

POSTERS

13:00-14:40 Odd numbers /October 29, Even numbers / October 30

The odd number contributors will be present on October 29, and the even number contributors on October 30. Each contributor is responsible for setting up the poster by 13:00. All the posters can be set during the whole symposium period (remove by 13:00 of October 31).

P-01 Computer Simulation Studies of Electron Transfer Parameters for Cyanoanthracene/N,N-Dimethylaniline Solutions

P. O. J. Scherer^{1,2}, M. Tachiya¹, and S. F. Fischer²

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² *Physics Department, Technical University of Munich, Germany*

P-02 Intramolecular Reorganization in the Reaction Center of Bacterial Photosynthesis

P. O. J. Scherer^{1,2}, M. Tachiya¹, and S. F. Fischer²

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P-03 Chain Length Dependence on Energy Transfer and Exciplex Formation in the Quadruple Intermolecular Hydrogen Bonded System

Masashi Ikegami, Ikuma Ohshiro, and Tatsuo Arai

Department of Chemistry, University of Tsukuba

P-04 Trans-Cis Isomerization of All-Trans Retinal Protonated Schiff Base: a Hybrid DFT Study

Hiroto Tachikawa and Tetsuji Iyama

Division of Molecular Chemistry, Graduate School of Engineering, Hokkaido University

P-05 The Vibrational Mode Dependence of the Infrared Predissociation Reaction of the Aniline-Water-Aromatic (Benzene, Toluene, Xylene) Cluster Cations

N. K. Piracha¹, F. Ito², and T. Nakanaga²

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P-06 Molecular Design and Photophysical Properties of a Calix[4]arene Dual Porphyrin Conjugate

Takashi Arimura, Takuya Nishioka, Shigeo Murata, and M. Tachiya

National Institute of Advanced Industrial Science and Technology (AIST)

P-07 Dynamics of Photo-Induced Hydrophilic Conversion of TiO₂ Surfaces

Kazuhiko Seki and M. Tachiya

PCRC, AIST

P-08 Photoinduced Intramolecular Electron Transfer in Ru(II)-Co(III) Binuclear Complexes Linked by Bisphenanthrolines

Mitsuru Nakajima¹, Yoshihito Maeno¹, Takuji Hirose¹, Akio Yoshimura², Koichi Nozaki², and Takeshi Ohno²

¹ *Department of Applied Chemistry, Saitama University*

² *Department of Chemistry, Graduate School of Science, Osaka University*

P-09 Coherent Phase Control of the Photodissociation of Dimethylsulfide

Hidekazu Nagai, Hideki Ohmura, Fumiyuki Ito, and Taisuke Nakanaga

Photoreaction Control Research Center, AIST

P-10 Determination of the Photodegradation Quantum Yield of Cyanine Dye Thin Film

Hiroaki Horiuchi¹, Ayako Hoshino¹, Mamoru Uchida², Kunihiro Otaguro², and Hiroshi Hiratsuka¹

¹ *Department of Chemistry, Gunma University*

² *Recording Media Products Engineering Div., Taiyo Yuden Co., Ltd.*

- P-11 **Triplet MLCT State of Ruthenium-Polypyridyl Complexes Studied by Near-IR Transient Absorption Spectroscopy**
Miki Murai¹, Nobuko Onozawa-Komatsuzaki¹, Ryuzi Katoh¹, Akihiro Furube¹, Toshitada Yoshihara¹, Yoshiaki Tamaki^{1,2}, Shigeo Murata¹, Kazuyuki Kasuga¹, Hironori Arakawa¹, and M. Tachiya³
¹PCRC, AIST, ²NEDO Fellow, ³AIST
- P-12 **Transient Absorption Microscope for the Study of Heterogeneous Photochemical Systems**
Ryuzi Katoh¹, Akihiro Furube¹, Toshitada Yoshihara¹, Yoshiaki Tamaki^{1,2}, Miki Murai¹, Shigeo Murata¹, and M. Tachiya³
¹AIST PCRC, ²NEDO Fellow, ³AIST
- P-13 **Ultrafast Electron Injection Dynamics in Dye-Sensitized Nano-Crystalline Semiconductor Films: Importance of Intermediate Charge-Transfer States**
Akihiro Furube¹, Ryuzi Katoh¹, Toshitada Yoshihara¹, Yoshiaki Tamaki^{1,2}, Miki Murai¹, Kohjiro Hara¹, Shigeo Murata¹, Hironori Arakawa¹, and M. Tachiya³
¹Photoreaction Control Research Center, AIST, ²NEDO fellow, ³AIST
- P-14 **Assignment of Absorption Spectra of Electrons and Holes in Nanocrystalline TiO₂ Films Studied by Vis/Near-IR Transient Absorption Spectroscopy**
Toshitada Yoshihara¹, Ryuzi Katoh¹, Akihiro Furube¹, Yoshiaki Tamaki^{1,2}, Miki Murai¹, Kohjiro Hara¹, Shigeo Murata¹, Hironori Arakawa¹, and M. Tachiya³
¹AIST, PCRC, ²NEDO Fellow, ³AIST
- P-15 **Femtosecond Trapping Dynamics of Photo-Generated Charge Carriers in Nanocrystalline TiO₂ Films**
Yoshiaki Tamaki^{1,3}, Akihiro Furube¹, Ryuzi Katoh¹, Toshitada Yoshihara¹, Kohjiro Hara¹, Miki Murai¹, Shigeo Murata¹, Hironori Arakawa¹, and M. Tachiya²
¹PCRC, AIST, ²AIST, ³NEDO Fellow
- P-16 **Electron Transfer from Distyrylarenes**
 Takashi Yamashita
 Department Chemistry, Tokyo University of Science
- P-17 **ESR Study on the Injected Electron in TiO₂ Particles by Xanthene Dye Sensitization**
Yoshinari Konishi, Ryu Abe, and Hironori Arakawa
 Photoreaction Control Research Center, National Institute of Advanced Industrial Science and Technology
- P-18 **Consistent Charge Equilibration Method Combined with Universal Force Field: Theory and Applications**
Osamu Kitao¹, Tetsuji Ogawa², Noriyuki Kurita², Hideo Sekino², and Shigenori Tanaka³
¹Photoreaction Control Research Center, National Institute of Advanced Industrial Science and Technology (AIST)
²Department of Knowledge-based Information Engineering, Toyohashi University of Technology
³Corporate R&D Center, Toshiba Corporation
- P-19 **Novel and Efficient Organic-Dye-Sensitized Solar Cells**
Kohjiro Hara¹, Mitsuhiko Kurashige¹, Tadatake Sato¹, Yasufumi Dan-oh², Chiaki Kasada², Akira Shinpo², Sadaharu Suga², Kazuhiro Sayama¹, and Hironori Arakawa¹
¹Photoreaction Control Research Center, National Institute of Advanced Industrial Science and Technology
²Kankoh-Shikiso Institute Basic Research Department, Hayashibara Biochemical Laboratories, Inc.
- P-20 **Effect of Dye Structure on the Recombination Kinetics in Dye Sensitized Nanocrystalline Semiconductor Films**
A. V. Barzykin and M. Tachiya
 AIST

- P-21 **Influence of Alkylaminopyridine Additives in Electrolytic Solution on Dye-Sensitized Solar Cell Performance**
Hitoshi Kusama and Hironori Arakawa
Photoreaction Control Research Center, National Institute of Advanced Industrial Science and Technology (AIST)
- P-22 **Novel Oligo-Ene Dye-Sensitized Solar Cells**
Takayuki Kitamura^{1,2}, Masaaki Ikeda³, Koichiro Shigaki³, Teruhisa Inoue³, Neil A. Anderson², Xin Ai², Tianquan Lian², and Shozo Yanagida¹
¹ *Material and Life Science, Graduate School of Engineering, Osaka University*
² *Department of Chemistry, Emory University, USA*
³ *Functional Chemicals Research Laboratories, Nippon Kayaku Co., Ltd.*
- P-23 **Half-Sandwich Complexes with 4,7-Dihydroxy-1,10-phenanthroline: Water-Soluble, Highly Efficient Catalysts for Hydrogenation of CO₂ Attributable to Electron-Donating Ability of Oxyanion on Catalyst Ligand**
Yuichiro Himeda, Nobuko Onozawa-Komatsuzaki, Hideki Sugihara, Hironori Arakawa, and Kazuyuki Kasuga
Photoreaction Control Research Center, National Institute of Advanced Industrial Science and Technology (AIST)
- P-24 **Open Circuit Voltage Improvement by Acetate Treatment of Dyed TiO₂ in the Dye-Sensitized Solid-State Solar Cell**
Akinori Konno¹, Hiroaki Kida¹, G. R. Asoka Kumara¹ and Kirthi Tennakone²
¹ *Department of Materials Science & Chemical System Engineering, Shizuoka University*
² *Institute of Fundamental Studies, Sri Lanka*
- P-25 **Dye Sensitized Nanocrystalline Titanium Oxide Solar Cells Sensitized with a Novel Ethylenediamine Ruthenium(II) Polypyridyl Complex**
Takeshi Yamaguchi, Masatoshi Yanagida, Hideki Sugihara, and Hironori Arakawa
Photoreaction Control Research Center, National Institute of Advanced Industrial Science and Technology (AIST)
- P-26 **Photoacoustic and Photoelectrochemical Current Spectra of Nanostructured Electrodes Compositized with different Sized TiO₂ Nanoparticles**
Taro Toyoda, Yuki Kumagai, and Qing Shen
Department of Applied Physics and Chemistry, The University of Electro-Communications
- P-27 **Photosensitization of Nanocrystalline TiO₂ Film Electrode with Pyridylquinoline Ruthenium (II) Complexes**
Masatoshi Yanagida, Takeshi Yamaguchi, Hideki Sugihara, and Hironori Arakawa
Photoreaction Control Research Center, National Institute of Advanced Industrial Science and Technology (AIST)
- P-28 **Investigations of Photoacoustic and Photoelectrochemical Current Response of TiO₂ Electrodes Sensitized with Quantum-Sized CdS**
Masashi Hayashi and Taro Toyoda
Department of Applied Physics and Chemistry, The University of Electro-Communications
- P-29 **Fabrication of the Organic Photoreceptor Device with a Planar Configuration**
Sei Uemura¹, Ryota Sakaisa², Takeshi Kawai², and Toshihide Kamata¹
¹ *Photonics Research Institute, National Institute of Advanced Industrial Science and Technology*
² *Department of Industrial Chemistry, Tokyo University of Science*
- P-30 **Photosensitization of Nanostructured Anatase-Type TiO₂ with Quantum-Sized CdSe: Effect of Rutile-Type TiO₂ Composition**
Ikumi Tsuboya, Qing Shen, and Taro Toyoda
Department of Applied Physics and Chemistry, The University of Electro-communications
- P-31 **Photoelectrochemical Water Splitting on Nanocrystalline Oxide Film Electrodes under**

Visible Light

Kazuhiro Sayama¹, Atsushi Nomura², Ryu Abe¹, Zhigang Zou¹, Yoshimoto Abe², and Hironori Arakawa¹

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- P-32 **Magnetic Field Effect on Photocatalytic Decomposition Reaction of tert-Butanol with Ultra Fine TiO₂ Particles**
Masanobu Wakasa and Sachiko Suda
Department of Chemistry, Faculty of Science, Saitama University
- P-33 **Dye-Sensitized Solar Cell with Polysaccharide Solid Electrolyte**
Takayuki Hoshi, Chie Sasaki and Masao Kaneko
Faculty of Science, Ibaraki University
- P-34 **Influence of Surface Adsorption on Electron Transport in Nanoporous TiO₂ Electrodes**
Shogo Nakade¹, Yasuteru Saito², Wataru Kubo², Taisuke Kanzaki², Takayuki Kitamura², Yuji Wada², and Shozo Yanagida²
¹ Nokia Research Center, Nokia-Japan Co., Ltd.
² Material and Life Science, Graduate School of Engineering, Osaka University
- P-35 **Current-Voltage Characteristics of n-Carbon/p-Silicon Solar Cell**
Sharif Mohammad Mominuzzaman¹, Mohammad Hasanuzzaman¹, Mohamad Rusop², Tetsuo Soga², Takashi Jimbo² and Masayoshi Umeno³
¹ Department of Electrical and Electronic Engineering, Bangladesh University of Engineering & Technology, Bangladesh
² Department of Environmental Technology and Urban Planning, Nagoya Institute of Technology
³ Department of Electronic Engineering, Chubu University
- P-36 **Quasi Solid State Dye Sensitized Solar Cells Prepared by in-situ Polymerization of Alkylimidazole Monomers in Ionic Liquid Electrolyte**
Kazuharu Suzuki¹, Makoto Yamaguchi², Shu Hotta¹, Nobuo Tanabe³, and Shozo Yanagida⁴
¹ Photonics and Materials Research Department, Institute of Research and Innovation
² Chemical Research Department, Institute of Research and Innovation
³ Electronics Material Department, Fujikura Ltd.
⁴ Material and Life Science, Graduate School of Engineering, Osaka University
- P-37 **Studies of CdSe-Sensitized Nanostructured TiO₂ Electrodes: Optical Absorption, Photoelectrochemical Current and Ultrafast Carrier Dynamics**
Qing Shen¹, Dai Arae¹, Kenji Katayama², Tsuguo Sawada², and Taro Toyoda¹
¹ Department of Applied Physics and Chemistry, The University of Electro-Communications
² Graduate School of Frontier Sciences, The University of Tokyo
- P-38 **Photosensitization of Nanometer-sized TiO₂ Electrodes with Quantum-Sized CdSe : Characterization by Photoacoustic and Photoelectrochemical Methods**
Hiroyuki Yamamoto, Masashi Hayashi, Dai Arae, and Taro Toyoda
Department of Applied Physics and Chemistry, The University of Electro-Communications
- P-39 **Modulation Frequency Dependence of the Photoluminescence and Photoacoustic Intensities of Mn-Doped ZnS Nanoparticles Irradiated with UV Light**
Almira Cruz and Taro Toyoda
Department of Applied Physics and Chemistry, The University of Electro-Communications
- P-40 **Enhancement of Photovoltage in Solid-State Dye Sensitized Solar Cells Using Pedot as Hole Transport Layer**
Norihiro Fukuri, Yasuteru Saito, Wataru Kubo, Takayuki Kitamura, Yuji Wada and Shozo Yanagida
Material and Life Science, Graduate School of Engineering, Osaka University

- P-41 **Dye-sensitized Solar Cells with ZnO Nanosheet Films via Basic Zinc Acetate**
Eiji Hosono, Shinobu Fujihara, and Toshio Kimura
School of Integrated Design Engineering, Graduate School of Science and Technology, Keio University
- P-42 **Preparation of SnO₂ Thin Films by a Coating Photolysis Process**
Tetsuo Tsuchiya¹, Minoru Takeda², Iwao Yamaguchi¹, Takaaki Manabe¹, Toshiya Kumagai¹ and Susumu Mizuta¹
¹*National Institute of Advanced Industrial Science and Technology (AIST)*
²*Chiba Institute of Technology*
- P-43 **Investigation of Modification Mechanism of Photosensitive Glass by Femtosecond Laser**
Tomohiro Hongo^{1,2}, Koji Sugioka¹, Hiroyuki Niino³, Ya Cheng¹, Masashi Masuda^{1,4}, Kazuhiko Shihoyama⁵, Iwao Miyamoto⁴, Hiroshi Takai², and Katsumi Midorikawa¹
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⁴*Department of Applied Electronics, Faculty of Industrial Science and technology, Tokyo University of Science*
⁵*HOYA Photonics Corporation*
- P-44 **Transient Pressure upon Laser Ablation of Toluene: for Elucidating Laser-Induced Backside Wet Etching (LIBWE)**
Yoshizo Kawaguchi, Ximing Ding, Aiko Narazaki, Tadatake Sato, and Hiroyuki Niino
Photoreaction Control Research Center, National Institute of Advanced Industrial Science and Technology (AIST)
- P-45 **Dye and Protein Microarrays Fabricated Using LIBWE and Self-Assembling Techniques**
Ximing Ding, Yoshizo Kawaguchi, Tadatake Sato, Ryozi Kurosaki and Hiroyuki Niino
Photoreaction Control Research Center, National Institute of Advanced Industrial Science and Technology (AIST)
- P-46 **Generation of Reactive Species in Low Temperature Matrixes by Laser-Induced Reaction**
Tadatake Sato¹, Aiko Narazaki¹, Yoshizo Kawaguchi¹, Hiroyuki Niino¹, Ichiro Ohki², Motohiro Sonoda², and Yoshito Tobe²
¹*Photoreaction Control Research Center, AIST*
²*Department of Chemistry, Osaka University*
- P-47 **Optical Excitation Bands of Er Doped SiO₂ Films with Si Nanocrystallites and Energy Transfer Mechanism to Er Ions**
Hiroshi Uematsu, Keiichi Kondo, Changqing Li, Tetsuya Makimura, and Kouichi Murakami
Institute of Applied Physics, University of Tsukuba
- P-48 **Crystallized SrFeO_{3-x} Films Deposited by Pulsed Laser Ablation without in-situ Substrate Heating**
Zhongke Wang, Takeshi Sasaki, and Naoto Koshizaki
Nanoarchitectonics Research Center (NARC), National Institute of Advanced Industrial Science and Technology (AIST)
- P-49 **Micromachining of Quartz Plates by an X-ray Exciton Method**
Youichi Kenmotsu¹, Tetsuya Makimura¹, Kiminori Kondo², Michiaki Mori³, and Kouichi Murakami¹
¹*Institute of Applied Physics, University of Tsukuba*
²*Institute of Laser Engineering, University of Osaka*
³*JAERI*
- P-50 **Quantum Confinement Effect of Nanosized GaN Films Prepared by Pulsed-Laser Ablation under Various Ar Pressures**
Jong-Won Yoon, Takeshi Sasaki, and Naoto Koshizaki
Nanoarchitectonics Research Center (NARC), National Institute of Advanced Industrial Science

- P-51 **Selectively Exciting PL Study on Formation Dynamics of Si Nanoparticles in Inert Gas after Laser Ablation**
Tomoya Takahashi¹, Tetsuya Makimura¹ and Kouichi Murakami^{1,2}
¹*Inst. of Appl.Phys., Univ.of Tsukuba*
²*S.R.P. Nano Science*
- P-52 **Optical CO Gas Sensing Using Nanostructured NiO and NiO/SiO₂ Nanocomposites Fabricated by PLD and Sol-Gel Methods**
Leszek Zbroniec¹, A. Martucci², Takeshi Sasaki¹, and Naoto Koshizaki¹
¹*Nanoarchitectonics Research Center, AIST*
²*Universita di Padova, Italy*
- P-53 **Catalyst-Free Fabrication of Single Crystalline Boron Nanowires by Laser Ablation**
Zhongke Wang¹, Yoshiki Shimizu¹, Takeshi Sasaki¹, Kenji Kawaguchi¹, Kaoru Kimura², and Naoto Koshizaki¹
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²*Department of Advanced Materials Science, Graduate School of Frontier Science, The University of Tokyo*
- P-54 **Synthesis of Ultrafine SnO_{2-x} Nanocrystals by Pulsed Laser-Induced Reactive Quenching in Liquid Medium**
Changhao Liang, Yoshiki Shimizu, Takeshi Sasaki, and Naoto Koshizaki
Nanoarchitectonics Research Center (NARC), National Institute of Advanced Industrial Science and Technology (AIST)
- P-55 **Fabrication of Noble Metal Nanoparticles in Water/Supercritical Carbon Dioxide Microemulsions**
Yoshiro Yonezawa, Noritsugu Kometani, and Takanori Morita
Department of Applied Chemistry, Graduate School of Engineering, Osaka City University
- P-56 **Fabrication and Kinetics Investigation of Visualizing Device for UV Irradiation Using Polysaccharide**
Kiyomi Takato¹, Yuuki Kaburagi², and Masao Kaneko²
¹*Tokyo Kasei Gakuin Tsukuba Junior College*
²*Faculty of Science, Ibaraki University*
- P-57 **Solvent-Dependent cis-trans Photoisomerization of p-Methoxy-p'-Nitro-Substituted all-trans-1,6-Diphenyl-1,3,5-Hexatriene**
Yoriko Sonoda and Yuji Kawanishi
Nanotechnology Research Institute, AIST
- P-58 **Structure Factors on Metal Inclusion Ability and Photofunctionality of t-Butylcalix[4]arene-Nitrospirobenzopyran System**
Yuji Kawanishi, Jinwei Zhou, and Masako Sakuragi
Nanotechnology Research Institute, AIST
- P-59 **Electrochemical Luminescence of Doped Mg_{1-x}Ca_xIn₂O₄ System**
Noriyuki Sonoyama¹, Ken Kawamura¹, Toshihito Ohtake², Atsuo Yamada¹ and Ryoji Kanno¹
¹*Department of Electronic Chemistry, Interdisciplinary Graduate School of Science and Engineering, Tokyo Institute of Technology*
²*The Institute of Scientific and Industrial Research, Osaka University*
- P-60 **Design of Chiral Dimesogens as a Tool for Photonics**
V. Ajay Mallia and Nobuyuki Tamaoki
Institute of Materials and Chemical Processes, National Institute of Advanced Industrial Science and Technology

- P-61 **A Density Functional Study of Structures of Polydiacetylenes: Destabilization of Polybutatriene Structure**
Hideki Katagiri¹, Yukihiro Shimoi², and Shuji Abe²
¹*Research Institute for Computational Sciences, AIST*
²*Nanotechnology Research Institute, AIST*
- P-62 **Effect of Cyclic Structure on cis-trans Isomerization of Azobenzene Dimers**
Yasuo Norikane, Kogorou Kitamoto, and Nobuyuki Tamaoki
Molecular Function Group, Institute for Materials and Chemical Process, National Institute of Advanced Industrial Science and Technology
- P-63 **Sulfonic Acid Groups Immobilized onto a Layered Alkali Titanate**
Yusuke Ide¹ and Makoto Ogawa²
¹*Graduate School of Science and Engineering, Waseda University*
²*Department of Earth Sciences, Waseda University*
- P-64 **Photoisomerization of an Azobenzene in Aluminum-Containing Mesoporous Silica Films**
Shinsuke Ichimura¹, Naoki Shimura², and Makoto Ogawa^{1,2}
¹*Department of Earth Sciences, Waseda University*
²*Graduate School of Science and Engineering, Waseda University*
- P-65 **A New Class of Azobenzene Chelators for Mg²⁺ and Ca²⁺ in Buffer at Physiological pH**
Atsuya Momotake and Tatsuo Arai
Department of Chemistry, University of Tsukuba
- P-66 **Photoexcited Electron Transfer of Na Metal Loaded Zeolite LTA**
Tetsuya Kodaira^{1,2}
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²*PRESTO, JST*
- P-67 **Hollow Spheres Composed of Bola-Form Amide**
Yoko Matsuzawa¹, Masaki Kogiso², Mutsuyoshi Matsumoto¹, Toshimi Shimizu², Kayori Shimada³, Masanao Itakura³, and Shinichi Kinugasa³
¹*Nanotechnology Research Institute, AIST*
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- P-68 **Control of Photoreaction of Amphiphilic Spiropyran Langmuir Film by Heat Treatment**
Takahiro Nakazawa¹, V. Ajay Mallia², Reiko Azumi³, Hideki Sakai¹, Masahiko Abe¹, Nobuyuki Tamaoki² and Mutsuyoshi Matsumoto³
¹*Faculty of Science and Technology, Tokyo University of Science*
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- P-69 **Structure and Photoisomerization of the Hybrid Langmuir-Blodgett Films of Anionic Azobenzene and Cationic Amphiphile Alkylammoniums**
Keiko Kakiuchi, Reiko Azumi, and Mutsuyoshi Matsumoto
Nanotechnology Research Institute, National Institute of Advanced Industrial Science and Technology (AIST)
- P-70 **Structures and Photoreactions in Langmuir and LB Films of Spiropyran Mixed with n-Alkane**
Mutsuyoshi Matsumoto¹, Takahiro Nakazawa², Reiko Azumi¹, Hideki Sakai² and Masahiko Abe²
¹*Nanotechnology Research Institute, National Institute of Advanced Industrial Science and Technology*
²*Faculty of Science and Technology, Tokyo University of Science*

- P-71 **Preparation of Structural Controlled Pentacene Optoelectronic Devices**
Yuji Yoshida¹, Shuichi Nagamatsu^{1,2}, Nobutaka Tanigaki¹ and Kiyoshi Yase¹
¹ *Photonics Research Institute, AIST*
² *Graduation School of Life Science, Kyushu Institute of Technology*
- P-72 **Highly Anisotropic Optical Properties of Friction-Transferred Poly(9,9-dioctylfluorene)**
Masahiro Misaki^{1,2}, Shuichi Nagamatsu², Yuji Yoshida², Nobutaka Tanigaki², Kiyoshi Yase², and Yasukiyo Ueda¹
¹ *Graduated School of Science and Technology, Kobe University*
² *Photonics Research Institute, National Institute of Advanced Industrial Science and Technology*
- P-73 **Flexible-Sensitized Solar Cells by Using 28 GHz Microwave Irradiation**
Satoshi Uchida¹, Miho Tomiha¹, and Hirotsugu Takizawa²
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² *Department of Materials Chemistry, Graduate School of Engineering, Tohoku University*
- P-74 **Firing of TiO₂ Electrodes by 28 GHz Microwave Irradiation and the Application to Improvement of Dye-sensitized Solar Cells**
Miho Tomiha¹, Satoshi Uchida¹, and Hirotsugu Takizawa²
¹ *Institute of Multidisciplinary Research for Advanced Materials (IMRAM), Tohoku University*
² *Department of Materials Chemistry, Graduate School of Engineering, Tohoku University*
- P-75 **Preparation of ZnO Nano Composite Electrodes and Their Application for Dye-Sensitized Solar-Cell**
Hitoshi Hasegawa¹, Satoshi Uchida¹ and Naruhiko Masaki²
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² *Venture Business Laboratory, Osaka University*
- P-76 **The Intramolecular Vibrational Mode Distortion Effect on Electron Transfer Rate**
K. K. Liang¹, M. Tachiya¹, M. Hayashi², and S. H. Lin³
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² *Center for Condensed Matter Sciences, National Taiwan University, Taiwan*
³ *Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan*
- P-77 **Insertion Effect of Thin Metal Interlayer under Negative Electrode of C₆₀-Based Photovoltaic Cells**
Tetsuya Taima, Masayuki Chikamatsu, Yuji Yoshida, Kazuhiro Saito, and Kiyoshi Yase
Photonics Research Institute, National Institute of Advanced Industrial Science and Technology
- P-78 **Photo-Induced Reaction Dynamics of the Silver-Ammonia 1:2 Complex**
Jun Miyawaki and Ko-ichi Sugihara
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