

Poster Session 3

March 7 (Wed) 17:00 - 18:30

- 07P01 **Modification of Expanded Poly(tetrafluoroethylene) Membranes with Zwitterionic and Cationic-polymer Materials by Atmospheric-pressure Plasma**  
Che-Kuei Chang, Ting-Lin Cheng and Ta-Chin Wei  
Chung Yuan Christian University, Taiwan
- 07P02 **Modeling for Unsteady State Growth of GaN/InGaN Multiple Quantum Wells by Metal Organic Chemical Vapor Deposition**  
Shi-Jie Chen, Zong-Ru Wu and Ta-Chin Wei  
Chung Yuan Christian University, Taiwan
- 07P04 **Gas Impurity Detection by Wall Probe Current of Nonlocal Penning Electrons in Negative Glow Plasma**  
<sup>1,2</sup>A.A. Kudryavtsev, <sup>1</sup>A.I.Saifutdinov and <sup>1</sup>S.S. Sysoev.  
<sup>1</sup>Saint-Petersburg University, Russia  
<sup>2</sup>Harbin institute of technology, China
- 07P05 **Facile Synthesis of Graphene Quantum Dots by Microplasma-assisted Electrochemistry**  
Yi-Chen Chang and Wei-Hung Chiang  
National Taiwan University of Science and Technology, Taiwan
- 07P06 **Bottom-up, Microplasma-assisted Synthesis of GQDs from Biomass**  
Pei-Jun Yeh and Wei-Hung Chiang  
National Taiwan University of Science and Technology, Taipei City, Taiwan
- 07P08 **Charaterization of Low Energy Argon-acetylene Ion Beam using a Retarding Potential Electrostatic Energy Analyzer**  
Rafael Alexander L. Carreon, Christian Lorenz S. Mahinay, Ivan B. Culaba and Oliver Kevin M. Streeter  
Ateneo de Manila University, Philippines
- 07P09 **Effect of Laser Irradiation on Plasma Electrolytic Oxidation**  
Shunji Dokizono, Toshiaki Yasui and Masahiro Fukumoto  
Toyohashi University of Technology, Japan
- 07P10 **Plasma Pyrolysis of Waste Expanded Polystyrene**  
Keith Nealson M. Penado, Christian Lorenz S.Mahinay and Ivan B. Culaba  
Ateneo de Manila University, Philippines

- 07P11 Motion of H-ion in Low Temperature Plasma in a Negative Ion Source for NBI**  
<sup>1,2</sup>K. Tsumori, <sup>1,2</sup>H. Nakano, <sup>1</sup>M. Kisaki, <sup>3</sup>S. F. Geng, <sup>1</sup>K. Ikeda, <sup>4</sup>M. Wada,  
<sup>1,2</sup>K. Nagaoka and <sup>1,2</sup>M. Osakabe.  
<sup>1</sup>National Institute for Fusion Science, National Institutes of Natural Sciences, Japan  
<sup>2</sup>The Graduate University for Advanced Studies, Japan  
<sup>3</sup>Southwestern Institute of Physics, China  
<sup>4</sup>Doshisha University, Japan
- 07P12 Enhanced Wettability of Polycarbonate (PC) and Adhesion with Aluminum by Atmospheric-pressure Plasma Jet Treatment**  
Charmiene Jennifer P. Zafra, Paz Victoria T. Ramos, Ivan B. Culaba  
and Christian Lorenz S. Mahinay  
Ateneo de Manila University, Philippines
- 07P13 Observation of Excited Particles near a Surface Irradiated with an Atmospheric Pressure Plasma Jet by Total-reflection Emission Spectroscopy**  
Masahiro Hasuo, Jiro Kakutani, Keisuke Ueno, Keisuke Fujii, Taiichi Shikama and Miho Tanaka  
Kyoto University, Japan
- 07P14 The Enhanced Photothermal Phenomena of SiO<sub>2</sub>-Ag and TiO<sub>2</sub>-Ag Multilayered Thin Film Structure**  
J.H. Hsieh and Y.T. Su  
Ming Chi University of Technology, Taiwan
- 07P15 Enhancing the Responsivity of Pentacene Phototransistor by Introducing a SiO<sub>2</sub> Gate Dielectric**  
I-Jou Hsieh, Shui-Hsiang Su, Jin-Yi Huang and Meiso Yokoyama  
I-Shou University, Taiwan
- 07P16 Syntheses of Alginate Microspheres by Microfluidic Reactor for Three-dimensional Cell Culture and Drug Release**  
Yueh Huang, Meng-Jiy Wang and Pin-Chuan Chen  
National Taiwan University of Science and Technology, Taiwan

- 07P17 Surface Kinetics Studies of Silicon Dioxide and Silicon Nitride Etching Processes in Fluorocarbon Plasmas**  
<sup>1</sup>Won-Seok Chang, <sup>1</sup>Deuk-Chul Kwon, <sup>1</sup>Mi-Young Song, <sup>1</sup>Dea-Chul Kim, <sup>1</sup>Jong-Sik Kim, <sup>1</sup>Young-Woo Kim, <sup>1</sup>Jung-Sik Yoon, <sup>2</sup>Dong-Hun Yu, <sup>3</sup>Yeong-Geun Yook and <sup>3</sup>Yeon-Ho Im  
<sup>1</sup>National Fusion Research Institute, Korea  
<sup>2</sup>Kyungwon Tech Inc., Korea  
<sup>3</sup>Chonbuk National University, Korea
- 07P18 Atmospheric Pressure Plasma Jet Assisted Copolymerization of Sulfobetaine Methacrylate and Acrylic Acid for Applications in Molecular Imprinted Polymer and Biosensing**  
Yueh-Han Huang and Meng-Jiy Wang  
National Taiwan University of Science And Technology, Taiwan
- 07P19 A Tailored Voltage Waveform Plasma CVD Method for Carbon Film Deposition**  
Kenji Yamaki, Taojun Fang, Daisuke Yamashita, Hyunwoong Seo, Naho Itagaki, Kazunori Koga and Masaharu Shiratani  
Kyushu University, Japan
- 07P20 Structural Analysis of Au-nanoparticle-embedded Polymer Films Synthesized on HAuCl<sub>4</sub>/gelatin Aqueous Solution Irradiated with Ar DBD Plasma**  
<sup>1</sup>Shiori Azuma, <sup>1</sup>Yusuke Nakamura, <sup>2</sup>Toshiyuki Isshiki and <sup>1</sup>Tatsuru Shirafuji  
<sup>1</sup>Osaka City University, Japan  
<sup>2</sup>Kyoto Institute of Technology, Japan
- 07P21 Effects of Micro-bubble Assistance on the Performance of 3D Integrated Micro Solution Plasma**  
Hiroto Masunaga, Yodai Ishida and Tatsuru Shirafuji  
Osaka City University, Japan
- 07P22 Time Evolution of RONS in Water Treated with Air Bubble Plasma**  
<sup>1</sup>Shoma Miyamoto, <sup>1</sup>Kentaro Nishimoto, <sup>2</sup>Shin-ichi Imai and <sup>1</sup>Tatsuru Shirafuji  
<sup>1</sup>Osaka City University, Japan  
<sup>2</sup>Panasonic Corporation, Japan

- 07P23 **Improvement of Water Permeability of a Scaffold by Irradiating Atmospheric Pressure Plasma Jet**  
Masato Oshiro, Kumi Orita, Yoshihiro Hirakawa, Hiromitsu Toyoda and Tatsuru Shirafuji  
Osaka City University, Japan
- 07P24 **Syntheses of Gold Nanoparticles by Atmospheric Pressure Plasma for Bioapplications**  
Hao-Yu Lin and Meng-Jiy Wang  
National Taiwan University of Science And Technology, Taiwan
- 07P27 **Simulation and Optimization in Microwave Plasma Jet Reactor for Fabrication of CVD Diamond Film**  
Chi-Wen Liu, Wei-En Chen, Yin Tung Albert Sun and Chii-Ruey Lin  
National Taipei University of Technology, Taiwan
- 07P28 **Enhancement of Radio Frequency Glow Discharge Ignition by Pulsed Discharge at Atmospheric Pressure**  
<sup>1</sup>Shenjie Qiu, <sup>1,2</sup>Ying Guo, <sup>1</sup>Qianhan Han, <sup>1,2</sup>Jing Zhang and <sup>1,2</sup>J.J. Shi  
<sup>1</sup>Donghua University, China  
<sup>2</sup>Ministry of Education of the People's Republic of China, China
- 07P30 **Synthesis of Multifunctional Superhydrophobic Antibacterial Films and Their Surface Properties**  
Liyun Xu, Ying Guo, Jianjun Shi, Jing Zhang, Ruiyun Zhang and Jianyong Yu  
Donghua University, China
- 07P31 **Effects of Plasma Plume Inject into Radio Frequency Atmospheric Pressure Glow Discharge**  
Qianhan Han, Ying Guo and Jianjun Shi  
Donghua University, China
- 07P32 **Spatially Resolved Laser Absorption Spectroscopy on a Microhollow Cathode He Plasma**  
<sup>1</sup>K. Ueno, <sup>1</sup>K. Kamebuchi, <sup>1</sup>J. Kakutani, <sup>2</sup>L. Matsuoka, <sup>2</sup>S. Namba, <sup>1</sup>K. Fujii, <sup>1</sup>T. Shikama and <sup>1</sup>M. Hasuo  
<sup>1</sup>Kyoto University, Japan  
<sup>2</sup>Hiroshima University, Japan

- 07P33 **Fabrication and Physical Properties of Au/Ni Bimetal Nanowires**  
<sup>1</sup>Rina Akutsu, <sup>1</sup>Kosuke Sugawa, <sup>2</sup>Tomohiro Shimizu, <sup>2</sup>Shoso Shingubara and <sup>1</sup>Kouichi Takase  
<sup>1</sup>Nihon University, Japan  
<sup>2</sup>Kansai University, Japan
- 07P34 **Magnetic Behavior of Chemically Synthesized CoFe Nanoparticles**  
Hiroko Ichikawa, Keisuke Yamada and Mutsuhiro Shima  
Gifu University, Japan
- 07P35 **Ultraviolet Induced Switchable Surface Wetting Behavior of NiFe<sub>2</sub>O<sub>4</sub>**  
Sheng-Kai Tong, Po-Wei Chi and Da-Hua Wei  
National Taipei University of Technology, Taiwan
- 07P36 **Characterization of UV Detectors using Transition Metal Doped ZnO Nanoparticles**  
Seong Gwan Shin, Chung Wung Bark and Hyung Wook Choi  
Gachon University, Korea
- 07P37 **Finite-difference Time-domain Analysis for the Various Size Gold Nano Hole**  
<sup>1</sup>Ji-Yeon Noh, <sup>1</sup>Ha Young Lee, <sup>1</sup>Min Sub Kwak, <sup>1,2</sup>Kyung-Won Lim, <sup>1</sup>Hyung Soo Ahn, <sup>1</sup>Ji Hoon Ahn, <sup>1</sup>Sam Nyung Yi and <sup>2</sup>Jungho Ryu  
<sup>1</sup>Ocean University, Korea  
<sup>2</sup>Korea Institute of Materials Science(KIMS), Korea
- 07P38 **Characteristics of Perovskite Solar Cells Fabricated by using Lead Free Perovskite**  
Jeong Hun Ma and Hyung Wook Choi  
Gachon University, Korea
- 07P39 **Fabrication and Effect of Perovskite Solar Cells by Spray Process**  
Haram Lee, Chung Wung Bark, Ji Hyeon Kim and Hyung Wook Choi  
Gachon University, Korea
- 07P40 **Few-layer Graphene Fabricated by Microwave Excited Surface-wave Plasma Enhanced Chemical Vapor Deposition**  
Taishu Oyama, Keigo Takeda and Mineo Hiramatsu  
Meijo University, Japan

- 07P41 **Colored Solar Cells with Transparent MgF<sub>2</sub>/TiO<sub>2</sub>/SiO<sub>2</sub>/TiO<sub>2</sub> Mltilayer Thin Films**  
J.H. Hsieh and Y.J. Wei  
Ming Chi University of Technology, Taiwan
- 07P42 **Elucidation of Nucleation Carbon Nanowalls Grown in Inductively Coupled Plasma Chemical Vapor Deposition**  
<sup>1</sup>Takuya Suzuki, <sup>1</sup>Hitoshi Nozaki, <sup>1</sup>Keigo Takeda, <sup>1</sup>Mineo Hiramatsu,  
<sup>2</sup>Hiroki Kondo and <sup>2</sup>Masaru Hori  
<sup>1</sup>MeijoUniversity, Japan  
<sup>2</sup>Nagoya University, Japan
- 07P43 **Stacking the Active Layers to Increase the Power Conversion Efficiency of Perovskite Solar Cells**  
Yi Ting Xiao, Shui-Hsiang Su, Guan Yu Chen and Meiso Yokoyama  
I-Shou University, Taiwan
- 07P44 **Engineeringof Iron-oxide-nanoparticle/Graphene Heteronanostruturesusing Atmospheric-pressure Microplasmas**  
Ching-Yu Lee and Wei-Hung Chiang  
National Taiwan University of Science and Technology, Taiwan
- 07P45 **The Influence of Storage Environment and Temperature on Argon Plasma Treated RGP Contact Lens**  
Wen-Pin Lin and Meng-Jiy Wang  
National Taiwan University of Science and Technology, Taiwan
- 07P46 **Continuous Syntheses of CuO@Fe<sub>3</sub>O<sub>4</sub> via Micro-reactor for the Degradation of Methylene Blue**  
Wen-Yang Lin, Meng-Jiy Wang and Pin-Chuan Chen  
National Taiwan University of Science and Technology, Taiwan
- 07P47 **Temperature Dependence for Formation Behavior of Nanocrystallized Layer by Surface Severe Plastic Deformation for Cu**  
Hisashi Sato, Hiroyuki Hayashi and Yoshimi Watanabe  
Nagoya Institute of Technology, Japan

- 07P48 **Effects of Stacking Fault Energy on Mechanical Properties and Microstructures of Nanostructured Cu-Si Solid-solution Alloys Processed by High Pressure Torsion**  
Minami Watanabe and Takahiro Kunimine  
Kanazawa University, Japan
- 07P49 **Enhanced Field Emission Behavior of Al-doped ZnO Nanorods with UV Exposure**  
<sup>12</sup>Zi-Hao Wang, <sup>2</sup>Chih-Chiang Yang, <sup>1</sup>Hsin-Ting Yeh and <sup>12</sup>Yan-Kun Su  
<sup>1</sup>National Cheng Kung University, Taiwan  
<sup>2</sup>Kun Shan University, Taiwan
- 07P50 **High Performance of ZnTe:Cr Based Intermediate Band Solar Cell**  
Kyoung Su Lee and Eun Kyu Kim  
Hanyang University, Korea
- 07P51 **High-density Growth of Single-walled Carbon Nanotube at low Temperature by Alcohol Gas Source Method using Co Catalyst**  
Takuya Okada, Seigo Ogawa, Takayuki Fujii, Takahiro Saida, Shigeya Naritsuka and Takahiro Maruyama  
Meijo University, Japan
- 07P52 **Thermal Stability of L1<sub>2</sub> Modified (Al<sub>1-x</sub>Me<sub>x</sub>)<sub>3</sub>Ti Heterogeneous Nucleation Site Phases in Al**  
Yadav Manasi Shrikrishna, Tadachika Chiba, Hisashi Sato and Yoshimi Watanabe  
Nagoya Institute of Technology, Japan
- 07P53 **Applications of Reactive Compatible Solute Hydroxyectoine for Surface and Bulk Modification of Biocompatible Polymers**  
Wu-Chin Huang, Jia-Shium Yu and Shinn-Gwo Hong  
Yuan Ze University, Taiwan
- 07P54 **Luminescence Characteristics Of Na<sup>+</sup>- And Li<sup>+</sup>-Doped Ca<sub>6</sub>BaP<sub>4</sub>O<sub>17</sub>:Sm<sup>3+</sup> Phosphors**  
Chung-Hao Chiang and Sheng-Yuan Chu  
National Cheng Kung University, Taiwan

- 07P55 **Growth Pressure Dependence of Graphene Direct Growth on R-plane Sapphire by Low-pressure CVD**  
Yuki Ueda, Jumpei Yamada, Kyosuke Fujiwara, Daichi Yamamoto, Takahiro Maruyama and Shigeya Naritsuka  
Meijo University, Japan
- 07P56 **Structure Control of Carbon Nanowallsgrown using in Ductively Coupled Plasma Enhanced Chemical Vapor Deposition**  
<sup>1</sup>Takuya Suzuki, <sup>1</sup>Hitoshi Nozaki, <sup>1</sup>Keigo Takeda, <sup>1</sup>Mineo Hiramatsu, <sup>2</sup>Hiroki Kondo and <sup>2</sup>Masaru Hori  
<sup>1</sup>Meijo University, Japan  
<sup>2</sup>Nagoya University, Japan
- 07P57 **Inactivating Bioaerosols by using the New Carbon-nanotube Corona Discharge Plasma System**  
Hsiao-Chien Huang and <sup>1</sup>Shinho Yang  
CTBC Business School, Taiwan
- 07P58 **Development of Exosome Isolation by Porous Glass Device**  
<sup>1</sup>Keita Aoki, <sup>1</sup>Hiroshi Yukawa, <sup>1</sup>Daisuke Onoshima, <sup>2</sup>Shuji Yamazaki, <sup>2</sup>Naoto Kihara, <sup>2</sup>Ryohei Koguchi, <sup>2</sup>Kumiko Takahashi, <sup>2</sup>Hidefumi Odaka, <sup>1</sup>Kenji Ishikawa, <sup>1</sup>Masaru Hori and <sup>1</sup>Yoshinobu Baba  
<sup>1</sup>Nagoya University, Japan  
<sup>2</sup>AGC Asahi Glass, Japan
- 07P59 **Activation of Caspase Signaling Pathway in Melanoma Cells using Oxygen-radical-irradiated Medium**  
<sup>1</sup>Takayoshi Koizumi, <sup>1</sup>Tomiyasu Murata, <sup>2</sup>Masaru Hori and <sup>1</sup>Masafumi Ito  
<sup>1</sup>Meijo University, Japan  
<sup>2</sup>Nagoya University, Japan
- 07P60 **Development of Single Cell Separation and Detection Device for Rapid Microbiological Analysis**  
<sup>1</sup>Kentaro Uchida, <sup>1</sup>Daisuke Onoshima, <sup>1</sup>Hiroshi Yukawa, <sup>1</sup>Kenji Ishikawa, <sup>1</sup>Masaru Hori and <sup>1,2</sup>Yoshinobu Baba  
<sup>1</sup>Nagoya University, Japan  
<sup>2</sup>National Institute of Advanced Industrial Science and Technology, Japan

**07P61 Evaluation of Fungal-spore Activity using Oxygen-radical Treatment**

<sup>1</sup>Yuta Tanaka, <sup>1</sup>Takuya Goto, <sup>1</sup>Jun-Seok Oh, <sup>2</sup>Masashi Kato, <sup>2</sup>Hiroshi Hashizume, <sup>1</sup>Takayuki Ohta, <sup>3</sup>Masaru Hori and <sup>1</sup>Masafumi Ito

<sup>1</sup>Meijo University, Japan

<sup>2</sup>Nagoya University, Japan

**07P62 Cold Plasma Treatment and BMP-2 Grafting on DLC Thin Films by Promotion of Biomedical Application**

<sup>1</sup>Tsung-Hsin Yang, <sup>1</sup>Rui-Wen Sung, <sup>2</sup>Cheng-Hung Lee, <sup>1</sup>Shui-Yang Lien and <sup>1</sup>Shu Chuan Liao

<sup>1</sup>Da-Yeh University, Taiwan.

<sup>2</sup>Taichung Veterans General Hospital, Taiwan

**07P63 Al-doped ZnO Nanorods of Amperometric Non-enzymatic Glucose Sensor**

<sup>1,3</sup>Shi-Wei Luo, <sup>2,3</sup>Zi-Hao Wang, <sup>3</sup>Chih-Chiang Yang, <sup>1</sup>Chien-Sheng Huang and <sup>2,3</sup>Yan-Kun Su

<sup>1</sup>National Yunlin University of Science and Technology, Taiwan

<sup>2</sup>National Cheng Kung University, Taiwan

<sup>3</sup>Kun Shan University, Taiwan

**07P64 Long-term Bactericidal Activity of Plasma-activated Water**

<sup>1</sup>Naoyuki Iwata, <sup>1</sup>Yuto Kitada, <sup>1</sup>Jun-Seok Oh, <sup>2</sup>Hiroshi Hashizume, <sup>2</sup>Masaru Hori and <sup>1</sup>Masafumi Ito

<sup>1</sup>Meijo University, Japan

<sup>2</sup>Nagoya University, Japan

**07P65 An AI-enhanced Blood Glucose Sensing System using Machine Learning Based on Recurrent Neural Network for Hypoglycemia Prevention**

Takuyoshi Doike and Kiichi Niitsu

Nagoya University, Japan

**07P66 Surface Sterilization using Electron Cyclotron Resonance Plasma**

<sup>1</sup>Tatsuya Nishikawa, <sup>1</sup>Akira Yonesu and <sup>2</sup>Nobuya Hayashi

<sup>1</sup>University of the Ryukyus, Japan

<sup>2</sup>Kyushu University, Japan

- 07P67 Sustaining Mechanism of Low-energy Atmospheric-pressure Neon Plasma Jets**  
<sup>1</sup>Susumu Kato, <sup>1,2</sup>Hiromasa Yamada, <sup>1</sup>Masanori Fujiwara, <sup>1</sup>Satoru Kiyama, <sup>1</sup>Tetsuji Shimizu and <sup>1,2</sup>Hajime Sakakita  
<sup>1</sup>AIST, Japan  
<sup>2</sup>University of Tsukuba, Japan
- 07P68 Visualization of Plasma-generated Reactive Species Delivered in Liquid via a Micro through-hole**  
Koichi Ishikawa, Minoru Sasaki and Shinya Kumagai  
Toyota Technological Institute, Japan
- 07P69 Performance Optimization of 368 nm Light Emitting Diodes by Use of Ultraviolet Transparent Indium Tin Oxide (ITO): The Effect of In-situ Contact Treatment**  
Wenbin Tu, Zimin Chen, Yi Zhuo, Zeqi Li, Weiqu Chen and Gang Wang  
Sun Yat-Sen University, China
- 07P70 Cl<sub>2</sub>/Kr based Inductively Coupled Plasma Etching of GaN**  
<sup>1</sup>Cedric Mannequin, <sup>2</sup>Takashi Teramoto, <sup>1,2,3</sup>Congying You and <sup>1,3</sup>Christophe Vallée  
<sup>1</sup>University of Tsukuba, Japan  
<sup>2</sup>Air Liquide Laboratories, Japan  
<sup>3</sup>Université Grenoble-Alpes, France
- 07P71 Performance Improvement of White Light-emitting Diodes by using Wide Reflectance Bandwith Distributed Bragg Reflector**  
Weiqu Chen, Zimin Chen, Hongtai Luo, Xuejin Ma and Gang Wang  
Sun Yat-Sen University, China
- 07P72 The Modified Mixed-source HVPE Method for the Growth of AlN Epilayer**  
<sup>1</sup>Injun Jeon, <sup>1</sup>Sung Geun Bae, <sup>1</sup>Hunsoo Jeon, <sup>1</sup>Kyoung Hwa Kim, <sup>1</sup>Min Yang, <sup>1</sup>Sam Nyung Yi, <sup>1</sup>Hyung Soo Ahn, <sup>2</sup>Suck-Whan Kim and <sup>3</sup>Nobuhiko Sawaki  
<sup>1</sup>Korea Maritime and Ocean University, Korea  
<sup>2</sup>Andong National University, Korea  
<sup>3</sup>AIT, Japan

**07P73 Growth of AlN Epilayers with AlGaN Seed by Al+Ga Mixed-source HVPE**

<sup>1</sup>Injun Jeon, <sup>1</sup>Sung Geun Bae, <sup>1</sup>Hunsoo Jeon, <sup>1</sup>Kyoung Hwa Kim, <sup>1</sup>Min Yang, <sup>1</sup>Sam Nyung Yi, <sup>1</sup>Hyung Soo Ahn, <sup>2</sup>Suck-Whan Kim and <sup>3</sup>Nobuhiko Sawaki

<sup>1</sup>Korea Maritime and Ocean University, Korea

<sup>2</sup>Andong National University, Korea

<sup>3</sup>AIT, Japan

**07P74 Growth and Properties of AlN Layers on Patterned Sapphire Substrate**

<sup>1</sup>Sung Geun Bae, <sup>1</sup>Injun Jeon, <sup>1</sup>Hunsoo Jeon, <sup>1</sup>Kyoung Hwa Kim, <sup>1</sup>Min Yang, <sup>1</sup>Sam Nyung Yi, <sup>1</sup>Hyung Soo Ahn, <sup>2</sup>Suck-Whan Kim and <sup>3</sup>Nobuhiko Sawaki

<sup>1</sup>Korea Maritime and Ocean University, Korea

<sup>2</sup>Andong National University, Korea

<sup>3</sup>AIT, Japan

**07P75 Growth of GaN on C-Cu Compound Substrate using HVPE Method**

<sup>1</sup>Kyoung Hwa Kim, <sup>1</sup>Sung Geun Bae, <sup>1</sup>Injun Jeon, <sup>1</sup>Hunsoo Jeon, <sup>1</sup>Min Yang, <sup>1</sup>Sam Nyung Yi, <sup>1</sup>Hyung Soo Ahn, <sup>2</sup>Young Moon Yu, <sup>3</sup>Suck-Whan Kim and <sup>4</sup>Nobuhiko Sawaki

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<sup>3</sup>Andong National University, Korea

<sup>4</sup>AIT, Japan

**07P76 AlN Wire Grown by using Modified Mixed-source HVPE**

<sup>1</sup>Hunsoo Jeon, <sup>1</sup>Injun Jeon, <sup>1</sup>Sung Geun Bae, <sup>1</sup>Kyoung Hwa Kim, <sup>1</sup>Min Yang, <sup>1</sup>Sam Nyung Yi, <sup>1</sup>Hyung Soo Ahn, <sup>2</sup>Young Moon Yu, <sup>3</sup>Suck-Whan Kim and <sup>4</sup>Nobuhiko Sawaki

<sup>1</sup>Korea Maritime and Ocean University, Korea

<sup>2</sup>Pukyong National University, Korea

<sup>3</sup>Andong National University, Korea

<sup>4</sup>AIT, Japan

**07P77 High Color Stability of White Light-emitting Diode with Thermally Activated Delayed Fluorescence**

Zhang De Xue, Shui Hsiang Su, Cheng-Ta Tsai and Meiso Yokoyama  
I-Shou University, Taiwan

- 07P78 Relaxor Behavior of Lead-free Sodium Potassium Niobate-based Ceramics for Capacitance**  
<sup>1</sup>Hsiu-Hsien Su, <sup>2</sup>Cheng-Shong Hong, <sup>3</sup>Cheng-Che Tsai and <sup>1</sup>Sheng-Yuan Chu  
<sup>1</sup>National Cheng Kung University, Taiwan  
<sup>2</sup>National Kaohsiung Normal University, Taiwan  
<sup>3</sup>Tung Fang Design University, Taiwan
- 07P79 Design and Fabrication of ZnO-based SAW Sensors**  
<sup>1</sup>Hiroaki Ogura, <sup>1</sup>Shinji Takayanagi, <sup>1</sup>Koji Abe, <sup>2</sup>Gemma Rius and <sup>1</sup>Masaki Tanemura  
<sup>1</sup>Nagoya Institute of Technology, Japan  
<sup>2</sup>Centro Nacional de Microelectrónica - CSIC, Spain
- 07P80 Piezoelectric Accelerometer of the Lead-free NKLNTS-based Ceramics for Automobiles Applications**  
<sup>1</sup>Chung-Ming Weng, <sup>2</sup>Chun-Cheng Lin and <sup>1</sup>Sheng-Yuan Chu  
<sup>1</sup>National Cheng Kung University, Taiwan  
<sup>2</sup>R.O.C. Air Force Academy, Taiwan
- 07P81 Fabrication of Uniform GaN Nanowire Array with Smooth Non-polar Facets by Top-down Approach**  
<sup>1</sup>Yaqiang Liao, <sup>1</sup>Yoann Robin, <sup>1</sup>Si-Young Bae, <sup>1</sup>Kaddour Lekhal, <sup>1</sup>Xu Yang, <sup>1</sup>Shugo Nitta, <sup>1,2</sup>Yuhuai Liu, <sup>1</sup>Yoshio Honda and <sup>1</sup>Hiroshi Amano  
<sup>1</sup>Nagoya University, Japan  
<sup>2</sup>Zhengzhou University, China
- 07P82 Prediction of Particle Number Density in Suspension through Bubble Size during Microwave Irradiation**  
Shunsuke Nishijima, Yuki Wada and Yusuke Asakuma  
University of Hyogo, Japan
- 07P83 Finite Temperature Effect on Helium Plasma Irradiation to Bubble-formed Tungsten Material**  
<sup>1</sup>Seiki Saito, <sup>2,3</sup>Hiroaki Nakamura and <sup>2</sup>Masayuki Tokitani  
<sup>1</sup>National Institute of Technology, Kushiro College, Japan  
<sup>2</sup>National Institute for Fusion Science, Japan  
<sup>3</sup>Nagoya University, Japan
- 07P84 Effects of Hydrogen Annealing on Electrical Properties of Multi-layered ZrO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub>/ZrO<sub>2</sub> Dielectrics**  
Pyungho Choi and Byoungdeog Choi  
Sungkyunkwan University, Korea

- 07P85 **Optimal Approximation Conditions of Bivariate Function for Fabrication of 50 nm Pattern Formed by Electron-beam Lithography**  
Masahito Kurouchi, Manabu Yasui and Satoru Kaneko  
Kanagawa Institute of Industrial Science and Technology (KISTEC), Japan
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