul>

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P-C33- 0273	Influence of argon pressure and duty cycle on optical and electrical characteristics of amorphous IGZO thin films fabricated by HiPIMS process	Chia-Hao Wu <sup>1,2</sup> , Fu Chi Yang <sup>1</sup> , Wei-Chih Chen <sup>3,4</sup> , and Chi-Lung Chang <sup>1,3</sup>	<sup>1</sup> Department of Materials and Energy Engineering, MingDao University, Taiwan <sup>2</sup> Photovoltaics Research Center, MingDao University, Taiwan <sup>3</sup> Surface Engineering Research Center, MingDao University, Taiwan, R.O.C. <sup>4</sup> Department of Materials Engineering, National Chung-Hsing University, Taiwan,
P-C43- 0400	Field Emission Properties of Mn doped ZnO Nanorods	Chih-Chiang Yang <sup>1</sup> , Zi- Hao Wang <sup>1</sup> , and Yan- Kuin Su <sup>1,2</sup>	<sup>1</sup> National Cheng Kung University, Taiwan <sup>2</sup> Kun Shan University, Taiwan
P-C49- 0469	Ligand exchange solvent effect on CuIn0.7Ga0.3Se3 film densification prepared using the heating-up method	Hsing-I Hsiang, Chang- Ting Yang	National Cheng Kung University, Tainan, Taiwan
P-C50- 0492	Epitaxial growth of ZnO films on m- sapphire substrate by mist chemical vapor deposition	Li Chang, Tzu-I Yang, Kun-An Chiu	National Chiao Tung university, Taiwan
P-C51- 0496	Surface morphology and crystalline of GaN thin films controlled by homoepitaxial low- temperature buffer layers	Chiung-Wu Su, Tsai Tzung-Han, Sy-Hann Chen, Chang-Feng Yu	National Chiayi University, Taiwan
P-C99- 0330	Synthesis and Characterization of Cu2Se Thin Films for Photovoltaic Application for Solar Cells	Jui-Fu Yang <sup>1,2,</sup> Fang-I Lai <sup>2</sup> , Shou-Yi Kuo <sup>1</sup>	<ul> <li>Department of Electronic Engineering, Chang Gung University, Taiwan</li> <li>Department of Photonics Engineering, Yuan-Ze University, Taiwan</li> </ul>
P-C87- 0231	Influence of selective Li doping on the optical properties of transparent ZnO nanocrystalline films synthesized by sol-gel spin coating method	San-Lin Young <sup>1</sup> , Ming- Cheng Kao <sup>1</sup> , Hone-Zern Chen1, Bo-Yan Chen, Yan-Bo Lin, Wun-Hong Jhang, Yao-Wei Yang, Jung-Hua Wu, Chung- Yuan Kung	<ul> <li>Hsiuping University of Science and Technology, Taiwan</li> <li>National Chung Hsing University, Taiwan</li> </ul>
P-C101- 0360	Growth time effect of hydrothermally synthesized ZnO:Al nanorod arrays on the ultraviolet photodetection properties	San-Lin Young <sup>1</sup> , Ming- Cheng Kao <sup>1</sup> , Hone-Zern Chen <sup>1</sup> , Cing-Ren Li <sup>1</sup> , Bo-Cong Jheng <sup>1</sup> , Jia- Sheng Liou <sup>1</sup> , Yi-Ting Pan1, Hao-Sin Lin <sup>1</sup> , Yao-Wei Yang <sup>1</sup> , Yong- Chang Jhang <sup>2</sup>	<sup>1</sup> Hsiuping University of Science and Technology, Taiwan <sup>2</sup> National Chung Hsing University, Taiwan
P-C106- 0396	Comparison of n type microwave CVD diamonds doping with nitrogen- and Ammonia mixed gas	Tai-Fa Young, Yi-Juin Chen, Yang-Juin Lin, Hong-Rei Chen, Wan-Yu Ting	National Sun Yat-sen University, Taiwan
P-C96- 0310	Phase structure and optical property of the Cr-O films prepared by pulsed bias arc ion	Min Zhang <sup>1</sup> , Hai-Yong Liu <sup>2</sup> , Guoqiang Lin <sup>2</sup> , Ke-	<sup>1</sup> School of Physics & Electronic Technology,

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			Electron Beams, Dalian
			University of Technology,
			China
P-C21-	Characterization of Ga-doped MgxZn1-xO	S.D. Huang <sup>1</sup> , K.D. Li <sup>2</sup> ,	<sup>1</sup> Yuan Ze University, Taiwan <sup>2</sup> National Chung-Shan
0156	(GMZO) films for buffer layer in	S.C. Liang <sup>2</sup> , N.W. Pu <sup>1</sup> , R.M. Xu <sup>1</sup> , T.L. Wu <sup>1</sup>	Institute of Science and
	Cu(InGa)Se2 solar cells	K.W. Au , I.L. wu	Technology, Taiwan
P-C90-	Effect of thermal stress induced defects in	Shou-Yi Kuo, Jhong-Hao	Chang Gung University,
0279	CIGS solar cells	Jiang	Taiwan
		Hung-Yi Chen <sup>1</sup> , Yen- Teng Ho <sup>1</sup> , Yung-Ching	<sup>1</sup> National Chiao Tung University, Hsinchu, Taiwan
P-C122-	Contact resistance reduction on transition	Chu <sup>1</sup> , Meng-Wei Lin <sup>1</sup> ,	<sup>2</sup> National Nano Device
0334	Metal Dichalcogenides	Chao-An Jong <sup>2</sup> , Hung-	Laboratories, Hsinchu, Taiwan
	C	Ru Hsu <sup>3</sup> and Edward-Yi	<sup>3</sup> Industrial Technology
		Chang <sup>1</sup>	Research Institute, Taiwan

#### 2015.11.17 14:30-16:30

## Poster Presentation III: Symposium C and F POSTER SYMPOSIUM F

Poster	r Agent de				
No	Title	Author	Affiliation		
P-F13- 0082	The production and durability of industrial heat radiation absorber films	Bing-Hung Chang <sup>1</sup> , Rei- Cheng Juang <sup>2</sup> , Yu-Li Lin <sup>3</sup>	<sup>1</sup> Industrial Technology Research Institute, Hsinchu, Taiwan <sup>2</sup> Industrial Technology Research Institute, Hsinchu, Taiwan <sup>3</sup> Industrial Technology Research Institute, Hsinchu, Taiwan		
P-F3- 0075	Metallization of Large-Area Polyimide Films with High Adhesion Strength by Using Supercritical Carbon Dioxide	Chun-Yi Chen <sup>1,2</sup> , Cheng- Chuan Wang <sup>3</sup> , Chia-Ying Yen <sup>3</sup> , Shin-Hwa Chen <sup>3</sup> , Tso- Fu Mark Chang <sup>1,2</sup> , Masato Sone <sup>1,2</sup>	<ul> <li>Precision and Intelligence Laboratory, Tokyo Institute of Technology, Japan</li> <li>CREST, Japan Science and Technology Agency, Japan</li> <li>Material and Chemical Research Laboratories, Industrial Technology</li> <li>Research Institute, Taiwan</li> </ul>		
P-F12- 0381	Microstructure and Optical Properties of Titanium Oxide Thin Film at Different Annealing Temperature	Po-Kai Chiu, Chien-Nan Hsiao, Donyau Chiang, Chao- Te Lee	Instrument Technology Research Center, National Applied Research Laboratories, Taiwan		
P-F14- 0308	Fabrication of the grating structure of linear optical encoder	Shu-Ping Dong, Li-Jen Cheng, Chien-Wen Chen, Hung-Ming Tai, Chih- Chiang Chao	Industrial Technology Research Institute, Taiwan		
P-F15- 0345	Low temperature interconnect fabrication on PDMS polymeric substrates using Ag nanoparticles	Yu-Siang Fang <sup>1</sup> , Jenn-Ming Song <sup>1</sup> and Lung-Tai Chen <sup>2</sup>	<ul> <li>Department of Materials         Science and Engineering,         National Chung Hsing         University, Taiwan     </li> <li>Micro-system Technology</li> <li>Center, Industrial Technology</li> <li>Research Institute, Taiwan</li> </ul>		
P-F8- 0397	Self Formation of Ultrathin CrMoNbRuTaV Multi-component Diffusion Barrier from Sputtered Cu Alloy Film	Yu-Ting Hsiao <sup>1</sup> , Che-Min Lin <sup>2</sup> , Chia-Feng Chao <sup>2</sup> , Shou- Yi Chang <sup>1,2</sup>	<ul> <li>National Tsing Hua         University, Taiwan     </li> <li>National Chung Hsing         University, Taiwan     </li> </ul>		
P-F4- 0143	Effects of evaporation parameters on the properties of Al films for anodic alumina template	Wen-Hao Hsieh, Hsyi-En Cheng	Southern Taiwan University of Science and Technology, Taiwan		
P-F9- 0398	AlCrTaTiZrRu Multi-component High- entropy Alloy Film as Stable Diffusion Barrier for Solder Joints	Tai-Jan Huang <sup>1</sup> , Kun-En Cheng <sup>2</sup> , Shou-Yi Chang <sup>1,2</sup>	<ol> <li>National Tsing Hua University, Taiwan</li> <li>National Chung Hsing University, Taiwan</li> </ol>		

Poster No	Title	Author	Affiliation
P-F7- 0311	Metallic glass coatings on LiNi1/3Co1/3Mn1/3O2 for lithium-ion batteries	Pei-Yu Lai <sup>1</sup> , Jinn P. Chu <sup>1</sup> , Bing-Joe Hwang <sup>2</sup>	Department of Materials     Science and Engineering,     National Taiwan University     of Science and Technology,
P-F10- 0399	Mechanical Properties and Adhesion Strengths of Cu/SUS EMI Shielding on Molding Epoxy with Different Plasma Treatments	Yi-An Lai <sup>1</sup> , Ching-Sheng Chang <sup>2</sup> , Shou-Yi Chang <sup>1,2</sup>	<sup>1</sup> National Tsing Hua University, Taiwan <sup>2</sup> National Chung Hsing University, Taiwan
P-F1- 0029	Comparative study between Au/Pd/Cu and Au/Pd(P)/Cu films in soldering application	-	<ul> <li>Yuan Ze University, Taiwan</li> <li>Taiwan Uyemura Limited</li> <li>Company, Taiwan</li> </ul>
P-F11- 0534	Combinatorial Sputtering Exploration of Zn-Sn-O (ZTO) Composition Spreads	Siang-Yun Li <sup>1</sup> , Jyh-Ming Ting <sup>1</sup> , Kao-Shuo Chang <sup>12</sup>	Department of Materials     Science and Engineering,     National Cheng Kung     University, Taiwan     Promotion Center for     Global Materials Research,     National Cheng Kung     University, Taiwan
P-F6- 0206	Reduction of Copper Oxide thin film by Modified Formic Acid Treatment	Pei-Wen Chou <sup>1</sup> , Chia-Chen Kuo <sup>1</sup> , Jing-Yuan Lin <sup>2</sup> , Jenn- Ming Song <sup>1</sup>	<ul> <li>National Chung Hsing University, Taiwan</li> <li>Industrial Technology Research Institute, Taiwan</li> </ul>
P-F5- 0197	Substrate bias and working pressure dependence of structure and properties on TiVCr thin films prepared by magnetron sputtering	Fuh-Sheng Shieu, Du-Cheng Tsai	National Chung Hsing University, Taiwan
P-F2- 0033	Replacing Au by AgCuAl or AgMgAl metallic thin films for electric contact applications	Z. K. Wang <sup>1</sup> , Y. L. Chung <sup>2</sup> , J. C. Huang <sup>1</sup>	<ol> <li>National Sun Yat-Sen University, Taiwan</li> <li>Metal Industries Research &amp; Development Centre, Taiwan</li> </ol>
P-F15- 0616	Characteristics of sputter deposited $Pt/Al_2O_3$ thin films	Hsin-Yen Cheng <sup>1</sup> Yonhua Tzeng <sup>2</sup> and Jyh-Ming Ting <sup>1</sup>	<ul> <li>Department of Materials</li> <li>Science and Engineering,</li> <li>National Cheng Kung</li> <li>University, Taiwan</li> <li>Department of Electrical</li> <li>Engineering, National Cheng</li> <li>Kung University, Taiwan</li> </ul>