# 2013 ISNST Program

| November 15 (Fri.) | | |
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| 8:00－9:00 | **Registration (place: E13 lobby)** | Page |
| 9:00－9:25 | **Opening Ceremony (place: E1301)**<br>Opening remark: **Professor Chein Tai**, Chairman of Congress, The President of Southern Taiwan University of Science and Technology,<br>**Invited guests** | |
| 9:25－9:30 | **Group photos** | |
| 9:30－10:20 | **Keynote Speaker 1 (place: E1301)**<br>**Professor Lih-Juann Chen**/Chancellor of National Tsing Hua University and Ministry of Education National Chair Professor, Department of Materials Science and Engineering, National Tsing Hua University, Hsinchu, Taiwan, ROC.<br><br>**Title: Advanced Transmission Electron Microscopy for Nanomaterials** | 1 |
| | **Chairman: Professor Katsuhiko ARIGA**/World Premier International (WPI) Research Center for Materials Nanoarchitectonics (MANA), National Institute for Materials Science (NIMS) | |
| 10:20~10:40 | **Coffee Break** | |
| 10:40－11:30 | **Keynote Speaker 2 (place: E1301)**<br>**Professor Subhas Mukhopadhyay**/Distinguished Lecturer, IEEE Sensors Council, School of Engineering and Advanced Technology, Massey University, Palmerston North, New Zealand.<br><br>**Title: Impedance Spectroscopy for MEMS based Sensors** | 51 |
| | **Chairman: Professor Cheng-Hsin Chuang**/Department of Mechanical System Engineering, Southern Taiwan University of Science and Technology | |

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| 11:30－12:00 | **Invited Speaker 1 (place: E1301)**<br>**Professor Fumio WATARI**/Graduate School of Dental Medicine, Hokkaido University, President of Nano Biomedical Society, Editor in Chief of the journal “Nano Biomedicine”, Japan.<br><br>**Title: Dynamic observation of cell response behavior to nanoparticles and its effect on conversion of material functions through biological process** | 83 |
| | **Chairman: Professor Ying-Hsi Fuh /** Department of Mechanical Engineering, National University of Singapore | |
| 12:00－13:30 | **Lunch Break & Poster Exhibition & Evaluation** | |
| 13:30－14:00 | **Invited Speaker 2 (place: E1301)**<br>**Professor Katsuhiko ARIGA**/World Premier International (WPI) Research Center for Materials Nanoarchitectonics (MANA), National Institute for Materials Science (NIMS).<br><br>**Title: Hand-Operating Nanotechnology** | 84 |
| | **Chairman: Professor Chien-Hsiang Chang**/Department of Chemical Engineering, National Cheng Kung University, Tainan City, Taiwan, ROC | |
| 14:00－14:30 | **Invited Speaker 3 (place: E1301)**<br>**Professor Shuichi TORII**/Department of Mechanical System Engineering, Kumamoto University.<br><br>**Title: Thermal Fluid Flow Transport Phenomena in Circular Tube Flow using Nano-fluids and its Application to Cooling Device** | 101 |
| | **Chairman: Professor Li Lu /** Department of Mechanical Engineering, National University of Singapore | |
| 14:30－15:00 | **Invited Speaker 4 (place: E1301)**<br>**Professor Osamu Tsutsumi**/Department of Applied Chemistry, College of Life Sciences, Ritsumeikan University.<br><br>**Title: Reversible Control of Luminescent Color from Liquid-Crystalline Gold(I) Complexes** | 103 |
| | **Professor Koichi Ute**/Department of Chemical Science and Technology, The University of Tokushima, Tokushima, JAPAN | |
| 15:00－15:20 | **Coffee Break** | |

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| 15:20－15:50 | **Invited Speaker 5 (place: E1301)**<br>**Dr. Cheng-Yu Hsieh**/R&D Supervisor, Enerage Inc., Adjunct Assistant Professor, Department of Chemical and Materials Engineering, National Yilan University, Director, Chinese Alternative Energy Association.<br><br>**Title: Mass production of graphene material and its industrial applications** | 112 |
| | **Chairman: Professor Hong-Ru Lin**/Department of Chemical and Materials Engineering, Southern Taiwan University of Science and Technology | |
| 16:00－17:30 | **Oral Section A & B (place: E1304、E1305)** | |
| | **15 minutes per one speaker** | |
| 17:30－18:30 | **Free Time & Discussion** | |
| 18:30 | **Banquet (place: E13 lobby)** | |

| **November 16 (Sat.)** | | |
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| 8:00－9:00 | **Registration** | page |
| 09:00－09:30 | **Invited Speaker 6 (place: E1301)**<br>**Professor Koichi Ute**/Department of Chemical Science and Technology, The University of Tokushima, Tokushima, JAPAN<br><br>**Title: Monomer Sequence Distribution of Methacrylate Copolymers Prepared by Copolymerization or Polymer Reactions as Studied by Multivariate Analysis of C-13 NMR Spectra** | 130 |
| | **Chairman: Professor Osamu Tsutsumi**/Department of Applied Chemistry, College of Life Sciences, Ritsumeikan University | |
| 09:30－10:00 | **Invited Speaker 7 (place: E1301)**<br>**Professor Ying-Hsi Fuh /** Department of Mechanical Engineering, National University of Singapore<br><br>**Title: Biofabrication of PCL and PCL/Chitosan Scaffolds via Electrohydrodynamic-Jetting (or E-Jet Printing) for Dentin and Periodontal Healing** | 131 |
| | **Chairman: Professor Fumio WATARI**/Graduate School of Dental Medicine, Hokkaido University | |

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| 10:00－10:20 | **Coffee Break** | |
| 10:20－10:50 | **Invited Speaker 8 (place: E1301)**<br>**Professor Li Lu /** Department of Mechanical Engineering, National University of Singapore<br><br>**Title: Understanding relationship between materials, nanoarchitecture and capacitance of supercapacitors** | 135 |
| | **Chairman: Professor Shuichi TORII**/Department of Mechanical System Engineering, Kumamoto University | |
| 10:50－11:20 | **Invited Speaker 9 (place: E1301)**<br>**Professor Adam Rylski /** Institute of Materials Science & Engineering, Lodz University of Technology, Lodz, POLAND<br><br>**Title: Nanocomposite and Nanostructured Coatings Deposited by Magnetron Sputtering** | 157 |
| | **Chairman: Professor Mitsunobu Sato**/Laboratory for Coordination Chemistry & Engineering, Kogakuin University | |
| 11:20－12:00 | **Award & Closing Remark (place: E1301)**<br>**Prof. Deng-Maw Lu,**<br>The Vice President of Academic Affairs of Southern Taiwan University of Science and Technology | |

**Oral Section A (Conference Room: E1304)**
**Chairman: Dr. Cheng-Yu Hsieh and Professor Chang-Ning Huang**/Department of Chemical and Materials Engineering, Southern Taiwan University of Science and Technology

| ID/Time | Authors | Title | Page |
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| OA1/ 16:00-16:15 | Szu-Min Yen, Ze-Syue Wu, Yen-Sheng Lin | Study Of Optimization Growth On Ultra Thin Al-Doped ZnO Layer With Nano-Silver Structures | 159 |
| OA2/ 16:15-16:30 | Y. S. Huang, Y. C. Lee, S. Y. Hu, C. C. Huang, M. K. Tsai, Y. H. Weng, K. K. Tiong, C. C. Chang, and Z. C. Feng | Studies Of Raman And X-Ray Diffraction In InGAN Films With Different In Contents | 160 |
| OA3/ 16:30-16:45 | Fu-Yu Cheng, Yen-Sheng Lin, Chin-Hsiang Chen | Enhanced Anti-Reflection On The Surface Of Silicon By The Formation Of Nano Ni-Si Compounds | 161 |
| OA4/ 16:45-17:00 | Chang-Yu Shih, and Chih-Cheng Kao | Physical Properties Of $Si_xGe_yO_{1-X-Y}$ Films Embedded With Er | 162 |

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| OA5/ 17:00-17:15 | Meng-Yen Chen, Ze-Syue Wu, Yen-Sheng Lin | The Enhanced Of Photoelectric Properties On Ultra-Thin ZnO/Nano-Al/ZnO Layer By Post Thermal Annealing Treatment | 163 |
| OA6/ 17:15-17:30 | Shih-Jiun Chen, Pei-Ching Yu, Fu-Su Yen | Formation Route Alteration Of Synthesizing Mullite Induced By Seeding Nanoscaled Mullite Powders | 164 |

**Oral Section B (Conference Room: E1305)**

**Chairman: Professor Ching-Ming Hsu**/Department of Electro-Optical Engineering, Southern Taiwan University of Science and Technology **and Professor Shun-Fua Su**/Department of Chemical and Materials Engineering, Southern Taiwan University of Science and Technology

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| OB1/ 16:00-16:15 | Jung Lee, Chien-Hsiang Chang | Effects Of DNA Adsorption On The Molecular Packing Of Mixed Ion Pair Amphiphile/Double-Chained Cationic Surfactant Vesicles And Langmuir Monolayers | 165 |
| OB2/ 16:15-16:30 | Koichi Ute, Yuchin Hsu, Chen-ChienWang | Multivariate Analysis Of C-13 NMR Spectra Of Methacrylate Copolymers Prepared By Polymer Reactions | 166 |
| OB3/ 16:30-16:45 | Wei-Che Huang, Yen-Sheng Lin, Cho-Liang Chung | The Enhanced Optoeletronic Property By Insetting Nano-Cu Structures In ZnO Layer | 167 |
| OB4/ 16:45-17:00 | T. Y. Wu, Y. C. Lee, S. Y. Hu, M. K. Tsai, C. C. Huang,C. C. Chang, and J. L. Shen | Luminescence Properties Of $Zn_{1-X}Cd_xO$ Thin Films With Different Cadmium Contents | 168 |
| OB5/ 17:00-17:15 | Hong-Ming Huang, Wei-Che Huang, Yen-Sheng Lin, Cho-Liang Chung | Enhancement Of Optoelectronic Property By Insetting Nano-Al Structures In Al-Doped ZnO Layer | 169 |
| OB6/ 17:15-17:30 | An-Tsung Kuo, and Chien-Hsiang Chang | Effect Of Cholesterol On The Catanionic Bilayers Composed Of Ion Pair Amphiphile And Double-Chained Cationic Surfactant: A Molecular Dynamics Study | 170 |

# Poster Section

## (A) Nanomaterials and Nanostructure

| ID | Authors | Title |
|---|---|---|
| PA01 | Chang-Yun Cai, Kuan-Yi Tsao, and Hongta Yang | Fabrication Of Nonclose-Packed Colloidal Crystals With Tunable Lattice Spacing |
| PA02 | Zhe-Sheng Huang, Kuan-Yi Tsao, and Hongta Yang | Self-Assembled Superhydrophobic Coatings With Raspberry-Like Structures |
| PA03 | Kuo-Tong Lee, Sheng-Hao Wang, Chun-Yao Shih and You-Wei Lee | Syntheses Of Lithium Aluminosilicate Nano Particles By Glass-Ceramic Method |
| PA04 | M. H. Shih, Y. S. Yang, S. R. Zheng, C. H. Hsieh and B. J. Chen | Syntheses And Spectral Characterization Of Nickel(II) Complexes Derived From Schiff-Base Thiosemicarbazones And Mixed Ligand Triphenylphosphine |
| PA05 | M. H. Shih and Y. Y. Xu | Syntheses And Characterization Of Nickel(II) Complexes With Schiff-Base Ligands Derived From Aliphatic Diamines, Aromatic Diamines, And Substituted Salicylaldehydes |
| PA06 | I-Hsuan Chang, Hsyi-En Cheng, and Ing-Song Yu | Titanium Dioxide And Silicon Nitride Stacks For Crystalline Silicon Solar Cells |
| PA07 | Ping-Hsun Chen | Interpreting The Meaning Of “Nanocomposite” Under The American Patent Law: A Case Study Of Schultz V. iGPS Co. LLC, 2013 WL 212927 (N.D. ILL. 2013) |
| PA08 | Che-Liang Huang, Cheng-Kun Tsai, Boy-En Chen, Jia-Hao Jhanh, Wei-Lun Ciou, Chang-Wei Hsieh | Glassy Carbon Electrode Modified By Multi-Walled Carbon Nanotubes For Detection Platform Of Organochlorine Pesticides |
| PA09 | S.J. Tsai, P.J. Chao, W.C. Shiau, C.M. Yang, and C.S. Tsai | Dynamic Mechanical Analysis Of Epoxy Composite Reinforced By Short Graphite Nanofibers |
| PA10 | T.Y.Tai, K.T.Nguyen and V.N.Vo | Research On Polycrystalline Diamond Grain Size Effect On Machining Parameters |
| PA11 | T.Y.Tai, Van Nhan Vo, | Micro Machining Of Polycrystalline Diamond By Micro-WEDM |

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| | and K.T. Nguyen | |
| PA12 | Yung-Pin Huang, and Fen-Mei Chang | Correlation Between PE Nanoparticle、Plowing Effect And NIR Reflection Of The $TiO_2$-Modified Pet Fiber |
| PA13 | Yu-Chang Wang, Wen-Cheng Tzou, Hon Kuan, Wei-Lun Yuen | Self-Assembly Of Polystyrene Nanospheres Used In The Ion Etching |
| PA14 | Chuh-Yean Chen, Chen-Li Chiang. Jia-Hong Sun | Preparation Of Silver Nanoparticles On A Copolymer Film Containing Chelating Groups |
| PA15 | Hsieh Chih-Yung and Wen-Chang Wu | Preparation And Properties Of Zinc Oxide Nanowires By Adding PVP |
| PA16 | Bo-Jhih Chen, Ming-Kwen Tsai, Yueh-Chien Lee, Chia-Chih Huang, Cheng-Han Wu, Kwong-Kau Tiong, Shih-Wei Tan | Growth And Characterization Of $CuInS_2$ Nano-Particles Prepared By Microwave-Assisted Synthesis |
| PA17 | S. R. Tong, Y. C. Lee, M. K. Tsai, C. C. Huang, and S. Y. Hu | Synthesis And Characterization Of Well-Oriented ZnO Nanorod Arrays Prepared By Microwave-Assisted Heating |
| PA18 | K. L. Yang, W. D. Su, J. H. Hsu, and H. C. Chang | Emission Properties Of Color Center In Nanodiamond Influenced By High Energy Bombarding |
| PA19 | Yen-ChengLin, Ming-Kwen Tsai, Yueh-ChienLee, Chia-Chih Huang, Yi-Lun Gao, Kwong-KauTiong | Fabrication And Characterization Of MgZnO/ZnO Nanowire Arrays By RF Sputtering |
| PA20 | Bo-Jia Huang, Jyun-Jia Huang, Sheng-Chang Wang | Influence Of Temperature To Synthesize Tin (II) Sulfide Using Thermal Decomposition Method |
| PA21 | Shih-Jhang Lin, Hong-Chi Lin, Sheng-Chang Wang | Effect Of Oleic Acid Concentration For Synthesis Of Pt-Ir/C Alloy Nanoparticles By Thermal Decomposition Method |
| PA22 | Cheng-Chien Wang, | Study On The Properties Of Waterborne Polyurethane Blended With |

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| | Chih-Wei Wu | Inorganic Nanoparticles |
| PA23 | Cheng-Chien Wang, Chin-Tzu Chang | Effects Of Epoxidized Natural Rubber On The Natural Rubber/Inorganic Nanocomposites |
| PA24 | Chich-Feng Tuan, Hsuan-Ying Chen, David T.W. Lin, Kun-Dar Li | Surface Morphology Of Silver Film By Atmospheric Pressure Plasma Treatment |
| PA25 | Chia-Hua Lee, Zong-Sian Wu, Li-Wei Pan, Jiing-Herng Lee | Effect Of Phosphates On Synthesis Of Hydroxyapatite Powders Through Microwave |
| PA26 | Yi-Chan Tsai , and Hue-Min Wu | Synthesis Of Alumium Nitride Nanowires By The Method Of Electrostatic Spinning |
| PA27 | Chi-Sheng Li, Shu-Huei Hsieh | The Study Of Co – Ni – P Nanoparticles As Low-Cost/High-Performance Catalysts For Hydrogen Generation By Using Electroless Plating |
| PA28 | Yao-Huei Jhang , Wen-Jauh Chen, Shu-Huei Hsieh | Fabrication Of Co-Ni-P/Graphene Nanocomposite Materials And Their Catalytic Characteristics On Hydrogen Generation |
| PA29 | Yeuh-Hui Lin | Fabrications Of Core-Shell Nanoparticles By Detonation Technology |
| PA30 | Yeuh-Hui Lin | A Novel Method For Converting Of The Energetic Explosive Into Nanomaterials |
| PA31 | H. Nagai, Y. Inaoka, T. Shibukawa, I. Takano, T. Honda, M. Sato | Conductivity Of Transparent ZnO Thin Film Fabricated Using Molecular Precursor Method |
| PA32 | Jia-Ren Lee, Bo-Wen Shiau and Wei-Cheng Ding | A Study Of Au Nanoparticles Growth Mechanism By Absorption Spectrum |
| PA33 | Jia-Ren Lee, Bo-Wen Shiau and Wei-Cheng Ding | The Absorption Characteristics And Parameter Modulations In Preparation Processes Of $Fe_2O_3$ Nanoparticle By Electrochemical Reduction Method |
| PA34 | Jia-Ren Lee, Bo-Wen Shiau and Wei-Cheng Ding | The Morphology Dependent Migration Mechanism Of Thermal-Induced Carriers In Quantum Dots System |
| PA35 | Sheng-Yao Hu, Yueh-Chien Lee, Bo-Jhih Chen, and | Urbach Energy Behaviour of Mg-In co-Doped GaN Epitaxial Layers |

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| | Kwong-Kau Tiong | |

## (B) Nano Biological Technology

| ID | Authors | Title |
|---|---|---|
| PB01 | Hui-Chuan Tseng, Chih-I Chen | Evaluation On The Application Of Nano CLEA-GPD Immobilized Penicillin Acylase |
| PB02 | C.-H. Chuang, S.-M. Chen, H.-P. Wu, Y.-C. Yu, D.-H. Lee, Y.-W. Huang and C.-P. Jen | Protable Immunosensing System For Point-Of-Care Diagnosis Of Bladder Cancer Using Disposable Chip With Interdigital Electrode |
| PB03 | C.-H. Chuang, K.-C. Chang, J.-W. Ju, C.-H. Chen, T.-F. Wu, Y.-W. Huang and C.-P. Jen | Antibody Array Biochip For Immunoassay Of Bladder Cancer Cell Lysate Based On Silane-Coated Nanoprobes |
| PB04 | Hong-Ru Lin, Yu-Sen Lee, and Third C. Coauthor | Pluronic-Chitosan Nano- Micells For Lung Delivery |
| PB05 | Hong-Ru Lin, Yi-Kai Chen | The Effects Of Emulsifier On The Physical Characterization Of Pluronic-Chitosan Micelles For Ophthalmic Delivery |
| PB06 | Bo-Ming Zhen, Ming-Li Wu, Zheng-Hao Liu | Immobilization Of Lipase On $Fe_3O_4$ Nanoparticles And Their Catalytic Activities For Hyrolysis In Organic Solvent |
| PB07 | Xing-You Ye, Ming-Li Wu, and Yue-Xia Cho | Modification Of $Fe_3O_4$ Nanoparticles With Basic Amino Acid For Separation Of Plasmid |
| PB08 | Shin-Wen Peng and Min-Sheng Hung | Investigating The Effect Of Anti-Cancer Foods On Young's Modulus Of Cells Using Afm |
| PB09 | Cheng-Ho Chen, Chih-Hao Haung, Yin-Lung Liou, Ying-Chen Lin, Cheng-Hsin Chuang, and Hsun-Pei Wu | Electrically Enhanced Dielectrophoretic Chip Based On Polyaniline/$\gamma$-$Al_2O_3$ Conductive Nanocomposites |
| PB10 | Ching-Feng Mao, Tsung-Wei Tai | Preparation Of Poly(D,L-Lactide-Co-Caprolactone) Copolymer Microparticles |
| PB11 | Peng-Tzu Lu, Takashi Higuchi, and | Performance Evaluation of Biofilters For The Removal Of Low-Level Gaseous Nitrogen Oxides |

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| | Chee-Jen Chen | |

## (C) Nano Optics and Electrics Technology

| ID | Authors | Title |
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| PC01 | Mei-Li Chen, Chang-Ming Liu, Yu-Heng Siao and Chun-Rong Lin | Synthesis And Characterization Of Nickel Selenide Nanoparticles |
| PC02 | Mei-Li Chen, Ji-Fu Chen, Yi-Jie Huang and Chun-Rong Lin | Synthesis And Characterization Of Cobalt Selenide Nanoparticles |
| PC03 | M. L. Lee, Chun-Jung Chang, S. J. Tu, Y. H. Yeh, and J. K. Sheu | Improved Output Power Of InGaN LEDs By Lateral Overgrowth On Si-Implanted N-GaN Surface To Form Air Gaps |
| PC04 | Ching-Huei Wang, Chun-Liang Chen | Preparing And Characterizing Of Nano Ni – Ce – $ZrO_2$ Catalyst For The Carbon Dioxide Reforming Of Methane |
| PC05 | Kuen-Hsien Wu, Yu-Sheng Huang, Sheng-Chun Lin | Deposition And Characterization Of Carbon Thin Films On Silicon Substrates With Nano-Porous-Silicon Buffer Layers |
| PC06 | Kuen-Hsien Wu, Chia-Chun Tang, Tsung-Han Liu | Fabrication Of Trenched Electrodes On Nano-Porous-Si Surface Layers For Application In Poly-Si Solar Cells |
| PC07 | Kuen-Hsien Wu, Jyun-Li Wu, Chen-Yi Huang | Optoelectronic Characteristicis Analysis Of Porous-Silicon Chemical Sensors With Multi-Layered Structures For Different Organic Solvents |
| PC08 | Jyun-Wei Lai, Hon Kuan, Wen-Cheng Tzou, Kun-Hong Wang , Zhi-Yang Chen, Cheng-Peng Wu | The Study Of Indium Gallium Zinc Oxide Transparent Conducting Layer On Gallium Nitride Light Emitting Diode |
| PC09 | Cheng-Peng Wu，Hon Kuan，Wen-Cheng Tezou，Zhi-Yang Chang，Kun-Hong Wang，and Jyun-Wei Lai | Fabrication And Package Of White-Light Emitting Diode Improved By Color Temperature Uniformity |
| PC10 | Ying-Xun Zeng, | Internal Micro-Lens Arrays For High Light Out-Coupling Of White |

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| | Chin-Ming Hsu, Wen-Tuan Wu and Ming-Wei Lin | Organic Light Emitting Diodes |
| PC11 | Zhi-Yang Chen, Hon Kuan, Wen-Cheng Tzou, Cheng-Peng Wu | Fabrication And Package Of White-Light Emitting Diode Improved By Surface Plasma-Enhanced Fluorescence |
| PC12 | Shih-Ming Chen, Chien-Hsin Yang | Using Nitrogen-Doped Graphene/$TiO_2$-Modified Electrodes To Promote Performance Of Electrochromic Devices |
| PC13 | Yu-Chang Wang, Wen-Cheng Tzou, Hon Kuan | Fabrication Of Dye Sensitized Solar Cell Using Sol-Gel Zinc Oxide Nanorods |
| PC14 | Jung-Chuan Fan, Min-Huan Chen, Chien-Tsung Huang, Huang-Huei Sung, and Shih-Fong Lee | The Lateral Photovoltaic Of The Oxide Layer In Semiconductors |
| PC15 | Jung-Chuan Fan, Chien-Tsung Huang, Min-Huan Chen, Huang-Huei Sung, and Shih-Fong Lee | The Photocurrent And Thermally Stimulated Current Effect Of Thin Film In Oxide Semiconductor |
| PC16 | Chi-Mang Tang, Wen-Cheng Tzou, Hon Kuan | Nanoscale MgO/ZnO Thin Films Prepared Into Self-Assembled Multi-Layers Via Spin Coating |
| PC17 | Chi-Mang Tang, Shih-Chieh Peng, Wen-Cheng Tzou, Hon Kuan | $SiO_2$ Nanospheres Prepared By Sol-Gel And Applied In The Surface Texturing Of Light Emitting Diode |
| PC18 | Yung-Fu Wu, Yu-Sheng Wang, Yeng-Hong Pan, and Chin-Yi Lin | Fabrication And Surface Treatment Of Indium Gallium Zinc Oxide Films From Waste Target |
| PC19 | Jyun-Fu Shih, Ruei-Tang Chen | Electrolyte pH Of The Dye-Sensitized Solar Cell Efficiency Effect |
| PC20 | Rei-Shin Chen, Hong-Bin Wei, Yuh-Chung Cheng, | Novel Design Of Polarization Splitter In Two-Dimensional Photonic Crystal With A Complete Photonic Bandgap |

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| | and Chung-Liang Tsai | |
| PC21 | Rei-Shin Chen, Hong-Bin Wei, Yih-Bin Lin, and Han-Bin Lin | Self-Collimation In Two-Dimensional Square Photonic Crystal And Its Application To Polarization Splitting |
| PC22 | Rei-Shin Chen, Jyun-Yi Chen, Yih-Bin Lin, and Han-Bin Lin | Study Of Improved High-Transmission Waveguide Bends In Two-Dimensional Honeycomb Photonic Crystal |
| PC23 | Rei-Shin Chen, Wei-Hao Huang, Yuh-Chung Cheng, and Chung-Liang Tsai | Transmission Spectra Of Optical Delay Lines Realized By Photonic Crystal Coupled Cavity Waveguides |
| PC24 | Yu-Chi Chen, Hung-Ta Lin, Chia-Chih Huang, Yueh-Chien Lee, and Ming-Kuen Tsai | A Tunable Waveguide Filters Consisting Of Plasmonic Nanodisk Resonators With HIG-Index Dielectric Core Embedded In A Low-Index Dielectric Cylinder Waveguide |
| PC25 | Hung-Ta Lin, Yu-Chi Chen, Chia-Chih Huang, Yueh-Chien Lee, and Ming-Kuen Tsai | A Low Loss Hybrid Plasmonic Waveguides With A High-Index Dielectric Nanowire Above A Rectangular Channel Waveguide Embbed In A Metallic Trench |
| PC26 | Ruey-Ching Twu, Hsiao-Ying Tu, and Guan-Min Chen | Birefringent Polymer Transducer For Angular Displacement Measurements |
| PC27 | Bao T. Jheng, Po T. Liu, and Meng C. Wu | Zinc Oxide Nanorod Arrays As Anti-Reflection Layer For Chalcopyrite Thin Film Solar Cells Applications |
| PC28 | C. C. Hsiang, C. K. Wang, and Y. Z. Chiou | Enhancement Of Optical Performance Of Near-UV Nitride-Based Light Emitting Diodes With Different Aluminum Composition Barrier Structure |
| PC29 | Jeng-Feng Lin, Chih-Chieh Kang, Meng-Sang Li, and Jing-Yan Liou | The Analysis Of Light Absorption Of InGaN LEDs |
| PC30 | Cheng-Sian Lin, Hsyi-En Cheng | Effects Of Oxidation Voltages On The Shapes Of Aluminum Oxide Templates |
| PC31 | Ching-Dong Hsieh, | Fabrication And Characterization Of Dye Sensitized Solar Cells |

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| | Li-Cheng Syue and Shiang Bin Hoo | Using Natural Dye |
| PC32 | Bang-Ci Wang, Sheng-Chang Wang, Ming-Shyong Tsai | Dispersion And Modification Of Yttrium-Aluminum Garnet Phosphor In Organic-Inorganic Hybrid Encapsulant |

## (F) Nano Measurement and Systems

| ID | Authors | Title |
|---|---|---|
| PF01 | Ching-Hua Wei, Wu-Chung Sue, Fong-Kuei Shih, and Stan-Pin Wang | Effect Of Nitrogen Contents On Deposition Rate And Surface Hardness Of Carbon Thin Films By RF Sputtering |
| PF02 | Tzu-Kang Liao, Shao-Kang Cheng, Wei-Tsung Chuang, Chih-Kung Lee, Wen-Chi Chang, E-Wen Huang | Using In-Situ X-Ray Diffraction To Analyze The Effect Of Electric Field And Temperature For Phase Transformation In Poly(Vinylidene Fluoride-Co-Trifluoroethylene)/Tiopc Films |
| PF03 | Shang-Yi Tu, E-Wen Huang, Jien-Wei Yeh, Chi Lee | A Mechanical-Property Investigated Of CoCrFeMnNi High Entropy Alloy By In-Situ Neutron-Diffraction And Simulation |
| PF04 | Yi-Chuan Chao, Chung-Kai Chang, and E-Wen Huang | Study Of The Thermal Effects On Carbon-Carbon Composite By Using X-Ray Diffraction |
| PF05 | Bo-Han Wu, Yu-Lih Huang, Stefanus Harjo, Wu Gong, and E-Wen Huang | High-Temperature Creep-Fatigue Behavior Study Of INCONEL Alloy 617 By Insitu Neutron Diffraction |
| PF06 | Chih-Ying Liu, Xin Li, Wen-Yih Chen, and E-Wen Huang | Structural Study Of Monopegylated Teriparatide (1-34) In Solution Revealed By Small-Angle Neutron Scattering |
| PF07 | Ching-Feng Mao, Hsing-Yi Chou | Design And Construction Of A Home-Built Dynamic Light Scattering Apparatus |

## (G) Other Scientific Researches related to Nano Science

| ID | Authors | Title |
|---|---|---|
| PG01 | Ryosuke Tagawa, and Shuichi Torii | Fundamental Study On Heat Flow Phenomena Of Graphene Oxide Nanofluid |

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| PG02 | Nguyen Trong Tuyen, Tsung-Fu Chien, Hung-Ming Huang | A Home – Based Hand Rehabilitation System Using Microsoft Kinect |
| PG03 | Fukuoka Yukiko, Caner Senkal, and Torii Shuichi | Effective Use Of Energy With Nano Fluid |
| PG04 | Takato Yamamoto, Il-Ju Hwang, Shuichi Torii and Cheng-Hsin Chuang | An Experimental Study Of Plate Heat Exchanger Based On Numerical And Experimental Results |
| PG05 | Shun Matsuda, Shuichi Torii | Development Of The Suitable Combustor And Combustion Characteristic Of Biofuels |
| PG06 | Fumiyasu Hasegawa | Development Of The Combustion Furnace And Examination Of Its Optimum Operating Condition For Sewage Sludge |
| PG07 | Yen-Jhang Ho and Min-Sheng Hung | A Sing Protoplast Package Using Droplet Microfluidics |
| PG08 | Yi-Dong Shao and Min-Sheng Hung | Design Of A Microfluidics For Real Time Protoplasts Separation And Collection |
| PG09 | Kuei-Sen Chang, Po-Tent Ho, Wen-Hung Weng, Meng-Hung Chen, and Fong-Chang Sheu | Influence Of Impurities In Alumina Ceramics On Their Mechanical Performance |
| PG10 | Han-Sheng Chang, and E-Wen Huang | Strain-Rate-Effect On The Lattice-Strain Evolution In Polycrystalline Nickle Alloy |
| PG11 | Shun-fua Su, Yi-siiang Tzai | Proton Conductivity Of Sulfonated Bamboo Fiber Membrane |
| PG12 | Kenya Ide, Shuichi Torii | Development Of The Continuous Drying Device For Biomass Fuel |
| PG13 | Hau Lin, Chia-Chih Ting | The Effect Of Operating Potential On The Detection Of Hydrogen Peroxide For The Carbon Paste Minielectrode Modified With Prussian Blue |
| PG14 | Hau Lin, Ting-Li Lin, and Meng-Ju Yang | The Detection Of Hydrogen Peroxide For The Electrode Modified With Cobalt Hexacyanoferrate And The Unmodified Electrode |
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