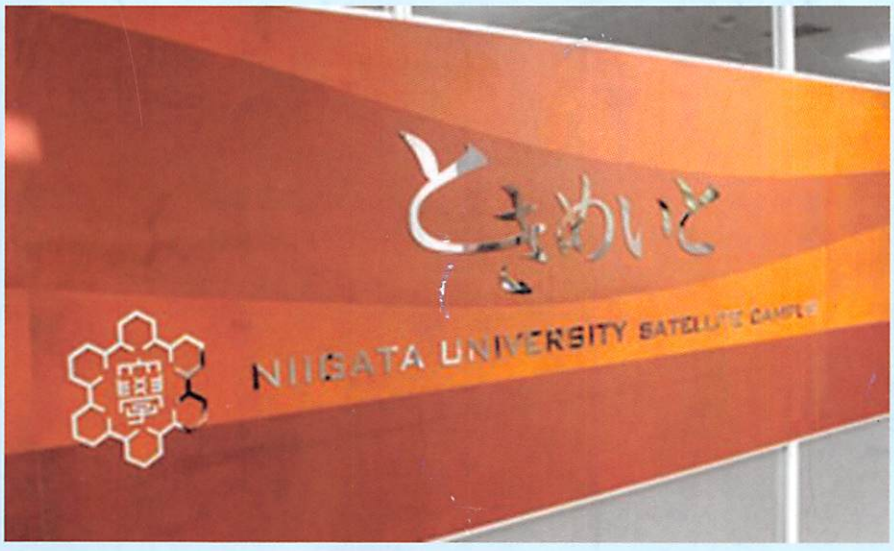
9th International Symposium on Organic Molecular Electronics (ISOME 2016)



Book of Abstracts

May 18 - 20, 2016

TOKIMATE

Niigata University Satellite Campus

Niigata, Japan

The Institute of Electronics, Information and Communication Engineers(IEICE)
電子情報通信学会

Electronics Society

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電子情報通信学会

Electronics Society

9th International Symposium on Organic Molecular Electronics (ISOME 2016)

May 18 - 20, 2016

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Niigata, Japan

Organized by

Technical Committee on Organic Molecular Electronics, Electronics Society of The Institute of Electronics, Information, and Communication Engineers (IEICE)

Supported by

- Electronics Society of The Institute of Electronics, Information, and Communication Engineers (IEICE)
- Division of Molecular Electronics and Bioelectronics, The Japan Society of Applied Physics (JSAP)
- Niigata Prefecture
- Niigata Visitors & Convention Bureau
- Niigata University

In cooperation with

- Technical Committee on Dielectric and Electrical Insulation Materials, The Institute of Electrical Engineers of Japan (IEEJ)
- Investigating R&D Committee on Advanced Nanostructure Control for High-Performance Organic Devices and Life Science, IEEJ
- "Development of Ultrafunctionalized and Innovative Nanostructured Electronic Devices " Project, Center for Transdisciplinary Research, Niigata University

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Preface

Welcome to the 9th International Symposium on Organic Molecular Electronics (ISOME 2016) being held from May 18 to 20, 2016 at Niigata University Satellite Campus (Ekinan-Campus) "*TOKIMATE*" in Niigata, Japan. The ISOME is organized by the Electronics Society of Institute of Electronics, Information and Communication Engineers (IEICE). This is the 9th in a series of the biennial conference that began in Nagoya University in 2000, continued in Riken (Saitama), Kyoto University, Saitama University, University of Hyogo, Chiba University, NTT Musashino R&D Center (Tokyo), Tokyo University of Agriculture and Technology, and now Niigata University.

On behalf of the organizing committee, I would like to express our sincere thanks to three plenary lecturers and fifteen invited speakers, who are internationally distinguished researchers. This symposium has been the most important international conference of IEICE in the field of organic electronics, and has formed landmarks along the development of academic and technological progress in this field. A
lthough the size of symposium is moderate, the active discussions among the leading scientists from diverse background nourish innovative and interdisciplinary concepts that can lead to breakthrough inaccessible by the conventional technology. We strongly believe that this symposium enhances your researches for upcoming years and provides you with invaluable experiences. We also hope that research interchange advances more and more through this symposium. Authors at ISOME 2016 are encouraged to submit original contributed papers on the significant part of their work to the Special Section on "Recent Progress in Organic Molecular Electronics" in the IEICE Transactions on Electronics, to be published in February 2017.

This symposium is supported by the Division of Molecular Electronics and Bioelectronics of Japan Society of Applied Physics, Niigata Prefecture, Niigata Visitors & Convention Bureau, and Niigata University. I would like to express my sincere appreciation to all the committee members. The organizing committee expresses sincere thanks to all the participants who we owe the success of this symposium. Finally, we hope you enjoy the symposium and take full opportunity to explore Niigata City.

May 2016

Keizo Kato

Keizo Kato
ISOME 2016 Conference Chair
Professor, Niigata University

ISOME 2016 Organizing Committee

Chair Keizo Kato (Niigata University)

Vice-chair Naoki Matsuda (AIST)
Tatsuo Mori (Aichi Institute of Technology)

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Tomohiko Mori (Toyota Central R&D Labs.)
Sigeki Naka (Universitry of Toyama)
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Secretariat Hirotake Kajii (Osaka University)
Akihiro Kohno (NTT)
Takao Someya (University of Tokyo)
Dai Taguchi (Tokyo Institute of Technology)

Local Arrangements Committee

Chair Keizo Kato (Niigata University)

Members Akira Baba (Niigata University)
Chutiparn Lertvachirapaiboon (Niigata University)
Kazunari Shinbo (Niigata University)

General Information

Scope and Topics

The symposium covers various aspects of organic materials that are related to electronic applications, including insulators, semiconductors, conductors, optic materials, magnetic materials, and biomaterials. Their applications extend to such fields as transistors, memories, displays, photovoltaics, optical devices, energy devices, sensors, actuators, and bioelectronics. The topics related to basic physics and chemistry, material development, process technologies, devices and applications are covered in this symposium. The ISOME 2016 aims to bring up new buds on the research of these issues.

Date and Venue

Date: May 18 - 20, 2016
Venue: Niigata University Satellite Campus (Ekinan-Campus) "TOKIMATE"
(1-1 Sasaguchi, Chuo-ku, Niigata 950-0911, Japan, http://www1.niigata-u.ac.jp/tokimate/access.html)

Abstract Submission

Please submit an abstract (A4 size, either 1 or 2 pages) together with the submission form by e-mail to the ISOME 2016 Secretariat (isome2016@eng.niigata-u.ac.jp) **by *April 1, 2016***. The abstract template and the submission form can be downloaded from the ISOME 2016 website: http://www.ieice.or.jp/es/ome/ISOME/.

Registration

Pre-registration (on or before April 21) : JPY 25,000 for a regular or JPY 10,000 for a student
Regstaration on and after April 22 : JPY 30,000 for a regular or JPY 15,000 for a student
Banquet fee: JPY 3,000
[Registration form and related information are available on the ISOME 2016 website.]

Submission to IEICE Transactions on Electronics

The IEICE Transactions on Electronics announces a forthcoming special section on "Recent Progress in Organic Molecular Electronics" to be published in **February 2017**. The participants are strongly encouraged to submit their manuscripts either as a full paper or a brief paper of the journal. The deadline for submission is ***May 31, 2016***. The submitted papers undergo regular process of peer reviewing. Please consult the ISOME 2016 website.

Information for Presentation

For Oral Presentation

- Plenary Speakers: 40 min (35 min for presentation and 5 min for discussion)
- Invited Speakers: 25 min (20 min for presentation and 5 min for discussion)
- Contributed Speakers: 15 min (10 min for presentation and 5 min for discussion)
- Contributed Speakers of Student Oral Session: 13 min (8 min for presentation and 5 min for discussion)
- A notebook PC (HP ProBook 6570b/CT, OS: Win7, MS Office 2013) is set up for the presentation.

For Poster Presentation

- The size of the poster board is 800 mm (width)×1650 mm (height).
- Pins are provided at the poster area.
- The posters should be on display throughout the day of the poster presentation (9:00-17:00 of May 19th).
- All the poster presenters are required to be present at their posters according the session schedule.

Welcome Reception

The Welcome Reception is held at the hall "Echigo Higashi" on the 4th floor of the Hotel Lungwood Niigata (http://www.lungwood.com/niigata/) from 18:30 to 20:30 on May 18. The Hotel Lungwood Niigata is in the same building as the conference venue. All the participants are welcome to the Welcome Reception.

Banquet

The Banquet is held at the Japanese-style restaurant "Kaisenya Negibozu" (http://www.yonekura-group.jp/negi/) from 19:00 to 21:00 on May 19. Please apply for an early registration if you plan to participate in the Banquet. The number of the participants of the Banquet is limited. The participation application of the day may be impossible.

Contact

ISOME2016 website: http://www.ieice.or.jp/es/ome/ISOME/
ISOME2016 Secretariat: isome2016@eng.niigata-u.ac.jp

ISOME 2016 Schedule

	May 18 (Wednesday)	May 19 (Thursday)	May 20 (Friday)
Morning		**Registaration (8:30～17:30)** **Plenary Lecture 2** **(9:00～9:40)** PL-2 (invited) *S.W. Lee* **Session 2 (9:40～10:45)** I2-1 (invited) *O.L. Li* I2-2 (invited) *S. Yokoyama* O2-1 *T. Yamada* **Session 3 (11:00～12:05)** I3-1 (invited) *M. Karakawa* I3-2 (invited) *D. Yokoyama* O3-1 *T. Fukuda*	**Registaration (8:30～11:00)** **Plenary Lecture 3** **(9:00～9:40)** PL-3 (invited) *M. Onoda* **Session 7 (9:40～11:00)** I7-1 (invited) *Y.Y. Noh* I7-2 (invited) *T. Kerdcharoen* O7-1 *K. Kudo* O7-2 *N. Matsuda* **Session 8 (11:15～12:35)** I8-1 (invited) *J.H. Shim* I8-2 (invited) *E. Itoh* O8-1 *A. Tomioka* O8-2 *K. Sakaguchi*
Afternoon	**Registration (14:00～17:30)** **Opening Remarks** **(15:00～15:05)** **Plenary Lecture 1** **(15:05～15:45)** PL-1 (invited) *M. Iwamoto* **Session 1 (16:00～18:00)** I1-1 (invited) *T. Wong* I1-2 (invited) *H. Nakanotani* I1-3 (invited) *G. Motomura* O1-1 *A. Ariyarit* O1-2 *V.O. Eze* O1-3 *T. Matsushima*	**Poster Session** **(12:15～14:00)** **Session 4 (14:10～15:30)** I4-1 (invited) *C.D. Frisbie* I4-2 (invited) *H. Li* O4-1 *S.S. Pandey* O4-2 *T. Manaka* **Session 5 (15:45～16:50)** I5-1 (invited) *C.A. Nijhuis* I5-2 (invited) *K. Ueno* O5-1 *H. Sakai* **Session 6 (17:05～18:36)** O6-1 *H. Miura* O6-2 *A. Ohtake* O6-3 *A. Pangdam* O6-4 *C.M. Tran* O6-5 *Y. Ju* O6-6 *H. Sato* O6-7 *Y. Nakamura*	**Closing Ceremony** **(12:35～12:50)**
Evening	**Welcome Reception** **(18:30～20:30)**	**Banquet** **(19:00～21:00)**	

ISOME 2016 Program

May 18 (Wednesday)

Registration 14:00-17:30

Opening Remarks

15:00-15:05 Welcome Address
Conference Chair
Keizo Kato (Niigata University, Japan)

Plenary Lecture 1

Chairperson: Keizo Kato (Niigata University)

15:05-15:45 PL-1 (Invited)
Dielectric Physics Approach for Visualizing Carrier Motion in Organic Materials and Device
Mitsumasa Iwamoto
Department of Physical Electronics, Tokyo Institute of Technology, Japan

15:45-16:00 Coffee Break

Session 1 == *OLEDs and Perovskite Materials* ==

Chairpersons: Christian A. Nijhuis (National University of Singapore)
Hirotake Kajii (Osaka University)

16:00-16:25 I1-1 (Invited)
Highly Efficient Exciplex-based OLEDs
Ken-Tsung Wong
Department of Chemistry, National Taiwan University, and Institute of Atomic and Molecular Science, Academia Sinica, Taiwan

16:25-16:50 I1-2 (Invited)
Highly Efficient Organic Light-Emitting Diodes Exploiting Thermally Activated Delayed Fluorescence
Hajime Nakanotani, and Chihaya Adachi
Center for Organic Photonics and Electronics Research (OPERA), Kyushu University, Japan

16:50-17:15 I1-3 (Invited)
Fabrication and Durability of Flexible Displays Using Air-Stable Inverted Organic Light-Emitting Diodes
Genichi Motomura, Toshimitsu Tsuzuki, Yoshiki Nakajima, Tatsuya Takei, Mitsuru Nakata, Hirohiko Fukagawa, Takahisa Shimizu, Yoshihide Fujisaki, and Toshihiro Yamamoto
Science & Technology Research Laboratories, Japan Broadcasting Corporation (NHK), Japan

17:15-17:30 O1-1
Study and Characterize of Crystallization of Lead Halide Perovskite on Tin Oxide Layer
Atthaporn Ariyarit[1], Ryohei Yoshikawa[1], Issei Takenaka[1], Gillot Frédéric[2], and Seimei Shiratori[1]
[1]School of Integrated Design Engineering, Keio University, Japan
[2]Laboratoire de Tribologie et Dynamique des Syst`emes, Ecole Centrale de Lyon, France

17:30-17:45 O1-2
Benefit of Solvent Annealing for $MAPbI_3$ Planar Perovskite Solar Cells Fabricated by One-Step Spin-coating and Antisolvent Bath Methods
Vincent Obiozo Eze, Takanori Yagi, and Tatsuo Mori
Department of Electrical and Electronics Engineering, Graduate School of Engineering, Aichi Institute of Technology, Japan

17:45-18:00 O1-3
Realization of High Carrier Mobilities in Organic-Inorganic Perovskite Films
Toshinori Matsushima[1,2], Sunbin Hwang[1], Atula S. D. Sandanayaka[1,2], Chuanjiang Qin[1,2], Shinobu Terakawa[1], Takashi Fujihara[3], Masayuki Yahiro[3], and Chihaya Adachi[1-4]
[1]OPERA, Kyushu University [2]JST, ERATO, Japan
[3]Innovative Organic Device Laboratory, ISIT, Japan [4]WPI-I2CNER, Kyushu University, Japan

18:30-20:30 Welcome Reception

May 19 (Thursday)

Registration 08:30-17:30

Plenary Lecture 2

Chairpersons: Naoki Matsuda (AIST)

09:00-09:40 PL-2 (Invited)

Manufacturing Goes Viral: Biomimetic Self-templating Assembly and Applications

Seung-Wuk Lee

University of California, Berkeley, Physical Bioscience Division, Lawrence Berkeley National Laboratory, USA

Session 2 == *Organic Optical Devices and Photonics* ==

Chairpersons: C. Daniel Frisbie (University of Minnesota)
Karakawa Makoto (Kanazawa University)

09:40-10:05 I2-1 (Invited)

An Economic and Simple Approach of Breath Analysis by Fiber-Optic Sensor

Oi Lun Li[1,2], Maria-Antoaneta Bratescu[1], Kyu-Sung Kim[3], Kouta Isawa[3], Nagahiro Saito[1,2,3], and Takahiro Ishizaki[1]

[1]Department of Material Science and Engineering, Shibaura Institute of Technology, Japan

[2]Institution of Innovation for Future Society, Nagoya University, Japan

[3]Department of Material Sciences, Nagoya University, Japan

10:05-10:30 I2-2 (Invited)

Hybrid Silicon and EO Polymer Waveguide Modulator for High Bandwidth Application

Shiyoshi Yokoyama[1,2], Qiu Fend[1], Andrew M. Spring[1], Hiromu Sato[2], and Hiroki Miura[2]

[1]Institute for Materials Chemistry and Engineering, Kyushu University, Japan

[2]Department of Molecular and Material Science, Kyushu University, Japan

10:30-10:45 O2-1

Electro-Optic Chromophores with Thienyl-Di-Vinylene π-Conjugation Unit Bounded by Ethylenedioxy and Its Linear and Nonlinear Optical Properties

Toshiki Yamada, Isao Aoki, Chiyumi Yamada, and Akira Otomo

National Institute of Information and Communications Technology, Japan

10:45-11:00 Coffee Break

Session 3 == *OLEDs & Organic Solar Cells* ==

Chairpersons: Ken-Tsung Wong (National Taiwan University)
Shigeki Naka (Toyama University)

11:00-11:25 I3-1 (Invited)

Organic Photovoltaic Cells with an Enlarged Open Circuit Voltage Using New Fulleropyrrolidine Derivatives

Makoto Karakawa[1], Takabumi Nagai[2], Kenji Adachi[2], Yutaka Ie[1], and Yoshio Aso[1]

[1]The Institute of Scientific and Industrial Research (ISIR), Osaka University, Japan

[2]Chemical R&D Center, Daikin Industries, Japan

11:25-11:50 I3-2 (Invited)

Molecular Orientation in OLEDs: Order in Disorder in Amorphous Organic Films

Daisuke Yokoyama

Department of Organic Materials Science and Research Center for Organic Electronics (ROEL), Yamagata University, Japan

11:50-12:05 O3-1

Influence of Active Layer Thickness of Normal and Inverted Organic Photovoltaic Cells

Toshifumi Kobori[1], Norihiko Kamata[2], and Takeshi Fukuda[2]

[1]Canon Electric Inc., Japan [2]Department of Functional Materials Science, Saitama University, Japan

Poster Session

12:15-14:00 Core Time 12:15-13:15 Odd Numbered Posters
13:00-14:00 Even Numbered Posters

Session 4 == *Organic Materials* ==

Chairpersons: Oi Lun Li (Nagoya University & Shibaura Institute of Technology)
Daisuke Yokoyama (Yamagata University)

14:10-14:35 I4-1 (Invited)
Strain Effects on the Work Function of Organic Semiconductors
C. Daniel Frisbie
Department of Chemical Engineering and Materials Science, University of Minnesota, USA

14:35-15:00 I4-2 (Invited)
Solution-Grown Multi-Layers of Single-Crystals for Organic Electronics
Hanying Li
MOE Key Laboratory of Macromolecule Synthesis and Functionalization, State Key Laboratory of Silicon Materials, Department of Polymer Science and Engineering, Zhejiang University, P. R. China.

15:00-15:15 O4-1
Enhanced Field Effect Mobility with Blends of Organic Semiconductors
Manish Pandey[1], Shyam. S. Pandey[1], Shuichi Nagamatsu[2,3], Shuzi Hayase[1,2], and Wataru Takashima[1,2]
[1]Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology, Japan
[2]Research Center for Advanced Eco-fitting Technology, Kyushu Institute of Technology, Japan
[3]Department of Computer Science and Electronics, Kyushu Institute of Technology, Japan

15:15-15:30 O4-2
Mobility Control of TIPS-Pentacene Thin Films Prepared by Blade-Coating Method
Ryo Yamamichi, Takaaki Manaka, Dai Taguchi, and Mitsumasa Iwamoto
Department of Physical Electronics, Tokyo Institute of Technology, Japan

15:30-15:45 Coffee Break

Session 5 == *Organic Electronic Devices* ==

Chairpersons: Hanying Li (Zhejiang University)
Shiyoshi Yokoyama (Kyushu University)

15:45-16:10 I5-1 (Invited)
Molecular Diodes with Rectification Ratios of Three Orders of Magnitude
Christian A. Nijhuis
National University of Singapore, Department of Chemistry, Singapore

16:10-16:35 I5-2 (Invited)
Application of van der Waals 2D Materials to Atomic Layer Electronics
Keiji Ueno
Department of Chemistry, Graduate School of Science and Engineering, Saitama University, Japan

16:35-16:50 O5-1
Integration of a Low-Voltage Organic Field-Effect Transistor and a Sensing Capacitor for a Pressure Sensing Device
Heisuke Sakai, Yushi Tsuji, and Hideyuki Murata
Japan Advanced Institute of Science and Technology (JAIST), Japan

16:50-17:05 Coffee Break

Session 6 == *Student Oral Session* ==

Chairpersons: Keiji Ueno (Saitama University)
Masakazu Nakamura (Nara Institute of Science and Technology)
Masatoshi Sakai (Chiba University)

17:05-17:18 O6-1
Highly Refined High Tg EO Polymer Waveguide for Thermal Stabilization
Hiroki Miura, Kazuhiro Yamamoto, and Shiyoshi Yokoyama
Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Japan

17:18-17:31 O6-2

Synthesis and Evaluation of Graphene Derivatives by Using Fluoro Alkyl Chain Silane Coupling Reagent

Asami Ohtake[1], Seiko Uchino[1], Nobuko Fukuda[2], and Koichi Sakaguchi[1]

[1]Department of Chemistry and Applied Chemistry, Graduate School of Science and Engineering, Saga University, Japan

[2]Flexible Electronics Research Center (FLEC), National Institute of Advanced Industrial Science and Technology (AIST), Japan

17:31-17:44 O6-3

Application of Urchin-Like Gold Nanoparticles (UL-Aunps) for Light Tapping in Polymer Solar Cells

Apichat Pangdam[1,2], Chuchaat Thammacharoen[2], Ryousuke Ishikawa[1], Chutiparn Lertvachirapaiboon[1], Kazunari Shinbo[1], Keizo Kato[1], Futao Kaneko[1], Sanong Ekgasit[2], and Akira Baba[1]

[1]Graduate School of Science and Technology, Niigata University, Japan

[2]Sensor Research Unit, Department of Chemistry, Faculty of Science, Chulalongkorn University, Thailand

17:44-17:57 O6-4

Effect of Background Pressure on the Performance of Organic Field Effect Transistors with Copper Electrodes

Cuong Manh Tran, Heisuke Sakai, Tatsuya Murakami, and Hideyuki Murata

School of Materials Science, Japan Advanced Institute of Science and Technology, Japan

17:57-18:10 O6-5

Solution-Processed Organic Rectifier Diodes for a High Resolution Sensor Matrix

Yanyang Ju, Naoji Matsuhisa, Peter Zalar, Mari Koizumi, Tomoyuki Yokota, and Takao Someya

Department of Electrical Engineering, University of Tokyo, Japan

18:10-18:23 O6-6

Electro-Optic Polymer Waveguide Modulator Using MMI Coupler

Hiromu Sato[1], Kazuhiro Yamamoto[1,2], and Shiyoshi Yokoyama[1,2]

[1]Interdisciplinary Graduate School of Engineering and Science, Kyushu University, Japan

[2]Institute for Materials Chemistry and Engineering, Kyushu University, Japan

18:23-18:36 O6-7

Neural Cell Culture Sheet Made of a Biodegradable Poly(anhydride) Film with Polylysine Micropatterns Containing Laminin Layer

Mikiya Kurosaka, Yuki Nakamura, and Yasushiro Nishioka

Department of Precision Machinery Engineering, College of Science and Technology, Nihon University, Japan

19:00-21:00 Banquet

May 20 (Friday)

Registration 08:30-11:00

Plenary Lecture 3

Chairpersons: Tatsuo Mori (Aichi Institute of Technology)

09:00-09:40 PL-3 (Invited)

Electrochemistry in Organic Electronics: Learn of Ions —Beginning of Iontronics—

Mitsuyoshi Onoda

Graduate School of Engineering, University of Hyogo, Japan

Session 7 == *Biotechnologies and Organic Sensors* ==

Chairpersons: Jun Ho Shim (Daegu University)
Eiji Itoh (Shinshu University)

09:40-10:05 I7-1 (Invited)

Development of High Performance Polymer Field-Effect Transistors, Circuits and Chemical Sensors for Future Wearable Devices

Yong-Young Noh

Department of Energy & Materials Engineering, Dongguk University, Republic of Korea

10:05-10:30 I7-2 (Invited)

Wearable Electronic Nose for Human Body Odor Detection: A New Approach for Personal Healthcare Monitoring

Teerakiat Kerdcharoen

Department of Physics and NANOTEC's Center of Excellence, Faculty of Science, Mahidol University, Thailand

10:30-10:45 O7-1

Fabrication of Nano-Pore Flow Structure and Nano-Transistor for Biosensor Application

Kouhei Enda, Hiroshi Yamauchi, Masatoshi Sakai, and Kazuhiro Kudo

Graduate School of Engineering, Chiba University, Japan

10:45-11:00 O7-2

***In Situ* Observation of Adsorption-Desorption and Direct Electron Transfer Reaction of Cytochrome C on ITO Electrode Modified with Phosphonic Acid Self-Assembled Monolayer Film**

Naoki Matsuda, and Hirotaka Okabe

Advanced Manufacturing Research Institute, AIST, Japan

11:00-11:15 Coffee Break

Session 8 == *Organic Materials* ==

Chairpersons: Yong Young Noh (Dongguk University)
Teerakiat Kerdcharoen (Mahidol University)

11:15-11:40 I8-1 (Invited)

Facile Syntheses of Highly Active and Effective Electrocatalysts and Their Electrochemical Study through Minute Structure Control

Jun Ho Shim

Department of Chemistry, Daegu University, Korea

11:40-12:05 I8-2 (Invited)

Solution Processable Buffer Layers for Organic Thin Film Devices

Eiji Itoh

Department of Electrical and Computer Engineering, Faculty of Engineering, Shinshu University, Japan

12:05-12:20 O8-1

Partial Removal of Polyvinylpyrrolidone Bound on the Surface of Silver Nanowires: Balancing the Electrical Conductance and Sulfuration Resistance

Akihiro Tomioka, Akihiro Masuda, Sho Fushii, Yoshitaka Matsuba, and Yuki Haru

Graduate School of Engineering, Osaka Electro-Communication University, Japan

12:20-12:35 O8-2

Synthesis and Electrical Evaluation of Hydrophilic Graphite Oxide via Atmospheric Pressure Plasma Process

Seiko Uchino, Takeshi Shiratori, Yui Kurogi, Koutarou Kajiyama, Misaki Jouo, Asami Ohtake, Noboru Takisawa, and Koichi Sakaguchi

Department of Chemistry and Applied Chemistry, Graduate School of Science and Engineering, Saga University, Japan

Closing Ceremony

12:35-12:50 Award Ceremony & Closing Address

Chair of the Technical Committee on Organic Molecular Electronics, IEICE
Naoki Matsuda (AIST, Japan)

Poster Session

May 19 (Thursday) 12:15-14:00 Core Time 12:15-13:15 Odd Numbered Posters
13:00-14:00 Even Numbered Posters

[The posters should be on display throughout the day of the poster presentation (9:00-17:00).]

P-01 **Luminescent Organic Nanoparticles: Preparation by Visible Laser Processing and Their Patterned Deposition**
Yoshitaka Matsuba, Akihiro Tomioka, and Sho Fushii
Graduate School of Engineering, Osaka Electro-Communication University, Japan

P-02 **Solution Process Fabrication of Nano-grooved Ultrathin TiO_2 Film to Trap Organic Dye Nanoparticles**
Sho Fushii, Akihiro Tomioka, and Yoshitaka Matsuba
Graduate School of Engineering, Osaka Electro-Communication University, Japan

P-03 **Electrospinning of Luminescent Nanofibers Doped with Organic Dye: Fabrication and Luminescence Evaluation**
Yuki Haru, and Akihiro Tomioka
Graduate School of Engineering, Osaka Electro-Communication University, Japan

P-04 **Development of Organic Thin Film Gas Sensor Based on Zinc-Hexadecafluorophthalocyanine: QM Calculation and Experimental Studies of Interactions with Volatile Organic Compounds**
Treenet Thepudom[1], and Teerakiat Kerdcharoen[2,3]
[1]Materials Science and Engineering Program, Faculty of Science, Mahidol University, Thailan.
[2]Department of Physics, Faculty of Science, Mahidol University, Thailand
[3]NANOTECH Center of Excellence at Mahidol University, National Nanotechnology Center, Thailand

P-05 **Improvement of Polymer/Metal Adhesion Using an Epoxy Polymer Thin Film**
Taku Kawamura, Kuniaki Tanaka, and Hiroaki Usui
Institute of Engineering, Tokyo University of Agriculture and Technology, Japan

P-06 **Introduction Effect of Trifluoromethyl Moiety on Bis-Styrylbenzene Skeleton**
Hiroyuki Mochizuki
National Institute of Advanced Industrial Science and Technology, Japan

P-07 **Metal-Species Dependence of Selective Metal-Vapor Deposition/Modulation -Toward Organic-Device Applications-**
Saki Matsumoto, and Tsuyoshi Tsujioka
Department of Arts and Sciences, Osaka Kyoiku University, Japan

P-08 **Properties for Organic Light-Emitting Diodes Using Organic Perovskite as Electron Transport Layer**
Masato Sakaida[1], Takumi Ito[2], Yuta Ishiguro[2], and Tatsuo Mori[1,2]
[1]Graduate School of Engineering, Aichi Institute of Technology, Japan
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P-09 **Electrical Studies of Flat Diacetylene Layers on h-BN Using Nanoelectrodes**
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P-10 **Characteristics of Gas Adsorption and Transparency of Organic Thin Films Prepared by Physical Vapor Deposition using Poly(tetrafluoroethylene)**
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P-11 **Characteristic of Three Colorimetric Indicators for Detection of Hydroxyl Radicals in Atmosphere by Using Methylene Blue Dye**
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P-12 **Polymer Surface Modification due to Active Oxygen Species and Ultraviolet Lights Exposures**
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P-13 **Vapor-Deposition Polymerization of Naphthalene Diimide Vinyl Polymer**
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P-14 **Determination of Carrier Mobility of Organic Semiconductor Layer in Double Layer Diodes by Displacement Current Measurement Coupled with Electric Field Induced Optical Second-Harmonic Generation Measurement**
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P-15 **Probing of Triboelectric Effect Induced at Polyimide-Al Contact by Using Optical Electric-Field-Induced Second-Harmonic Generation Measurement**
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P-16 **Ferrocenyl Alkanethiol Self-Assembled Monolayers on Si(111):An Electrical Characterization**
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P-17 **Ammonia Gas Sensing Under Various Humidities Using Transmission Surface Plasmon Resonance**
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P-18 **Inverted Polymeric Light Emitting Diodes with Ultrathin Oxide Nanosheet as the Electron Injection Layer**
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P-19 **Reversible Switching Phenomenon in Diarylethene Molecular Devices with Reduced Graphene Oxide Top Electrodes on Flexible Substrates**
Dongku Kim, Hyunhak Jeong, Wang-Taek Hwang, Yeonsik Jang, Misook Min, Hyoyoung Lee, and Takhee Lee
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P-20 **DPP-Based Organic Field-Effect Transistors for Flexible Gas Sensor**
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P-21 **Improved Power Conversion Efficiency of Bulk-Heterojunction Organic Photovoltaic Cells Using End-Capped Polymers**
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P-22 **Solvent-Free and Roll to Roll Printing of Flexible OTFTs by Ultrasonic Welding**
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P-23 **A 17 GHz Molecular Rectifier**
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P-24 **Optical Properties of Red to Near-Infrared Fluorene-Type Polymer Light-Emitting Diodes by the Solid State Solvation Effect**
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P-25 **Microwave Response of Polypyrrole Metaatom**
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P-26 **Blue/Green Selective Organic Photodiodes with Tandem Structure**
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P-27 **Au Nano-Particle Dispersed Water Solution from Au Electrodes by Solution Plasma Processing without Surfactant**
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P-28 **Ultrathin Organic Photodetector Absorbing Near-Infrared Light**
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P-29 **Hybrid Ultra-Thin Silicon and Electro-Optic Polymer Waveguide Modulator**
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P-30 **Fabrication of Carbon-Nanotube Yarns with Striped Doping for Fabric-Type Thermoelectric Generators**
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P-31 **Inverted Organic Solar Cells Fabricated by Electrospray Deposition Using MoO_3 Aqueous Solution**
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P-32 **Enhanced Photovoltaic Properties in Inverted Organic Solar Cells with Plasmonic Structures**
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P-33 **Synthesis of Carbon Supported Pt Catalyst Using a Microbubble Low Voltage-Low Frequency Solution Plasma Processing**
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P-34 Degradation Mechanism in Preparation Process of Planar Heterojunction Perovskite Solar Cells Using Sequential Vacuum Deposition Method

Kohei Yamamoto[1], Yoshikazu Furumoto[2], Md. Shahiduzzaman[1], Takayuki Kuwabara[1,2], Kohshin Takahashi[1,2], and Tetsuya Taima[1,2,3]

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P-35 Exciton Dynamics at the Organic Donor-Acceptor Interface Studied by Time-Resolved Second Harmonic Generation Technique

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P-36 Interpenetrating Heterojunction Photovoltaic Cells Based on C_{60} Nano-Crystallized Thin Films

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P-37 Degradation Mechanism for Planar Heterojunction Perovskite Solar Cells

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P-38 Selective Determination of Nicotinamide Adenine Dinucleotide in the Presence of Ascorbic Acid and Uric Acid at A Long-Length Carbon Nanotube Electrode

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P-39 Ampermetric Biosensors with Electronically Type-Sorted Carbon Nanotube and Enzyme

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P-40 Enhancing Surface Plasmon Resonance Immunosensor Based on GPO/PEDOT-PSS/Cys/GPO Film for Human IgG Detection

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P-41 Transmission Surface Plasmon Resonance Spectroscopy for Human IgG Immunosensor Application

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P-42 Fabrication of Bacteriorhodopsin (Br) Thin Films by Wire-Bar Coating Technique and Evaluation of Transient Photocurrent Response in Its Br Photocells

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