

June 10 (Saturday) 2023

Opening remarks: 9:30–9:40 Hitoshi Tamiaki (Chairman, Ritsumeikan Univ.)

PL-1 9:40–10:20 (Chairperson: Hitoshi Tamiaki, Ritsumeikan Univ.)
Controlled supramolecular (co)polymerization of π -extended square-planar metal complexes (tentative)
Gustavo Fernández
Univ. Münster, Münster, Germany

O-1 10:20–10:50 (H. Tamiaki)
Near infrared luminescent supramolecular cage with porphyrin and lanthanide complexes
Sunao Shoji
Nara Women's Univ., Nara, Japan

Break 10:50–11:00

S-1 11:00–11:10 (Chairperson: Sunao Shoji, Nara Women's Univ.)
(P-24) Amphiphilic porphyrin Au^{III} complex ion pairs that form lyotropic liquid crystals
Yuto Maruyama, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan

S-2 11:10–11:20 (S. Shoji)
(P-33) Synthesis of dealkylated bacteriochlorophyll-*d* analogs and their self-aggregation
Kengo Nakakuki, Shin-ichi Sasaki, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan; Nagahama Inst. Bio-Sci. Tech., Nagahama, Japan

S-3 11:20–11:30 (S. Shoji)
(P-43) Synthesis and optical properties of π -conjugated hexatriene-linked chlorophyll dyad
Hinako Sasakura, Yusuke Kinoshita, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan

S-4 11:30–11:40 (S. Shoji)
(P-54) Ion-pairing assemblies of dithienylnitrophenol-based π -electronic anions stabilized by intramolecular interactions
Miyu Yokoyama, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan

Group Photo

Lunch 11:40–13:00

Poster session: 13:00–14:30

Odd number poster presenters, please present your works during 13:00–13:45.

Even number poster presenters, please present your works during 13:45–14:30.

Break 14:30–14:40

PL-2 14:40–15:20 (Chairperson: Gustavo Fernández, Univ. Münster)

Synthesis and function of π -conjugated rotaxanes

Jun Terao

Univ. Tokyo, Tokyo, Japan

O-2 15:20–15:40 (G. Fernández)

Molecularly engineered chlorin-chromophore and its chiral self-assembly through hydrogen-bonded hexameric rosettes

Balaraman Vedhanarayanan, Ryoma Tsuchida, Shiki Yagai

Chiba Univ., Chiba, Japan

O-3 15:40–16:00 (G. Fernández)

Self-aggregation of zinc bacteriochlorophyll-*d* analogs with linear and branch type of alkyl chains

Nobuyuki Hara, Hitoshi Tamiaki

Ritsumeikan Univ., Kusatsu, Japan

Break 16:00–16:10

O-4 16:10–16:40 (Chairperson: Jun Terao, Univ. Tokyo)

Organic reactions using near-infrared light mediated controlled photocatalysts

Taniyuki Furuyama

Kanazawa Univ., Kanazawa, Japan

O-5 16:40–17:10 (J. Terao)

Flexible photosynthetic light harvesting studied by single-molecule spectroscopy

Toru Kondo

Tokyo Tech, Tokyo, Japan

O-6 17:10–17:40 (J. Terao)

Chiral sensing using circularly polarized luminescence of Eu(III) complex with chiral amino acids with allosteric mechanism

Munetaka Iwamura, Koichi Nozaki

Univ. Toyama, Toyama, Japan

Closing remarks: 17:40–17:50 Hitoshi Tamiaki (Chairman, Ritsumeikan Univ.)

Poster Session

- P-1** Conjunction of porphyrin Au^{III} complexes and electron-donor units
Nanami Arai, Yu Takagi, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-2** Synthesis of chlorophyll derivatives methylated at the inner ring nitrogen atom and C3-substitution effect on their optical properties
Riko Ataka, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-3** Spatiotemporal control of photochromism in anthraquinone using supramolecular gel
Sota Fujisaki, Yoshinori Okayasu, Yuki Nagai, Yoichi Kobayashi
Ritsumeikan Univ., Kusatsu, Japan
- P-4** Heteroporphyrin-based cations with modulated electronic states that form ion-pairing assemblies
Masaki Fujita, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-5** Spectral changes of LH3 protein from a purple photosynthetic bacterium *Rhodoblastus acidophilus* by chemical perturbations
Kohei Hamanishi, Yoshitaka Saga
Kindai Univ., Higashi-Osaka, Japan
- P-6** Supramolecular self-aggregates of synthetic 13²-substituted chlorophyll derivatives
Yamato Hashimoto, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-7** Synthesis of atropisomerically pure 20-arylated chlorophyll-*a* derivatives
Mahiro Hayashi, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-8** Synthesis and properties of zinc 3-hydroxymethylchlorin possessing oligooxyethylene group at the 7-position
Yoshiki Hayashi, Hitoshi Tamiaki, Tomohiro Miyatake
Ryukoku Univ., Otsu, Japan; Ritsumeikan Univ., Kusatsu, Japan
- P-9** Self-aggregation of synthetic zinc chlorophyll dyads in aqueous micelle
Yuma Hisahara, Takeo Nakano, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan; Shinshu Univ., Matsumoto, Japan
- P-10** Synthesis of chlorophyll-*a* derivatives with an acrylic acid-type anchor and their photosensitizing activities for hydrogen evolution on TiO₂-Pt
Yudai Hoshi, Hajime Suzuki, Ryu Abe, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan; Kyoto Univ., Kyoto, Japan

- P-11** Aggregation properties of near-infrared absorbing hydrophilic dyes
Yuki Hoshino, Taniyuki Furuyama
Kanazawa Univ., Kanazawa, Japan
- P-12** Emission properties of molecular assemblies formed by hydrophobic and aurophilic interactions in aqueous solutions
Daichi Inoue, Koichi Nozaki, Munetaka Iwamura
Univ. Toyama, Toyama, Japan
- P-13** Femtosecond time-resolved transient absorption spectroscopy of 2-PrOH photo-oxidation by a NAD⁺-type zinc complex
Sora Ishikawa, Takayuki Murai, Yu Matsunaka, Kazuki Hinago, Tetsuya Yamamoto, Kazuki Shibahara, Ryo Kurata, Hideki Ohtsu, Yutaka Nagasawa
Ritsumeikan Univ., Kusatsu, Japan; Univ. Toyama, Toyama, Japan
- P-14** Incorporation effect of porphyrin into hierarchical polythiophene films on their photocurrent generation properties
Kengo Kanbe, Tsuyoshi Akiyama, Takeo Oku
Univ. Shiga Pref., Hikone, Japan
- P-15** Synthesis of anion-responsive Pt^{II} complexes that exhibit electronic and optical properties
Maho Kawami, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-16** Spectral changes of LH2 protein lacking B800 bacteriochlorophyll *a* by buffer conditions
Shota Kawato, Yoshitaka Saga
Kindai Univ., Higashi-Osaka, Japan
- P-17** Synthesis and physical properties of chlorophyll derivatives possessing a quinone moiety at the 3-position
Saki Kichishima, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-18** Photochromic reactions of Cu-doped ZnS nanocrystals dispersed in organic solvents
Mayu Kimura, Daisuke Yoshioka, Yoshinori Okayasu, Yuki Nagai, Yoichi Kobayashi
Ritsumeikan Univ., Kusatsu, Japan
- P-19** Catalytic organic-hydride transfer to CO₂ mediated with ruthenium complexes
Yusuke Kinoshita, Nagisa Deromachi, Koji Tanaka, Hitoshi Tamiaki
Waseda Univ., Tokyo, Japan; Kyoto Univ., Kyoto, Japan; Ritsumeikan Univ., Kusatsu, Japan

- P-20** Bright luminescent lanthanide complexes with π -conjugated polycyclic aromatic ligands
Yuichi Kitagawa, Takuma Nakai, Kaori Shima, Mengfei Wang, Sunao Shoji, Koji Fushimi, Yasuchika Hasegawa
Hokkaido Univ., Sapporo, Japan; Nara Women's Univ., Nara, Japan
- P-21** Charge-segregated assemblies comprising polarized π -electronic cations
Ryo Kitayama, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-22** Ion-pairing assemblies of anion-responsive π -electronic molecules with nonplanar structures
Rio Kugizaki, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-23** Effects of guanidinium iodide addition to perovskite solar cells
Keisuke Kuroyanagi, Riku Okumura, Ayu Enomoto, Atsushi Suzuki, Takeo Oku, Sakiko Fukunishi, Tomoharu Tachikawa, Tomoya Hasegawa
Univ. Shiga Pref., Hikone, Japan; Osaka Gas Chem. Co. Ltd., Osaka, Japan
- P-24** Amphiphilic porphyrin Au^{III} complex ion pairs that form lyotropic liquid crystals
Yuto Maruyama, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-25** Synthesis of π -expanded triangulenium cations for ion-pairing assemblies
Takuma Matsuda, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-26** Highly fluorescent mesoionic tetrazolium compounds
Yuta Matsukawa, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-27** Excitation wavelength dependence of an asymmetric photochromic spiropyran derivative, SBP- β -NP, with two cleavable spiro-CO bonds
Yu Matsunaka, Takayuki Murai, Sora Ishikawa, Tetsuya Yamamoto, Kazuki Hinago, Yutaka Nagasawa
Ritsumeikan Univ., Kusatsu, Japan
- P-28** Design and synthesis of quinoidal molecules for diradical properties
Mirai Mori, Shinya Sugiura, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-29** Chlorosome-type self-aggregation of chlorophyll–BODIPY conjugate efficiently absorbing green light
Yuna Mori, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan

- P-30** Effect of substituent rotation on the excited-state dynamics of *trans-cis* photoisomerization of *N,N'*-diacetyldindigo
Takayuki Murai, Sora Ishikawa, Yu Matsunaka, Yamato Higashi, Yuki Shimizu, Kazuki Hinago, Tetsuya Yamamoto, Yutaka Nagasawa
Ritsumeikan Univ., Kusatsu, Japan
- P-31** Synthesis of π -conjugation extended indocyanine green for NIR-II molecular imaging
Yuta Murai, Mahadeva M. M. Swamy, Kenji Monde, Setsuko Tsuboi, Takashi Jin
Hokkaido Univ., Sapporo, Japan; RIKEN, Suita, Japan
- P-32** Cadmium-selective fluorescence response of bisquinoline-type tetradentate ligand with *o*-phenylenediamine skeleton
Miho Nagaoka, Kaho Kawakami, Sunao Shoji, Yuji Mikata
Nara Women's Univ., Nara, Japan
- P-33** Synthesis of dealkylated bacteriochlorophyll-*d* analogs and their self-aggregation
Kengo Nakakuki, Shin-ichi Sasaki, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-34** Analysis of chlorophyll metabolism by algivorous protists
Hayate Nomura, Yuichiro Kashiyama, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan; Fukui Univ. Tech., Fukui, Japan
- P-35** Modifications of anion-responsive π -electronic systems by click chemistry for functionalization
Kento Okamoto, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-36** Spectral properties of zinc chlorophyll derivatives in a mixture of urea and choline chloride
Ko Okamoto, Yoshitaka Saga
Kindai Univ., Higashi-Osaka, Japan
- P-37** Synthesis of π -extended catechol boron complexes of dipyrrolyldiketones as anion-responsive molecules
Takuya Okamoto, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-38** Synthesis of cyclic anion-responsive π -electronic systems for interlocked structures
Hiroki Okano, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-39** Electronic structures and device properties of α -FAPbI₃ with inorganic A-site cations
Riku Okumura, Takeo Oku, Atsushi Suzuki
Univ. Shiga Pref., Hikone, Japan

- P-40** Synthesis of porphine Au^{III} complex for ion-pairing assemblies
Keita Ono, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-41** Photocatalytic hydrogen evolution system using red blood cell ghosts
Taiga Sakamoto, Tomomi Koshiyama
Ritsumeikan Univ., Kusatsu, Japan
- P-42** Effects of β -carotene coating on chlorin-modified Pt/TiO₂ photocatalysts for water splitting hydrogen evolution
Shin-ichi Sasaki, Yanxiang Liu, Ritsuko Fujii, Xiao-Feng Wang
Nagahama Inst. Bio-Sci. Tech., Nagahama, Japan; Jilin Univ., Jilin, China; Osaka Metropolitan Univ., Osaka, Japan
- P-43** Synthesis and optical properties of π -conjugated hexatriene-linked chlorophyll dyad
Hinako Sasakura, Yusuke Kinoshita, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-44** Synthesis and properties of 3-acetyl-chlorophyll derivatives with a hydrophilic group
Shingo Sawai, Tomohiro Miyatake
Ryukoku Univ., Otsu, Japan
- P-45** Bidipyrrin Au^{III} complex as a helical charged π -electronic system
Rima Sengupta, Haruka Hashimoto, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-46** Spectral properties of light-harvesting complex II from spinach in a mixture of urea and choline chloride
Moe Sumura, Yoshitaka Saga
Kindai Univ., Higashi-Osaka, Japan
- P-47** Fabrication and characterization of MAPbI₃ perovskite solar cells using metal phthalocyanines as hole-transporting material
Atsushi Suzuki, Ryota Hasegawa, Kai Funayama, Chihiro Ogawa, Takeo Oku, Sakiko Fukunishi, Tomoharu Tachikawa, Tomoya Hasegawa
Univ. Shiga Pref., Hikone, Japan; Osaka Gas Chem. Co. Ltd., Osaka, Japan
- P-48** Synthesis of orthogonally arranged π -electronic systems with anion-binding unit
Ryuto Toyoshima, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-49** Tuning optical properties of colloidal-ZnO nanocrystals by bulkiness of alkyl ligands
Yuto Toyota, Shohei Yamashita, Yoshinori Okayasu, Yuki Nagai, Yohei Okada, Yoichi Kobayashi
Ritsumeikan Univ., Kusatsu, Japan; Tokyo Univ. Agri. Tech., Fuchu, Japan

- P-50** Solid-state properties of chlorophyll derivatives possessing esterified long alkyl chains at the 3- and 17-positions
Koki Yamada, Yuki Nagaoka, Tomohiro Miyatake
Ryukoku Univ., Otsu, Japan
- P-51** Fabrication and characterization of Nd-doped perovskite solar cells
Kotaro Yamamoto, Riku Okumura, Ayu Enomoto, Atsushi Suzuki, Takeo Oku, Sakiko Fukunishi, Tomoharu Tachikawa, Tomoya Hasegawa
Univ. Shiga Prefecture, Hikone, Japan; Osaka Gas Chem. Co. Ltd., Osaka, Japan
- P-52** Norcorroles as antiaromatic π -electronic systems that form dimension-controlled assemblies
Soh Ishikawa, Kazuhisa Yamasumi, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-53** Design of fluorescent cadmium ion sensor by introducing methoxy groups into bisquinoline-based tetradentate ligands which exhibits zinc ion selectivity
Saori Yasuda, Marin Tanaka, Aya Tsuruta, Taeka Hagiwara, Sunao Shoji, Yuji Mikata
Nara Women's Univ., Nara, Japan
- P-54** Ion-pairing assemblies of dithienylnitrophenol-based π -electronic anions stabilized by intramolecular interactions
Miyu Yokoyama, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-55** Electronic structures of transition metal doped perovskite crystals
Tomoharu Yokoyama, Atsushi Suzuki, Takeo Oku
Univ. Shiga Pref., Hikone, Japan
- P-56** Construction of supramolecular nanocapsules by self-assembly of oligoproline-based peptides
Yui Okamoto, Masahiro Higuchi, Shogo Matsubara
Nagoya Inst. Tech., Nagoya, Japan