

## List of Abstract

### 01AM1 session

01AM1-1 <Invited 1>"Publishing in Science – from the inside out"  
Ian S. Osborne (Science Magazine, UK)

01AM1-2 <Invited 2>"Oxide Surface Protonics: Proton Activity on Hydrated Oxide Surface"  
Shu Yamaguchi (University of Tokyo, Japan)

01AM1-3 <Invited 3>"Towards Smart Applications Using Temperature Gradients"  
Simone Wiegand (Forschungszentrum Juelich GmbH, Germany)

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### PPS (Premium Poster Session)

PPS1 "Integration of self-assembled polymer nano- and microstructures into optoelectronic devices"  
T. Anzai, T. Takumi, C. Botta, U. Giovanella, F. Galeotti, and V. Vohra (The University of Electro-communications, Japan; Istituto per lo Studio delle Macromolecole (ISMAC-CNR), Italy)

PPS2 "Mass Production of Nanosheets Using R2R and Its Evaluation"  
Y. Sunami, Y. Kai, K. Tsuchiya, Y. Okamura, and H. Hashimoto (Tokai University, Japan)

PPS3 "Inducing photon-photon interaction with ultracold atoms in an optical cavity"  
H. Tanji-Suzuki, N. Yamazaki, A. Sakurai, and Y. Matsuyama (The University of Electro-communications, Japan)

PPS4 "Photo-Assisted Anodic Electrodeposition of Tungsten Oxide Thin Films"  
J. Sasano, T. Sakai, K. Nishiyama, S. Yokoyama, and M. Izaki (Toyohashi University of Technology, Japan)

PPS5 "Development of A Wideband Heterodyne Receiver for Radio Astronomy"  
T. Sakai, H. Yamaya, K. Takagi, T. Kojima, A. Gonzales, S. Asayama, W. Shan, and T. Noguchi (The University of Electro-Communications, National Astronomical Observatory of Japan, Japan)

PPS6 "Formaldehyde Gas Sensing by Amine Contained PMMA Nanofiber"  
R. Kato, Y. Ishii, and T. Hattori (Toyohashi University of Technology, Japan)

PPS7 "Materials for sEMG Sensor Used in Daily Life to Control Prosthetic Hand"  
Y. Jiang, Y. Murai, S. Togo, Y. Yabuki, and H. Yokoi (The University of Electro-communications, Japan)

- PPS8 "Fabrication of Biocompatible Polymer Nanosheets for Biomedical Applications"  
Y. Okamura, and H. Zhang (Tokai University, Japan)
- PPS9 "Interface Engineering of Colloidal Quantum Dot-based Solar Cells for Improving the Energy Conversion Efficiency"  
Q. Shen, Y. H. Zhang, C. Ding, F. Liu, N. Nakazawa, S. Ozu, Y. Kitabatake, K. Katayama, and T. Toyoda (The University of Electro-Communications, Chuo University, Japan)

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01GSS (Graduate Student Session)

- GSS1-1 "Synthesis of multifunctional clustered nano-Fe<sub>3</sub>O<sub>4</sub> chitosan nanocomposite for biomedical applications"  
M. E. Villamin, and Y. Kitamoto (Tokyo Institute of Technology, Japan)
- GSS1-2 "Effects of introduced functionalities on fluorescence and binding properties of Thioflavin T"  
Y. Kataoka, H. Fujita, and M. Kuwahara (Gunma University, Japan)
- GSS1-3 "Synthesis of N-Hydroxysuccinimide from Succinic Acid and Hydroxylammonium Chloride using Reusable Solid Base Catalyst"  
S. L. Dinh, S. Nishimura, and K. Ebitani (Japan Advanced Institute of Science and Technology, Japan)
- GSS1-4 "Unexpected Complexes from meta-Phenylene Bis(tert-butyl Nitroxides) and Gadolinium(III) 1,1,1,5,5,5-Hexafluoropentane-2,4-dionate"  
H. Sekine, and T. Ishida (The University of Electro-Communications, Japan)
- GSS1-5 "Study on Liquid-phase Detection of Analytes with Fe<sub>3</sub>O<sub>4</sub> Nanorods"  
K. Yasuda, and Y. Kitamoto (Tokyo Institute of Technology, Japan)
- GSS1-6 "Influence of relaxation time distribution of ferrofluid to magnetic harmonic signal"  
S. Oda, and Y. Kitamoto (Tokyo Institute of Technology, Japan)
- GSS1-7 "Substituent Effect in Spin-Crossover Behavior of Pybox-iron(II) Complexes (Pybox = 2,6-Bis(oxazolin-2-yl)pyridine)"  
A. Kimura, and T. Ishida (The University of Electro-Communications,
- GSS1-8 "Study on acoustic effect of magnetic fluids stimulated by applying alternating magnetic fields"  
M. Nakanishi1, and Y. Kitamoto (Tokyo Institute of Technology, Japan)

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01PM1 session

- 01PM1-1 <Invited 4>"New Piezoelectric and Thermoelectric Materials"  
Jing-Feng Li (Tsinghua University, China)

- 01PM1-2 <Invited 5>"Novel Fabrication Process of Advanced Composite Materials via Electrostatic Adsorption Assembly Technique"  
Hiroyuki Muto (Toyohashi University of Technology, Japan)
- 01PM1-3 <Invited 6>"Interdisciplinary Research Around Material Sciences: Trend From Bibliometric Analysis"  
Fumitaka Yanagisawa (Clarivate Analytics, Japan)
- 01PM1-4 <Invited 7>"A Secret and Sophisticated Japanese Food Tradition, Koji"  
Hiroshi Konno (Akita Konno Co., Ltd., Japan)
- 01PM1-5 <Invited 8>"CYBORG INSECT: Insect-Computer Hybrid Machine for Flight and Walking Control"  
Hirotaka Sato (Nanyang Technological University, Singapore)
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02AM1 session

- 02AM1-1 <Invited 9>"Production of the Cocoons Containing Recombinant Silks: Regulation and Realization"  
Shuichiro Tomita (National Agriculture and Food Research Organization, Japan)
- 02AM1-2 <Invited 10>"Maglev and Superconducting Technology"  
Ken Nagashima (Railway Technical Research Institute, Japan)
- 02AM1-3 <Invited 11>"Fabrication of PZT Thin Film Actuator and Microneedle pH Sensor by RF Magnetron Sputtering Method"  
Kazuyoshi Tsuchiya (Tokai University, Japan)
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02AM2 session

- 02AM2-1 <Contributed Talk 1>"Bioactivities in the Tamarind seed extracts – a preliminary study"  
S. Garg, T. Muangman, H. Huifu, L. Ling, S. Kaul, and R. Wadhwa (National Institute of Advanced Industrial Science and Technology, University of Tsukuba, Japan; Thailand Institute of Scientific and Technological Research, Thailand)
- 02AM2-2 <Contributed Talk 2>"Improvement of Solar Cell Characteristics by Using Quantum-Dot Superlattice Prepared by Sedimentation Method"  
Y. Ishida, and K. Mukai (Yokohama National University, Japan)
- 02AM2-3 <Contributed Talk 3>"Single Quantum Dots on an Optical Nanofiber at Cryogenic Temperature"  
K. M. Shafi, W. Luo, R. R. Yalla, M. Morinaga, K. Hakuta, K. Iida, E. Tsutsumi, and A. Miyayama (University of Electro-Communications, NS Materials Inc., Japan)

02AM2-4 <Contributed Talk 4>"Study of Carrier Behavior in Organic–Inorganic Hybrid Perovskite Materials by using Optical Spectroscopic Method"  
L. L. Y. Win, T. Manaka, and M. Iwamoto (Tokyo Institute of Technology, Japan)

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02GSS (Graduate Student Session)

- GSS2-1 "Convolutional neural network based video identification system for content management system with optical correlator"  
R. Usami, H. Suzuki, K. Ikeda, and E. Watanabe (University of Electro-Communications, Japan)
- GSS2-2 "Gas-imaging system “Sniff-cam” based on pH-dependent redox reactions of alcohol dehydrogenase for ethanol and acetaldehyde after drinking"  
K. Iitani, T. Sato, K. Toma, T. Arakawa, and K. Mitsubayashi (Tokyo Medical and Dental University, Japan)
- GSS2-3 "Formation of adequate donor-acceptor vertical concentration gradients in polymer solar cell active layers"  
S. Inaba, and V. Vohra (The University of Electro-Communications, Japan)
- GSS2-4 "Effects of CsBr on the performance of  $\text{CH}_3\text{NH}_3\text{PbI}_{3-x}\text{Cl}_x$ -based solar cells"  
N. Ueoka, T. Oku, A. Suzuki, H. Sakamoto, M. Yamada, S. Minami, and S. Tsukada (The University of Shiga Prefecture, Osaka Gas Co., Ltd., Osaka Gas Chemicals Co., Ltd., Japan)
- GSS2-5 "Fabrication of NIR-Responsive  $\text{NaYF}_4:\text{Yb},\text{Tm}/\text{anatase TiO}_2$  Composite Aerogel"  
F.-C. Li, and Y. Kitamoto (Tokyo Institute of Technology, Japan)
- GSS2-6 "Structural stability of the Se-treated GaAs(111)B surface"  
S. Goto, A. Ohtake, A. Akaishi, and J. Nakamura (The University of Electro-Communications, National Institute for Materials Science (NIMS),
- GSS2-7 "Softly-confined water cluster between free standing graphene sheets"  
R. Agustian, A. Akaishi, and J. Nakamura (The University of Electro-Communications, CREST, Japan Science and Technology Agency, Japan)
- GSS2-8 "Preparation of Graphite Dispersed Copper Composite on Copper Plate with  $\text{CO}_2$  Laser"  
S. Yokoyama, Y. Ishikawa, M. N. A. Muizz, M. N. N. Hisyamudin, K. Nishiyama, J. Sasano, and M. Izaki (Toyohashi University of Technology, Japan; Universiti Tun Hussein Onn Malaysia, Malaysia)
- GSS2-9 "Oriented conjugated polymer films with polarized photoluminescence properties."  
T. Anzai, and V. Vohra (The University of Electro-Communications, Japan)

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02PM1 session

- 02PM1-1 <Invited 12>"Polymers and Water Processed Polymeric Nanoparticles as Materials for Solution Manufacturing of Optoelectronic and Electronic Devices"  
Silvia Destri (Istituto per lo Studio delle Macromolecole del Consiglio Nazionale delle Ricerche, Italy)
- 02PM1-2 <Invited 13>"Novel Superfluid Response of 4He Confined in One-Dimensional Nanotube"  
Junko Taniguchi (University of Electro-Communications, Japan)
- 02PM1-3 <Contributed Talk 5>"On Autonomous Driving: LIDAR Based Mapping and Localization Systems (Problems and Challenges)"  
M. Aldibaja, N. Suganuma, and K. Yoneda (Kanazawa University, Japan)

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Session: Diversity in academia and industry

- D1 <Invited 14>"The Innovation and Diversity"  
Zane Zumbahlen (IBM Japan, Japan)
- D2 <Invited 15>"Must the Nail That Sticks Out Be Hammered In? Diversity and Inclusion in the New Japan"  
Janelle Sasaki (Ernst & Young Advisory & Consulting Co., Ltd., Japan)
- D3 <Invited 16>"We need a new leadership"  
Miyoko Kojima (Ourshare Co., Ltd., Lifeshift Japan Co., Ltd., non profit organization GEWEL, Japan)