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## Poster Session 1

**Tue. Sep 14, 2021 5:00 PM - 6:40 PM**

[1P01★] Development of Pentalenedione-based Singlet Fission Material Possessing High  $T_1$  Energy Level

\*Tomoki NAGAOKA<sup>1</sup>, Yasunori MATSUI<sup>1,2</sup>, Takuya OGAKI<sup>1,2</sup>, Eisuke OHTA<sup>1,2</sup>, Hiroshi IKEDA<sup>1,2</sup> (1. Grad. Sch. of Eng., Osaka Pref. Univ., 2. RIMED, Osaka Pref. Univ.)

[1P02★] Development of heavy metal-free visible-to-UV photon upconversion systems

\*Masanori UJI<sup>1</sup>, Naoyuki HARADA<sup>1</sup>, Nobuo KIMIZUKA<sup>1,2</sup>, Nobuhiro YANAI<sup>1,2,3</sup> (1. Grad. Sch. of Eng., Kyushu Univ., 2. CMS, Kyushu Univ., 3. PRESTO, JST)

[1P03★] Photoresponsive properties of Nanorings Formed by Self-Assembly of Scissor-Shaped Azobenzene Dyad

\*Hironari ARIMA<sup>1</sup>, Shiki YAGAI<sup>2</sup>, Luis SANCHEZ<sup>3</sup>, Jorge S. VALERA<sup>4</sup> (1. Grad. Sch. of Eng. and Sci., Chiba Univ., 2. IGPR, Chiba Univ., 3. Dept. of Organic Chem. Complutense Univ. of Madrid, 4. Univ. of Strasbourg, CNRS)

[1P04★] Construction of Quantum Dot Arrangement Structures Using an Azobenzene Derivative and Elucidation of the Formation Mechanism

\*Naoki KUBO<sup>1</sup>, Mitsuaki YAMAUCHI<sup>1</sup>, Sadahiro MASUO<sup>1</sup> (1. Grad. Sch. of Sci. and Technol., Kwansei Gakuin Univ.)

[1P05★] Control of Incoherent Scattering of Silica Nanoparticle-based Colloidal Amorphous Showing Structural Color by Thermochromism of Leuco Dye/Developer System

\*Ryohei KOBAYASHI<sup>1</sup>, Norihisa KOBAYASHI<sup>1</sup>, Kazuki NAKAMURA<sup>1</sup> (1. Grad. Sch. of Eng., Chiba Univ.)

[1P06★] Investigation of pyrene aggregates for high-brightness CPL expression by using DNA backbone

\*Yuka ITO<sup>1</sup>, Hiromu KASHIDA<sup>1</sup>, Takahiro KAKUTA<sup>2</sup>, Tomoki OGOSHI<sup>3</sup>, Hiroyuki ASANUMA<sup>1</sup> (1. Grad. Sch. of Eng., Nagoya Univ., 2. Grad. Sch. of Natural Sci. and Tech., Kanazawa Univ., 3. Grad. Sch. of Eng., Kyoto Univ.)

[1P07★] Control of cell membrane permeation based on selective adsorption of a photoactive surfactant on albumin

\*Mai SHINOHARA<sup>1</sup>, Xu WEI<sup>2</sup>, Sunnam KIM<sup>2</sup>, Tsuyoshi FUKAMINATO<sup>2</sup>, Takuro NIDOME<sup>2</sup>, Seiji KURIHARA<sup>2</sup> (1. Grad. School of Sci. and Tech., Kumamoto Univ., 2. Fac. of Adv. Sci. and Tech., Kumamoto Univ.)

[1P08★E] Photochromic reaction behavior and improved fatigue-resistance of a diarylethene included in cyclodextrin with different pore sizes

\*Ryotaro MIYAMOTO<sup>1</sup>, Daichi KITAGAWA<sup>1</sup>, Seiya KOBATAKE<sup>1</sup> (1. Osaka City Univ.)

[1P09★] Kinetic Analysis of Photochemical Paths in Asymmetric Diarylethene Dimer

\*Yae HIROYASU<sup>1</sup>, Chihiro SHIRAKATA, Masataka SUGIMOTO<sup>1</sup>, Kenji HIGASHIGUCHI<sup>1</sup>, Kenji MATSUDA<sup>1</sup> (1. Grad.Sch. of Eng., Kyoto Univ.)

[1P10★] Synthesis and photochemical property of asymmetric tetraarylene capable of two-way photocyclization

\*Masataka SUGIMOTO<sup>1</sup>, Kenji HIGASHIGUCHI<sup>1</sup>, Kenji MATSUDA<sup>1</sup> (1. Grad. Sch. of Eng., Kyoto Univ.)

[1P11★] Development of a stimuli-responsive supramolecular photocatalyst based on a zwitterionic rhodamine dye

\*Satomi HAGIO<sup>1</sup>, Hajime SHIGEMITSU<sup>1</sup>, Youhei TANI<sup>1</sup>, Toshiyuki KIDA<sup>1</sup> (1. Grad. School of Eng., Osaka Univ.)

[1P12] Properties of a novel chiral co-adsorbent in the asymmetric photohydrogenation reaction on titanium dioxide

\*Shigeru KOHTANI<sup>1</sup>, Sayuri KAWASHIMA<sup>1</sup>, Yurika MIURA<sup>1</sup>, Genki NEGORO<sup>1</sup>, Akira KAWASHIMA<sup>1</sup>, Bunsho OHTANI<sup>2</sup>, Hideto MIYABE<sup>1</sup> (1. Hyogo Univ. Health Sci., 2. ICAT, Hokkaido Univ.)

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[1P13★] Supramolecular Polymerization-Induced Emission of Diphenylthiophene Bearing Barbituric Acid  
\*Maika KAWAURA<sup>1</sup>, Shiki YAGAI<sup>2</sup> (1. Grad. Sch. of Eng. and Sci., Chiba Univ., 2. IGPR, Chiba Univ.)

[1P14★] Preparation of bridged-distyrylbenene as a new AIEgen and correlation between crystal structures and solid-state fluorescence.

\*Yoshimichi SHIMOMURA<sup>1</sup>, Gen-ichi KONISHI<sup>1</sup> (1. Tokyo Inst. Tech.)

[1P15★] Fluorescent Solvatochromic Properties of Push-pull Type Bridged Stilbenes

\*Takuya TANAKA<sup>1</sup>, Gen-ichi KONISHI<sup>1</sup> (1. Sch. Mater.& Chem. Tech., Tokyo Inst. Tech.)

[1P16★E] Tuning the Mechanochromically Luminescent Properties of Thienylbenzothiadiazole by Forming Mixed Crystals

\*Ryohei YOSHIDA<sup>1</sup>, Suguru ITO<sup>1</sup> (1. Grad. Sch. of Eng. Sci., Yokohama Natl. Univ.)

[1P17★E] Fluorescence and Phosphorescence Properties of Sulfur-containing Polyimides having Adamantyl Skeletal Structure in the Main Chain

\*Hiroka YAMAMATSU<sup>1</sup>, Atsuko TABUCHI<sup>1</sup>, Naiqiang LIANG<sup>1</sup>, Ryohei ISHIGE<sup>1</sup>, Shinji ANDO<sup>1</sup> (1. Dept. of Chem. Sci. and Eng., Tokyo Inst. Tech.)

[1P18★E] Long-range mode coupling of 2D microdisks array made of organic semiconductor thin films and its controllability

\*Akihiro KAMEDA<sup>1</sup>, Sunao SHIMOMOTO<sup>1</sup>, Hiroyuki TAJIMA<sup>1</sup>, Junichi YAMADA<sup>1</sup>, Tokuji YOKOMATSU<sup>2</sup>, Kazusuke MAENAKA<sup>2</sup>, Takeshi KOMINO<sup>1</sup> (1. Grad. Fac. of Sci., Univ. Hyogo, 2. Grad. Fac. of Eng., Univ. Hyogo)

[1P19★E] Two-step mechanochromic luminescence based on the formation of charge-transfer complexes within a two-component dye

\*Masayasu MUNAKATA<sup>1</sup>, Ryohei SEKINE<sup>1</sup>, Takashi TACHIKAWA<sup>2,3</sup>, Suguru ITO<sup>1</sup> (1. Grad. Sch. of Eng. Sci., Yokohama Natl. Univ., 2. Grad. Sch. of Sci., Kobe Univ., 3. Mol. PhotoSci. Res. Center, Kobe Univ.)

[1P20★E] Development of Novel Near-Infrared Fluorescent Dye for *in vivo* Two-photon Microscopic Imaging of Deep-Brain Vasculature of Mice

\*Hitomi MATSUURA<sup>1</sup>, Ryosuke KAWAKAMI<sup>2</sup>, Takeshi IMAMURA<sup>2</sup>, Shingo HADANO<sup>1</sup>, Shigeru WATANABE<sup>1</sup>, Yosuke NIKO<sup>1</sup> (1. Kochi Univ., 2. Ehime Univ.)

[1P21★] The substituent effects on the photophysical property of alkynylanthracenes with a diphenylphosphoryl group

\*Nina MURAYAMA<sup>1</sup>, Joel Hao JOROLAN<sup>2</sup>, Mao MINOURA<sup>3</sup>, Haruyuki NAKANO<sup>4</sup>, Tadaaki IKOMA<sup>2</sup>, Yoshihiro MATANO<sup>2</sup> (1. Grad. Sch. of Sci. and Tech., Niigata Univ., 2. Fac. of Sci., Niigata Univ., 3. Fac. of Sci., Rikkyo Univ., 4. Grad. Sch. of Sci., Kyushu Univ.)

[1P22★] A Novel Bianthryl Derivative Exhibiting Strong Fluorescence in Crystalline Phase

\*Tomoko IWASAKI<sup>1</sup>, Akitaka ITO<sup>1</sup> (1. Grad. Sch. of Eng., Kochi Univ. of Tech.)

[1P23★] Photodimerization of Tetraaryl[3]cumulenes and Their Luminescent Properties

\*Keita HOSHI<sup>1</sup>, Tetsuro KATAYAMA<sup>1,2</sup>, Akihiro FURUBE<sup>1,2</sup>, Keiji MINAGAWA<sup>1</sup>, Yasushi IMADA<sup>1</sup>, Fumitoshi YAGISHITA<sup>1,2</sup> (1. Tokushima Univ., 2. Inst. of Post-LED Photonics, Tokushima Univ.)

[1P24★] Controlling molecular gearing motion in crystals with the luminescence property mediated by cationic NHC copper(I) complexes

\*Rempei ANDO<sup>1</sup>, Mingoo JIN<sup>1,2</sup>, Marcos JELLEN<sup>3</sup>, Miguel GARCIA-GARIBAY<sup>3</sup>, Hajime ITO<sup>1,2</sup> (1. Grad. School of Eng., Hokkaido Univ., 2. WPI-ICReDD, Hokkaido Univ., 3. UCLA)

[1P25★] Enhancement of blue luminescence of phenylquinoline derivatives by cation addition

\*Jun ASANO<sup>1</sup>, Kaname ISHIGAKI, Tatsuo TANIGUCHI<sup>1</sup>, Takashi KARATSU<sup>1</sup> (1. Grad. Sch. of Eng., Chiba Univ.)

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[1P26★] Pressure Responsiveness to Fluorescence Properties of Crystals of Organoboron Complexes Possessing the [2.2]Paracyclophane Moiety

\*Shun IRII<sup>1</sup>, Takuya OGAKI<sup>1,2</sup>, Takumu ARI<sup>1</sup>, Shun YAMAMOTO<sup>1</sup>, Hana MIYASHITA<sup>3</sup>, Kazutaka NOBORI<sup>3</sup>, Hiroki IIDA<sup>3</sup>, Yoshiki OZAWA<sup>3</sup>, Masaaki ABE<sup>3</sup>, Hiroyasu SATO<sup>4</sup>, Eisuke OHTA<sup>1,2</sup>, Yasunori MATSUI<sup>1,2</sup>, Hiroshi IKEDA<sup>1,2</sup> (1. Grad. Sch. of Eng., Osaka Pref. Univ., 2. RIMED, Osaka Pref. Univ., 3. Grad. Sch. of Sci., Univ. of Hyogo., 4. Rigaku Corp.)

[1P27★] Synthesis of a novel water-soluble diphenylanthracene derivative and doping into ionic nanosphere

\*Taizo MISATO<sup>1</sup>, Akitaka ITO<sup>1</sup> (1. Grad. Sch. of Eng., Kochi Univ. of Tech.)

[1P28★] Photoinduced Selective Oxygenation of Dibenzothiophene Using Chlorine Dioxide

\*Yusuke SHIMADA<sup>1</sup>, Haruyasu ASAHARA<sup>1</sup>, Tsuyoshi INOUE<sup>1</sup>, Kei OHKUBO<sup>2,3</sup> (1. Osaka Univ., 2. Osaka Univ. IACS, 3. Osaka Univ. OTRI)

[1P29★] Effect of surface hydroxyl groups on the adsorption and photodegradation of dyes by composite photocatalysts

\*Yuga ASANO<sup>1</sup>, Morio NAGATA<sup>1</sup> (1. Tokyo Univ. of Sci.)

[1P30★E] Elucidation of the effect of type-II electron transfer on photocatalytic hydrogen production

\*Haruki NAGAKAWA<sup>1</sup>, Morio NAGATA<sup>1</sup> (1. Tokyo Univ. Sci.)

[1P31★E] Investigation on pseudo-overpotentials of heterogeneous nanoparticles for water oxidation by Ru(II) photosensitizers

\*Megumi OKAZAKI<sup>1</sup>, Yasuomi YAMAZAKI<sup>2</sup>, Osamu ISHITANI<sup>1</sup>, Kazuhiko MAEDA<sup>1</sup> (1. Fac. of Sci., Tokyo Inst. Tech., 2. Fac. of Sci. and Eng., Seikei Univ.)

[1P32★E] Investigation of LMCT excited states on the luminescent properties of Eu(III) complexes with carbazole frameworks

\*Kota AIKAWA<sup>1</sup>, Yuichi KITAGAWA<sup>2,3</sup>, Sunao SHOJI<sup>2,3</sup>, Koji FUSHIMI<sup>2</sup>, Yasuchika HASEGAWA<sup>2,3</sup> (1. Grad. Sch. Chem. Eng., Hokkaido Univ., 2. Fac. of Eng., Hokkaido Univ., 3. WPI-ICReDD, Hokkaido Univ.)

[1P33★] Experimental and Theoretical Investigation of a Fused Ferrocene-bridged Peryleneimide Dimer

\*Hirofumi MORIMOTO<sup>1</sup>, Kyohei MATSUO<sup>1</sup>, Hiroko YAMADA<sup>1</sup>, Naoki ARATANI<sup>1</sup> (1. Nara Inst. of Sci. and Tech.)

[1P34★E] Fluorescence changes of dibenzoylmethanato boron difluoride complex with aggregation-induced emission property during the evaporative crystallization.

\*Yushi FUJIMOTO<sup>1</sup>, Yoshifumi MOCHIDUKI<sup>2</sup>, Fuyuki ITO<sup>1,2</sup> (1. Grad. Sch. of Sci. and Tech., Shinshu Univ. , 2. Inst. of Edu., Shinshu Univ.)

[1P35★E] Mechanically Modulated Emission from Perovskite Quantum Dot Assemblies

\*Zhijing ZHANG<sup>1,2</sup>, Takuya OKAMOTO<sup>2</sup>, Vasdevan Pillai BIJU<sup>1,2</sup> (1. Fac. of Env., Hokkaido Univ., 2. RISE, Hokkaido Univ. )

[1P36★E] A Cyanine Based Molecular Rotor Probe for Colorimetric and Fluorimetric Sensing of Heparin.

\*Shrishti P. PANDEY<sup>1,2</sup>, Pamela JHA<sup>1</sup>, Prabhat K. SINGH<sup>2,3</sup> (1. Amity Univ. Mumbai, India 2. Radiation & Photochemistry Division, Bhabha Atomic Research Centre, Mumbai, India, 3. Homi Bhabha National Inst., Anushaktinagar, Mumbai, India)

[1P37★] Plasmon-Assisted Fabrication of Periodic Chiral Nanostructures

\*Toru HOMMA<sup>1</sup>, Takuya ISHIDA<sup>1</sup>, Tetsu TATSUMA<sup>1</sup> (1. IIS, Univ. of Tokyo)

[1P38★] Chiroptical Properties of Plasmonic Nanostructures with Different Morphologies

\*Yuma NAKANE<sup>1</sup>, Takuya ISHIDA<sup>1</sup>, Tetsu Tatsuma<sup>1</sup> (1. IIS, Univ. of Tokyo)

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[1P39★] Enhancement of modal strong coupling strength with high particle number density of gold nanoparticles using self-assembly method

\*Yoshiki SUGANAMI<sup>1</sup>, Tomoya OSHIKIRI<sup>1</sup>, Hideyuki MITOMO<sup>1,3</sup>, Xu SHI<sup>2</sup>, Hiroaki MISAWA<sup>1,4</sup> (1. RIES, Hokkaido Univ., 2. CRI, Hokkaido Univ., 3. GI-CoRE, Hokkaido Univ., 4. National Yang Ming Chiao Tung Univ.)

[1P40★E] Functionalization of Plasmonic Cathode Electrodes using Molecular Catalyst

\*Ryoji SUZUKI<sup>1</sup>, Hiro MINAMIMOTO<sup>2</sup>, Kei MURAKOSHI<sup>2</sup> (1. Grad. Sch. of Chem. Sci. and Eng., Hokkaido Univ., 2. Grad. Sch. of Sci., Hokkaido Univ.)

[1P41★E] *trans* → *cis* and *cis* → *trans* photochromic isomerization of Indigo derivatives studied by global analysis

\*Yu KIHARA<sup>1</sup>, Yamato HIGASHI<sup>1</sup>, Shuntaro TANI<sup>2</sup>, Yutaka NAGASAWA<sup>2</sup> (1. Fac. of Sci. Ritsumeikan Univ., 2. Fac. of Sci. Ritsumeikan Univ.)

[1P42★E] Hot Electron Transfer Dynamics of CdSe/ZnS Quantum Dots-Fullerene Systems

\*Yuki TAGA<sup>1</sup>, Kousuke TSUJI<sup>1</sup>, Daichi EGUCHI<sup>1</sup>, Naoto TAMAI<sup>1</sup> (1. Kwansei Gakuin Univ.)

[1P43★] S<sub>2</sub> Emission Enhancement of Cationic Metalloporphyrin Adsorbed on the Inorganic Nanosheet

\*Maina NASHIMOTO<sup>1</sup>, Takuya FUJIMURA<sup>1</sup>, Ryo SASAI<sup>1</sup> (1. Grad. of Nat. Sci. Tech., Shimane Univ.)

[1P44★] Guest exchange behavior and vapochromism properties in porous charge-transfer complexes

\*Satoshi FUKUTOMI<sup>1</sup>, Toshikazu ONO<sup>1,2</sup>, Yoshio HISAEDA<sup>1,2</sup> (1. Grad. Sch. of Eng., Kyushu Univ., 2. CMS Kyushu Univ.)

[1P45★E] Multimodal Detection of Circulating Tumor Cells Using Multifunctional Silica Particles

\*Jeladhara SOBHANAN<sup>1</sup>, Yuta TAKANO<sup>1</sup>, Vasudevanpillai BIJU<sup>1</sup> (1. Hokkaido Univ.)

[1P46★] Thiouridine Derivative with a Pyrenylethynyl Group and its Excited State Dynamics

\*Taiki MATSUOKA<sup>1</sup>, Wataru KASHIHARA<sup>1</sup>, Tadashi SUZUKI<sup>1</sup> (1. Grad. Sch. Sci. Eng., Aoyama Gakuin Univ.)

[1P47★E] Isomerization dynamics of the excited-states intramolecular proton transfer molecule with luminescent property

\*Tomohiro RYU<sup>1</sup>, Aya TACHIBANA<sup>1</sup>, Kiyoshi MIYATA<sup>1</sup>, Toshiki MUTAI<sup>2</sup>, Ken ONDA<sup>1</sup> (1. Fac. of Sci., Kyushu Univ., 2. IIS, The Univ. of Tokyo)

[1P48★] Substituent effects of rubrene derivatives on solid-state near-infrared triplet-triplet annihilation photon upconversion and their mechanisms

\*Akane SAWA<sup>1,2</sup>, Neeti TRIPATHI<sup>1</sup>, Claire HECK<sup>1</sup>, Toshiko MIZOKURO<sup>3</sup>, Hiroaki TACHIBANA<sup>3</sup>, Naoto TAMAI<sup>2</sup>, Daiki KUZUHARA<sup>4</sup>, Hiroko YAMADA<sup>5</sup>, Kenji KAMADA<sup>1,2</sup> (1. NMRI, AIST, 2. Grad. Sch. of Sci. & Tech., Kwansei Gakuin Univ., 3. RIAEP, AIST, 4. Dep. of Phys. Sci. and Mater. Eng., Iwate Univ., 5. Grad. Sch. of Mater. Sci., NAIST)

[1P49★E] In-water triplet dynamic nuclear polarization of nanocrystals prepared by reprecipitation method

\*Naoto MATSUMOTO<sup>1</sup>, Koki NISHIMURA<sup>1</sup>, Kenichiro TATEISHI<sup>3</sup>, Tomohiro UESAKA<sup>3</sup>, Nobuo KIMIZUKA<sup>1,2</sup>, Nobuhiro YANAI<sup>1,2,4</sup> (1. Grad. Sch. of Eng., Kyushu Univ., 2. CMS, Kyushu Univ., 3. RIKEN Nishina Center for Accelerator-Based Science, 4. PRESTO, JST)

[1P50] High-speed Bending of Anisole Crystals Based on Photothermal Effect and Natural Vibration

\*Yuki HAGIWARA<sup>1</sup>, Shodai HASEBE<sup>1</sup>, Meguya RYU<sup>2</sup>, Hiroki FUJISAWA<sup>3</sup>, Junko MORIKAWA<sup>3</sup>, Toru ASAHI<sup>1,4</sup>, Hideko KOSHIMA<sup>4</sup> (1. Grad. Sch. of Adv. Sci. and Eng., Waseda Univ., 2. Res. Inst. for Mat. and Chem. Measurement, AIST, 3. Sch. Mat. Chem. Tech., Tokyo Inst. Tech., 4. Res. Org. Nano Life Innov., Waseda Univ.)

[1P51★E] Color variants of photoluminescent polymer dots doped with iridium complexes

\*Zuoyue LIU<sup>1</sup>, Guillem PRATX<sup>2</sup>, Mamoru FUJITSUKA<sup>1</sup>, Yasuko OSAKADA<sup>1,3</sup> (1. SANKEN, Osaka Univ., 2. Stanford Univ., 3. Ins. for Adv. Co-Cre., Osaka Univ.)

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- [1P52★] Photophysical properties of fluorescent dye in polystyrene colloidal crystal showing structural color  
\*Ayumi YOSHIDA<sup>1</sup>, Norihisa KOBAYASHI<sup>1</sup>, Kazuki NAKAMURA<sup>1</sup> (1. Chiba Univ.)
- [1P53★] Effect of Surrounding Hydrogels on Photomechanical Behaviors of Azobenzene-based Molecular Glass Particles  
\*Motona MATSUBARA<sup>1</sup>, Hiroyasu UKAI<sup>1</sup>, Masahiro KURAGANO<sup>1</sup>, Kiyotaka TOKURAKU<sup>1</sup>, Hideyuki NAKANO<sup>1</sup> (1. Muroran Inst. Tech.)
- [1P54★] Photoluminescence photoswitching of perovskite quantum dots by having photochromic diarylethene ligands  
\*Ashkan MOKHTAR<sup>1</sup>, Ryuki MORINAGA<sup>1</sup>, Yuji AKAISHI<sup>1</sup>, Sunnam KIM<sup>1</sup>, Seiji KURIHARA<sup>1</sup>, Tetsuya KIDA<sup>1</sup>, Tsuyoshi FUKAMINATO<sup>1</sup> (1. Kumamoto Univ.)
- [1P55★E] Experimental Evaluation of Biradical Character from Reactivity of Radical Recombination Reaction  
\*Moe NISHIJIMA<sup>1</sup>, Katsuya MUTOH<sup>1</sup>, Jiro ABE<sup>1</sup> (1. Aoyama Gakuin Univ.)
- [1P56★E] Photochromism of Biaryl-bridged imidazole dimers with Different Types of Aryl Unit in the Bridging Unit  
\*Hiroki ITO<sup>1</sup>, Katsuya MUTOH<sup>1</sup>, Jiro ABE<sup>1</sup> (1. Aoyama Gakuin Univ.)
- [1P57★E] Mechanistic Studies on Temperature Dependence of Photochromism of Cu-Doped ZnS Nanocrystals  
\*Yusuke SANADA<sup>1</sup>, Yoichi KOBAYASHI<sup>1</sup> (1. Fac. of Life Sci., Ritsumeikan Univ.)
- [1P58★] Porphyrin oligomer/semiconductor film for water oxidation into hydrogen peroxide by one-photon of visible light  
\*Ryosuke NAKAZATO<sup>1</sup>, Tetsuya SHIMADA<sup>1</sup>, Tamao ISHIDA<sup>1,2</sup>, Hiroshi TACHIBANA<sup>1</sup>, Shinsuke TAKAGI<sup>1,2</sup>, Haruo INOUE<sup>1,2</sup> (1. Grad. Sch. of Urban Environ. Sci., Tokyo Metropolitan Univ., 2. ReHES, Tokyo Metropolitan Univ.)
- [1P59★] Surface metal ion dependence of dye-double-layered nanoparticle photocatalyst in photocatalytic hydrogen evolution reaction  
\*Nobutaka YOSHIMURA<sup>1</sup>, Masaki YOSHIDA<sup>2</sup>, Masako KATO<sup>2,3</sup>, Atsushi KOBAYASHI<sup>2</sup> (1. Grad. Sch. of Chem. Sci. and Eng., Hokkaido Univ., 2. Grad. Sch. of Sci., Hokkaido Univ., 3. Dept. of Appl. Chem. for Environment, Kwansei Gakuin Univ.)
- [1P60★E] Synthesis and photocatalytic improvement of metal-porphyrin containing nanodisks from covalent organic frameworks  
\*Xinxi LI<sup>1</sup>, Guedes ARNAUD<sup>1</sup>, Kota NOMURA<sup>1</sup>, Yasuko OSAKADA<sup>1,2</sup>, Mamoru FUJITSUKA<sup>1</sup> (1. SANKEN, Osaka Univ., 2. IACS, Osaka Univ.)
- [1P61★] Synthesis of and characterization of hyper-crosslinked polymer of hydroxybenzenes for photocatalytic production of hydrogen peroxide  
\*Toru HORIUCHI<sup>1</sup>, Hisanao USAMI<sup>1</sup> (1. Fac. of Textile Sci. & Tech., Shinshu Univ.)
- [1P62★E] Light-Driven Rapid Peeling of Photochromic Diarylethene Single Crystals  
\*Masato TAMAOKI<sup>1</sup>, Daichi KITAGAWA<sup>1</sup>, Seiya KOBATAKE<sup>1</sup> (1. Grad. Sch. of Eng., Osaka City Univ.)
- [1P63★] Solid-state Emitting Properties of Cyanostilbene-based Amorphous Molecular Materials with Different Methylene Chain Lengths  
\*Hiroya FUKUFHIMA<sup>1</sup>, Kensuke MORI<sup>1</sup>, Yoshimitsu SAGARA<sup>2</sup>, Kenta KOKADO<sup>3</sup>, Takayoshi NAKAMURA<sup>3</sup>, Nobuyuki TAMAOKI<sup>3</sup>, Hideyuki NAKANO<sup>1</sup> (1. Muroran Inst. Tech., 2. TITEC, 3. RIES, Hokkaido Univ.)
- [1P64★] Control of molecular arrangements in solid state of organic salts composed of sulfonic acids with thiophene frameworks and alkylamines, and their photoelectric properties.  
\*Ryota AKAI<sup>1</sup>, Ryunosuke NISHIDA<sup>1</sup>, Norimitsu TOHNAI<sup>1</sup> (1. Grad. Sch. of Eng., Osaka Univ.)

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[1P65★] Regulation of molecular arrangements and photoluminescence properties of charge-transfer crystals with tetracyanobenzene and organic salts composed of anthracene disulfonic acid and amines.

\*Yo KINOSHITA<sup>1</sup>, Hiromi NAKAJIMA<sup>1</sup>, Norimitsu TOHNAI<sup>1</sup> (1. Grad. Sch. of Eng., Osaka Univ.)

[1P66★E] Synthesis of highly luminescent Ag-Na-Ga-In-S quantum dots and their application to electroluminescence devices

\*Makoto TOZAWA<sup>1</sup>, Chie MIYAMAE<sup>1</sup>, Genichi MOTOMURA<sup>2,3</sup>, Yukiko IWASAKI<sup>3</sup>, Toshimitsu TSUZUKI<sup>3</sup>, Tatsuya KAMEYAMA<sup>1</sup>, Taro UEMATSU<sup>2</sup>, Susumu KUWABATA<sup>2</sup>, Tsukasa TORIMOTO<sup>1</sup> (1. Grad. Sch. of Eng., Nagoya Univ., 2. Grad. Sch. of Eng., Osaka Univ., 3. NHK STRL)

[1P67★E] Solution-phase Preparation of Cu-In-Ga-S Quantum Dots and Their Composition-dependent Optical Properties

\*Chang JIANG<sup>1</sup>, Tatsuya KAMEYAMA<sup>1</sup>, Taro UEMATSU<sup>2</sup>, Susumu KUWABATA<sup>2</sup>, Tsukasa TORIMOTO<sup>1</sup> (1. Fac. of Eng., Nagoya Univ., 2. Fac. of Eng., Osaka Univ.)

[1P68★] Aggregation control of metal phthalocyanine by clay nanosheet and photogeneration of singlet oxygen

\*Kazuya OKADA<sup>1</sup>, Kazuki ARITA<sup>2</sup>, Masatoshi NISHIGUCHI<sup>1</sup>, Takuya FUJIMURA<sup>1</sup>, Takahisa IKEUE<sup>1</sup>, Ryo SASAI<sup>1</sup> (1. Grad. of Nat. Sci. Tech., Shimane Univ., 2. Fac. of Sci., Shimane Univ.)

[1P69] Development of therapeutic agents for photodynamic therapy using osmium polypyridyl complex that can be excited by near-infrared light.

\*Masaki TAKAHASHI<sup>1</sup>, Asao NAKAMURA<sup>1</sup>, Kosuke TAKEI<sup>1</sup> (1. Shibaura Inst. Tech.)

[1P70] Photon Upconversion Utilizing Triplet Energy Harvesting and Intramolecular TTA in the Thin Film

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[1P71] Luminescence properties of an aqueous suspension containing layered clay material and triplet-triplet annihilation upconverting dyes

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[1P72] Binding of Ruthenium (II) Dipyridophenazine Complex Enantiomers to Amyloid- $\beta$  Fibrils

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[1P73] Photoinduced electron transport across vesicle membranes sensitized by an Ir complex: the use of different membrane-forming amphiphiles and buffer solutions

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[1P74] Effects of defects in photocatalyst powder on the photocarrier dynamics

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[1P75] Magnetic circularly polarized luminescence (MCPL) from achiral solid-state inorganic luminophore containing europium and terbium.

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[1P76] Development of visible light-excitable fluorescent nucleus staining reagents for *in vivo* nucleus imaging

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[1P77] Intracellular behavior of fluorescent cholesterol using a fluorescence lifetime imaging microscope

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[1P78] Microviscosity measurements of capillary blood vessels using a water-soluble viscosity probe and a fluorescence lifetime imaging microscope

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[1P79] Measurements of oxygen partial pressure of living tissues using Ir(III) complexes with benzothienyl pyridine ligands

\*Seina HIRAKATA<sup>1</sup>, Kiichi MIZUKAMI<sup>1</sup>, Shuichi SHIOZAKI<sup>1</sup>, Seiji TOBITA<sup>1</sup>, Toshitada YOSHIHARA<sup>1</sup> (1. Grad. of Sci. and Tech., Gunma Univ.)

[1P80] Development of vascular endothelial imaging reagents based on oligoarginine peptides labeled with green fluorophores

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[1P81] Development of endoplasmic reticulum-selective phosphorescent Ir complexes with high cellular uptake efficiencies by introducing hydroxy groups

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[1P82] Effects of the Substitution Number of Aminoindoles on Triple pH Responses Photosensitizers for photodynamic Therapy

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[1P83] Activation mechanism of triply pH-activatable photosensitizer for near-infrared photodynamic therapy and diagnosis

\*Yuki KOJIMA<sup>1</sup>, Hiroaki HORIUCHI<sup>1</sup>, Kazuya TAJIMA<sup>1</sup>, Tetsuo OKUTSU<sup>1</sup> (1. Gunma Univ.)

[1P84] Production of H<sub>2</sub>O<sub>2</sub> using ZnO photocatalyst

\*Todai SUZUKI<sup>1</sup>, Yoshinori MURAKAMI<sup>1</sup> (1. NIT, Nagaoka College)

[1P85] Investigation on electron transfer on clay nanosheet for water splitting system

\*Ryota SHIMADA<sup>1</sup>, Yutaka OHSAKI<sup>1</sup>, Tetsuya SHIMADA<sup>1</sup>, Tamao ISHIDA<sup>1,2</sup>, Shinsuke TAKAGI<sup>1,2</sup> (1. Tokyo Metropolitan Univ., 2. Research Center for Hydrogen Energy-based Society)

[1P86] Temperature dependence of hole dynamics in dye-doped photoconductive polymer film

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[1P87] Oxidation of trivalent americium in nitric acid induced by multiphoton excitation via an f-f transition

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[1P88] Excited states of fluorescent azafluoranthene derivatives

\*Tomoka YOSHIKAWA<sup>1</sup>, Wataru KASHIHARA<sup>1</sup>, Tadashi SUZUKI<sup>1</sup>, Hitomi OHMAGARI<sup>1</sup>, Takahiro SAWANO<sup>1</sup>, Miki HASEGAWA<sup>1</sup>, Ryo TAKEUCHI<sup>1</sup> (1. Grad. Sch. Sci. Eng., Aoyama Gakuin Univ.)

[1P89] Estimation of luminescence quantum yield of TiO<sub>2</sub> photocatalyst powders

\*Kazunari TAKAHASHI<sup>1</sup>, Ryuzi KATOH<sup>1</sup> (1. Nihon Univ.)

[1P90] Reduction and Precipitation of Aqueous Europium (III) under Air Atmosphere by Near-Infrared Femtosecond Laser Pulses

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[1P91★] Highly Selective Synthesis of  $\gamma$ -Ketonitrile Using Visible Light Responsive Titanium Dioxide

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