

# EM-NANO 2015



## The 5th International Symposium on Organic and Inorganic Electronic Materials and Related Nanotechnologies



**June 16-19, 2015**

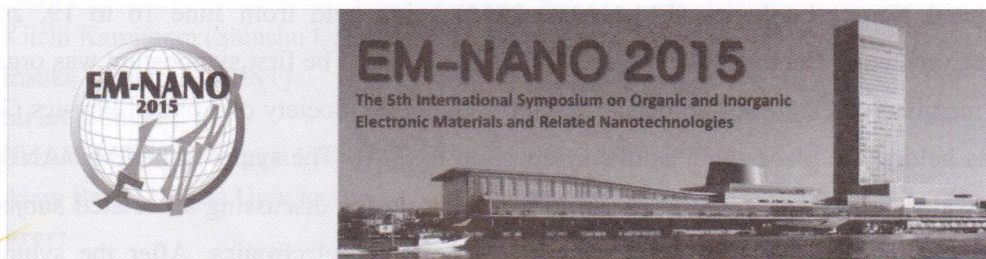
**Niigata, Japan**

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# The 5th International Symposium on Organic and Inorganic Electronic Materials and Related Nanotechnologies (EM-NANO 2015)



**June 16-19, 2015**  
**TOKI MESSE Niigata Convention Center**  
**Niigata, Japan**

**Sponsored by**  
The Japan Society of Applied Physics (JSAP)

**Administrated by**  
Hokuriku/Shin-etsu Chapter of JSAP

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- Niigata Prefecture, Japan
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**In cooperation with**

- The Institute of Electrical Engineers of Japan (IEEJ)
- Technical Committee on Dielectric and Electrical Insulation, IEEJ
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  - Niigata Subbranch, Tokyo Branch, IEEJ
- The Institute of Electronics, Information and Communication Engineers (IEICE)
  - Electronics Society of IEICE
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  - The Society of Polymer Science, Japan (SPSJ)
  - The Japanese Liquid Crystal Society (JLCS)
    - Shin-etsu Section, IEEE
  - Japan Chapter, Society for Information Display (SID)
    - Research Group of

“Development of Ultrafunctionalized and Innovative Nanostructured Electronic Devices” Project, Center for Transdisciplinary Research, Niigata University, Japan

- P2-79 **Preparation of  $\text{Cu}_2(\text{Sn,Si})\text{S}_3$  Alloy Films for Thin-Film Solar Cells by Sulfurization of Simultaneous Sputtered Cu-Sn-Si precursors**, Yusuke Wakui<sup>1</sup>, Noritaka Momose<sup>1</sup>, Myo Than Htay<sup>2</sup>, Yoshio Hashimoto<sup>2</sup>, Kentaro Ito<sup>2</sup> (<sup>1</sup>National Institute of Technology, Nagano College, Japan, <sup>2</sup>Shinshu University, Japan)
- P2-80 **Dielectrophoretic Assembly of Multiwalled Carbon Nanotubes onto the Electrode Pattern for Multiplexer Interconnects**, Hong Zhang and Libao An (Hebei United University, China)
- P2-81 **Temperature Dependent Raman Spectroscopy Analysis of  $\text{Cu}_2\text{SnS}_3$  and  $\text{Cu}_2\text{GeS}_3$  Thin-Film Solar Absorbers**, Myo Than Htay<sup>1</sup>, Yuki Narahara<sup>1</sup>, Takahiro Mandokoro<sup>1</sup>, Takanori Sakaizawa<sup>1</sup>, Noritaka Momose<sup>2</sup>, Yoshio Hashimoto<sup>1</sup> (<sup>1</sup>Shinshu University, Japan, <sup>2</sup>National Institute of Technology, Nagano College, Japan)

## Thursday, June 18

12:00-13:30 Poster Session III  
 12:00-12:45 Odd Numbered Posters  
 12:45-13:30 Even Numbered Posters

- P3-1 **Fullerene/Porphyrin Hybrid Materials**, Takatsugu Wakahara, Akari akagawa, Yoshitaka Matsushita, Osamu Ito, Kun'ichi Miyazawa, Kazuhito Tsukagoshi (National Institute for Materials Science (NIMS), Japan)
- P3-2 **Fluorescence Wavelength Dependence of Purcell Effect in Dye Molecules on Metal-Dielectric Multilayer Metamaterial**, Hayato Izawa, Ryo Tomioka, Tomohiro Sakata, Makoto Suzuki, Fusao Shimokawa, Shunsuke Nakanishi, Noriaki Tsurumachi (Kagawa University, Japan)
- P3-3 **Photoluminescent Polymer Embedded  $\text{Eu}^{3+}$ ,  $\text{Tb}^{3+}$  and  $\text{Y}_3^{3+}$  Complexes with R, G, B Emission**, Corneliu S. Stan, Marcel Popa, Petronela (Gospei) Horlescu (Gheorghe Asachi Technical University, Romania)
- P3-4 **Hybrid Nanocomposites of Bridged Polysilsesquioxane Nanoparticles and Polystyrene by In-situ Radical Polymerization**, InSeol Hwang, Eun-JeeKim, Jung-Hyurk Lim, and Kyung-Min Kim (Korea National University of Transportation, Korea)
- P3-5 **Fabrication of Organic-inorganic Hybrid Films Using UV-curable Conductive Material and Application to Light-emitting Diodes**, Hironori Akiyama<sup>1</sup>, Akira Emoto<sup>1</sup>, and Naoki Ohtani<sup>1</sup> (Doshisha University, Japan)
- P3-6 **Evaluation of Antioxidant Effect of Carotenoids on Photoluminescence Lifetime of Chlorophyll *a* Extracted from Spinach Using Column Chromatography Method**, Takato Ito, Akira Emoto and Naoki Ohtani (Doshisha University, Japan)
- P3-7 **Synthesis of Hydrophilic Graphene by Plasma Irradiation under Atmospheric Pressure**, Koichi Sakaguchi, Seiko Uchino, Kotaro Kajiyama, Asami Ohtake, Noboru Takisawa and Masanao Era (Saga University, Japan)
- P3-8 **Scintillation Property of Fluorene-Based Dyes for Liquid Scintillator**, Yuta Sakuma<sup>1</sup>, Koichi Sakaguchi<sup>1</sup>, Toshihiko Shimizu<sup>2</sup>, Nobuhiko Sarukura<sup>2</sup> and Masanao Era<sup>1</sup> (<sup>1</sup>Saga University, Japan, <sup>2</sup>Osaka University, Japan)
- P3-9 **Improved Outcoupling Efficiency of OLED Using Nanoparticle Lens Array**, Nak-Kwan Chung, Sub Shim, Jintae Kim, and Juyoung Yun (Korea Research Institute of Standards and Science, Korea)
- P3-10 **Organic Light-Emitting Diodes Using Very Low Weight Organic Molecule as a Cathode Interfacial Layer**, Ryota Motoyama, Shigeki Naka, and Hiroyuki Okada (University of Toyama, Japan)
- P3-11 **Effects of Powder Size on sinterability of  $\text{KNbO}_3$  System Ceramics**, Ryosuke Baba, Tadashi Fujii and Tomoaki Karaki (Toyama Prefectural University, Japan)
- P3-12 **Role of Hydrated Polyvinyl Alcohol (PVA)/ZnO as the Conducting Channels in Assembled Thin Film Transistors**, Leo Chau-Kuang Liao, Pei-Hsuan Lo, Tzu-Hsien Hsu and Yun-Guo Lin (Yuan Ze University Taiwan)
- P3-13 **Scintillation Properties of Undoped CdS for Ionizing Radiation Detectors**, Takayuki Yanagida<sup>1</sup>, Masanori Koshimizu<sup>2</sup> (<sup>1</sup>Nara Institute of Science and Technology, Japan, <sup>2</sup>Tohoku University, Japan)
- P3-14 **Application of Self-Assembly 3-aminopropyl-trimethoxysilane Thin Film Induced Gold Nanoparticles**, Hong-Huei Huang, Wei-Kai Su, Ching-Chieh Leu (National University of Kaohsiung, Taiwan)
- P3-15  **$\text{Cu}_2\text{ZnSnS}_4$  Thin-Film Solar Cells Utilizing  $\text{MoSi}_2/\text{Mo}$  Back Electrode**, Kaede Matsubayashi<sup>1</sup>, Noritaka Momose<sup>1</sup>, Myo Than Htay<sup>2</sup>, Yoshio Hashimoto<sup>2</sup>, Kentaro Ito<sup>2</sup> (<sup>1</sup>National Institute of Technology, Nagano College, Japan, <sup>2</sup>Shinshu University, Japan)
- P3-16 **Combustion Synthesized Indium-Tin-Oxide (ITO) Thin Film for Source/Drain Electrodes in Solution-Processed Oxide Thin Film Transistors**, Phan Trong Tue<sup>1,2</sup>, Jinwang Li<sup>1,2</sup>, Satoshi Inoue<sup>1,2</sup>, Yuzuru Takamura<sup>1,2</sup> and Tatsuya Shimoda<sup>1,2</sup> (<sup>1</sup>Japan Advanced Institute of Science and Technology, Japan, <sup>2</sup>JST, Japan)
- P3-17 **Preparation of Multilayer Inorganic EL Device by Electrophoretic Deposition Method Using Perovskite-type Oxide Phosphor**, Hiroki Komagata<sup>1</sup>, Takehito Kato<sup>2</sup>, Ariyuki Kato<sup>1</sup> (<sup>1</sup>Nagaoka University of Technology, Japan, <sup>2</sup>Oyama National College of Technology, Japan)
- P3-18 **Luminescence and Scintillation Properties of La or Ag-doped  $\text{CsPbCl}_3$  Single Crystals**, K. Watanabe<sup>1</sup>, M. Koshimizu<sup>1</sup>, T. Yanagida<sup>2</sup>, Y. Fujimoto<sup>1</sup> and K. Asai<sup>1</sup> (<sup>1</sup>Tohoku University, Japan, <sup>2</sup>Nara Institute of Science and Technology, Japan)
- P3-19 **Control of Electroluminescence Spectra of InGaN/GaN Dual-Wavelength Light-Emitting Diodes by Designed Metal Electrode**, Ju.Kholopova<sup>1</sup>, E. Polushkin<sup>1</sup>, S. Larkin<sup>1</sup>, N. Antonova<sup>2</sup>, A.Tsatsul'nikov<sup>3</sup>, V. Zemlyakov<sup>4</sup>, V. Egorkin<sup>4</sup>, I. Khmyrova<sup>5</sup>, S. Shapoval<sup>1</sup> (<sup>1</sup>IMT RAS, Russia, <sup>2</sup>NRNU MEPhI, Russia, <sup>3</sup>A.F.Ioffe Physico-Technical Institute RAS, Russia, <sup>4</sup>NRUET, Russia, <sup>5</sup>University of Aizu, Japan)
- P3-20 **The Properties of Edge Exfoliated Graphite and Polymer Composite Material**, Shoji Nozato, Hiroshi Yoshitani, Akira Nakasuga (Sekisui Chemical Co.,Ltd, Japan.)