

Schedule

Exhibition Dates
March 18 (Mon.)
March 19 (Tue.)

2013	March 17 (Sun.)		March 18 (Mon.)		March 19 (Tue.)	
	Room 402+403		Room 501	Room 502+503	Room 501	Room 502+503
8:30						
9:00			Opening Remark		P-3. James K. Gimzewski	
9:30			P-1. Karl Leo		Break (10 min)	
10:00			Break (10 min.)		D-11. Bo Liedberg	A-12. Kazuo Takimiya
10:30			E-11. Masahiro Hiramoto	B-11. Kookheon Char	D-12. Ki-Hun Jeong	A-13. Tsuyoshi Sekitani
11:00			E-12. Lain-Jong Li	B-12. Xiaogang Liu	Break (10 min)	Break (10 min)
11:30			E-01. Tetsuhiko Miyadera	B-01. Yoshihiko Kanemitsu	D-01. Kazuaki Furukawa	A-07. Hirotake Kajii
12:00			E-02. Zhiping Wang	B-02. Hiroyuki Naiki	D-02. Ayumi Hirano-Iwata	A-08. Daisuke Tadaki
12:30			E-03. Tatsuo Mori	B-03. Koichi Okamoto	D-03. Ryugo Tero	A-09. Hiroaki Iino
13:00			E-04. Toshihiro Yamanari	B-04. Yasuro Niidome	D-04. Hiroki Nose	A-010. Kazuhiro Kudo
13:30			Lunch Luncheon Seminar (Room 502+503)		Lunch Luncheon Seminar (Room 502+503)	
14:00	Satellite Meeting (in Japanese) & Registration		P-2. James R. Durrant		Poster Session A-P1 ~ A-P48 B-P1 ~ B-P36 C-P1 ~ C-P17 D-P1 ~ D-P24 E-P1 ~ E-P30	
14:30			Break (10 min)			
15:00			E-13. Yasuhiro Tachibana	B-13. Jean C. Ribierre		
15:30			E-05. Akihiro Furube			
16:00			E-06. Akinori Saeki	B-14. Pooi S. Lee		
16:30			Break (10 min)	Break (10 min)		
17:00			E-07. Hiroyuki Yohida	B-05. Pangpang Wang		
17:30			E-08. Ryoji Maeda	B-06. Takahiro Kaji		
18:00			E-09. Hiroshi Ito	B-07. Toshiki Yamada		
18:30			E-10. Kazuhiko Seki	B-08. Takashi Isoshima		
19:00	Welcome Party at 1F, restaurant RACONTER		Break (10 min)	Break (10 min)	D-13. Masaru Tanaka	C-12. Hideo Takezoe
19:30			C-11. Roberto Lazzaroni	A-11. Cheolmin Park	D-14. Motomu Tanaka	C-13. Jun-ichi Fukuda
20:00			E-011. Makoto Karakawa	A-01. Yasuo Nakayama	Break (10 min)	Break (10 min)
20:30			E-012. Kazuya Tada	A-02. Ryosuke Matsubara	D-05. Takuya Iida	C-05. Masahiro Funahashi
			C-01. Fabrice Mathevet	A-03. Fumito Tani	D-06. Nobuo Misawa	C-06. Hiroshi Moritake
			C-02. Hafiz A. Haque	A-04. Toyokazu Yamada	D-07. Makito Haruta	C-07. Tatsunosuke Matsui
			C-03. Kei Fukuhara	A-05. Shu-Jung Tang	D-08. Hiroki Ishihara	C-08. Yusuke Nagai
			C-04. Masami Sano	A-06. Masakazu Nakamura	Break (10 min)	Break (10 min)
					B-09. Hiroaki Usui	A-011. Akira Baba
					B-010. Peter Warnicke	A-012. Palanisamy Kumar
			B-011. Yasutaka Kuzumoto	A-013. Jing You		
			B-012. Hideaki Takaku	A-014. Yutaka Noguchi		
			Break (10 min)	Break (10 min)		
			Closing Remark			
			Banquet at Aquarium MARINE WORLD uminonakamichi			

Program

Sunday, March 17, 2013

13:15 – 17:45 Registration (at Room402+403)

13:15 – 17:45 Satellite Meeting (at Room402+403)
(Japanese language only)

18:00–20:00 Welcome Party
at 1F, restaurant RACONTER

Program

Monday, March 18, 2013

[Room 501]

9:00 – 9:10 *Opening Remark*

Kaoru Tamada (Kyushu University, Japan)

9:10 – 9:50 *Plenary Lecture*

P-1

9:10 - 9:50 Highly Efficient Organic Devices
Karl Leo (Technische Universitaet Dresden, Germany) ... 42

9:50 – 10:00 *Short Break*

10:00 – 12:00 *Session E (Special Session : Organic Photovoltaics)*

E-I1

10:00 - 10:30 Bandgap Science for Organic Thin-Film Solar Cells
Masahiro Hiramoto (IMS, Japan) ... 43

E-I2

10:30 - 11:00 Application of Two-Dimensional Layers in Organic Solar Cells
Lain-Jong Li (IAMS, Academia Sinica, Taiwan) ... 44

E-O1

11:00 - 11:15 Wide-Wavelength-Range Operation of Organic Photovoltaic Cells with
Near Infrared Absorption of Vanadyl Phthalocyanine
Tetsuhiko Miyadera (AIST, Japan) ... 45

E-O2

11:15 - 11:30 Polymorphic Control of Zinc Phthalocyanine for Organic Photovoltaic Cell
Zhiping Wang (AIST, Japan) ... 46

E-O3

11:30 - 11:45 A Study of the Spray Coating for Organic Photovoltaic Cells
Tatsuo Mori (Aichi Institute of Technology, Japan) ... 47

E-O4

11:45 - 12:00 Effect of Oxygen on the Deterioration of Polymer-Based Organic Solar
Cells
Toshihiro Yamanari (AIST, Japan) ... 48

12:00 – 13:00 *Lunch & Luncheon Seminar*

13:00 – 13:40 *Plenary Lecture*

P-2

- 13:00 - 13:40 Charge Carrier Dynamics in Organic Solar Cells
James R. Durrant (Imperial College London, United Kingdom) ... 49

13:40 – 13:50 *Short Break*

13:50 – 16:00 *Session E (Special Session : Organic Photovoltaics)*

E-I3

- 13:50 - 14:20 Kinetically Optimized Quantum Dot Sensitized Solar Cells
Yasuhiro Tachibana (RMIT University, Australia) ... 50

E-O5

- 14:20 - 14:35 Ultrafast Spectroscopy and Numerical Analysis of Inhomogeneous Electron Injection in Dye-Sensitized Solar Cells
Akihiro Furube (AIST, Japan) ... 51

E-O6

- 14:35 - 14:50 A Versatile Approach to Organic Photovoltaics Evaluation Using White Light Pulse and Microwave Conductivity
Akinori Saeki (Osaka University, Japan) ... 52

14:50 – 15:00 *Short Break*

E-O7

- 15:00 - 15:15 New Experimental Method to Precisely Determine the LUMO Levels of Organic Semiconductors and Application to the Fullerene Derivatives
Hiroyuki Yoshida (Kyoto University, Japan) ... 53

E-O8

- 15:15 - 15:30 In-Situ Measurement of Photoconductivity of Multi-Layered Organic Photovoltaic Device by Impedance Spectroscopy
Ryoji Maeda (Idemitsu Kosan Co.,Ltd., Japan) ... 54

E-O9

- 15:30 - 15:45 Photocarrier Recombination of Polymer/Fullerene Composites in Surface-Type Photocells
Hiroshi Ito (Nagoya University, Japan) ... 55

E-O10

- 15:45 - 16:00 Influence of Energetic Disorder on Bulk Recombination in Organic Bulk Heterojunction Solar Cells under Continuous Light Irradiation
Kazuhiko Seki (AIST, Japan) ... 56

16:00 – 16:10 *Short Break*

*16:10 – 18:10 Session C (Liquid Crystals, Polymers and Other Soft Materials)
Session E (Special Session : Organic Photovoltaics)*

C-II

16:10 - 16:40 Organic Semiconducting Nanostructures via Conjugated Polymer
Self-Assembly
Roberto Lazzaroni (Univ. Mons, Belgium) ... 57

E-O11

16:40 - 16:55 Synthesis and Characterization of New Red–NIR Absorption Materials
Containing Thienopyrrolidone for Organic Photovoltaics
Makoto Karakawa (Osaka University, Japan) ... 58

E-O12

16:55 - 17:10 Optimization of Photovoltaic Devices Based on Poly(3-hexylthiophene)/C₆₀
Bulk Heterojunction Composites Prepared with Halogen-Free Solvent
Kazuya Tada (University of Hyogo, Japan) ... 59

C-O1

17:10 - 17:25 Liquid crystal homo and alternating (co)polymers based on pi-conjugated
backbone for organic electronics
Fabrice Mathevet (CNRS, France) ... 60

C-O2

17:25 - 17:40 Photo-responsive Liquid Crystalline Brush Unveiled by Surface-initiated
Ring Opening Metathesis Polymerization
Hafiz A. Haque (Nagoya University, Japan) ... 61

C-O3

17:40 - 17:55 Alignment Control of Liquid Crystal and Block Copolymer Domains via a
Segregated Free Surface Layer
Kei Fukuhara (Nagoya University, Japan) ... 62

C-O4

17:55 - 18:10 Hierarchical Photoorientation Behaviors in Liquid crystalline Azobenzene
Block Copolymer Thin Film
Masami Sano (Nagoya University, Japan) ... 63

19:00 – 20:30 Banquet at Aquarium

Program

Monday, March 18, 2013

[Room 502 + 503]

10:00 – 16:00 *Session B (Fabrication Technique and Characterization)*

B-I1

10:00 - 10:30 Structural Design and Engineering of Semiconductor Nanocrystals
for Efficient Optoelectronic Devices
Kookheon Char (Seoul National University, Korea) ... 64

B-I2

10:30 - 11:00 Upconversion Nanocrystals: A New Class of Luminescent Bioprobes
Xiaogang Liu (National University of Singapore, Singapore) ... 65

B-O1

11:00 - 11:15 Exciton Decay Dynamics in Hole-Doped Single-Walled Carbon Nanotubes
Yoshihiko Kanemitsu (Kyoto University, Japan) ... 66

B-O2

11:15 - 11:30 Highly Controlled Single-Photon Emission from Metal-Quantum Dot
Nanostructures
Hiroyuki Naiki (Tohoku University, Japan) ... 67

B-O3

11:30 - 11:45 Nano-Interface Photonics tuned by Metal Nanograin and Nanoparticle Sheet
Structures
Koichi Okamoto (Kyushu University, Japan) ... 68

B-O4

11:45 - 12:00 Spectroscopic Properties of Silver-Shelled Gold Nanorods
Yasuro Niidome (Kyushu University, Japan) ... 69

12:00 – 13:00 *Lunch & Luncheon Seminar*

B-I3

13:50 - 14:20 Charge transport and exciton diffusion in quinoidal oligothiophene thin
films
Jean C. Ribierre (Ewha Womans University, Korea) ... 70

B-I4

14:20 - 14:50 Recent Advances in Ferroelectric Polymer Electronics
Pooi S. Lee (Nanyang Technological University, Singapore) ... 71

14:50 – 15:00 Short Break

B-O5

14:20 - 14:35 Nanopatterning on silver nanoparticles monolayer using AFM local oxidation nanolithography
Pangpang Wang (Kyushu University, Japan) ... 72

B-O6

14:35 - 14:50 Control of spontaneous emission from single molecules in a photonic band gap of a two-dimensional photonic crystal slab
Takahiro Kaji (NICT, Japan) ... 73

B-O7

15:00 - 15:15 Development of characterization techniques of electro-optic polymers
Toshiki Yamada (NICT, Japan) ... 74

B-O8

15:15 - 15:30 Asymmetric dice model for elucidation of spontaneous polar molecular orientation of tris(8-hydroxyquinolino) aluminum(III) (Alq₃) derivatives
Takashi Isoshima (RIKEN, Japan) ... 75

16:00 – 16:10 Short Break

16:10 – 18:10 Session A (Organic Devices and Molecular Electronics)

A-II

16:10 - 16:40 High Performance Non-volatile Ferroelectric Polymer Memories with Field Effect Transistor Architectures
Cheolmin Park (Yonsei University, Korea) ... 76

A-O1

16:40 - 16:55 Electronic structures of the pentacene single crystal and its hetero-interface
Yasuo Nakayama (Chiba University, Japan) ... 77

A-O2

16:55 - 17:10 Crystal structures and mobility limiting factors of pentacene thin films grown on mica surfaces
Ryosuke Matsubara (Nara Institute of Science and Technology, Japan) ... 78

A-O3

17:10 - 17:25 Supramolecular Structures and Photoelectronic Properties of Inclusion Complexes of Cyclic Porphyrin Dimers and Fullerenes
Fumito Tani (Kyushu University, Japan) ... 79

A-O4

17:25 - 17:40 Single molecular spintronics: magnetoresistance through a single molecule
Toyokazu Yamada (Chiba University, Japan) ... 80

A-O5

17:40 - 17:55 Interfacial properties at the organic/metal interface probed using quantum-well states
Shu-Jung Tang (National Tsing Hua University, Taiwan) ... 81

A-O6

17:55 - 18:10 Giant Thermoelectric Effect in Thin Films of Pure C60 Fullerene
Masakazu Nakamura (Nara Institute of Science and Technology, Japan) ... 82

19:00 – 20:30 Banquet at Aquarium

Program

Tuesday, March 19, 2013

[Room 501]

9:00 – 9:40 *Plenary Lecture*

P-3

9:00 - 9:40 Biologically Inspired Self-organized Brain-like Networks exhibiting Critical Phenomena
James K. Gimzewski (UCLA and NIMS, USA) ... 83

9:40 – 9:50 *Short Break*

9:50 – 12:00 *Session D (Biomolecular Electronics and Bioanalysis)*

D-11

9:50 - 10:20 Switchable Nanomaterials for Bioanalytical Applications : A Synthetic Polypeptide Approach
Bo Liedberg (Nanyang Technological University, Singapore) ... 84

D-12

10:20 - 10:50 Nanobioplasmonics: Step into Highly Intense SERS
Ki-Hun Jeong (KAIST, Korea) ... 85

10:50 – 11:00 *Short Break*

D-O1

11:00 - 11:15 Stability and Sensitivity of Supported Lipid Bilayer Microarray for Biological Molecule Detection
Kazuaki Furukawa (NTT Corporation, Japan) ... 86

D-O2

11:15 - 11:30 A Chip-Based Stable Lipid Bilayer for Recording Activities of Biological Channels
Ayumi Hirano-Iwata (Tohoku University, Japan) ... 87

D-O3

11:30 - 11:45 Supported Lipid Bilayer for a Platform of Two Dimensional Assembly of F-BAR Domain Proteins
Ryugo Tero (Toyohashi University of Technology, Japan) ... 88

D-O4

11:45 - 12:00 Blood separation lab-on-a-CD with controlled surface
Hiroki Nose (University of Hyogo, Japan) ... 89

12:00 – 13:00 Lunch & Luncheon Seminar

13:00 – 14:30 Poster Session (at the Corridor of the 5th floor)

P-A1 ~P-A47, P-B1 ~P-B36

P-C1 ~P-C17, P-D1 ~P-D23, P-E1 ~P-E31

14:30 – 15:30 Session D (Biomolecular Electronics and Bioanalysis)

D-I3

14:30 - 15:00 Control of Human Cancer Cell Behavior using Biocompatible Polymers
Masaru Tanaka (Yamagata University, Japan) ... 90

D-I4

15:00 - 15:30 Connecting Soft, Biomatter and Solid Based Devices: Biofunctionalization
of III-V Semiconductors
Motomu Tanaka (University of Heidelberg, Germany) ... 91

15:30 – 15:40 Short Break

D-O5

15:40 - 15:55 Theory of biomimetic optical screening of nanoparticles under thermal
fluctuations
Takuya Iida (Osaka Prefecture University, Japan) ... 92

D-O6

15:55 - 16:10 Combined System of a Fluidic Channel and Electrodes of Two-Electrode
Voltage Clamping for *Xenopus Laevis* Oocytes
Nobuo Misawa (Toyohashi University of Technology, Japan) ... 93

D-O7

16:10 - 16:25 Intrinsic Optical Signal Imaging Based on Blood Flow with a Biomedical
Photonic LSI
Makito Haruta (NAIST, Japan) ... 94

D-O8

16:25 - 16:40 A Study for DNA Polymerization Detection Using FET-Based Redox
Potential Sensor with Gold Electrode
Hiroki Ishihara (Nagoya University, Japan) ... 95

16:40 – 16:50 Short Break

16:50 – 17:50 Session B (Fabrication Technique and Characterization)

B-O9

16:50 - 17:05 Control of Inorganic/Organic Interface by use of a Reactive SAM
Hiroaki Usui (Tokyo Univ. Agricul. & Technol., Japan) ... 96

B-O10

17:05 - 17:20 Nanocharacterization of organic semiconductor materials using x-ray
microspectroscopy
Peter Warnicke (Paul Scherrer Institut, Switzerland) ... 97

B-O11

17:20 - 17:35 Partially Fluorinated Copper Phthalocyanine toward Band Engineering for
High-Efficiency Organic Photovoltaics
Yasutaka Kuzumoto (Kobe University, Japan) ... 98

B-O12

17:35 - 17:50 Organic p-i-n Photovoltaic Devices Fabricated by Electro spray Deposition
(ESD) with P3HT Colloids Dispersed in Water
Hideaki Takaku (RIKEN, Japan) ... 99

17:50 – 18:00 Short Break

18:00 – 18:10 Closing Remark

Program

Tuesday, March 19, 2013

[Room 502 + 503]

9:50 – 12:00 *Session A (Organic Devices and Molecular Electronics)*

A-I2

9:50 - 10:20 Material Design and Synthesis of Heteroarene-Based Organic Semiconductors for Organic Transistors and Solar Cells
Kazuo Takimiya (Hiroshima University, Japan) ... 100

A-I3

10:20 - 10:50 1.2- μ m-thick Organic Active Matrix Circuits for Bio-Medical Applications
Tsuyoshi Sekitani (University of Tokyo, Japan) ... 101

10:50 – 11:00 *Short Break*

A-O7

11:00 - 11:15 Solution-processed highly efficient green phosphorescent organic light-emitting diodes utilizing small molecular carbazole derivative
Hirotake Kajii (Osaka University, Japan) ... 102

A-O8

11:15 - 11:30 Fabrication of Organic Thin Film Transistors using F4TCNQ-doped Layer as Electrodes
Daisuke Tadaki (Tohoku University, Japan) ... 103

A-O9

11:30 - 11:45 Improved Fabrication of Polycrystalline Thin Films of Liquid Crystalline Organic Semiconductors for FET Applications
Hiroaki Iino (Tokyo Inst. Tech., Japan) ... 104

A-O10

11:45 - 12:00 Step-Edge Vertical-Channel Organic Transistors for Flexible Information Tag Application
Kazuhiro Kudo (Chiba University, Japan) ... 105

12:00 – 13:00 *Lunch & Luncheon Seminar*

13:00 – 14:30 *Poster Session (at the Corridor of the 5th floor)*

P-A1 ~P-A48, P-B1 ~P-B36

P-C1 ~P-C17, P-D1 ~P-D24, P-E1 ~P-E30

14:30 – 16:40 *Session C (Liquid Crystals, Polymers and Other Soft Materials)*

C-I2

14:30 - 15:00 Ferroelectric Columnar Liquid Crystal for High Density Memory Device
Hideo Takezoe (Tokyo Inst. Tech., Japan) ... 106

C-I3

15:00 - 15:30 Simulation of Cholesteric Blue Phase Liquid Crystal Cells under an Electric Field
Jun-ichi Fukuda (AIST, Japan) ... 107

15:30 – 15:40 *Short Break*

C-O5

15:40 - 15:55 N-Type LC Perylene Tetracarboxylic Bisimide Derivatives Bearing Oligosiloxane Moieties
Masahiro Funahashi (Kagawa University, Japan) ... 108

C-O6

15:55 - 16:10 Improvement of Response Time in Coplanar Waveguide Type Microwave Phase Shifter using Polymer-Stabilized Nematic Liquid Crystal
Hiroshi Moritake (National Defense Academy, Japan) ... 109

C-O7

16:10 - 16:25 FDTD Analysis of Generation of Photonic Nanojets from Liquid Crystal Microcylinder
Tatsunosuke Matsui (Mie University, Japan) ... 110

C-O8

16:25 - 16:40 Laser Emission from Dye-Doped Nematic Liquid Crystal Emulsions
Yusuke Nagai (Tokyo Inst. Tech., Japan) ... 111

16:40 – 16:50 *Short Break*

16:50 – 17:50 *Session A (Organic Devices and Molecular Electronics)*

A-O11

16:50 - 17:05 Enhanced Photocurrent Properties of Dye/Metal-loaded TiO₂ Films by Grating-coupled Surface Plasmon Excitation
Akira Baba (Niigata University, Japan) ... 112

A-O12

17:05 - 17:20 Improving the Photovoltaic Parameters of Organic Solar Cell using Soluble Copper Pthalocyanine Nano Particles as a Buffer Layer
Palanisamy Kumar (Aichi Institute of Technology, Japan) ... 113

A-O13

17:20 - 17:35 Size Effects of Silver Nanoparticles on the Enhancement of Photoelectric Conversion in Polythiophene-fullerene Thin Films
Jing You (Kyushu University, Japan) ... 114

A-O14

17:35 - 17:50 Photoinduced responses in a dye-doped gold nanoparticle single-electron device

Yutaka Noguchi (Chiba University, Japan)

... 115

17:50 – 18:00 Short Break

18:00 – 18:10 Closing Remark at Room501

Poster Presentations (at the Corridor of the 5th floor)

13:00 –14:30, Tuesday, March 19, 2013

Session A (Organic Devices and Molecular Electronics)

- A-P1 Shigeaki Obata** (Toyohashi University of Technology, Japan)
Molecular Arrangements in Organic Semiconductors: Theoretical Prediction of Crystal Structures ... 118
- A-P2 Yukihiro Tominari** (NICT, Japan)
Investigation of surface morphological properties of functional polymer thin films under heating process by AFM ... 119
- A-P3 Meng-Kai Lin** (National Tsing Hua University, Taiwan)
Interfacial properties at the organic-metal interface probed using quantum well states ... 120
- A-P4 Keiichirou Yonezawa** (Chiba University, Japan)
Impact of intermolecular polar bond on electronic states at organic donor/accepter heterojunction ... 121
- A-P5 Shuji Watanabe** (Yamagata University, Japan)
Vibrational properties of thiophene/phenylene co-oligomers: DFT calculation and vibrational spectroscopy ... 122
- A-P6 Yasunari Tamai** (Kyoto University, Japan)
Non-Diffusion Limited Singlet Exciton Annihilation in Fluorene-Amine Copolymer Films ... 123
- A-P7 Senku Tanaka** (Shimane University, Japan)
Photoelectron emission from organic thin films with silver deposition under near-UV light irradiation ... 124
- A-P8 Fumio Sasaki** (AIST, Japan)
Processing Condition Dependence of Time-Resolved Photoluminescence in Thiophene/Phenylene Co-oligomers Microcavities ... 125
- A-P9 Hiroaki Yonemura** (Kyushu University, Japan)
Magnetic Field Effects on Photoelectrochemical Reactions of Electrodes Modified with Thin Films consisting of Conductive Polymers ... 126

- A-P10** Takaaki Kurita (Kobe University, Japan)
Effect of Film Thickness on the Pyroelectric Response of Free-standing Poly(vinylidene fluoride/trifluoroethylene) Copolymer Films ... 127
- A-P11** Ken Tokunaga (Kogakuin University, Japan)
A Theoretical Study on Electron Transfer in [3₂](1,4)-Cyclophane ... 128
- A-P12** Naoya Matsui (Osaka Kyoiku University, Japan)
Reversible current injection switching based on photoisomerization of a diarylethene crystal film ... 129
- A-P13** Teahoon Park (Yonsei University, Korea)
Control of oxidation level for flexible thermoelectric films of poly(3,4-ethylene dioxothiophene) ... 130
- A-P14** Xuepeng Mo (Tokyo Tech, NICT, Japan)
Evaluation of Thermal Stability of Organic Electro-optic Polymer by Thermally Stimulated Current Measurement ... 131
- A-P15** Takashi Fujihara (RIKEN, Japan)
Acceleration of photorefractive grating formation speed triggered by a step-function electric field ... 132
- A-P16** Yoshihide Fukaya (Kyoto Institute of Technology, Japan)
Spectrally-narrowed emissions from organic crystals mounted on transfer-printed parylene diffraction gratings ... 133
- A-P17** Atsuo Sadakata (Tokyo Institute of Technology, Japan)
Role of accumulated interfacial charge in ITO/ α -NPD/Alq₃/Al diodes under two electroluminescence operational modes ... 134
- A-P18** Shouhei Miyata (Kyushu University, Japan)
Improvement of the luminance by the addition of alkanethiol in Double-insulated AC-driven Organic Electroluminescence devices ... 135
- A-P19** Jie Li (Kyushu University, Japan)
Highly efficient organic light-emitting diodes based on heptazine derivatives through hidden thermally activated delayed fluorescence channel ... 136
- A-P20** Sungkoo Lee (KITECH, Korea)
Highly efficient phosphorescent light-emitting diodes by using new host material ... 137

- A-P21** Masahiro Konishi (Osaka University, Japan)
 Insertion effect of buffer layer at the interface between anode and hole transporting layer for the improvement of device lifetime in organic light-emitting devices ... 138
- A-P22** Tatsuro Yamamoto (Osaka University, Japan)
 Insertion effect of solution-processed Cs₂CO₃ and thermally evaporated CsF buffer layer at the organic layer/cathode interface in polymer light-emitting Diodes utilizing poly(9,9-dioctylfluorene-co-benzothiadiazole) ... 139
- A-P23** Claire Heck (AIST, Japan)
 Polarized Electroluminescent Devices Based on Ultra-Thin α -Sexithiophene on Oriented β -phase Polyfluorene Layers ... 140
- A-P24** Xing Feng (Saga University, Japan)
 Synthesis and Photophysical Properties of Pyrene-Based Light-Emitting Monomers ... 141
- A-P25** Huajun Xu (Kyoto University, Japan)
 Open-Circuit Voltage of Ternary Blend Polymer Solar Cells ... 142
- A-P26** Toshinori Matsushima (Japan Advanced Institute of Science and Technology, Japan)
 Horizontally oriented molecular films for application in organic solar cells ... 143
- A-P27** Tatsuya Muneishi (NAIST, Japan)
 Annealing Effect on Light-Emitting FET Characteristics of π -Conjugated Liquid Crystalline Polymer ... 144
- A-P28** Shi-Guang Li (Chiba University/NIST, Japan)
 THz Absorption by Field-Induced Carriers in Pentacene OFETs ... 145
- A-P29** Takuya Fujimoto (Nagoya University, Japan)
 Ionic-liquid component dependence of carrier injection and mobility for electric-double-layer transistors with octathio[8]circulene thin films ... 146
- A-P30** Masatoshi Kitamura (Kobe University, Japan)
 Dinaphthothienothiophene Thin-Film Transistors with Aluminum/Molybdenum Oxide Electrodes ... 147
- A-P31** Shodai Matsuba (Osaka University, Japan)
 Characteristics of Top-gate-type Organic Field-Effect Transistors Fabricated on Self-organized and Inclined-plane-type Substrates ... 148
- A-P32** Yuji Yamagishi (Kyoto University, Japan)
 Organic transistors with molecularly doped polymer gate buffer layer ... 149

- A-P33** Satoshi Ochiai (NAIST, Japan)
Preparation of organic thin film transistor with ideally flat semiconductor/insulator interface using cleaved mica surface ... 150
- A-P34** Masashi Nitani (Osaka University/ISIR, Japan)
Development of Solution-Processible n-Type OFFT Materials Based on Carbonyl-Bridged Bithiazole Unit ... 151
- A-P35** Takeo Minari (NIMS, Japan)
Fully printed organic field-effect transistors using room-temperature deposited Au nanoparticle electrodes ... 152
- A-P36** Masayuki Chikamatsu (AIST, Japan)
Photonic Flash Sintering of Nano Silver Ink and its Application to Electrodes of Organic Thin-Film Transistors ... 153
- A-P37** Hiroshi Yamauchi (Chiba University, Japan)
Fabrication of N-Channel and P-Channel Step-Edge Vertical-Channel Transistors by Electro-Spray Deposition ... 154
- A-P38** Ken-ichi Nakayama (Yamagata University, Japan)
N-type Metal-Base Organic Transistors Having Thin Collector Layers ... 155
- A-P39** Huie Zhu (Tohoku University/IMRAM, Japan)
Ferroelectric Nanocapacitors of Poly(vinylidene fluoride) Langmuir-Blodgett Nanofilms for Nonvolatile Memories ... 156
- A-P40** Atsushi Fukushima (Kyushu University, Japan)
Effects of the polymer molecular weight in organic resistive memory using gold nanoparticles embedded in a polystyrene layer ... 157
- A-P41** Shigekazu Ohmori (Kyoto University, Japan)
Inter-molecular interaction of fullerene cluster in the electric field ... 158
- A-P42** Yoshiyuki Nonoguchi (NAIST, Japan)
A Semiconductor Mimic for Converting p-type and n-type Single Walled Carbon Nanotube Buckypapers by Conjugated Lewis Acids and Bases ... 159
- A-P43** Mitsuhiro Ito (NAIST, Japan)
Enhanced thermoelectric performance of carbon nanotube/cage-shaped protein nanocomposites ... 160

- A-P44** Kazuhiro Takeda (NAIST, Japan)
Fabrication and Characterization of Nanotube-derived Graphene Nanoribbons with sub-10 nm Width ... 161
- A-P45** Seiko Uchino (Saga University, Japan)
Improvement of Graphene Derivatives for Solvent Affinity by Solution Plasma Process ... 162
- A-P46** Tetsuji Iyama (Hokkaido University, Japan)
Adsorption of Radical Species to Graphene Surface: Density Functional Theory (DFT) Study ... 163
- A-P47** Hiroto Tachikawa (Hokkaido University, Japan)
Adsorption and Diffusion of Alkali ion on Boron/Nitrogen Substituted Graphene Nanoflakes ... 164
- A-P48** Kazuhiro Tada (Chitose Inst. of Sci. & Tech., Japan)
In Situ Measurement of Photo-Induced Refractive Index Modulation in Azo-Carbazole Dye Doped Polymers ... 165

Session B (Fabrication Technique and Characterization)

- B-P1** Akira Otomo (NICT, Japan)
Fabrication of Efficient Electro-Optic Polymer Waveguides using Cross-Linkable EO Polymers for both Core and Clad Layers ... 166
- B-P2** Hitoshi Mizuno (NAIST, Japan)
Lasing from Low Dimensional Crystal of n-Type Semiconducting Thiophene/Phenylene Co-Oligomer ... 167
- B-P3** Megumi Dohi (Osaka Kyoiku University, Japan)
Thin-film Ag fuse with a novel structure based on metal deposition modulation on a photochromic surface ... 168
- B-P4** Takashi Ichii (Kyoto University, Japan)
One-dimensional gold nanoparticle array on a Si substrate fabricated by scanning probe lithography ... 169
- B-P5** Ryo Degawa (Kyushu University, Japan)
Optical Property of Multilayered Metal Particulate Two-Dimensional Crystalline Films ... 170

- B-P6** Keisuke Kanetaka (Kwansei Gakuin University, Japan)
Emission Behavior of a Single Quantum Dot-Metal Nanoparticle System -Manipulation of Metal Nanoparticle Using AFM Probe- ... 171
- B-P7** Kazutaka Tateishi (Kyushu University, Japan)
Enhanced Photoluminescence from InGaN Quantum Well with Aluminum ... 172
- B-P8** Tomoki Tateishi (Kwansei Gakuin University, Japan)
Control of the Emission Behavior of a Single CdSe/ZnS Quantum Dot by Plasmon Generated on an AFM Tip ... 173
- B-P9** Su Mi Ham (Gachon University, Korea)
Preparation of Highly Luminescent CdSe Nanoparticles Using Microemulsions ... 174
- B-P10** Eiko Koike (Kwansei Gakuin University, Japan)
Fabrication of Luminescent Silicon Nanoparticles by the Electrochemical Etching and by the Laser Ablation ... 175
- B-P11** Junki Fujii (NAIST, Japan)
Field Electron Emission from Carbon Nanotube/ZnO Composite Films Prepared by Electrodeposition ... 176
- B-P12** Takaaki Inoue (Kobe University, Japan)
Temperature Dependence of Ferroelectric Properties of the Perpendicularly Oriented Vinylidene Fluoride Oligomer ... 177
- B-P13** Yuji Yoritama (University of Hyogo, Japan)
Three-dimensional magneto impedance sensor using a multi layers electroplating technique ... 178
- B-P14** Marvin Herrera (Kyoto University, Japan)
Photochemical Preparation of Vinylferrocene-terminated Si(111) ... 179
- B-P15** Eisuke Ito (RIKEN, Japan)
Facile formation of Au(111) terrace from polycrystalline Au surface assisted by alkanethiol self-assembled monolayers ... 180
- B-P16** Hungu Kang (Hanyang University, Korea)
Two-dimensional structure and electronic property of fluorinated- benzenethiol self-assembled monolayers on Au(111) ... 181
- B-P17** Mat Nor Bin Muazam Shah (Toyohashi University of Tech., Japan)
Self-assembly Formed Lipid Membranes on Reduced Graphene Oxides (r-GO) Depending on the Reduction Degree of r-GO ... 182

B-P18 <u>Shuichi Nagamatsu</u> (Kyutech, Japan) Polymer Ultrathin Film Preparation by Adhering Deposition in Suspension	... 183
B-P19 <u>Yu Gao</u> (Tohoku University, Japan) A Superhydrophobic and Highly Sensitive Dissolved Oxygen Sensor Based on Amphiphilic Fluorinated Polymer Film	... 184
B-P20 <u>Guoqing Wang</u> (Hokkaido University, Japan) DNA-Templated Self-Assembly of Nanowires with Novel Charge Transport	... 185
B-P21 <u>Jun Matsui</u> (Tohoku University, Japan) Ion conductive Polymer Langmuir-Blodgett Film	... 186
B-P22 <u>Olaf Karthaus</u> (Chitose Inst. Sci. Tech., Japan) Polyaniline Microstructured Films for Sensing Applications	... 187
B-P23 <u>Hiroumi Kinjo</u> (Chiba University, Japan) Photoelectron Yield Spectroscopic Study on Electronic Structure of Volatile Organic Semiconductor Crystals	... 188
B-P24 <u>Tomoya Sato</u> (Chiba University, Japan) Intrinsic and Extrinsic Ionization Energy of Insulating Polymers Studied by High Sensitivity Photoelectron Yield Spectroscopy	... 189
B-P25 <u>Takuya Hosokai</u> (Iwate University, Japan) Characterization of aryl-functionalized 2,4,6-tri(2-thienyl)-1,3,5-triazine thin films and its application to OFET	... 190
B-P26 <u>Yukihiro Shimoi</u> (AIST, Japan) Deuteration effects in DSSC dyes: DFT calculations and experiments	... 191
B-P27 <u>Toshimitsu Sato</u> (Yamagata University, Japan) Fabrication and characterization of nanocrystals and layered thin films using C ₆₀ for organic photovoltaic solar cells	... 192
B-P28 <u>Yasuko Koshiha</u> (Kobe University, Japan) Fabrication and Evaluation of Organic Photovoltaic Cells Using Fluorinated Phthalocyanines as electron acceptor	... 193
B-P29 <u>Eiji Itoh</u> (Shinshu University, Japan) Hole-Blocking Nature of Ultrathin Titania Nanosheet layer in Bulk-Heterojunction Organic Solar Cells	... 194

B-P30 <u>Akito Masuhara</u> (Yamagata University, Japan)	
Size Control and Characterization of Polyalkylthiophene Nanocrystals	... 195
B-P31 <u>Takeshi Fukuda</u> (Saitama University, Japan)	
Water dispersible phthalocyanine colloid by reprecipitation method	... 196
B-P32 <u>Kenta Kirimoto</u> (Kitakyushu National College of Technology, Japan)	
Electrical properties of microcrystalline fullereneol C ₆₀ (OH) ₁₀	... 197
B-P33 <u>Katsuki Tanaka</u> (Kwansei Gakuin University, Japan)	
Photoconversion of Pentacene Diketone Derivatives in Crystalline Phase	... 198
B-P34 <u>Takeshi Watanabe</u> (Iwate University, Japan)	
Crystal structure of α - ω -hexyl-distyryl-bithiophene (DH-DS2T) thin films characterized by two dimensional grazing incidence X-ray diffraction	... 199
B-P35 <u>Atsushi Hyono</u> (Hokkaido University, Japan)	
In-situ Raman spectroscopy for the lithium electrode surface in the organic solution	... 200
B-P36 <u>Masato Ayano</u> (Kobe University, Japan)	
Vapor pressure of ionic liquid [EMIM][TF2N] at vacuum	... 201

Session C (Liquid Crystals, Polymers and Other Soft Materials)

C-P1 <u>Ichiro Hirosawa</u> (JASRI, Japan)	
Thickness of Crystalline Layer of Rubbed Polyimide Film Estimated by Multi-Angle Grazing-Incidence X-ray Diffraction	... 202
C-P2 <u>Nobutaka Tanigaki</u> (AIST, Japan)	
Oriented Blend Films of Poly(3-Hexylthiophene) and [6,6]-Phenyl-C ₆₁ -Butyric Acid Methyl Ester Fabricated by Friction Transfer Method	... 203
C-P3 <u>Koji Yamaguchi</u> (Osaka Kyoiku University, Japan)	
Selective metal deposition on phase-separated polymer blend surface	... 204
C-P4 <u>Yue Jia</u> (Kyushu University, Japan)	
Nonlinear Optical Properties of Norbornene Polymer Brush containing Azobenzene Chromophore	... 205

- C-P5** Yasuaki Sato (Shizuoka University, Japan)
Optimal conditions of nonelectrical poling procedure for second order susceptibilities in NLO polymers ... 206
- C-P6** Kazuma Ito (Shizuoka University, Japan)
Nonelectrical poling behaviors of nonlinear optical chromophores with different electron accepting moieties ... 207
- C-P7** Norio Tagawa (Tohoku University, Japan)
Optical Properties of Photochromic Nanocrystals ... 208
- C-P8** Yasuhiro Ogawa (Osaka University, Japan)
Polarization Dependence of Photonic Bandgap of Cholesteric Blue Phase II Deformed by an Applied Electric Field ... 209
- C-P9** Junji Kobashi (Osaka University, Japan)
Photo-Tunable Extraordinary Optical Transmission in a Liquid Crystal-Infiltrated Metallic Nanohole Array ... 210
- C-P10** Ryotaro Ozaki (Ehime University, Japan)
Large Effective Birefringence of a Ferroelectric Liquid Crystal at Highly Oblique Incidence ... 211
- C-P11** Masahiro Morimoto (Kobe University, Japan)
Electrical Properties of Ferroelectric Liquid Crystals on Thermal Phase Transition ... 212
- C-P12** Yusuke Funatsu (Kagawa University, Japan)
Electrical properties of ferroelectric liquid crystal bearing a terthiophene moiety ... 213
- C-P13** Hirosato Monobe (AIST, Japan)
Carrier Transports and Viscosity of Discotic Liquid Crystalline Photoconductor in the Isotropic Liquid Phase ... 214
- C-P14** Takamitsu Nakagaki (Shizuoka Univ, Japan)
Phase transition-induced changes in the viscosity of the interfacial layers between liquid crystals and a polymer sublayers ... 215
- C-P15** Duong Quoc Toan (National Defense Academy, Japan)
Direct orientation of nematic liquid crystal using aligned nanofibers from electrospinning ... 216
- C-P16** Keiji Yokota (Yokohama National University, Japan)
Study on morphology of three-component lipid membranes formed by self-spreading method ... 217

- C-P17** Naoya Kanetada (Yamaguchi University, Japan)
Adsorption-Aggregation Equilibria of Water Soluble Porphyrins Adsorbed on the Tungsten
Oxide Colloid Surface: Effect of Peripheral Substituents ... 218

Session D (Biomolecular Electronics and Bioanalysis)

- D-P1** Yoshiaki Okamoto (Toyohashi University of Tech., Japan)
Single molecule observation of lipid bilayers on graphene oxide ... 219
- D-P2** Guewha Steven Huang (NCTU, Taiwan)
Fabrication of protein transistor: effects of topology, temperature, and pH on the binding
affinity at molecular junctions ... 220
- D-P3** Takeshi Tajiri (Tokushima University, Japan)
Microsphere optical biosensor for β -Galactosidase detection ... 221
- D-P4** Yuhki Yanase (Hiroshima University, Japan)
Visualization of individual cell activation by means of SPR imaging ... 222
- D-P5** Shuheji Shinohara (Kyushu University, Japan)
Fluorescence enhancement produced by Ag nanoparticle 2D sheets ... 223
- D-P6** Daisuke Tanaka (Kyushu University, Japan)
Improved angular sensitivity of SPR sensors by use of self-assembled Ag nanoparticle top
coating ... 224
- D-P7** Sayuri Ooiwa (Kyushu University, Japan)
Local Surface Plasmon Field-Enhanced Fluorescence on Au Nanoparticle Sheet ... 225
- D-P8** Kenji Sakamoto (Kyushu Institute of Technology, Japan)
The effective micro-isolation column for allergic diagnostic chip ... 226
- D-P9** Tsuyoshi Kuno (Nagoya University, Japan)
Optimization of Microelectrode and Circuit for Amperometric Electrochemical Sensor Array
... 227
- D-P10** Eiji Usukura (Kyushu University, Japan)
Fluorescence enhancement by 2D nanoparticle sheet ... 228
- D-P11** Yuki Hamasaki (Kyushu University, Japan)
Anionic Effects during the Redox reactions of Au-Ag core-shell nanorods ... 229

- D-P12** Eun Ah Choi (Gachon University, Korea)
ZnSe-Ferritin Nanodots as a Sensor Media for Neurotransmitters ... 230
- D-P13** Kengo Ogawa (FINE CRYSTAL Co.,Ltd., Japan)
Highly Sensitive Analysis of Glutathione and Glutathione S-transferase Reaction in Liquid Phase using Surface Acoustic Wave Biosensors ... 231
- D-P14** Yoshiaki Kashimura (NTT Basic Res. Labs., Japan)
Dynamics of lipid bilayer self-spreading under an electric field applied to a metallic nanogate ... 232
- D-P15** Urara Sugimoto (Hiroshima University, Japan)
Study of low cost material for micro analysis chip ... 233
- D-P16** Yasutaka Matsuo (Hokkaido University, Japan)
Detection of herbal medicine ingredient by Surface Enhanced Raman scattering Spectroscopy ... 234
- D-P17** Yoshihiro Haruyama (Advanced ICT Research Institute, NICT, Japan)
Patterning of purple membrane thin films by UV inactivation ... 235
- D-P18** Aya Tanaka (NTT Basic Res. Labs., Japan)
Fabrication of a cytoskeleton-mimetic structure array on a silicon substrate ... 236
- D-P19** Norimitsu Wakama (NAIST, Japan)
A polarization-analyzing CMOS image sensor with metal wire grid in 65-nm standard CMOS technology for in-situ chiral analysis ... 237
- D-P20** Tomohiro Hayashi (Tokyo TECH, Japan)
Surface force analysis of nonionic and zwitterionic nonfouling self-assembled monolayers ... 238
- D-P21** Yuhei Terada (Kyushu University, Japan)
Sugar-incorporating polymer nanoparticles for biosensing using structural color ... 239
- D-P22** Shigeaki Abe (Hokkaido University, Japan)
Photoluminescent ceramics nanoparticles for bio-imaging probe ... 240
- D-P23** Shuheji Yoshino (Tohoku University, Japan)
High Efficient bioelectrocatalysis by Ordered Molecular Assembly inside Carbon Nanotube Forests ... 241
- D-P24** Hiroki Suzuki (Akita University, Japan)
Pine Pollen Sensing Using Fatty Acid and 7-hydroxy-4-methylcoumarin on Hydrogenated Amorphous Silicon Film on QCM Sensor ... 242

Session E ([Special Session] Organic Photovoltaics)

- E-P1 Jong Baek Park** (Pusan National University, Korea)
Organic Photovoltaic Devices Fabricated Using New Conjugated Polymers Consisting of Alkoxy- or Alkylselenophene-Substituted Benzodithiophene and Thiophene Units ... 243
- E-P2 Takahiro Kono** (AIST, Japan)
Synthesis, Photo-Electrochemical Properties, and OPV Performance of Novel Push-Pull Chromophores Having a Carbazole Moiety ... 244
- E-P3 Seung Ah Shin** (Pusan National University, Korea)
Synthesis and Characterization of 2,1,3-Benzoselenadiazole-Based Conjugated Polymer for Organic Photovoltaic Cells ... 245
- E-P4 Shinya Ikeda** (Nara Institute of Science and Technology, Japan)
Syntheses and Photovoltaic Properties of Anthracene-Thiophene Oligomers Using Photo-Convertible Soluble Precursors ... 246
- E-P5 On You Park** (Pusan National University, Korea)
P3HT-Based Bulk-Heterojunction Polymer Solar Cells Fabricated Using a Non-Fullerene Type Electron-Accepting Molecule ... 247
- E-P6 Shogo Noda** (NAIST, Japan)
Bulk-Heterojunction Photovoltaic Cells Doped with P3HT-Wrapped Single-Walled Carbon Nanotubes ... 248
- E-P7 Shiori Kanto** (NAIST, Japan)
Bright-Color Organic Photovoltaic Devices Using Benzothieno-Benzothiophenes for Room-Ambient Energy Harvesting ... 249
- E-P8 Ichiko Yamada** (Suzuka National College of Technology, Japan)
Morphology and Solar Cell Performance of Fluorinated Phthalocyanines ... 250
- E-P9 Hironori Ogata** (Hosei University, Japan)
Solvent Dependence of the Morphology and Photovoltaic Properties of Organic Solar Cells with Azaacene Derivatives ... 251
- E-P10 Toshihiko Kaji** (IMS, Japan)
Photocurrent Improvement in Organic Solar Cells with Various Acceptors by Utilizing Co-Evaporant Induced Crystallization ... 252

- E-P11** Takanori Okukawa (Nihon University, Japan)
Bulk-Heterojunction Solar Cells Fabricated Using Two Donors of P3HT and Phenylene–
Thiophene Oligomer Derivative ... 253
- E-P12** Kohei Ueda (Kyushu University, Japan)
Ternary Blend Active Layer Composed of Two Donor Polymers in Bulk Heterojunction
Organic Photovoltaic Cells ... 254
- E-P13** Takaya Ito (AIST, Japan)
Morphological Changes in PCDTBT/PCBM Active Layers for Polymer Solar Cells by
Thermal Annealing ... 255
- E-P14** Shinji Hagio (Kyushu University, Japan)
Structure Control of All-Polymer Organic Photovoltaic Cells by Evaporative Spray
Deposition Using Ultradilute Solution Technique ... 256
- E-P15** Takamichi Shinohara (Graduate School of Engineering, Kyushu University, Japan)
Precise Characterization of Molecular Aggregation State and 'Buried' Nano-Structure in
Ordered Heterojunction Organic Photovoltaics ... 257
- E-P16** Quang-Duy Dao (Osaka University, Japan)
Effects of Processing-Additive Solvents on Photovoltaic Efficiency of
Mesogenic-Phthalocyanine Solar Cells ... 258
- E-P17** Takuya Hibino (Shizuoka University, Japan)
Formation of Higher Order Structures in Binary Organic Thin Films Prepared by a
Solution-Cast Technique ... 259
- E-P18** Rintaro Higuchi (Kumamoto University, Japan)
Aromatic Poly(azomethine)-Based Photovoltaic Cells Prepared by Chemical Liquid
Deposition ... 260
- E-P19** Shenghao Wang (University of Tsukuba, Japan)
Chemical Interaction at the Interface Between Bathocuproine and Mg ... 261
- E-P20** Hiroyuki Matsuzaki (AIST, Japan)
Ultrafast Absorption Spectroscopy of Organic Solar Cells Utilizing a Diketopyrrolopyrrole
Polymer ... 262
- E-P21** Yosei Shibata (Tokyo Institute of technology, Japan)
Analysis of Carrier Transport Properties of Co-Deposited Films Based on
Terminally-Modified Oligothiophene for Organic Photovoltaics ... 263

- E-P22** Yoshinori Aoyama (Tokyo Institute Tech, AIST, Japan)
Direct Effect of Photooxidized Poly(3-hexylthiophene) on the Device Characteristics in
bulkhetero junction Solar Cell ... 264
- E-P23** Pipat Ruankham (Kyoto University, Japan)
Fine Tuning of Morphologies of Nanostructured ZnO and Interface of ZnO/Polymer for
Hybrid Solar Cells ... 265
- E-P24** Cheah Li Leow (Research Center for Solar Energy Chemistry, Osaka University,
Japan)
Organic/Inorganic Hybrid Solar Cells with ZnO Nanostructures Prepared by Chemical
Solution Methods ... 266
- E-P25** Teng Ma (RIEC, Tohoku University, Japan)
Surface Modification for Titania/Polymer Hybrid Solar Cells ... 267
- E-P26** Jaehoon Lim (Seoul National University, Korea)
Precise Control of the Crystal Structure and Kinetic Behavior of CdSe Tetrapods for High
Morphological Uniformity ... 268
- E-P27** Ryota Kojima (RIEC, Tohoku University, Japan)
Influence of Electrolyte Composition on Anodization Process of Titanium Films ... 269
- E-P28** Taichiro Morimune (Kagawa National College of Technology, Japan)
Environment Friendly Solar Cells Based on $\text{Cu}_2\text{ZnSnS}_4/\text{C}_{60}$... 270
- E-P29** Naoto Matsuyama (Osaka University, Japan)
Organic Photovoltaic Cells Using Poly(*N*-isopropylacrylamide) (PNIPAM) as a Cathode
Buffer Layer ... 271
- E-P30** Kannappan Santhakumar (Aichi Institute of Technology, Japan)
Comparison of Polymer Organic Solar Cells Using Highly Conductive Modified PEDOT:PSS
Films Prepared through Spin and Spray Coating Method ... 272