
Session 4

Poster session program

November 6 (Thursday) 16:00-18:00

- P-01 Physical Properties of Charge-Transfer Complexes of Threefold Symmetric TTF Derivatives and F₄TCNQDual Metal Ion Selective Sensing by Newly Designed NIR Sensitive Probes
Fumiya Hirose, Hirohisa Oishi, Yuto Kimura, Ryo Tsunashima, Sadafumi Nishihara, Tomoyuki Akutagawa, Takayoshi Nakamura, Tsuyoshi Minami, Yoko Tatewaki
Department of Applied Chemistry, Tokyo University of Agriculture and Technology, Japan
- P-02 Deposition and Characterization of Ph-BTBT-10 on Hf_{0.5}Zr_{0.5}O₂ Gate Insulator for Organic Ferroelectric Memory Applications
Towa Nakazawa, Daiji Kitamura, Kazuto Koike, Nobuya Hiroshiba
Nanomaterials Microdevices Research Center, Graduate School of Engineering, Osaka Institute of Technology, Japan
- P-03 Fabrication of Electroactive Supercoiled Polymer Artificial Muscles with Multiplexed Conductive Thread for Output Enhancement
Kazuuya Tada
Department of Electrical Materials and Engineering, University of Hyogo, Japan
- P-04 Fabrication and Characterization of Wet-spun PEDOT:PSS/CNT composite fibers
Hiroki Yamakawa, Naoki Kishi
Department of Electrical and Mechanical Engineering, Nagoya Institute of Technology, Japan
- P-05 Electromagnetic Shielding Properties of Stretchable Nanocarbon Composites
Koyo Honda, Naoki Kishi
Department of Electrical and Mechanical Engineering, Nagoya Institute of Technology, Japan

- P-06 Calculation of Metal-Insulator Phase Transition Dynamics under Various External Electric Field and Band Filling
Ryo Watanuki, Ryota Kobayashi, Ryosuke Ando, Masatoshi Sakai
Department of Electrical and Electronic Engineering, Chiba University, Japan
- P-07 Implementation of DPP-TTT as Charge Transport Layer for Enhancing the Performance in PQT-Based Organic Phototransistors
Ryunosuke Someya, Harshita Rai, Kumar Vivek Gaurav, Shyam S. Pandey
*Graduate School of Life Science and Systems Engineering,
Kyushu Institute of Technology, Japan*
- P-08 Design of spin-coatable dichroic mirrors using simulated annealing
Junki Hayazawa¹, Tatsunosuke Matsui¹, Hirotake Kajii²
¹ *Department of Electrical and Electronic Engineering, Graduate School of Engineering,
Mie University, Japan*
² *Graduate School of Engineering, The University of Osaka, Japan*
- P-09 Development and characterization of sidechain electro-optic polymers with methoxy adamantane methacrylate and isocyanatoethyl methacrylate co-polymer
Toshiki Yamada¹, Koichi Tanaka¹, Chiyumi Yamada¹, Shu Ohara¹, Takahiro Kaji¹, Akira Otomo¹, Kouki Tsubaki², Tomoya Mizumori²
¹ *National Institute of Information and Communications Technology, Japan*
² *Osaka Organic Chemical Industry LTD, Japan*
- P-10 Photo- and Thermally Induced Light-Controlling Behavior of Liquid Crystals Containing π -Conjugated Molecules
Hyouta Tamura¹, Aika Kubo², Shouta Arai¹, Motoi Kinoshita^{1,2}
¹ *Department of Life Science & Green Chemistry, Faculty of Engineering,
Saitama Institute of Technology, Japan*
² *Department of Life Science & Green Chemistry, Graduate School of Engineering,
Saitama Institute of Technology, Japan*

- P-11 Inkjet-Printed Fabrication of CuSCN/CA Multilayer Bragg Reflectors
Kenshin Nakahama¹, Tatsuo Mori¹, Yusuke Ichino¹, Keishiro Goshima¹,
Noriyuki Taoka¹, Hideo Kishida², Yuto Nakamura², Yoshiyuki Seike^{1,3}
¹ *Graduate School of Engineering, Aichi Institute of Technology, Japan*
² *Graduate School of Engineering, Nagoya University, Japan*
³ *la quaLab LLC., Japan*
- P-12 Atmospheric Helix Plasma-Induced Organic Functionalization of PTFE and Chitosan
Immobilization for Enhanced Interfaces
Chun Huang, Wei-Fan Jiang, Yu-Jie Wu
Department of Chemical Engineering & Materials Science, Yuan Ze University, Taiwan
- P-13 Electron Transport Enhanced by SAM Modification in TIPS-Pentacene OFET
Keisuke Suzuki, Dai Taguchi, Takaaki Manaka
School of Engineering, Science Tokyo, Japan
- P-14 Photosensitivity Improvement of Pentacene Thin Film Phototransistors Using AuNP
Layer in a Patch-like Structure
Hayato Yoshimura¹, Tianshuo Wang¹, Layheng Chea¹, Masahiro Minagawa²,
Sachiko Jonai¹, Yasuo Ohdaira¹, Akira Baba¹, Kazunari Shinbo¹
¹ *Graduate School of Science and Technology, Niigata University, Japan*
² *Department of Electronic and Control Engineering,
Nagaoka National Institute of Technology, Japan*
- P-15 Study of exciplex upconversion-type OLEDs using 9,10-diphenylanthracene as the donor
layer
Koki Matsunaga¹, Masahiro Morimoto², Shigeki Naka²
¹ *Graduate School of Science and Engineering, University of Toyama, Japan*
² *Faculty of Engineering, Academic Assembly, University of Toyama, Japan*

- P-16 Fabrication of InP-type quantum dot films using electrophoretic deposition on solution-processed distributed Bragg reflectors for application in color conversion-type organic light-emitting devices
Hinata Kimura¹, Hirotake Kajii¹, Maowei Huang¹, Shintaro Toda², Masahiko Kondow¹
¹ *Graduate School of Engineering, The University of Osaka, Japan*
² *ULVAC–The University of Osaka Joint Research Laboratory for Future Technology, Japan*
- P-17 Fabrication of the multilayered polymer-based LEDs with blue quantum dot emitter
Yuki Minakawa, Taisei Kamada, Riki Masui, Eiji Itoh
Electrical and Computer Engineering, Shinshu University, Japan
- P-18 Solution-processed top-gate organic transistors using slot-die coating and their application to memory devices
Ryo Endo¹, Takashi Kobayashi^{1,2}, Hiroyoshi Naito^{2,3,4}, Takashi Nagase^{1,2}
¹ *Department of Physics and Electronics, Osaka Metropolitan University, Japan*
² *The Research Institute for Molecular Electronic Devices (RIMED), Osaka Metropolitan University, Japan*
³ *Department of Applied Chemistry, Osaka Metropolitan University, Japan*
- P-19 Performance enhancement of upconversion organic light-emitting diodes using soluble fullerenes with long alkyl substitutes
Kazuki Kojima¹, Moeto Okuda¹, Takashi Kobayashi^{1,2}, Hiroyoshi Naito^{2,3,4}, Takashi Nagase^{1,2}
¹ *Department of Physics and Electronics, Osaka Metropolitan University, Japan*
² *The Research Institute for Molecular Electronic Devices (RIMED), Osaka Metropolitan University, Japan*
³ *Department of Applied Chemistry, Osaka Metropolitan University, Japan*
⁴ *Ritsumeikan Semiconductor Application Research Center (RISA), Ritsumeikan University, Japan*

- P-20 Fabrication of near-infrared Schottky barrier photodetectors on plasmonic nanostructure
Supakeit Chanarsa^{1,2,3}, Apichat Phengdaam⁴, Kazunari Shinbo¹, Kontad Ounnunkad^{2,3}, Akira Baba¹
¹ *Graduate School of Science and Technology and Faculty of Engineering, Niigata University, Japan*
² *Department of Chemistry, Faculty of Science, Chiang Mai University, Thailand*
³ *Center of Excellence for Innovation in Chemistry, Faculty of Science, Chiang Mai University, Thailand*
⁴ *Division of Physical Science, Faculty of Science, Prince of Songkla University, Thailand*
- P-21 Improving morphology stability in PffBT4T-2OD: ITIC bulk heterojunction blends via solvent additives
Tzu-Yen Huang
Neutron Group, National Synchrotron Radiation Research Center, Taiwan
- P-22 Amino acid-assisted Synthesis of SnO₂ Nanoparticles for Electron Transport Layer to Enhance Efficiency and Stability of Perovskite Solar Cells
Watcharapong Pudkon¹, Araya Ruengsuk², Thanawat Kanlayapattamapong², Theerapat Arpornrat⁴, Duangmanee Wongratanaphisan³, Pipat Ruankham³
¹ *Office of Research Administration, Chiang Mai University, Thailand*
² *Ph.D. Program in Nanoscience and Nanotechnology (International Program/Interdisciplinary), Faculty of Science, Chiang Mai University, Thailand*
³ *Department of Physics and Materials Science, Faculty of Science, Chiang Mai University, Thailand*
- P-23 Photocarrier Dynamics in Perovskite Solar Cells: Analysis using Light-Triggered Time Domain Reflectometry
Ryuuya Inakawa, Ryuichi Tokuyama, Rikuto Matsumoto, Yuto Ishimatsu, Ruoxue Zhang, Tatsuya Omori, Masatoshi Sakai
Department of Electrical and Electronic Engineering, Chiba University, Japan
- P-24 Study of cathode buffer layers in rubrene/fullerene organic photovoltaics
Kosuke Umeyama¹, Masahiro Morimoto², Shigeki Naka²
¹ *Graduate School of Science and Engineering, University of Toyama, Japan*
² *Faculty of Engineering, Academic Assembly, University of Toyama, Japan*

- P-25 Preparation and Characterization of Organic Phototransistor Utilizing Plasmonic Organic Solar Cell
T. Wang¹, T. Watanabe¹, L. Chea¹, R. Ek¹, M. Minagawa², S. Jonai¹, Y. Ohdaira¹, A. Baba¹, K. Shinbo¹
¹ *Graduate School of Science and Technology, Niigata University, Japan*
² *Department of Electronic and Control Engineering, Nagaoka National Institute of Technology, Japan*
- P-26 Localized surface plasmon resonance enhanced organic solar cell using gold nanostars
Yuting Miao¹, Naritsara Kornkanlaya^{1,2}, Kanet Wongravee², Sachiko Jonai¹, Kazunari Shinbo¹, Sanong Ekgasit², Akira Baba¹
¹ *Graduate School of Science and Technology and Faculty of Engineering, Niigata University, Japan*
² *Chulalongkorn University, Thailand*
- P-27 Layer-Engineered CVD Graphene: Boosting Efficiency in Organic Solar Cells
Pathomporn Chaikhao^{1,2}, Akira Baba¹, Sukkaneste Tungasmita²
¹ *Graduate School of Science and Technology, Niigata University, Japan*
² *International Program of Nanoscience and Technology, Graduated School, Chulalongkorn University, Thailand*
- P-28 Electrospray Deposition of Carrier Transport Layers for Fiber-type Perovskite Solar Cell
Kensei Ueyama¹, Tatsuo Mori¹, Yusuke Ichino¹, Noriyuki Taoka¹, Yuki Ikumi³, Taishi Segawa³, Mikihiro Kato³, Ryosuke Usui³, Keiji Miyachi³, Yoshiyuki Seike^{1,2}
¹ *Graduate School of Engineering, Aichi Institute of Technology, Japan*
² *la quaLab LLC, Japan*
³ *Asahi Sunac corporation, Japan*
- P-29 Studies on Photoelectric Conversion Mechanism of BHJ OSCs by Impedance Spectroscopy
Azusa Miwa¹, Taiki Yamaoka¹, Naohiro Takahashi¹, Tomoki Nishiyama^{1,2}, Hirotaka Kitoh-Nishioka¹, Senku Tanaka¹, Takashi Okubo¹
¹ *Faculty of Science Engineering, Kindai University, Japan*
² *Institute for Materials Research, Tohoku University, Japan*

- P-30 Influence of Alkyl Chain Length in Platinum(II) Complexes as Non-Fullerene Acceptors for Organic Thin-Film Solar Cells
Taiki Yamaoka¹, Tomoki Nishiyama^{1,2}, Naohiro Takahashi¹, Hiroataka Kitoh-Nishioka¹, Senku Tanaka¹, Takashi Okubo¹
¹ *Faculty of Science and Engineering, Kindai University, Japan*
² *Institute for Materials Research, Tohoku University, Japan*
- P-31 Electrochemical–Surface Plasmon Resonance Coupled Photoelectrochemical Biosensor Based on PEDOT:PSS/Gold Nanoparticles Thin Film
Charin Seesomdee, Sachiko Jonai, Kazunari Shinbo, Akira Baba
Graduate School of Science and Technology, Niigata University, Japan
- P-32 High-Sensitivity pH Sensors Based on Ga₂O₃ Mixed Thin Films Prepared by Chemical Solution Deposition toward Biosensing Applications
Ryosuke Matuo, Aoi Yamamoto, Yuichi Hirofuji, Kazuto Koike, Nobuya Hiroshiba
Nanomaterials Microdevices Research Center, Graduate School of Engineering, Osaka Institute of Technology, Japan
- P-33 Efficient Indoor Light Harvesting by Bifacial Dye-Sensitized Solar Cells utilizing Newly Designed Squaraine Dye and Visible Dye
Anushka Tyagi, Shyam S. Pandey
Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology, Japan
- P-34 Effect of Elastomer Content on the Electrical and Mechanical Properties of PEDOT:PSS/Elastomer Composites
Kota Matsuyuki, Naoki Kishi
Department of Electrical and Mechanical Engineering, Nagoya Institute of Technology, Japan
- P-35 Relationship between the polyimide thickness and the outputs of water droplet-based electricity generator consisting of ITO/polyimide/WO₃/fluoropolymer films
Weining Ying, Eiji Itoh
Faculty of Engineering, Shinshu University, Japan

- P-36 Smartphone-operated NFC electrochemical platform for enzymatic glucose detection using a 2D MoWSe₂ bioelectrode
Siriporn Anuthum¹, Jaroon Jakmunee^{1,2}, Kontad Ounnunkad^{1,2}
¹ *Department of Chemistry, Faculty of Science, Chiang Mai University, Japan*
² *Center of Excellence for Innovation in Chemistry, Faculty of Science, Chiang Mai University, Thailand*
- P-37 Accurate Human IgG Detection by Using a Solution-Gated P3HT FET with Incorporation of Graphene Oxide
Reaksmev Ek, Layheng Chea, Tainshuo Wang, Akira Baba, Kazunari Shinbo
Graduate School of Science and Technology, Niigata University, Japan
- P-38 Efficient Chemosensor Based on NIR Squaraine Dye for Swift and Selective Detection of Calcium Ion
Priyanka Raj, Sushma Thapa, Shyam S. Pandey
Graduate School of Life Science and System Engineering, Kyushu Institute of Technology, Japan
- P-39 Fabrication of MoS₂@g-C₃N₄-Based Electrochemical Sensor for Sensitive Detection of Chlorpyrifos Pesticides
Himshikha Malviya, Jay Singh
Department of Chemistry, Institute of Sciences, Banaras Hindu University, India
- P-40 Label-free detection of the C-reactive protein for tuberculosis disease monitoring by using Bi_(0.10) CuFe₂O₄ Trimetallic Nanoparticles Hydrothermally synthesized via green route Method
Astha Singh¹, Siddhima Singh¹, Neelottma Singh¹, Jay Singh²
¹ *Sam Higginbottom University of Agriculture, Technology and Sciences, India*
² *Banaras Hindu University, India*
- P-41 Structural Tuning of Squaraine-Based Chemosensor for Selective and Efficient Cu²⁺ ion Detection
Sushma Thapa, Shyam S. Pandey
Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology, Japan

- P-42 Improving dispersibility in natural graphite with TEMPO oxidized cellulose nanofiber and application for electrodes of inorganic EL devices
Kento Kojiro, Yuka Sasabe, Asami Ohtake, Koichi Sakaguchi
Department of Chemistry and Applied Chemistry, Saga University, Japan
- P-43 Design Guidelines for Dielectric Materials in Droplet-Based Electricity Generators: Insights from Ti-PDMS Hybrids
Yusuke Aoki
Graduate School of Engineering, Mie University, Japan