Poster session A (17:30~19:00, Monday 22)

PA001 Influence of LiF thickness on electrical switching behavior in a cross-point structure using self-assembly molecules

Yu Wang, Qijing Wang, Lan Chen, Huabin Sun, Yi Shi, Yun Li*
Nanjing University, China

PA002 Theoretical Prediction of Molecular Arrangements in Crystal Structures for Organic Semiconductors

Shigeaki Obata[1,2], Toshiaki Miura[2], and Yukihiro Shimoi[2]
[1]Toyohashi University of Technology, Japan, [2]Nanosystem Research Institute (NRI), AIST, Japan

PA003 Improvement Charge Injection in P-Type Polymer Thin Film Transistors with Low-Cost Molybdenum Electrodes through Dodecanoic Acid Self-Assembled Monolayer

Gi-Seong Ryu, Yong-Young Noh
Dongguk University, Korea

PA004 Graphoepitaxial Alignment for Polymer Nanowires Transistor

Seungjun Oh[1], Ryoma Hayakawa[1], Yutaka Wakayama[1,2]
[1]NIMS, Japan, [2]Kyushu University, Japan

PA005 Enhanced performance in isoindigo based organic small molecules field effect transistors using solvent additives

Yu Jung Park[1], Bright Walker[2], Shinuk Cho[3], Jung Hwa Seo[1,*]
[1]Dong-A University, Korea, [2]University of Ulsan, Korea, [3]Ulsan National Institute of Science and Technology, Korea

PA006 ESR observations of ambipolar charge carriers in ionic-liquid gated organic transistors of polyfluorene-based conjugated polymers

Yuki Nakamura[1], Hisaaki Tanaka[1], Yukihiro Shimoi[2], Shin-ichi Kuroda[1]
[1]Nagoya University, Japan, [2]AIST, Japan

PA007 ESR observations of charge carriers in highly-doped PBTTT thin films in ionic-liquid-gated transistors

Satoshi Nishio, Yoshihiro Ando, Hisaaki Tanaka, Hiroshi Ito, Shin-ichi Kuroda
Nagoya University, Japan

PA008 Influence of Temperature Variation on Field Effect Transistor Properties using a Solution-Processed Liquid Crystalline Semiconductor, C8BTBT

Hirosato Monobe[1], Masaomi Kimoto[2], Yo Shimizu[1]
[1]AIST, Japan, [2]Okuno Chemical Industries Co. Ltd.

PA009 Enhanced environmental and operational stability induced by dipole polarization of dielectric layer in organic field-effect transistors

Nimmakayala V. V. Subbarao[1], Murali Gedda[2], Parameswar K. Iyer[1,3], Dipak K. Goswami[1,2,4]
[1]Center for Nanotechnology, [2]Department of Physics, [3]Department of Chemistry, Indian Institute of Technology Guwahati, India, [4]Department of Physics, Indian Institute of Technology Kharagpur, India

PA010 Influence of Pentacene Film Thickness on Environmental Stability of Pentacene Thin-Film Transistors

Jin-Hyuk Kwon[1], Xue Zhang[2], Ji-Ho Park[2], Do-Kyung Kim[1], Jin-Hyuk Bae[1], Jaehoon Park[2]

[1]Kyungpook National University, Korea, [2]Hallym University, Korea

PA011 Environmental Effects on the Electrical Characteristics of Solution-Processed Poly-3-hexylthiophene Thin-Film Transistors

Kyung-Tae Park[1], Xue Zhang[2], Ji-Ho Park[2], Jin-Hyuk Bae[1], Jaehoon Park[2]

[1]Kyungpook National University, Korea, [2]Hallym University, Korea

PA012 The effect in forming process of organic resistive memory device using gold nanoparticles embedded in the polystyrene layer due to the applied constant voltage and change in temperature

Atsushi Fukushima, Katsuhiko Fujita

Kyushu University, Japan

PA013 Molecular Mixing in Donor and Acceptor Domains as Investigated by Scanning Transmission X-ray Microscopy (STXM)

Yutaka Moritomo[1], Takeaki Sakurai[1,2], Takeshi Yasuda[3], Yasuo Takeichi[4], Kouhei Yonezawa[1], Hayato Kamioka[1], Hiroki Suga[5], Yoshio Takahashi[4,5], Yuji Yoshida[6], Nobuhito Inami[4], Kazuhiko Mase[4], Kanta Ono[4]

[1]University of Tsukuba, Japan, [2]PRESTO, JST, Japan, [3]NIMS, Japan, [4]KEK, Japan, [5]Hiroshima University, Japan, [6]AIST, Japan

PA014 Solution-processed NiO thin-film transport layers on the PTB7: $PC_{71}BM$ organic solar cells

Koudai Kiriishi[1], Kosei Hashiba[1], Jiayu Qiu[1], Tatsuki Yanagidate[1], Masaya Ohzeki[1], Shunjiro Fujii[2], Hiromichi Kataura[2], Yasushiro Nishioka[1]

[1]Nihon University, Japan, [2]AIST, Japan,

PA015 Infrared organic photovoltaic device based on Charge-Transfer Complexes

Hin-Wai Mo, Chun-Sing Lee

City University of Hong Kong

PA016 Characterization of Bulk Heterojunction Solar Cells with Ternary Mixed PTB7:PCDTBT:$PC_{71}BM$ Active Layers

Yuta Kaneko[1], Kodai Kiriishi[1], Jiayu Qiu[1], Shunjiro Fujii[2] Hiromichi Kataura[2], Yasushiro Nishioka[1]

[1]Nihon University, Japan, [2]AIST, Japan

PA017 Organic Solar Cells Based on Ternary Blend Active Layer of a Donor PTB7 and Two Acceptors PC61BM, PC71BM

Jiayu Qiu[1], Koudai Kiriishi[1], Kosei Hashiba[1], Tatsuki Yanagidate[1], Shunjiro Fujii[2], Hiromichi Kataura[2], Yasushiro Nishioka[1]

[1]Nihon University, Japan, [2]AIST, Japan

PA018 Fluorine Atoms containing Fulleropyrrolidine Derivatives for Organic Solar Cells

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

[1]Osaka University, Japan, [2] Daikin Industries, Ltd., Japan,

PA019 Solution-Processed Small Molecular Bulk Heterojunction Photocells with p-DTS(FBTTh$_2$)$_2$:C$_{70}$ Composites

Kazuya Tada
University of Hyogo, Japan

PA020 Organometal Perovskite Solar Cells Employing NPD:MoO_3 Hole Transport Layer

Vincent Eze, Binglong Lei, Hideo Furuhashi, Tatsuo Mori.
Aichi Institute of Technology, Japan

PA021 Efficiency Enhancement in Organic Photovoltaic Cells by using Capped-Carbon Nanotubes

Shota Ono[1], Riichi Kuwahara[1,2], Kaoru Ohno [1]
[1]Yokohama National University, [2]Accelrys, K. K.

PA022 Influence of UV-ozone treated CuPc hole transport layer on the performance of PCDTBT:PC$_{71}$BM bulk heterojunction organic solar cells

Palanisamy Kumar[1], Kumar Abhirami[1], Murugesan Vijay Srinivasan[1], Norio Tsuda[1], Jun Yamada[1], Paik-Kyun Shin[2], Narayana Perumal Rajesh[3], Shizuyasu Ochiai[1]
[1]Aichi Institute of Technology, Japan, [2]Inha University, Korea, [3]SSN College of Engineering, India

PA023 Performance of Inverted Photovoltaic Solar Cell Based on the UV-ozone Treated ZnO Electron Transport Layer

Kumar Abhirami[1], Palanisamy Kumar[1], Murugesan Vijay Srinivasan[1], Norio Tsuda[1], Jun Yamada[1], Paik-Kyun Shin[2], Narayana Perumal Rajesh[3], Shizuyasu Ochiai[1]
[1]Aichi Institute of Technology, Japan, [2]Inha University, Korea, [3]SSN College of Engineering, India

PA024 High-efficiency of PCDTBT:PC$_{71}$BM bulk heterojunction polymer solar cells by spin-coating using chlorine-free solvent

Murugesan Vijay Srinivasan[1], Palanisamy Kumar[1], Kumar Abhirami[1], Norio Tsuda[1], Paik-Kyun Shin[2], Jun Yamada[1], Narayana Perumal Rajesh[3], Shizuyasu Ochiai[1*]
[1]Aichi Institute of Technology, Japan, [2]Inha University, Korea, [3]SSN College of Engineering, India.

PA025 Efficiency Enhancement of Polymer Solar Cells with Three-component Active Layer

Seonju Jeong[1], Yoon Soo Han[2]
[1]Korea Advanced Institute of Science and Technology, [2]Catholic University of Daegu, Korea

PA026 Effects of Gold Nanorods on Photocurrents from Copper Phthalocyanine-Gold Nanorod Composite Films

Ippei Sakamoto, Hiroaki Yonemura, Sunao Yamada,
Kyushu University

PA027 Microwave-Assisted Polycondensation of 4-Octylaniline with Dibromoarylene using Pd-catalyzed C-N Coupling Reaction

Naoto Takase[1], Junpei Kuwabara[1], Seong Jib Choi[1], Takeshi Yasuda[2], Liyuan Han[2], Takaki Kanbara[1]
[1]University of Tsukuba, Japan, [2]NIMS, Japan

PA028 Highly Efficient Double Junction Tandem Solar Cell with Polymer-Fullerene Blend and Copper Indium Gallium Diselenide via Optimal Design

Hyeok Kim[1,2,*], Premkumar Vincent [2,*], Taehee Kim[1], Dong-Seok Song[3], Jin-Hyuk Kwon[3], Do-Kyung Kim[3], Shin-Won Kang[3], In-Man Kang[3], Jaehoon Park[4], and Jin-Hyuk Bae[3]

[1]Korea Institute of Science and Technology, Korea, [2]Université Paris Diderot, France, [3]Kyungpook National University, Korea, [4]Hallym University, Korea

PA029 Low bandgap polymers based on benzo[1,2-b:4,5-b']thiophene and thieno[3,4-b] thiophene segments for organic solar cells.

Honggi Kim, Hyungjin Lee, Youngjun Jeong, Donghyun Seo, Youngu Lee

Daegu Gyeong buk Institute of Science and Technology (DGIST), Korea

PA030 Improvement of Conjugated Copolymer-Based Bulk Heterojunction Solar Cells by blending Flame-made ZnO Nanoparticles

Sukon Phanichphant[1], Viruntachar Kruefu[2,**], Robert C. Coffin[3], David L. Carroll[3], Jatuphorn Wootthikanokkhan[4,5], Chanitpa Khantha[5,*]

[1]Chiang Mai University, Thailand, [2]Maejo University, Thailand, [3]Wake Forest University, USA, [4]Division of Materials Technology, School of Energy, Environment and Materials, King Mongkut's University of Technology Thailand, [5]Nanotec-KMUTT Center of Excellence on Hybrid Nanomaterials for Alternative Energy, King Mongkut's University of Technology Thonburi, Thailand

PA031 Porphycene–Diketopyrrolopyrrole Conjugates for Organic Photovoltaics

Takuya Okabe[1], Hiroyuki Saeki[1], Daiki Kuzuhara[1], Hiroko Yamada[1], [2]

[1]Nara Institute of Science and Technology, Japan, [2]CREST, JST, Japan

PA032 Direct comparison of covalently-linked dyad and a 1:1 mixture of tetrabenzoporphyrin and fullerene as organic photovoltaic materials

Yuto Tamura[1], Hiroyuki Saeki[1], Daiki Kuzuhara[1], and Hiroko Yamada[1,2]

[1]Nara Institute of Science and Technology, Japan, [2]CREST, JST, Japan

PA033 The influence of Sheet Resistance of Electrodes on Flexible Organic Thin Film Solar Cell

Daiki Kato[1], Atsushi Aoki[1], Takayuki Abe[2]

[1]Nagoya Institute of Technology, Japan, [2]University of Toyama, Japan

PA034 Comparison of carrier mobilities of annealed P3HT films using CELIV and SCLC methods

Chiho Katagiri[1], Ken-ichi Nakayama[1,2]

[1]Yamagata University, Japan, [2]Research Center for Organic Electronics (ROEL)

PA035 Improvement of electron transport rate with employing W-doped TiO_2 blocking layer in dye sensitized solar cells

Ji Young Park[1], Bo Youn Jang[1], Do Kyung Lee[2], Jae Hong Kim[1*]

[1]Yeungnam University, [2]Catholic University of Daegu

PA036 p-type Dye-sensitized solar cells Using Carbazole-Based Organic Dyes

Ji Young Park[1], Bo Youn Jang[1], Nguyen Thi Hai[1], Kwang-soon Ahn[1], Jae Hong Kim[1*]

[1]Yeungnam University

PA037 The Investigation of Energy Acceptors and Donors in Förster Resonance Energy Transfer System for Fabricating Effective Quasi-Solid State Dye-sensitized Solar Cells

Young Rock Kim[1], Chi Hwan Lee[1], Jung Min Cho[1], Jae Hong Kim[1*]
[1]Yeungnam University

PA038 Preparation and Characterization of ZnO Nanostructured Electrode for Effective Dye Sensitized Solar Cells

Young Rock Kim[1], Ji Young Park[1], Do Kyung Lee[2], Jae Hong Kim[1*]
[1]Yeungnam University, [2]Catholic University of Daegu

PA039 Effect of Mass Transfer Properties of Cobalt Polypyridine Complexs on the Dye-Sensitized Solar Cells Performance

Nguyen Thi Hai[1], Chau Thi Thanh Thuy[1], Hyeong Jin Yun[1], Jae Hong Kim[1*]
[1]Yeungnam University

PA040 Optimization of the thickness of Cu2-xS cathode for fabricating effective quantum dot-sensitized solar cells

Vu Hong Vinh Quy, Yeoung Pil Yoon, Hyeong Jin Yun, Kwang-Soon Ahn[*]
Yeungnam University, Korea

PA041 Julolidine–Based Organic Dyes with Neutral and Anion Anchoring Groups for Dye- Sensitized Solar Cells

Le Quoc Bao, Nguyen Thi Hai, Chi Hwan Lee, Suersh Thogiti, Jae Hong Kim[*]
Yeungnam University

PA042 A study on the effect of tourmaline in the TiO_2 photoanode for dye sensitized solar cells

Seok-Jae Kim[1], Hyun-Seok Ko[1], Gil-Ha Jeong[1], Jae-Jung Yun[2], Kyung-Hee Park[3], Eun-Mi Han[4*]
[1]Department of Advanced Chemicals & Engineering, Chonnam National University, Korea, [2]Jeonnam Nano Bio Control Center, Korea, [3]Chosun University, Korea, [4]Department of Applied Chemical Engineering, Chonnam National University, Korea

PA043 Synthesis and Analysis of Phosphorescent Iridium(III) Complexes for Organic Light-emitting Diodes

Sang-Yong Park, Sang-Wook Lee, Dong-Myung Shin
Hong-ik University

PA044 Long-term Degradation of the OLEDs probed by Sum-Frequency Generation Spectroscopy

Takayuki Miyamae[1,2], Noriyuki Takada[1,2], Toshihiro Yoshioka[2], Satoshi Miyaguchi[2], Hiroshi Ohata[2], and Tetsuo Tsutsui[2]
[1]AIST, Japan, [2] Chemical Materials Evaluation and Research Base (CEREBA)

PA045 New Amino Methyl Coumarin Derivative for OLED Blue Emitter

Seungho Kim[1], Kyung Jin Lee[2], Hwangyu Shin[1], Kwang-Yol Kay[2*], Jongwook Park[1*]
[1]The Catholic University of Korea, [2]Ajou University, Korea

PA046 A Polyacetylene via the Cyclopolymerization of 4,10-Bis(diethylmalonate)-1,6,11-dodecatriyne: Synthesis and Characterization

Yeong-Soon Gal[1], Sung-Ho Jin[2], Jong-Wook Park[3], Kwon Taek Lim[4]
[1]Kyungil University, Korea, [2]Pusan National University, Korea, [3]The Catholic University of Korea, Korea, [4]Pukyong National University, Korea

PA047 Effects of pn Doping in Thiophene/Phenylene Co-oligomers Thin Films

Fumio Sasaki[1], Yoshizo Kawaguchi[1], Hiroyuki Mochizuki[1], Satoshi Haraichi[1], Tomoaki Ishitsuka[2], Teruhisa Ootsuka[2], Toshihisa Tomie[2], Shuji Watanabe[3], Yukihiro Shimoi[4], Takeshi Yamao[5], Shu Hotta[5]

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PA048 Synthesis and properties of novel polyimides with cyclobutane-1,2,3,4-tetra-carboxylic dianhydride (CBDA)

Sang-Wook Lee

Hong-ik University, Korea

PA049 Synthesis and Photophysical Properties of Fluorene Containing Hyperbranched Conjugated Poly(para-phenylene vinylene) Derivatives

Hoon Joo Yang[1], Jaemin Lee[2], Taek Ahn[1]

[1]Kyungsung University, Korea, [2]Korea Research Institute of Chemical Technology

PA050 Light-emitting Electrochemical Cells based on Cationic Iridium Complexes Containing Oxazoline Ancillary Ligand

Jiyoon Heo, Youngbae Jeon, Taeyoon Kim, Youngson Choe[*]

Pusan National University, Korea

PA051 Polymer Light Emitting Diodes using Organic Transparent Electrodes

Wataru Mizutani[1], Kazumi Aoba[2], Hideki Sakai[2], Takashi Ohmori[2], Hayato Hyakutake[2]

[1]AIST, Japan, [2]Denshi Kako, Co.,Ltd., Japan

PA052 Theoretical study of xanthen and phenothiazine derivatives for TADF emitter

Dong Yuel Kwon, Gun Hyung Lee, Young Sik Kim

Hongik University

PA053 High-efficiency dicyanobenzene-based organic light-emitting diodes exhibiting thermally activated delayed fluorescence

Gun Hyung Lee, Dong Yuel Kwon, Young Sik Kim

Hongik University

PA054 Effect of Reactive Self-Assembled Monolayers for the Interface Control of Inorganic-Organic Junctions of Organic Light-Emitting Diodes

Sotaro Ono[1], Seong-Ho Kim[1], Kuniaki Tanaka[1], Rigoberto C. Advincula[2], Hiroaki Usui[1]

[1]Tokyo University of Agriculture and Technology, [2]Case Western Reserve University, USA

PA055 Synthesis and Performance of Water-Soluble Perylenediimide Derivatives for Biological Fluorescence Imaging

Jin-Kyung Park[1], Ran Hee Kim[1], Jin Sun Park[1], Kwang-Sup Lee[1,*], Sehoon Kim[2]

[1]Hannam University, Korea, [2]Korea Institute of Science and Technology

PA056 Light Amplification in Single-crystal Microcavity of p-Sexiphenyl

Hisao Yanagi[1], Kenji Tamura[1], Yosuke Tanaka[1], Fumio Sasaki[2]

[1]Nara Institute of Science and Technology, Japan, [2]Electronics and Photonics Research Institute, AIST, Japan

PA057 Fluorescence and Amplified Emission Properties of Single-crystal 2,5-Bis(4-biphenylyl)thiophene

Yasuyuki Ono[1], Fumio Sasaki[2], Hisao Yanagi[1]
[1]Nara Institute of Science and Technology, [2]AIST, Japan

PA058 A Unique Route to Realizing Molecular Pixel Photoswitches: Manipulating Intermolecular Energy Transfer between Different Chromophores

Dojin Kim, Ji Eon Kwon, Soo Young Park
Seoul National University, Korea

PA059 Supramolecular Approach for Reversible R-G-B Tricolor Fluorescence Switching in Bicomponent Solid State

Hyeong-Ju Kim[1], Dong Ryeol Whang[1], Johannes Gierschner[2], Soo Young Park[1]
[1]Seoul National University, Korea, [2]Ciudad Universitaria de Cantoblanco, Spain

PA060 Stimuli-Responsive Photoluminescent Properties of Diaryl Substituted Fumaronitrile Derivatives

Sang-yoon Oh, Sang Kyu Park, Illhun Cho, Soo Young Park*
Seoul National University, Korea

PA061 Fluorescence laparoscopy imaging of sentinel lymph node metastasis in vivo mouse model

Takuma Saito[1], Rei Shirogane[1], Yuma Ebihara[2], Liming Li[1]
[1]Chitose Institute of Science and Technology, Japan, [2]Hokkaido University, Japan

PA062 Investigation of Photochromic Diarylethene with Electron-acceptor Attached

Xiaochuan Li[1], Jinli Xu[1], Wenyan Xu[1], Yaya Zhang[1], Young-A Son[2],*
[1]Henan Normal University, China, [2] Chungnam National University, Korea

PA063 Difference in Solid-State Polymerization of Butadiyne Derivatives with Gelation Ability

Kohei Kikuchi[1], Yoko Tatewaki[2], Shuji Okada[1]
[1]Yamagata University, Japan, [2]Tokyo University of Agriculture and Technology, Japan

PA064 Microcapsulated Quasi-Amorphous Photonic Solutions with High Color Saturation for Optical Applications

Chunhee Seo, Jihye Nam, Youngjong Kang
Hanyang University, Korea

PA065 Crystallization Behavior of 2,5-bis(4-biphenylyl)thiophene by Precipitation Process

Hiroyuki Mochizuki, Fumio Sasaki,
AIST, Japan

PA066 Emission Behavior of Fluorinated Distyrylbenzene Derivatives

Hiroyuki Mochizuki, Yoriko Sonoda, Fumio Sasaki, Reiko Azumi
AIST, Japan

PA067 Nanopatterning of Rare-Earth-Ion-Doped Nanoparticle Films on Flexible Plastic Sheets Using Micromolding in Capillaries

Satoshi Watanabe[1,], Takeo Asanuma[1], Hiroshi Hyodo[2], Kohei Soga[1], Mutsuyoshi Matsumoto[1]
[1]Tokyo University of Science, Japan. [2]Tohoku University, Japan

PA068 Parity effect on electric-double-layer capacitance in few-layer graphene

Eri Uesugi, Hidenori Goto, Yoshihiro Kubozono
Okayama University, Japan

PA069 Synthesis and Characterization of Bridged Polysilsesquioxane Nanoparticles and Their Nanocomposites with Polycaprolactone by UV Irradiation

Deock-Sam Park, Jung-Hee Lee, Jung-Hyurk Lim, Kyung-Min Kim
Korea National University of Transportation

PA070 Oriented Thin Films of PTB7, a Low-Band-Gap Polymer, Prepared by Friction Transfer Method

Nobutaka Tanigaki[1], Claire Heck[1], Toshiko Mizokuro[1], Yousei Shibata[2], Tetsuhiko Miyadera[2], and Tomoyuki Koganezawa[3]
[1]Research Institute for Ubiquitous Energy Devices (UBIQEN), AIST, Japan, [2]Research Center for Photovoltaic Technology (RC-PVT), AIST, Japan, [3]Japan Synchrotron Radiation Research Institute (JASRI), Japan

PA071 Long-Range Electron Transport of Ru Complex Multilayer Made by Layer by Layer Technique

Takao Ishida[1], Makiko Oyama[1], Hiroaki Ozawa[2] , Masa-aki Haga[2]
[1]AIST, Japan, [2]Chuo University, Japan.

PA072 Improved Crystallinity of Poly(3-hexylthiophene-2,5-diyl):[6,6]-Phenyl-C_{61} butyric acid methyl ester Film by Pulsed Electrospray Deposition

Katsumi Suzuki, Asuki Toda, Yingjie Liao, Takeshi Fukuda, Norihiko Kamata, Zentaro Honda
Saitama University, Japan

PA073 Turning reflection color of polyaniline analogs film by introducing a dye unit

Zhian Wang, Junpei Kuwabara, Takaki Kanbara
University of Tsukuba, Japan

PA074 Fabrication of moth-eye structure on photoresist film by laser control of reaction time constant

Kazuaki Takeshima, Chikara Egami
Shizuoka University, Japan

PA075 Dispersion Control of Perylene Fluorophores in a Polymer Microsphere

Koshiro Yoshioka,[1] Tsunenobu Onodera, [1] Hitoshi Kasai,[1] Shuji Okada,[2], Hidetoshi Oikawa [1]
[1]Tohoku University, Japan, [2]Yamagata University, Japan

PA076 Narrow optical Bandgap of Nano-sized Fe-Doped Bismuth Titanate with Solid State Synthesis.

Myoung Geun Song[1], Chung Wung Bark[1],
Gachon University, Korea

PA077 Large-scale Fabrication of Two Dimensional Electron Gas at $LaAlO_3$ /$SrTiO_3$ interface

Kim Do Hyun, Chung Wung Bark
Gachon University, Korea

PA078 Structural and Optical Properties of Fe Doped $Bi_{3.25}La_{0.75}Ti_2O_{12}$ Thin Film Deposited by RF Sputtering

Jun Young Han, Chung Wung Bark
Gachon University, Korea

PA079 Surface functionalization of carbon nanotubes by addition of benzyl group derivatives generated by photoirradiation

Tomoya Takada[1], Shigeaki Abe[2]
[1]Chitose Institute of Science and Technology, Japan, [2]Hokkaido University, Japan

PA080 Fabrication of Polydiacetylene Nanofiber Hybridized with Au Nano-Shell toward High Performance Nonlinear Optical Material

Rie Chiba[1], Tsunenobu Onodera[1], Yoshihiko Takeda[2], Hitoshi Kasai[1], Hidetoshi Oikawa[1]
[1]Tohoku University, Japan, [2]NIMS, Japan

PA081 Speed enhancement of organic triphenylamine-based photorefractive materials through the control of bulk-state

Sho Tsujimura[1,2], Takashi Fujihara[2,4], Takafumi Sassa[2,3], Kenji Kinashi[1], Wataru Sakai[1], Koji Ishibashi[2,3], Naoto Tsutsumi[1]
[1]Kyoto Institute of Technology, Japan, [2]Advanced Device Laboratory, RIKEN, Japan, [3]RIKEN Center for Emergent Matter Science (CEMS), Japan, [4]Institute of Systems, Information Technologies and Nanotechnologies (ISIT), Japan

PA082 Highly Efficient Photoalignment Treatment for Polyimides Containing Azobenzene in the Backbone Structure

Kenji Sakamoto[1], Kiyoaki Usami[2], Kazushi Miki[1]
[1]Polymer Materials Unit, NIMS, Japan, [2]Osaka Sangyo University, Japan

PA083 Improved Photobleaching for (1,10-phenanthrolune)tris[4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedionato]europium(III) Particle Embedded in Sol-Gel Derived Glass Film

Tomokazu Kurabayashi, Tatsuki Yamaki, Takeshi Fukuda, Norihiko Kamata
Saitama University, Japan

PA084 Fabrication and Characterization of Cytochrome C Modified Poly(3-Amino-benzoic Acid) Thin Film

Saengrawee Sriwichai[1,2], Sumarin Niroj[1], Sukon Phanichphant[2]
[1]Department of Chemistry, Faculty of Science, Chiang Mai University, Thailand, [2]Materials Science Research Center, Faculty of Science, Chiang Mai University, Thailand

PA085 Nanocrystallization of Insoluble Fluorescent Complexes and their Optical Properties

Ryuju Suzuki, Tsunenobu Onodera, Hitoshi Kasai, Hidetoshi Oikawa
Tohoku University, Japan

PA086 Orientation of rod-shape molecule, 2,2'-Bis[4-(trifluoromethyl)phenyl]-5,5'-bithiazole films deposited in a vacuum on oriented α-sexithiophene films

Toshiko Mizokuro, Claire Heck, Nobutaka Tanigaki
AIST, Japan

PA087 Halloysite/metal-organic framework hybrid for the catalyst of fuel cells

Jeongwook Lee, Jaehyoung Ko, Hoik Lee, Jeongju Ryu, Daewon Sohn*,
Hanyang University, Korea

PA088 Solution growth of oligothiophenes on patterned self assembled monolayers

S. Koshika[1], R. Kamiya[1], S. Yamamoto[2], M. Suzuki[2], H. Yamada[2], N. Yoshimoto[1]
[1]Iwate University, Japan, [2]Nara Institute of Science and Technology, Japan

PA089 Structural changes and physical properties of graphene oxide thin films by pulsed light irradiation

Hiroaki Tachibana, Reiko Azumi
AIST, Japan

PA090 Photophysical and amplified spontaneous emission properties of oligofluorene thin films

Eunyoung Choi[1], Loïc Mager[2], Alberto Barsella[2], Masanobu Uchiyama[3,4], Tetsuya Aoyama[3], Delphine Pitrat[5], Cyrille Monnereau[5], Koukou. D. Dorkenoo[2], Alain Fort[2], Chantal Andraud[5], Jeong Weon Wu[1], Jean Charles Ribierre[1,*]
[1]Ewha Womans University, Korea, [2]CNRS-Université de Strasbourg, France, [3]RIKEN, Japan, [4]The University of Tokyo, Japan, [5]CNRS-Ecole Normale Supérieure de Lyon, France

PA091 IR Studies on the Molecular Orientation in Mixed Langmuir-Blodgett Films of Long-Chain Fatty Acid and Hybrid Carboxylic Acid

S. Fujii, S. Watanabe, M. Matsumoto
Tokyo University of Science, Japan

PA092 Fabrication of Al_2O_3 Coatings on Metal Substrate by Electrophoretic Deposition with Addition of Polydimethylsiloxane-Based Organic-Inorganic Hybrid Materials as a Binder

Yusuke Aoki[1], Sojiro Yokoi[1], Kazuhiko Kasano[2]
[1]Mie University, Japan, [2]Displaytech 21, Inc., Japan

PA093 Development for Fabrication of Size- and Morphology -Controlled Titanylphtalocyanine Nanocrystals

Kaito Kogure[1], Takuya Kikuchi[2], Tsunenobu Onodera[1], Hidetoshi Oikawa[1], Hitoshi Kasai[1]
[1]Tohoku University, Japan, [2]U–TEC Corporation, Japan

PA094 Potential energy surface and quantum molecular dynamics of collision-induced dimerization of fullerenes

Shuji Watanabe[1], Naoyuki Niitsu[2], Yukihiro Shimoi[2], Keiichiro Nasu[1]
[1]High Energy Accelerator Research Organization (KEK), [2]AIST, Japan

PA095 Analysis of Collagen Fiber Orientation in Bone of Different Aged Rats Using FTIR Imaging

Teppei Ito, Kyosuke Kanazawa, Hiromi Kimura-Suda
Chitose Institute of Science and Technology, Japan

PA096 High Contrast Measurement of Nanoparticle with Polarization Interferometric Nonlinear Confocal Microscope

Kohei Fujita, Chikara Egami
Shizuoka University, Japan

PA097 Surface Analysis of Polymer Hybrid-coated Anodic Aluminium Oxide

Yeong-Woo Kim[1], Yong-Kwang Cho[1], Chan-Young Park[1], Tae-Ho Kang[2], Il-Doo Chung[3], Won-Ki Lee[1]
[1]Pukyong National University, Korea, [2] KOST Co. Ltd., [3]Pusan National University, Korea

PA098 Control of Surface Properties of Poly(L-lactide) by Mixing of Lotus Powder

Hak Yong Lee[1], Saravanan Nagappan[2], Yeong Woo Kim[1], Chang-Sik Ha[2], Ildoo Chung[2], Won-Ki Lee

[1]Pukyong National University, Korea, [2]Pusan National University, Korea.

PA099 Preparation of Phase-Separated Polymer Microparticles

Olaf Karthaus[1], Masahiro Kashiwao[1], Tomonari Nozaki[1], Philipp Polzin[2]

[1]Chitose Institute of Science and Technology, Japan, [2]Kiel University, Germany

PA100 Theoretical prediction of crystal structures of phenacenes

Naoyuki Niitsu[1], Shigeaki Obata[1,2], Toshiaki Miura[1], Yukihiro Shimoi[1]

Nanosystem Research Institute (NRI), AIST, Japan

PA101 Broadband Terahertz Time-Domain Spectroscopy of Glassy Polymer Materials: PMMA and PVDF-TrFE

Yusuke Hashimoto, Tatsuya Mori, Seiji Kojima

University of Tsukuba, Japan

PA102 Terahertz Time-Domain Spectroscopic Study of Glassy Pharmaceutical Indapamide

Yukiko Kobayashi, Tomohiko Shibata, Tatsuya Mori, Seiji Kojima

University of Tsukuba, Japan

PA103 Displacement Current Induced by Electron Spin Resonance in Organic Semiconductor

Katsuichi Kanemoto, Takayuki Nakajima

Osaka City University, Japan

PA104 Electronic and Optical Properties of N-alkylated poly(p-benzamides) and Their Interaction with Lysine Chain for Immunosensor Application

Chananate Uthaisar[1], Saengrawee Sriwichai[2*], Veronica Barone[3], Akira Baba[4], Sukon Phanichphant[2], Kazunari Shinbo[4], Keizo Kato[4], Futao Kaneko[4]

[1]Fraunhofer USA Center for Coating and Laser Applications, USA, [2]Chiang Mai University, Thailand [3]Central Michigan University, USA [4]Niigata University, Japan

PA105 Terahertz Dynamics of Ionic Liquids: Water Mixtures

Tatsuya Mori, Yusuke Hashimoto, Seiji Kojima

University of Tsukuba, Japan

PA106 Structural, optical and electronic properties of C60-ferrocene hybrid nanosheets

Kenji Wakui, Hideaki Aizawa, Kiyoto Matsuishi

University of Tsukuba, Japan

PA107 Optical properties of C_{60} / Co-porphyrin hybrid crystals

Takaki Mori, Kiyoto Matsuishi

University of Tsukuba, Japan

PA108 The Effects of UV-curing Urethane/Siloxane Acrylate Resin Prepared by Using 3-Isocyanato-1-Propene on Adhesive Properties of Film

Jae-Hwan Chun[1,2], Jung-Mi Cheon[1], Boo-Young Jeong[1], Nam-Ju Jo[2]

[1]Korea Institute of Footwear & Leather Technology, Korea, [2]Pusan National University, Korea

PA109 Synthesis of Silica Based Fluorescent Nanoparticle for Detecting Amine Molecules

Myung Jun Lee, Hyung Sub Shin, Woong Cheol Seok, Eunjoo Yoo, Seung Woo Lee
Yeungnam university, Korea

PA110 Detection of Multiple Analytes on Carboxylated Polypyrrole Thin Film by Electrochemical Surface Plasmon Resonance Biosensor

Rapiphun Janmanee[1], Naoki Kobayashi[2], Akira Baba[2], Kazunari Shinbo[2], Keizo Kato[2], Futao Kaneko[2], Tadashi Yamamoto[3]
[1]Pibulsongkram Rajabhat University, Thailand, [2]Center for Transdisciplinary Research and Graduate School of Science and Technology, [3]Graduate School of Medical and Dental Sciences, Niigata University, Japan

PA111 Developing Surface-cleaning Method for Liquid-assisted-vacuum Deposited Pentacene Film

Noboru Ohashi,[1] Yosei Shibata,[2] Yuji Yoshida,[2] and Yuji Matsumoto[1]
[1]Department of Applied Chemistry, School of Engineering, Tohoku University,[2]AIST

PA112 Photoswitching devices consisting of an Au-nanoparticle capped by azobenzene molecules

Sou Ryuzaki, Kaisei Terada, Noboru Saito, Koichi Okamoto, Kaoru Tamada
Kyushu University, Japan

PA113 Vapor Adsorption to Polyvinyl Alcohol Thin Film Observed Using a Hybrid Sensor of Quartz-Crystal-Microbalance and Surface-Plasmon-Resonance

Kazunari Shinbo, Hiroshi Ishikawa, Yasuo Ohdaira, Akira Baba, Keizo Kato, Futao Kaneko
Niigata University, Japan

PA114 The Detection of Apolioprotein E-epsilon 4 gene (APOE4) via Fluorescence Quenching of Quantum Dots incorporated in Magnetic Silica Beads in Micro-fluidic Chip.

Young Jin, Do, Fei Zhao, Seshadri Reddy Ankireddy, Jong Sung, Kim**
Gachon University, Korea

PA115 New design of high sensitive bio-sensor by use of plasmonic full color

Shuhei Shinohara, Okamoto Koichi, Kaoru Tamada
Kyushu University, Japan

PA116 Colourimetric detection for Cancer cell by phage based self-templating structure

So-Young Lee[1], Chuntae Kim[1], Won-Guen Kim[2], So Young Yoo[3*], Jin-Woo Oh[1,2*]
[1]Nano Fusion Technology, Pusan National University,Korea, [2]Nanomaterial Engineering, Pusan National University, Korea. [3]Medical Research Center for Ischemic Tissue Regeneration, School of Medicine, Pusan National University, Korea,

PA117 Molecular dynamics simulation on the nanofiber formation of conducting polymers in solutions

Toshiaki Miura[1], Taiki Ito[2], Takeshi Shimomura[2]
[1]AIST, Japan, [2]Tokyo University of Agriculture and Technology, Japan

PA118 Supramolecular Discotic Columnar Liquid Crystals Built through Single Hydrogen Bonding between Carboxylic Acid and Pyridine Moieties

Seung Jun Lee[1], Jae Young Jho[1], Jun Hyup Lee[2]
[1]Seoul National University, Korea, [2]Myongji University, Korea

PA119 Preparation of Stable Anisotropic Films with Columnar Order from Polymerizable Star-shaped Supramolecular Liquid Crystals

Seung Jun Lee[1], Jae Young Jho[1], Jun Hyup Lee[2]

[1]Seoul National University, Korea, [2]Myongji University, Korea

PA120 PMMA/HNTs Composite Gel Polymer Electrolyte for Li Battery

Lidan Fan[1], Gang Qin[2]

[1]School of Civil Engineering, Henan Polytechnic University, China, [2]School of Materials Science and Engineering, Henan Polytechnic University, China

PA121 Comparison Study of Phenylquinoline-based on Iridium(III) Complexes for Solution Processable Phosphorescent Organic Light-Emitting Diodes by PEDOT:PSS and Graphene Oxide as a Hole Transport Layer

Chikyu Lee[1], Yulhee Kim[1], Jae Wook Lee[2], Yeong-Soon Gal[3], Sung-Ho Jin[1]

[1]Pusan National University, Korea, [2]Dong-A University, Korea, [3]Kyungil University, Korea

PA122 Synthesis and Characterization of New Phosphorescent Heteroleptic Iridium (III) Complex by Using Tetrazole as an Ancillary Ligand for Organic Light-Emitting Diodes

Woosum Cho[1], Hyungyoung Yoo[1], Thota Giridhar[1], Jae wook lee[2], Yeong-soon Gal[3], Sung-Ho Jin[1]

[1]Pusan National University, Korea, [2]Dong-A University, Korea, [3]Kyungil University, Korea

PA123 Thickness dependence of Cu_2O thin film deposited by FTS system

Gye Cheol Lee[1], Hyung Wook Choi[1], Sang Joon Park[2], Kyung Hwan Kim[1*]

[1]Department of Electrical Engineering, Gachon University, Korea, [2]Department of Chemical Engineering Gachon University, Korea

PA124 Purification of Single-Walled Carbon Nanotubes by using a Photochemically Removable Dispersant

Yoko Matsuzawa, Yuko Takada, Tetsuya Kodaira, Hideyuki Kihara, Masaru Yoshida

AIST, Japan

PA125 Development of organic thin film devices based on Cu(II) complex with tetrathiafulvalene moieties in the ligands

Hiroyuki Nishikawa[1], Atsushi Wachi[1], Masayuki Chikamatsu[2], Reiko Azumi[3]

[1]Ibaraki University, Japan, [2]Research Center for Photovoltaic Technologies, AIST, Japan, [3]Electronics and Photonics Research Institute, AIST, Japan

Poster session B (14:00~15:30, Tuesday 23)

PB001 Synthesis and Characterization of Isoindigo and Thienoisoindigo Derivatives for Organic Field Effect Transistor Application
Youngjoo Park, Won Sik Yoon, Sang-yoon Oh, Soo Young Park*
Seoul National University, Korea

PB002 Isomerization induced by current injection into a photochromic diarylethene film
Kazuki Yamamoto, Tsuyoshi Tsujioka
Osaka Kyoiku University, Japan

PB003 Emission Control for Organic Light-emitting Electrochemical Cell Using Ruthenium Complex by Redox Potential
Motoyuki Nakano, Atsushi Aoki
Nagoya Institute of Technology, Japan

PB004 Donor-acceptor Conjugated Polymers Containing Diketopyrrolopyrrole and Acenes : Correlation between Structure of Donor Moiety and Static & Dynamic Charge Transport Properties
Gi Eun Park, Jicheol Shin, Hyun Ah Um, Dae Hee Lee, Tae Ryang Hong, Su Na Choi, Han Na Hong, Aesun Kim, Hyung Jong Kim, Dong Hoon Choi*
Korea University, Korea

PB005 Resistor-transistor logic circuits using vertical-type organic transistors
Takatoshi Agatsuma[1], Hayato Muto[1], Ken-ichi Nakayama[1,2]
[1]Yamagata University, Japan, [2]Research Center for Organic Electronics (ROEL), Japan

PB006 High-resolution printing of novel Au nanoparticles for organic thin-film transistors
Takeo Minari[1,2], Kenji Sakamoto[1], Takeshi Yasuda[1], Masayuki Kanehara[3],
[1]NIMS, Japan, [2]RIKEN, Japan, [3]Okayama University, Japan

PB007 New Approach for Constrain of Hysteresis in Organic Thin Film Transistor with Modified Poly(4-vinylphenol) as Gate Insulator
Hoon Joo Yang[1], Kwang-Suk Jang[2], Jae-Won Ka[2], Taek Ahn[1]
[1]Kyungsung University, Korea, [2]Korea Research Institute of Chemical Technology

PB008 Increased Photooxidation Stability of Pentacene Derivatives Linked with Aromatic Groups
Inho Kim, Dong-Su Kim, Tae-Dong Kim
Hannam University, Korea

PB009 Asymmetrical Side Chain Engineering of Diketopyrrolopyrrole-Based Conjugated Polymers for OFETs and OPVs
Sujung Park, Ji-Eun Jung, Tae-Dong Kim
Hannam University, Korea

PB010 Electrical properties of FeFET based on TGS / DNTT
Akihito Tsujinaka, Yasuko Koshiba, Masahiro Misaki, Kenji Ishida
Kobe University, Japan

PB011 Organic Field-Effect Transistors with High Mobility and Thermal Stability
Masahiro Abe[1,2], Takamichi Mori[1], Itaru Osaka[1], Kazuo Takimiya[1]
[1]RIKEN Center for Emergent Matter Science, Japan, [2]Nippon Kayaku Co., Ltd., Japan

PB012 Endurance Bending Tests of C8-BTBT FETs Fabricated by Thermal Lamination

Shohei Yamaguchi[1], Yota Yamazaki[1], Junro Hayashi[1], Takahiro Takeshita[1], Masatoshi Sakai[1], Shigekazu Kuniyoshi[1], Hiroshi Yamauchi[1], Yuichi Sadamitsu[2], Shoji Shinamura[2], Kazuhiro Kudo[1]

[1]Chiba University, Japan, [2]Nippon Kayaku Co., Ltd., Japan

PB013 Coulomb Blockade Behavior of Porphyrin-Ligand Au Nanoparticles on Nanogap Devices at Room Temperature

Yoshiki Kobayashi[1], Tada Tsukasa[1], Daisuke Tanaka[2], Masanori Sakamoto[2], Toshiharu Teranishi[2], Yutaka Majima[1,3]

[1]Tokyo Institute of Technology, Japan, [2]Kyoto University, Japan, [3]Sunchon National University, Korea

PB014 Efficient and stable Ru complexes with electron donor moiety of ligand for ZnO-based dye-sensitized solar cells

Jongwan Choi[1], Hong-Minh Nguyen[1], Jin-Woo Oh[2], Felix Sunjoo Kim[3], Nakjoong Kim[1]

[1]Hanyang University, Korea, [2]Pusan National University, Korea, [3]Chung-Ang University, Korea

PB015 Efficiency improvement of dye-sensitized solar cells by phosphor ($Y_2O_3:Er^{3+}$, $Y_3Al_5O_{12}:Ce^{3+}$) co-doped TiO_2 electrodes

Young Moon Kim, Kyung Hwan Kim, Hyung Wook Choi

Gachon University, Korea

PB016 Characteristics of dye-sensitized solar cells using TiO_2 nanotube arrays with large surface area by spin-coating nanoparticle

Jun Hyuk Yang, Kyung Hwan Kim, Hyung Wook Choi

Gachon University, Korea

PB017 Enhancing Photoelectrical Performance of Dye-Sensitized Solar Cell by Doping with $Y_3Al_5O_{12}:Tb^{3+}$ Phosphors

Jin Soo Lee, Kyung Hwan Kim, Hyung Wook Choi

Gachon University, Korea

PB018 Synthesis of Random Copolymer Containing Fluorinated Quinoxaline for Polymer Solar cells

Wonjun Kim, Youngeup Jin

Pukyong National University, Korea

PB019 Synthesis and Photovoltaic Characterization of Fluorinated Benzoimidazole-Derived Narrow-Bandgap Polymers

Wonjun Kim, Ji-hyun Lee, Youngeup Jin

Pukyong National University, Korea

PB020 Synthesis and Characterization of Conjugated Polymer based on Quinoxaline with Fluoro Group in Polymer Solar Cells

Wonjun Kim, Yeongkwon Kang, Youngeup Jin

Pukyong National University, Korea

PB021 Dye-Sensitized Solar Cells using Modified Polybutadienes based on Polymer Electrolytes by Sol-Gel Process

Mi-Ra Kim, Ji-Seon Kim, Jin-Kook Lee

Pusan National University, Korea

PB022 On the origin of the high carrier mobilities of the non-peripheral octa-hexyl substituted phthalocyanine

Makoto Yoneya[1], Ayano Miyamoto[1], Yo Shimizu[1], Akihiko Fujii[2] and Masanori Ozaki[2]
[1]AIST, Japan, [2]Osaka University, Japan

PB023 Emission from Charge-Transfer States in Organic Photovoltaic Cells Based on Ethylenedioxythiophene-Fluorene Polymers

Takeshi Yasuda[1], Junpei Kuwabara[2], Liyuan Han[1], Takaki Kanbara[2]
[1]NIMS, Japan, [2]University of Tsukuba, Japan

PB024 Study on Novel Organic Photovoltaics with Highly-Ordered Charge Transfer Complex

Yosei Shibata[1], Jyunya Tsutsumi[2], Satoshi Matsuoka[2], Tatsuo Hasegawa[2,3], Koji Matsubara[1], Yuji Yoshida[1], Masayuki Chikamastsu[1]
[1]Research center for photovoltaic technologies, AIST, Japan, [2]Flexible Electronics Research Center, AIST, Japan, [3]University of Tokyo, Japan

PB025 Fabrication of Organolead-Halide-Perovskite Solar Cells by Laser Deposition

Tetsuhiko Miyadera[1,2], Takeshi Sugita[1], Takurou N. Murakami[1,3], Koji Matsubara[1], Masayuki Chikamatsu[1]
[1]Research Center for Photovoltaic Technologies, AIST, Japan, [2]PRESTO, JST, Japan, [3] Research Institute for Innovation in Sustainable Chemistry, AIST, Japan

PB026 Graphene/polyaniline nanocomposite multi-layered counter electrode for dye-sensitized solar cells

Gil-Ha Jeong[1], Seok-Jae Kim[1], Eun-Mi Han[2], Kyung Hee Park[3]*
[1]Department of Advanced Chemicals & Engineering, Chonnam National University, Korea, [2]Department of Applied Chemical Engineering, Chonnam National University, Korea, [3]Chosun University, Korea

PB027 Electrochemical Properties of Graphene/PEDOT:PSS Counter Electrode in Dye-sensitized Solar Cells

Gil-Ha Jeong[1], Seok-Jae Kim[1], Hyun-Seok Ko[1], Eun-Mi Han[2], Kyung Hee Park[3*]
[1]Department of Advanced Chemicals & Engineering, Chonnam National University, Korea, [2]Department of Applied Chemical Engineering, Chonnam National University, Korea, [3]Chosun University, Korea

PB028 Synthesis and Characterization of Fluorene-based Conjugated Semiconducting Materials for Organic Photovoltaic Cells

Yoonho Eom, Yujeong Kim, Eunhee Lim*
Kyonggi University, Korea

PB029 Improved performance in organic photodetectors with the high mobility organic material, tris[4-(5-phenylthiophen-2-yl)phenyl]amine

Shoichi Tsujio[1], Hirotake Kajii[1], Hiroshi Kageyama[2], Yasuhiko Shirota[1], Yutaka Ohmori[1]
[1]Osaka University, Japan, [2]University of Ryukyus, Japan

PB030 Direct Observation of UV-Induced Accumulated Charges in Inverted-type Polymer Solar Cell with TiO_x Layer by Electron Spin Resonance

Donghyun Son[1], Katsuhiro Yano[2], Takayuki Kuwabara[2], Kohshin Takahashi[2], Kazuhiro Marumoto[1,3]
[1]University of Tsukuba, Japan, [2]Kanazawa University, Japan, [3]University of Tsukuba, Japan

PB031 Direct Observation of Charge Accumulation in PTB7:$PC_{71}BM$ Polymer Solar Cells During Device Operation using Light-Induced Electron Spin Resonance

Takaya Kubodera[1], Masaki Yabusaki[1], Toshihiro Yamanari[2], Yuji Yoshida[2], Kazuhiro Marumoto[1,3]

[1]University of Tsukuba, Japan [2]AIST, Japan, [3]Tsukuba Research Center for Interdisciplinary Materials Science (TIMS), University of Tsukuba, Japan

PB032 Light-Induced ESR Study on Charge States in Thin-Film Materials for Perovskite Solar Cells

Miki Namatame[1], Masaki Yabusaki[1], Yuhei Ogomi[2], Shuzi Hayase[2], Kazuhiro Marumoto[1,3]

[1]University of Tsukuba, Japan, [2]Kyushu Inst. of Technology, Japan, [3]Tsukuba Research Center for Interdisciplinary Materials Science (TIMS), University of Tsukuba, Japan

PB033 Study on Charge-Accumulation Sites in P3HT:PCBM Polymer Solar Cells using Light-Induced Electron Spin Resonance

Masaki Yabusaki[1], Kazuhiro Marumoto[1,2]

[1]University of Tsukuba, Japan, [2]Tsukuba Research Center for Interdisciplinary Materials Science (TIMS), University of Tsukuba, Japan

PB034 Fabrication of p- and n-type dye sensitized tandem structure for high V_{OC} solar cells

Akiumi Oba[1], Hiroshi Yamauchi[1], Shigekazu Kuniyoshi[1], Masatoshi Sakai[1], Masaaki Izuka[2], Kazuhiro Kudo[1]

[1]Graduate school of engineering, Chiba University, Japan, [2]Faculty of education, Chiba University, Japan

PB035 Synthesis and Characterization of New conjugated polyelectrode as an Interfacial layer for organic photovoltaic devices.

Jong Baek Park, Do-Hoon Hwang*

Pusan National University, Korea

PB036 Dual Energy Donor Antenna for Efficient Dye-Sensitized Solar Cells

Dong Yuel Kwon[1], Gun Hyung Lee[1], Young Sik Kim[1,2,*]

[1]Department of Information Display, [2]Department of Science, Hongik University, Korea

PB037 Theoretical study of novel porphyrin-based dye for efficient dye-sensitized solar cell

Dong Yuel Kwon[1], Gun Hyung Lee[1], Young Sik Kim[1,2]

[1]Department of Information Display, [2]Department of Science, Hongik University, Korea

PB038 Superoxide radical anion generated and involved in the photooxidation of P3HT

Liang Chen[1], Junji Mizukado[1], Yasumasa Suzuki[1], Shuzo Kutsuna[2], Yuji Yoshida[3], Hiroyuki Suda[1]

[1]Research Institute for Innovation in Sustainable Chemistry (ISC), AIST, Japan, [2]Research Institute for Environmental Management Technology, AIST, Japan, [3]Research Center for Photovoltaic Technologies, AIST, Japan

PB039 MALDI-TOF MS studies on P3HT photo-oxidation

Junji Mizukado[1], Hiroaki Sato[2], Liang Chen[1], Shogo Yamane[1], Yuji Yoshida[3], Hiroyuki Suda[1]

[1]Research Institute for Innovation in Sustainable Chemistry (ISC), AIST, Japan, [2]Research Institute for Environmental Management Technology, AIST, Japan, [3]Research Center for Photovoltaic Technologies, AIST, Japan

PB040 Solid-State NMR Studies on the Effect of Solvent Additives on Morphology of Polymer Based Organic Bulk Heterojunction Solar Cells

Hironori Ogata[1,2], Saki Kawano[2], Sayo Ishikawa[2]

[1]Research Center for Micro-Nano Technology, Hosei University, Japan, [2]Faculty of Bioscience and Applied Chemistry, Hosei University, Japan

PB041 Enhanced electron life time and Diffusion length of the Dye-sensitized Solar Cell by Employing Multi-Anchoring Organic Sensitizers

Chi Hwan Lee[1], Le Quoc Bao[1], Hee Jin Ahn[1], Yoon Soo Han[2], Jae Hong Kim[1*]

[1]Yeungnam University, Korea, [2]Catholic University of Daegu, Korea

PB042 Photovoltaic Properties of Multi Chromophores Connected with Long Alky Chain for Dye-Sensitized Solar Cells

Yong Hui Lee[1], Chi Hwan Lee[1], Bo Youn Jang[1], Yoon Soo Han[2], Jae Hong Kim[1*]

[1]Yeungnam University, Korea, [2]Catholic University of Daegu, Korea

PB043 Preparation and Characterization of Triphenylamine Chromophore for Applying to Photosensitizer

Chi Hwan Lee, Young Rock Kim, Dong Woo Kim, Jae Hong Kim[*]

Yeungnam University, Korea

PB044 Low Temperature Treatment of TiO_2 Layer for Fabricating High Performance Flexible Photoanode

Bo Youn Jang, Ji Young Park, Ji Yoon Kang, Jae Hong Kim[*]

Yeungnam University, Korea

PB045 Stepped Light Induced Transient Measurement for Investigating Electron Diffusion Length in Dye Sensitized Solar Cells

Bo Youn Jang[1], Chau Thi Thanh Thuy[1], Jung Min Cho[1], Kwang-soon Ahn[1], Jae Hong Kim[1*]

Yeungnam University, Korea

PB046 Blended polymer gel electrolytes based on PVDF-HFP and PMMA for fabricating effective quasi-solid state dye sensitized solar cells.

Do Kyoung Lee[1], Chi Hwan Lee[1], Noh Eul Jung[1], Jae Hong Kim[1*]

Yeungnam University, Korea

PB047 Experimental Studies on Anisotropic Thermoelectric Properties of Conducting Polymer Films

Masakazu Mukaida, Qingshuo Wei, Kazuhiro Kirihara, and Takao Ishida

AIST, Japan

PB048 Enhanced Thermoelectric Performance by Separated Heat and Carriers Transports in Carbon Nanotube Composites

Mitsuhiro Ito, Naofumi Okamoto, Ryo Abe, Hirotaka Kojima, Ryosuke Matsubara, Ichiro Yamashita, Masakazu Nakamura

Nara Institute of Science and Technology (NAIST), Japan

PB049 Application of Photo-thermal Conducting Polymer for Cell Sheet Detachment

Jaedong Kim, Byeonggwan Kim, Taehoon Park, Eunkyoung Kim

Yonsei University, Korea

PB050 Systematic Conversion of Single-Walled Carbon Nanotubes into n-type Thermoelectric Materials by Molecular Dopants

Yoshiyuki Nonoguchi, Tsuyoshi Kawai
Nara Institute of Science and Technology(NAIST), Japan

PB051 Improved Dispersibility and Thermopower of Single-Walled Carbon Nanotubes in Ionic Polymers

Motohiro Nakano, Yoshiyuki Nonoguchi, Takuya Nakashima, Tsuyoshi Kawai
Nara Institute of Science and Technology (NAIST), Japan

PB052 Stability improvement of organic light-emitting diodes based on F8BT/TFB with a nickel oxide hole transport layer

Ken Nakakura[1], Yuta Kaneko[1], Kodai Kiriishi[1], Shunjiro Fujii[2], Hiromichi Kataura[2], Yasushiro Nishioka[1]
[1]Nihon University, Japan, [2]AIST, Japan

PB053 Continuous-flow production of organic semiconductor nanoparticles via a micromixer

Yoshihiro Takebayashi[1], Nahoko Morii[1], Kiwamu Sue[1], Satoshi Yoda[1], Dai Ikemizu[2], Hideo Taka[2]
[1]AIST, Japan, [2] Konica Minolta, Inc., Japan

PB054 White OLED Using Highly Efficient Green Dopant via Solution Process

Jaehyun Lee[1], Yao Liang[2], Hwangyu Shin[1], Yuguang Ma[2*], Jongwook Park[1*]
[1]Catholic University of Korea, Korea, [2]Jilin University, China

PB055 Organic Light-Emitting Transistors with a Thin Metal Layer Covering a Diffraction Grating

Yuki Obama, Yusaku Sakurai, Takenori Kitazawa, Takeshi Yamao, Shu Hotta
Kyoto Institute of Technology, Japan

PB056 Spectroscopic observation of triplet exciton dynamics during operation in polymer light emitting diodes

Takahiro Takahashi, Katsuichi Kanemoto
Osaka City University, Japan

PB057 Synthesis and Luminescent Properties of Poly (1-(3-Vinyl-phenyl)-pyrene)

Garam Yang, Yoojin Lee, Jaehyun Lee, Jiwon Lee, Jongwook Park*
Catholic University of Korea, Korea

PB058 New Dibenzothiophene-based Host Materials for Blue Phosphorescent Organic Light-Emitting Diodes

Tae Ryang Hong, Ik Rang Choe, Ju Sik Kang, Jicheol Shin, Hyun Ah Um, Dae Hee Lee, Gi Eun Park, Su Na Choi, Aesun Kim, Han Na Hong, Hyung Jong Kim, Min Ju Cho, Dong Hoon Choi*
Korea University, Korea

PB059 Synthesis and Characterization of Poly[N-(4-nitrobenzenesulfonyl)-2-ethynyl-pyridinium chloride]

Yeong-Soon Gal[1], Sung-Ho Jin[2], Jong-Wook Park[3], Tae-Kwan Sohn[4], Kwon Taek Lim[5]
[1]Kyungil University, Korea, [2]Pusan National University, Korea, [3]The Catholic University of Korea, Korea, [4]Keimyung University, Korea, [5]Pukyong National University, Korea

PB060 Low-voltage sputtering deposition of transparent conductive GAZO thin films for minimizing damage to organic layers

Seula Lee, Jinseon Lee, Hyung-Wook Choi, Kyung Hwan Kim*
Gachon University, Korea

PB061 Photo- and Electroluminescence from Organoplatinum(II) Complexes Bearing Oligofluorene-Based Cyclometalated Ligands

Shigeyuki Yagi, Tatsuya Shigehiro, Tomonari Takata, Takeshi Maeda, Hiroyuki Nakazumi
Osaka Prefecture University, Japan

PB062 Starburst-Type Carbazole Trimers as Host Materials for Solution-Processed Phosphorescent OLEDs

Naoki Okamura, Hiroshi Funagoshi, Shigeru Ikawa, Shigeyuki Yagi, Takeshi Maeda, Hiroyuki Nakazumi
Osaka Prefecture University, Japan

PB063 Synthesis and Luminescent Properties of Novel Dibenzo[a,c]phenazine Derivatives with Electron-Donating Side-Arms

Yanjun He, Shigeyuki Yagi, Takeshi Maeda, Hiroyuki Nakazumi
Osaka Prefecture University, Japan

PB064 Synthesis and Properties of Novel Nonlinear Optical Polyester Containing Cyanovinylnitroresorcinoxy Group

Ji-Hyang Lee[1], Kang Yun Choe[1], Ju-Yeon Lee[2]
[1]Department of Nano Science Engineering, Inje University, Korea, [2]Department of Chemistry and Nano Science Engineering, Inje University, Korea

PB065 Synthesis and Nonlinear Optical Properties of Novel Polyester Containing Nitrophenylazonitroresorcinoxy Group

Hak Jin Kim[1], Ji-Hyang Lee[1], Ju-Yeon Lee[2]
[1]Department of Nano Science Engineering, Inje University, Korea, [2]Department of Chemistry and Nano Science Engineering, Inje University, Korea

PB066 Biological Effect of Two-Photon Absorbing Nanoparticles and 3D Microfabrication by using SU8 Containing TPA Chromophores

Jin Sun Park[1], Jin-Kyung Park[1], Ha Neul Chae[1], Ju Hyoung Jung[1], Cheolwoo Ha[2], Dong-Yol Yang[2], Chang Su Lim[3], Bong Rae Cho[3], Kwang-Sup Lee[1]
[1]Hannam University, Korea, [2]KAIST, Korea, [3]Korea University, Korea

PB067 Measurement of Photo-Induced Grating Behavior in Polymer Doped with Azo-Carbazole Dye

Kazuhiro Tada, Toshiro Imai, Yutaka Kawabe
Chitose Institute of Science and Technology, Japan

PB068 Properties of Some Polarized Chromospheres in Polyvinylpyrrolidone

Masahiro Suzuki[1], Takahiro Ikeda[1], Yoko Tatewaki[2], Shuji Okada[1]
[1]Yamagata University, Japan, [2]Tokyo University of Agriculture and Technology, Japan

PB069 Two-Photon Absorption Properties of High Symmetric Carbon-Rich Compounds consisting of Phenylene-Ethynylene Unit

Kenji Kamada[1,2], Hirokazui Kawano[1,2], Tomotaka Namikawa[1,2], Kazukuni Tahara[3], Yoshito Tobe[3]
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PB070 Phase-Matching Properties of Stoichiometric LiNbO3 (SLN) Fabricated by Vapor Transport Equilibration (VTE)

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PB071 Effects of Agglomeration Hindrance on Silver Planer Shrinkage

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PB072 Spin-assisted Spray Fabrication of Layer-by-layer Self-assembly Oxygen Barrier Film

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PB073 Tunneling Current Modulation due to Metal beam resonance under the application of RF signal

Yasuo Azuma, Yutaka Majima
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PB074 Fabrication of Nano-prodrugs Using the Reprecipitation Method

Yoshitaka Koseki, Yoshikazu Ikuta, Tsunenobu Onodera, Hidetoshi Oikawa, Hitoshi Kasai
Tohoku University, Japan

PB075 Surface Potential Measurement of p-type Organic Semiconductor Thin Films by Mist-vapor Deposition

Nobuo Satoh[1], Takeshi Uruma[1], Akihiro Odaka[1], Shigetaka Katori[2]
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PB076 Phase separation in poly(3-hexylthiophene): fullerene derivative blend films deposited by electrospray

Yingjie Liao, Takeshi Fukuda, Norihiko Kamata
Saitama University, Japan

PB077 Preparation and Characterization of UV Cured Optical Films Containing a Fluorene Compound

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PB078 Selectivity of reaction sites for direct arylation polycondensation in bithiophene derivatives

Yohei Fujie, Junpei Kuwabara, Takaki Kanbara
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PB079 Direct Arylation Polycondensation of Bithiazole Derivative with Various Acceptors

Masahiro Kuramochi, Junpei Kuwabara, Wei Lu, Takaki Kanbara
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PB080 Temperature dependence of pentacene thin films structures observed by *in-situ* real-time 2D-GIXD

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PB081 Fabrication of Oriented Sexi-, Septi- and Octi-thiophene Ultra-thin Films on Oriented Polyfluorene

Claire Heck, Toshiko Mizokuro, Kenji Kamada, Nobutaka Tanigaki

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PB082 Continuous-Flow Microwave Synthesis of Bithiophene Derivative via Suzuki-Miyaura Coupling

Emiko Koyama[1], Yasuo Norikane[1], Satoko Tanaka[1], Hiromichi Odajima[2], Noriyuki Ohneda[2], Ken Muramatsu[2], Jun-ichi Sugiyama[3], Reiko Azumi[1]

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PB083 Thermal Conversion and Orientation Control in Thin Films of Soluble Precursors by IR Laser Irradiation

Hiroshi Horii[1], Asami Toba[1], Masahiro Misaki[1], Yasuko Koshiba[1], Daiki Kuzuhara[2], Hiroko Yamada[2], Kenji Ishida[1]

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PB084 Density controlled assembly of C_{60} nanocrystals by liquid-liquid interface assembly technique

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PB085 Wilhelmy plate method of polymer film surfaces for printed electronics

Koji Abe, Yasuyuki Kusaka, Mariko Fujita, Noritaka Yamamoto, Hirobumi Ushijima

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PB086 Fabrication and Properties of Hybrid Thin Film with Epoxy Resin and Methyltrimethoxy Silane-modified ZrO_2

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PB087 Metal Patterning on Semiconductor Polymer Surface based on Selective Metal Deposition using Solvent Evaporation

Tsuyoshi Tsujioka , Koji Yamaguchi

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PB088 Preparation and Properties of Nanoaggregates of Dyes with a Pyrroline-Type Acceptor

Masato Imai[1], Yukichi Sato[1], Shunsuke Inada[1], Yoko Tatewaki[2], Shuji Okada[1]

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PB089 Controlling Crystal Structures and Morphology of Perovskite Absorber Layer Comparing Fabrication Methods

Shigetaka Katori, Kazuaki Hiroki, Shigeyuki Nakamura, Takanobu Maezawa, Akihiro Takemura

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PB090 Synthesis and Characterization of Poly(2-Ethynylpyridinium Trifluoroacetate) by Activated Polymerization

Dong Woo Kim, Xuan Thang Cao, Ali Md Showkat, Kwon Taek Lim*

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PB091 Luminescence of Terbium (III) Complexes Incorporated in Carboxylic Acid Functionalized Polystyrene/$BaTiO_3$ Nanocomposites

Xuan Thang Cao, Ali Md Showkat, Rajeshkumar Reddy Machireddy, Dong Woo Kim, Kwon Taek Lim*

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PB092 Synthesis and Characterization of Multiwalled Carbon Nanotubes Graft Poly(4-Vinylpyridine) via RAFT Polymerization

Xuan Thang Cao, Ali Md Showkat, Dong Woo Kim, Kwon Taek Lim*

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PB093 A Facile Synthesis of β-Cyclodextrin Multi-functionalized Magnetic Nanoparticles as Catalyst and Nanoadsorbent

Xuan Thang Cao, Ali Md Showkat, Rajeshkumar Reddy Machireddy, Dong Woo Kim, Kwon Taek Lim*

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PB094 Observation of Oriented Organic Semiconductors using Photoelectron Emission Microscopy (PEEM) with Polarized Light

Tetsuhiro Sekiguchi[1], Yuji Baba[1], Iwao Shimoyama[1], Norie Hirao[1], Mitsunori Honda[1], Toshinori Izumi[1], Hiromi Ikeura-Sekiguchi[2]

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PB095 Electronic Properties of Organic Semiconductors Probed by Resonant Auger Spectroscopy

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PB096 Synthesis and Characterization of Photocurable Siloxanes for 100 nm Pitch Nanoimprint Lithography

Young Cheul Lee, Young Hun Kang, Changjin Lee, Song Yun Cho

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PB097 Bioinspired omniphobic lubricated surfaces based on self-organized honeycomb and pillared films

Jun Kamei[1], Hiroshi Yabu[2]

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PB098 Tuning gap states at organic-metal interfaces via quantum size effects

Meng-Kai Lin[1], Yasuo Nakayama[2], Chin-Hung Chen[3], Chin-Yung Wang[1], H.-T Jeng[1], Tun-Wen Pi[3], Hisao Ishii[2,4], and S.-J Tang[1,3]

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PB099 Comparison of Laser processing properties by using Femtosecond Laser and Nanosecond laser

Shusuke Ono, Palanisamy Kumar, Abhirami Kumar, Vijay Srinivasan, Norio Tsuda, Jun Yamada, Shizuyasu Ochiai

Aichi Institute of Technology, Japan

PB100 Fabrications of Zinc Oxide/Ag Nanowire/Zinc Oxide Multilayer for Optoelectronic Applications

Sslimsearom You, Yu Sup Jung, Hyung Wook Choi, Kyung Hwan Kim

Gachon University, Korea

PB101 Enhanced-Evanescent-Field Induced Photoluminescence of Rubrene Thin Films

Takashi Wakamatsu

Ibaraki National College of Technology, Japan

PB102 Solid-liquid photoinduced phase transition of spiropyran derivatives

Emi Uchida, Reiko Azumi, Yasuo Norikane

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PB103 Environment friendly acrylic pressure sensitive adhesives (PSAs) with improved antistatic property

Ildoo Chung[1], Giho Park[3], Jinbok Moon[4], Hyunsang Chung[1,2*]

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PB104 Dual-Probe Scanning Near-Field Optical Microscopy Study of Optical Materials

Tomoo Sigehuzi

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PB105 Properties of Ga-Al doped ZnO/Cu/Ga-Al doped ZnO multilayer films on polymer substrate by sputtering method

Yu Sup Jung, Hyung Wook Choi, Kyung Hwan Kim

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PB106 Synthesis and Characterization of Functionalized Fullerenes and Their Charge-Transport Properties

Heeseok Song[1], Jongwan Choi[2], Nakjoong Kim[2], Felix Sunjoo Kim[1]

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PB107 Amphiphilic random copolymers using Styrene and PEGMA/2-HEMA for Anti-biofouling applications

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PB108 Optical and Electrochemical Properties of a Series of Fused Porphyrins

Yuta Saegusa,[1] Tomoya Ishizuka,[1] Soji Shimizu,[2] Nagao Kobayashi[2], Takahiko Kojima[1]
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PB109 Brief Synthesis of Graphene Derivatives with Alkyl Chain by Two Step Reaction

Asami Ohtake, Seiya Inoue, Yasutaka Shima, Seiko Uchino, Masanao Era, Koichi Sakaguchi
Saga University, Japan

PB110 Study on Synthesis of Hydrophilic Graphite Derivatives by Solution Plasma Process and variety of Introducing Functional Groups

Seiko Uchino[1], Seiji Kawazu[1], Asami Ohtake[1], Noboru Takisawa[1], Tatsurou Nakashima[2], Masanao Era[1], Naoki Matsuda[2], Koichi Sakaguchi[1]
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PB111 Durability evaluation of N3 dye on TiO_2 by the absorption spectrum change measurement with photoirradiation and heating

Yoshimi Shiina, Akira Miyazawa, Yukihiro Shimoi, Kyoko Inoue, Yuji Kawanishi
AIST, Japan

PB112 In vivo and in silico study of higher order fullerene C_{60} nanostructures

Satoshi Tsuchiya[1], Itsuki Mukai[2], Kazuma Yanai[2], Yasuhiro Yoshida[1], Jun-ichiro Iida[1], Shin-ichiro Sato[2], Shigeaki Abe[1]
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PB113 Investigation of Unoccupied Electronic States near the Fermi Level of Polysilane using Resonant Auger Spectroscopy

Hiroshi Ogawa[1], Hiromi Ikeura-Sekiguchi [1], Tetsuhiro Sekiguchi[2]
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PB114 Investigation of Naphthalimide based OH Sensor with Quinoline Attached

Xiaochuan Li[1], Yuhe Zhou[1], Yingchao Zhang[1], Young-A Son[2,*]
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PB115 Synthesis of Isophorone based D-π-A Type Chemosensor for the Response of Hg^{2+}

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PB116 A Highly Sensitive Fluorescent Probe for Selective Detection of Al^{3+} Cation: Based on Rhodamine Platform

Ji Yong Hwang[1], Jae Young Lee[1], Hak Soo Kim[1], Hee Soo So[1], Jong Woo Jung[1], Se Hoon Lee[1], Sung-Hoon Kim[2], Young-A Son[*]
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PB117 Enhanced Dissolved Oxygen Sensor Sensitivity Based on the Superhydrophobic Flurinated Polymer Films

Yu Gao, Shunsuke Yamamoto, Tokuji Miyashita, Masaya Mitsuishi
Tohoku University, Japan

PB118 Temperature Sensor Based on An Organic pn Heterojuction

Rongbin Ye, Koji Ohta, Mamoru Baba
Iwate University, Japan

PB119 Photoluminescence properties of silica-encapsulated ZnSe quantum dots

Ae Ri Lee, Ji Hyeon Kim, Sang Joon Park
Gachon University, Korea

PB120 Observation of the electronic structure of bio-related molecule in non-vacuum environment by using photoemission: Trial to Chlorophyll a solution

Yuki Takeda[1], Hiroshi Ezawa[2], Takuya Miyauchi[1], Hiroumi Kinjo[1], Kaveenga Rasika Koswattage[3], Yasuo Nakayama[1] , Hisao Ishii[1,3]
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PB121 Fabrication of π-Conjugated Polymers with Stable Columnar Order from Hydrogen-bonded Discotic Liquid Crystals Containing Diacetylene and Acrylate Moieties

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PB122 Preparation and Photoluminescent Properties of Hydrogen-bonded Discotic Liquid Crystals

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PB123 Preparation and Polymerization of Polymerizable Discotic Liquid Crystals Containing Hydrogen Bonds and their behavior in nanochannels

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PB124 Thermal conductivity of conducting polymer films studied by the 3 omega method

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