JSTさきがけ研究領域合同国際シンポジウム

主催：科学技術振興機構（JST）・日本化学会
共催（予定）：日本化学工業協会

持続する社会を先導する光科学：環境・エネルギー・機能材料

JST-PRESTO International Joint Symposium on Photo-Science Leading to a Sustainable Society: Environment, Energy, Functional Materials

2012年3月26日（月） 9:45～19:00
27日（火） 10:00～17:30

慶應義塾大学日吉キャンパス
第6校舎623教室（日本化学会第92春季年会SJ会場）

シンポジウム参加費・講演資料代：無料

第1日 3月26日（月）

9:45～10:00 特別メッセージ1
北澤宏一（科学技術振興機構顧問）
さきがけ研究に期待するもの

10:00～10:40 基調講演
藤嶋　昭（東京理科大学長）
若手研究者に必要なセンス：光触媒研究を例として

10:40～12:45 JSTさきがけ研究領域・研究紹介①

14:00～14:15 JSTさきがけ/CREST事業紹介
（科学技術振興機構研究推進部）

14:30～16:35 JSTさきがけ研究領域・研究紹介②

17:30～19:00 交流会
飲物・軽食等を準備。参加費1,500円（予定）。

第2日 3月27日（火）

10:00～12:05 JSTさきがけ研究領域・研究紹介③

13:30～14:00 特別メッセージ2
根岸英一（2010ノーベル化学賞受賞者・米国パデュー大学特別教授）
Tandem ZACA-Pd-Catalyzed Cross-Coupling as Widely Applicable and Selective Routes to Chiral Organic Compounds

14:00～16:05 JSTさきがけ研究領域・研究紹介④

16:05～16:10 閉会挨拶
岩澤康裕（平成22、23年度日本化学会会長・電気通信大学教授・東京大学名誉教授）

16:10～17:30 ポスターセッション
於 慶応義塾大学日吉キャンパス日吉記念館
さきがけ4研究領域研究者によるポスター発表。ポスター発表の演題・発表者は春季年会プログラムをご覧ください。


北澤宏一


藤嶋 昭


根岸英一

【申込方法】JSTさきがけ「光エネルギーと物質変換」研究領域HPからwebでお申し込み頂くか、またはJST合同シンポジウム参加希望と明記し、①氏名・②所属・職位、③連絡先住所（〒）・電話番号・FAX、e-mailを明記し下記あてお申し込みください。当日参加も可能です。なお、本シンポジウムのみ参加希望の場合には春季年会の参加登録は不要です。

【問合せ先】〒192-0397　東京都八王子市南大沢1-1　首都大学東京 プロジェクト研究棟302号室　科学技術振興機構さきがけ「光エネルギーと物質変換」領域事務所
（TEL：042-653-3415、FAX：042-653-3416、e-mail：tamaki@chem-conv.jst.go.jp）

JSTさきがけ研究領域・研究紹介

①藻類・水圏微生物の機能解明と制御によるバイオエネルギー創成のための基盤技術の創出（第1日）

10:40～11:00 研究領域紹介
松永　是（研究総括／東京農工大学長）

11:00～11:45 特別講演
Chris Bowler（Director of Environmental and Evolutionary Genomics Institute of Biology, Ecole Normale Superieure（ENS）Paris, FRANCE）
Genomics-Enabled Exploration of the Metabolic Secrets of Marine Diatoms

11:45～12:45 研究紹介

②光の利用と物質材料・生命機能（第1日）

14:30～14:50 研究領域紹介
増原　宏（研究総括／奈良先端大物質創成科学研究科特任教授）

14:50～15:35 特別講演
Shimon Weiss（The Dean Willard Chair in Chemistry and Biochemistry, Department of Chemistry and Biochemistry, Department of Physiology, California NanoSystems Institute, University of California, Los Angeles）
Multiscale, Superresolved, Ultrasensitive Optical Molecular Imaging

15:35～16:35 研究紹介

③太陽光と光電変換機能（第2日）

10:00～10:20 研究領域紹介
早瀬修二（研究総括／九州工大生命体工学研究科教授）

10:20～11:05 特別講演
Yi-Bing Cheng（Monash University, Australia・Professor）
Novel Materials and Techniques for Producing Flexible Dye Sensitized Solar Cells on Plastic Substrates

11:05～12:05 研究紹介

④光エネルギーと物質変換（第2日）

14:00～14:20 研究領域紹介
井上晴夫（研究総括／首都大東京戦略研究センター教授）

14:20～15:05 特別講演
Devens Gust（Department of Chemistry and Biochemistry, Center for Bio-Inspired Solar Fuel Production, Arizona State University, Regents' Professor）
Bio-inspired Solar Energy Conversion

15:05～16:05 研究紹介

JSTさきがけ研究領域合同国際シンポジウム
持続する社会を先導する光科学：環境・エネルギー・機能材料

藻類・水圏微生物の機能解明と制御によるバイオエネルギー創成のための基盤技術の創出

3月26日 (月) 11:45～12:45

2SJ-05 Perspectives of research on increasing photosynthesis in cyanobacteria by overcoming the limitations of CO_2-fixing enzyme, RuBisCO
(Grad. Sch. of Biol. Sci., NAIST) ○ASHIDA Hiroki

2SJ-06 Photosystem reaction by using near infrared light
(Department of Biology, Faculty of Science, Tokyo University of Science・JST PRESTO) ○Tatsuya Tomo

2SJ-07 Biofuel production in CO_2-absorbing microalgae *Euglena gracilis*
(Dep. of Applied Biol. Chem., Sch. of Life and Environ. Sci., Osaka Pref. Univ.[1]; PRESTO, JST[2]; Osaka Women's Junior College[3]) ○NAKAZAWA, Masami[1,2]; UEDA, Mitsuhiro[1]; INUI, Hiroshi[1]; NAKANO, Yoshihisa[3]; MIYATAKE, Kazutaka[1]

3月27日 (火)

3PD-101 Expression Vector, Overproduction, and Easy Recovery of Target Gene Products from Cyanobacteria, Photosynthesizing Microorganisms
(Ibaraki Univ., Sch. Agr., JAPAN) ○ASAYAMA, Munehiko; NUMANO, Setsuko; KITAZAKI, Chifumi

3PD-102 Switching of the electron transport chain of unicellular cyanobacteria during nitrogen starvation
(RIKEN, Plant Science Center) ○OSANAI, Takashi; KUWAHARA, Ayuko; IIJIMA, Hiroko; SAITO, Kazuki; HIRAI, Masami

3PD-103 Metabolic profiling analysis of *Synechocystis* sp. PCC6803 cultivated under nitrogen depleted condition
(Kobe University) ○HASUNUMA, Tomohisa

3PD-104 A gene-disrupted mutant of cyAbrB in *Synechocystis* sp. PCC 6803, as a platform of metabolic engineering
Saitama Univ. Grad. Sch. Sci. and Eng. ○HIHARA, Yukako

3PD-105 Construction of a Chimeric Glycolytic Pathway by Synthetic Metabolic Engineering
(Department of Biotechnology, Graduate School of Engineering, Osaka University) ○HONDA, Kohsuke

3PD-106 Genetic engineering of cyanobacteria to enhance photobiological H_2 production
(JST PRESTO; Research Institute for Photobiological Hydrogen Production, Kanagawa Univ.) ○MASUKAWA, Hajime

3PD-107 Improvement of Cyanobacterial Enzymes for Alkane Biosynthesis
(Univ. of Tokyo) ○ARAI, Munehito; WATANABE, Takahiro; SODEYAMA, Kohei

3PD-108 Metabolome Analysis of Chlamydomonas reinhardtii Under High- and Low-Light Conditions.
(Inst. Adv. Biosci., Keio Univ.) ○ITO, Takuro; IGARASHI, Kazuya; MURAKAMI, Tsukasa; SOGA, Tomoyoshi; TOMITA, Masaru

3PD-109 Magneto-optical energy transformation by biogenic photonic crystals in aquatics
(Chiba Univ., JST PRESTO) ○IWASAKA Masakazu, MIZUKAWA, Yuri

3PD-110 Molecular breeding of microalgae for the production of isoprenoid fuels and chemicals
Department of Applied Chemistry and Biotechnology, Graduate School of Chiba University ○Daisuke Umeno

3PD-111 Regulation of carbon and nitrogen metabolism in the nitrogen-fixing cyanobacterium *Anabaena* sp. strain PCC 7120
Department of Biological Science, Faculty of Science and Engineering, Chuo University ○Shigeki Ehira and Masayuki Ohmori

3PD-112 Molecular Design of Oxygen-tolerant [NiFeSe]Hydrogenases for Hydrogen Production under Aerobic Conditions
(Okayama Univ., Grad. Sch. Nat. Sci. & Tech.) ○TAMURA, Takashi

3PD-113 Development of chimeric myosin XI for plant growth regulation.
([1] Mol. Membrane Biol. Lab., RIKEN Adv. Sci. Inst., [2] Dept. Biol. Sci., Grad. School Sci., Univ. Tokyo,[3] Dept. Biol., Grad. School Sci., Chiba Univ., [4]JST PRESTO) ○Tominaga, Motoki[1, 4];Kimura, Atsushi[3]; Yamamoto, Keiichi[3]; Nakano, Akihiko[1, 2]; Ito, Kohji[3]

3PD-114 Light-regulation of extracellular polysaccharide production by developing various photo-switches
(Univ. of Tokyo, JST, PRESTO) ○Rei Narikawa

3PD-115 Characterization of a metal metabolism in a thermophilic red alga, *Galdieria sulphuraria*
(Tokyo Univ. of Pharmacy and Life Sciences, Osaka Univ.) ○MINODA, Ayumi; ITAYAMA, Sho; YAMAMOTO, Takaiku; TSUZUKI, Mikio

光の利用と物質材料・生命機能

3月26日 (月) 15:35～16:35

2SJ-11 In-situ Optical Observation for Elucidating Antifreeze Mechanism of Water by Proteins
(Hokkaido University, PRESTO/JST) ○Gen SAZAKI

2SJ-12 Cell and micro-organism manipulations with photo-functional and photo-controllable proteins
(Nagoya University, JST-PRESTO) ○Yuki Sudo

2SJ-13 Time-dependent molecular orbital imaging with an soft-Xray laser pulse
(Waseda University) ○Hiromichi Niikura

3月27日 (火)

3PD-116 Coherent control of plasmonic wave functions
(Waseda Univ. and JST PRESTO) ○IMURA, Kohei
Direct Observation of Molecular Structure Change during the Thermal Reaction to Clarify the Reaction

3PD-117 Mechanism using Ultrafast Spectroscopy
(Hiroshima Univ., PRESTO/JST, UEC) ○IWAKURA, Izumi
Development of Spatio-Temporal Pulse-Shaping Technique and Its Application of Nonlinear Optical

3PD-118 Spectroscopy to a Microscopic Region
(JST PRESTO researcher) ○OHTA, Kaoru

3PD-119 Active Control of Photo-chemical Processes by Manipulation of Intermolecular Distances towards Artificial Light Harvesting System
(Tokyo Metropolitan University, PRESTO/JST) ○Shinsuke TAKAGI

3PD-120 Probing the Chiral Nature by Single Molecule Fluorescence Detection
(Hokkaido Univ.; PRESTO-JST) ○FUKAMINATO, Tsuyoshi

3PD-121 Laser Trapping and Spectroscopy and Dynamics of Single Water Droplets in Air
(Hiroshima University, PRESTO-JST.) ○Shoji ISHIZAKA

3PD-122 Development of photoresponsive nucleic acids and their application to photoregulation of gene expression in a single living cell
(JST PRESTO) ○OGASAWARA, Shinzi

3PD-123 Growth control of molecular crystal by making BEST use of photochemical reaction
(Department of Chemistry and Chemical biology, Gunma University, JST PRESTO) ○Tetsuo OKUTSU

3PD-124 High-sensitivity detection of optical activity and high-resolution imaging by stimulated Raman scattering
(Osaka Univ., JST-PRESTO) ○OZEKI, Yasuyuki

3PD-125 Ultrawide Band Light Conversion by Controlling Structures of Microdroplets and Ultrashort Laser Pulses
(School of Science, Univ. of Tokyo, PRESTO JST) ○HATANAKA, Koji

3PD-126 In-site measurement of interfacial photoreaction in atmosphere and living system
(Kyoto Univ., JST PRESTO) ○ENAMI, Shinichi

3PD-127 Spatio-temporal manipulation and imaging of condensed-phase wave functions
(Institute for Molecular Science, JST PRESTO) ○KATSUKI, Hiroyuki

3PD-128 Molecular and physiological analyses of photosensory proteins responsible for mammalian ultraviolet photoreception
(Department of Biophysics and Biochemistry, Graduate School of Science, The University of Tokyo; PRESTO, JST) ○KOJIMA, Daisuke

3PD-129 Functional analysis and application of a photoactivated transcription regulator in diverse algae
(JST PRESTO/ Tohoku University, Graduate School of Life Sciences) ○TAKAHASHI, Fumio

3PD-130 Chemical donors for two-photon uncaging of gaseous cellular mediators to probe oxidative stress
(Nagoya City University) ○NAKAGAWA, Hidehiko

太陽光と光電変換機能

3月27日 (火) 11:05～12:05

3SJ-03 Near-IR Dye Sensitization of Polymer Solar Cells
(Kyoto University; JST PRESTO) ○OHKITA, Hideo

3SJ-04 Dynamics of Multiple Exciton Generation in PbS Quantum Dots
(The University of Electro-Communications, JST PRESTO) ○SHEN, Qing

3SJ-05 Creation of new type solar cells using chalcopyrite phosphide semiconductors
(Kyoto Univ.・JST-PRESTO) ○NOSE, Yoshitaro

3月27日 (火)

3PD-131 Organic thin-film solar cells with energy harvesting and transferring system based on excitation transfer
(Shinshu Univ., JST-Presto) ○ICHIKAWA, Musubu

3PD-132 Formation of Polycrystalline Silicon Films for Solar Cells by Flash Lamp Annealing
(Jpn. Adv. Inst. Sci. & Tech. (JAIST), JST PRESTO) ○OHDAIRA, Keisuke

3PD-133 High-Efficient and Ultra-Thin Solar Cells using Plasmonics
(Institute for Materials Chemistry and Engineering, Kyushu University) ○OKAMOTO, Koichi

3PD-134 Photogenerated Charge Carrier Dynamics in Donor-Acceptor Films Studied by Microwave Conductivity
(Osaka Univ., PRESTO-JST) ○SAEKI, Akinori

3PD-135 Improvement of Organic Photovoltaic Cell Performance by Crystalline and Morphology Control
(RSET. Kanazawa Univ. JST PRESTO) ○TAIMA ,Tetsuya

3PD-136 Design and Synthesis of π-Electronic Two-dimensional Polymers and Frameworks
(IMS・JST PRESTO) ○JIANG, Donglin

3PD-137 Microscopic Properties of Organic Solar Cells as Investigated by Light-Induced Electron Spin Resonance
(Univ. of Tsukuba, JST PRESTO) ○MARUMOTO, Kazuhiro

3PD-138 Development of Organic Semiconducting Materials Containing New Electron-accepting Units
(The Institute of Scientific and Industrial Research, Osaka Univ., JST PRESTO) ○IE, Yutaka

3PD-139 Nanocarbon Composite Materials for Photoelectrochemical Devices
(Kyoto Univ., JST PRESTO) ○UMEYAMA, Tomokazu

3PD-140 Photoinduced Charge-Separated State and Its Charge Dissociation Dynamics in Polythiophen-Fullerene Blend
(Shizuoka University, JST PRESTO) ○KOBORI, Yasuhiro

3PD-141 Synthesis of multiple-bandgap semiconductor for intermediate-band solar cells
(Saga Univ. and JST PRESTO) ○TANAKA, Tooru

3PD-142 Enhancement of Power Conversion Efficiency and Long-term Stability of P3HT/PCBM Solar Cells Using C_{60} Derivatives with Thiophene Units as Surfactants
(Tokyo Institute of Technology・JST PRESTO) ○HIGASHIHARA, Tomoya

3PD-143 Design and Synthesis of Near-infrared Organic Dyes with the Low LUMO Energy Level
(RIKEN-ASI・JST PRESTO) ○MURANAKA, Atsuya

3PD-144 The I^-/I_3^- transport in dye-sensitized solar cells
(NIMS Photovoltaics Materials Unit, JST PRESTO)
○YANAGIDA, Masatoshi

3PD-145 Development of Organic Dyes for DSCs Utilizing Boron as a Key Element
(Institute for Chemical Research, Kyoto University, JST PRESTO)
○WAKAMIYA, Atsushi

3PD-146 Highly ordered porphyrin arrays accumulated on cylindrical phase segregation interface in liquid crystalline amphiphilic block copolymer thin film
(Kyoto Institute of Technology, JST PRESTO) ○ASAOKA, Sadayuki

3PD-147 Cu_2SnS_3 thin films prepared by sulfurizing metal precursors
(Nagaoka National College of Technology, JST PRESTO)
○ARAKI, Hideaki

3PD-148 Piezo-electric-field effect MQW solar cells based on novel oxynitride semiconductors
(Kyushu University, JST PRESTO) ○ITAGAKI, Naho

3PD-149 Electron Transfer Dynamics of Inhomogeneous Photoelectric Conversion Systems by Means of Wavelength - Tunable Transient Absorption Microscopy
(Osaka University, Graduate School of Engineering Science, JST PRESTO)
○KATAYAMA, Tetsuro

3PD-150 Study of crystal growth of super high-quality silicon crystal with grain boundaries with controlled configurations for solar cells
(Institute for Materials Research (IMR), Tohoku University, Precursory Research for Embryonic Science and Technology (PRESTO), Japan Science and Technology Agency (JST)) ○KUTSUKAKE, Kentaro;

3PD-151 Preparation of a Diameter-controlled Silicon Nanowire Array for the Application to Next Generation Solar Cells
(Dept. Phys. Elec. Tokyo Tech., JST PRESTO) ○KUROKAWA, Yasuyoshi

3PD-152 Investigation of properties of organic solar cells using synchrotron-based analytical techniques
(University of Tsukuba, JST-PRESTO) ○SAKURAI, Takeaki

3PD-153 Novel Organic Photovoltaics using Surface Complexes Formed of Titanium Dioxide and Dicyanomethylene Compounds
(Univ. of Tokyo, JST PRESTO) ○FUJISAWA, Jun-ichi

3PD-154 Organic single crystal solar cells and analysis of exciton diffusion
(JST-PRESTO, Research Center for Photovoltaic Technologies, AIST)
○MIYADERA,Tetsuhiko

3PD-155 Growth of Silicon Single Crystals by Infra-red Convergent Heating Method
(Univ. of Yamanashi, JST PRESTO) ○WATAUCHI, Satoshi

光エネルギーと物質変換

3月27日 (火) 15:05～16:05

3SJ-09 Development of Large Photofunctional Porphyrin Arrays
(Graduate School of Science, Kyoto University, Graduate School of Engineering, Nagoya University, and PRESTO, Japan Science and Technology Agency) ○ARATANI, Naoki; SONG, Jianxin; TANAKA, Takayuki; SHINOKUBO, Hiroshi; OSUKA, Atsuhiro

3SJ-11 Biological methane production and anaerobic oxidation of methane
(Max Planck Institute for Terrestrial Microbiology; PRESTO, Japan Science and Technology Agency) ○SHIMA, Seigo

3SJ-10 Development of visible-light-responsive photocatalyst systems toward solar hydrogen production
(Hokkaido Univ.) ○ABE, Ryu

3月27日 (火)

3PD-156 Watching Chemical Conversion of Light Energy with Picosecond Time-resolved X-ray Structural Analysis
(High Energy Accelerator Research Organization (KEK) and JST-PREST)
○ADACHI, Shin-ichi; SATO, Tokushi; NOZAWA, Shunsuke

3PD-157 Electron transfer and proton transfer in Photosystem II
(Kyoto Univ, Career Path/ JST, PRESTO) ○ISHIKITA, Hiroshi

3PD-158 Novel CO_2 Reduction Catalysts Constructed with 'Peptide Origami'
(Kitasato University; PRESTO, JST) ○ISHIDA, Hitoshi

3PD-159 Two-dimensional semiconducting nanocrystals for photocatalytic hydrogen production from water
(Kyushu Univ., PRESTO)○IDA, Shintaro; OKAMOTO, Yohei; HAGIWARA, Hidehisa; ISHIHATA, Tatsumi

3PD-160 Synthesis and Reactivities of Palladium Complexes containing Visible-Light Sensitizers
(Chemical Resources Laboratory, Tokyo Institute of Technology JST-PRESTO) ○Akiko Inagaki, Hiroyuki Nitadori, Kei Murata, Mizuki Araki, Masahiro Morita, Yusuke Yasu, Munetaka Akita

3PD-161 Light-driven hydrogen and formate generation systems composed of photosystem I and redox enzymes
(Shinshu University, JST-PRESTO) ○IHARA, Masaki

3PD-162 Organization and Functional Analysis of Supramolecular Assembly of Photosynthetic Antenna Proteins
(Grad. School Eng., Nagoya Inst. of Tech., JST/PRESTO, Osaka City Univ., JST/CREST)○DEWA, Takehisa; SUMINO, Ayumi; WATANABE, Natsuko; NOJI, Tomoyasu, KONDO Masaharu; NANGO, Mamoru

3PD-163 Bis (phosphaethenyl) pyridine Iron Complexes; Electronic Structures and Reactivity towards CO_2
(Institute for Chemical Research, Kyoto University, ・JST-PRESTO)
○NAKAJIMA, Yumiko

3PD-164 Water Oxidation and Reduction Catalyzed by Metal Complexes
(Institute for Molecular Science, JST PRESTO) ○MASAOKA, Shigeyuki

3PD-165 Molecular design and innovative synthesis of a dinuclear ruthenium aquo complex as a highly active water oxidation catalyst
(Niigata Univ.[1], JST-PRESTO[2]) ○YAGI, Masayuki[2]; HIRAHARA, Masanari[1]; YAMAZAKI, Hirosato[1]

3PD-166 Molecular function of the PsbP protein regulating oxygen-evolving activity of photosystem II
(Grad. Sch. of Biostudies, Kyoto Univ., Fac. of Agri., Kyoto Univ., JST-PRESTO)○Kentaro Ifuku, Kunio Ido, Shusuke Kakiuchi, Taishi Nishimura, Fumihiko Sato

3PD-167 Multimodal fluorescence micro-spectroscopic analysis of chloroplast photochemical activity and accumulation of neutral lipids in algal cells
(Kyoto University, JST PRESTO) ○KUMAZAKI, Shigeichi; TSUDA, Yumi; HASEGAWA Makoto; TERAZIMA Masahide

3PD-168 X-ray Structure of the Electron Transfer Complex between Ferredoxin and Ferredoxin-dependent Enzyme
(Inst. Protein Res., Osaka Univ.) ○KURISU, Genji; SHINMURA, Kanako; MURAKI, Norifumi; HASE, Toshiharu

3PD-169 Synthesis and characterization of ruthenium substituted polyoxometalates, and their catalytic activities for water oxidation
(Graduate School of Engineering, Hiroshima University・JST, PRESTO)
○Masahiro SADAKANE

3PD-170 Deactivation processes in PsbA1-Photosystem II and PsbA3-Photosystem II under photoinhibitory conditions in the cyanobacterium *Thermosynechococcus elongatus*
([1]CSTRC, Ehime Univ.; [2]JST-PRESTO; [3]Dep. of Chem. Ehime Univ.; [4]CEA/Saclay) ○Miwa SUGIURA[1, 2, 3], Shogo OGAMI[3], and Alain BOUSSAC[4]

3PD-171 Optical Trapping and Photochemistry on Metallic Nanostructure
(Hokkaido Univ., JST-PRESTO.) ○ Yasuyuki Tsuboi

3PD-172 Characterization of interfacial structure of photoenergy conversion systems by surface vibrational spectroscopy
([1]NIMS WPI-MANA, [2]NIMS GREEN, [3]Hokkaido Univ., [4]JST PRESTO)
○Hidenori Noguchi[1, 2, 3, 4], Mikio Ito[3], Tsubasa Okada[3], and Kohei Uosaki[1,2,3]

3PD-173 Conversion of Energy Molecules Using Active Metal Centers Built in a Cage Type Ligand
(Nagoya Inst. of Tech., JST-PRESTO) ○FUNAHASHI, Yasuhiro; AOKI, Takahiro; KINOSHITA Wataru; MORIMI Yuka; SUZUKI Atsushi; MURASE Masakazu; WASADA-TSUTSUI Yuko; INOMATA Tomohiko; OZAWA Tomohiro; MASUDA Hideki

3PD-174 Fluorescence Microscopy of Diatom Silica Shell
(Yamagata Univ., JST-PRESTO, K. U. Leuven) ○HOTTA, Jun-ichi; KONNO, Miki; DEDECKER, Peter; MIZUNO, Hideaki; HOFKENS, Johan

3PD-175 Development of surface modified oxynitride photocatalysts for efficient water splitting
(The Univ. of Tokyo; PRESTO/JST)○MAEDA, Kazuhiko, MA, SuSu Khine, DOMEN, Kazunari

3PD-176 Redox-Switchable Metal Assembling in a Sandwich Framework
(Osaka Univ.・PRESTO-JST) ○MURAHASHI, Tetsuro; FUKUSHIMA, Azusa; SHIRATO, Katsunori; TAKASE, Kohei; OGOSHI, Sensuke

3PD-177 Bio-inspired catalytic perovskite oxide for solar thermochemical water splitting
([1] California Institute of Technology, [2] Japan Science and Technology Agency, PRESTO) C.-K. Yang[1], Y. Yamazaki[1, 2], S.M. Haile[1]

3PD-178 Studies on the oxygen-evolving reaction of Photosystem II complex by structural and chemical analyses
([1]The OCU Advanced Research Institute for Natural Science and Technology (OCARINA), Osaka City Univ., [2]JST-PRESTO, [3]Graduate School of Natural Science and Technology/Faculty of Science, Okayama Univ., [4]Graduate School of Science, Osaka City Univ.) ○UMENA, Yasufumi[1, 2], KAWAKAMI, Keisuke[1], SHEN, Jian-Ren[3], KAMIYA, Nobuo[1, 4]

3PD-179 Photocatalytic Reduction of Carbon Dioxide over Shape Controlled Titanium(IV) Oxide Nanoparticles
(Kyushu Institute of Technology, PRESTO) ○OHNO, Teruhisa

3PD-180 Dynamics of complex photoenergy conversion systems studied by time-resolved vibrational spectroscopy
(Tokyo Tech, PRESTO/JST) ○Ken Onda

3PD-181 Platonic Hexahedron Composed by the Six Porphyrin with an Inscribed Au Cluster
(Univ. of Tsukuba, Kyoto Univ., JST-CREST, JST-PRESTO)
○SAKAMOTO, Masanori; TANAKA, Daisuke; TERANISHI, Toshiharu

3PD-182 Emission quenching of a novel ruthenium (II) complex having arylborane unit by CO_2 in solution
([1]Department of Chemistry, Faculty of Science, Hokkaido University [2]Department of Chemical Sciences and Engineering, Graduate School of Chemical Sciences and Engineering, Hokkaido University, [3]Department of Chemistry, The University of North Carolina at Chapel Hill [4]JST-PREST) ○SAKUDA, Eri[1, 4]; TANAKA, Mai[2]; ITO, Akitaka[3]; KITAMURA, Noboru[1, 2]

3PD-183 Design of electrocatalyst for CO_2 reduction utilizing metal complex
(Toyota Central R&D Labs. Inc., PRESTO/JST) ○Shunsuke Sato

3PD-184 Photocatalytic conversion of CO_2 in water using layered double hydroxides
([1]Graduate school of Engineering, Kyoto University, [2]PRESTO, Japan Science and Technology Agency) ○Kentaro TERAMURA[1,2], Yuto MIZUNO[1], Shoji IGUCHI[1], Tetsuya SHISHIDO[1], Tsunehiro TANAKA[1]

3PD-185 Ultrafast Electron Transfer in Ionic Liquids: Symmetric and Asymmetric Molecules
(Osaka Univ. Grad. Scho. Engi. Scie. and Kyokugen, JST-PRESTO)
○NAGASAWA, Yutaka; MORISHIMA, Satoe; MURAMATSU, Masayasu; MIYASAKA, Hiroshi

3PD-186 Thermotolerance of carbonyl carotenoids bound to the photosynthetic antennae from oceanic algae
(JST-PRESTO and The Osaka City University Advanced Research Institute for Natural Science and Technology (OCARINA); South Product, Ltd.)
○FUJII, Ritsuko; SENJU, Naoki; SHIGEMATSU, Yusuke; IHA, Masahiko; HASHIMOTO, Hideki

3PD-187 Time-resolved polarized FT-IR spectroscopy on light-driven proton pumping protein, bacteriorhodopsin
(Inst. Mol. Sci., SOKENDAI, JST PRESTO) ○FURUTANI, Yuji

3PD-188 Photochemical Formation of a Ru(II) Hydride Complex from Organic Hydride Donors
(JST/PRESTO, Brookhaven National Lab.) ○Yasuo Matsubara

3PD-189 Development of New Photocatalysts for the Highly Efficient Reduction of CO_2
(Tokyo Tech., JST-PRESTO) ○Tatsuki Morimoto

3PD-190 Control of behavior and energy state of photogenerated charge carriers
([1]Toyota Technological Institute, [2] PRESTO) ○Akira Yamakata[1,2]・Masahiro Ohkawa[1]・Manabu Inukai[1]・Itaru Kamiya[1]