

June 15, Saturday

Opening remarks: 9:00–9:10 Hitoshi Tamiaki (Chairman, *Ritsumeikan Univ.*)

PL-1 9:10–10:00 (Chairperson: Hitoshi Tamiaki, *Ritsumeikan Univ.*)

Supramolecular Polymer-Based Fluorescent Nanoparticles

Qing-Zheng Yang

Beijing Normal Univ., Beijing, China

O-1 10:00–10:30 (H. Tamiaki)

Interactions between Structured Nucleic Acids and π -Conjugated Heterocyclic Chemicals

Tamaki Endoh

Konan Univ., Kobe, Japan

Coffee break: 10:30–10:40

O-2 10:40–11:10 (Chairperson: Qing-Zheng Yang, *Beijing Normal Univ.*)

Micro-Assembly Formation of Soft Nanomatters Based on Nanostructure-Assisted Optical Tweezers

Tatsuya Shoji

Osaka City Univ., Osaka, Japan

O-3 11:10–11:40 (Q.-Z. Yang)

Real-Time Observation of Ultrafast Structural Dynamics in Functional Molecules Using Time-Resolved Infrared Spectroscopy

Kiyoshi Miyata, Ken Onda

Kyushu Univ., Fukuoka, Japan

S-1 11:40–11:50 (Q.-Z. Yang)

(P-2) Synthesis of Chlorophyll Derivatives Fused with an Additional *exo*-Ring at the 3,5-Positions via Acidic Cyclization

Marie Doi, Hitoshi Tamiaki

Ritsumeikan Univ., Kusatsu, Japan

S-2 11:50–12:00 (Q.-Z. Yang)

(P-41) Porphyrin-Based Ion-Pairing Assemblies

Hiroki Tanaka, Yohei Haketa, Hiromitsu Maeda

Ritsumeikan Univ., Kusatsu, Japan

S-3 12:00–12:05 (Q.-Z. Yang)

(P-47) Comparison of Reconstitution Behaviors of Bacteriochlorophyll *a* and 3-Acetyl Chlorophyll *a* into Tow Structure Determined LH2 Proteins from Purple Photosynthetic Bacteria *Rhodoblastus acidophilus* and *Phaeospirillum molischianum*

Madoka Yamashita, Yoshitaka Saga

Kindai Univ., Higashi-Osaka, Japan

Group Photo: 12:05 (Elevater Hall)

Lunch: 12:10–13:00

Poster session: 13:00–14:30 (K309)

Odd number poster presenters, please stand by during 13:00–13:45.

Even number poster presenters, please stand by during 13:45–14:30.

PL-2 14:40–15:30 (Chairperson: Hiromitsu Maeda, *Ritsumeikan Univ.*)
Copper Chlorophyllin-Containing Nanogels for Photothermal Therapy
Wei-Bor Tsai
National Taiwan Univ., Taipei, Taiwan

O-4 15:30–16:00 (H. Maeda)
Supramolecular Nanoscience of 1D and 2D Nanomaterials with Porphyrinoids
Naoki Komatsu
Kyoto Univ., Kyoto, Japan

Coffee break: 16:00–16:10

O-5 16:10–16:40 (Chairperson: Wei-Bor Tsai, *National Taiwan Univ.*)
Selective Removal of Biological CO *in vivo* by an Iron(II)porphyrin–Cyclodextrin
Supramolecular Complex
Hiroaki Kitagishi
Doshisha Univ., Kyotanabe, Japan

O-6 16:40–17:10 (W.-B. Tsai)
Photocatalytic Production of Hydrogen Peroxide Utilizing Co Chlorin Complex as
a Selective O₂ Reduction Catalyst
Yusuke Yamada
Osaka City Univ., Osaka, Japan

O-7 17:10–17:40 (W.-B. Tsai)
Functional Consequence of Glycosyl Transfer to Carotenoid in Photosynthesis of
Green Sulfur Bacteria
Chihiro Azai
Ritsumeikan Univ., Kusatsu, Japan

Closing remarks: 17:40–17:50 Hiromitsu Maeda (*Ritsumeikan Univ.*)

Banquet: 18:00– (K309)

Poster Session (K309)

Please mount your poster by the noon of June 16 and stand by it during the following time: odd number, 13:00–13:45; even number, 13:45–14:30.

- P-1** Synthesis and Self-Aggregation of Zinc Chlorin–Spiropyran Dyads
Yuji Arakawa, Tomohiro Miyatake
Ryukoku Univ., Otsu, Japan
- P-2** Synthesis of Chlorophyll Derivatives Fused with an Additional *exo*-Ring at the 3,5-Positions via Acidic Cyclization
Marie Doi, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-3** Ion-Pairing Assemblies Comprising π -Electronic Anions Stabilized by Intramolecular Hydrogen Bonding
Nobuhiro Fumoto, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-4** Synthesis of Zinc Complexes of B-ring Saturated Chlorophylls and Their Self-Aggregation
Daichi Funakoshi, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-5** Anion-Responsive π -Electronic Systems That Exhibit Diverse Conformations and Stoichiometries in Anion Binding
Yohei Haketa, Atsushi Naganawa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-6** Synthesis of Novel Cell-Penetrating Peptides Possessing an Alkyl Chain
Mizuho Hatano, Tomohiro Miyatake
Ryukoku Univ., Otsu, Japan
- P-7** Ultrafast Nonradiative Deactivation Process of Indophenol Blue Monitored by Femtosecond Transient Absorption Spectroscopy
Tsubasa Hidaka, Keita Sugihara, Akifumi Matsumoto, Yutaka Nagasawa
Ritsumeikan Univ., Kusatsu, Japan
- P-8** *In vitro* Hydrolysis of Chlorophyll Derivatives by a BciC Enzyme
Mitsuaki Hirose¹, Misato Teramura¹, Jiro Harada², Hitoshi Tamiaki¹
¹*Ritsumeikan Univ., Kusatsu, Japan*; ²*Kurume Univ. Sch. Med., Kurume, Japan*
- P-9** Synthesis and Properties of Chlorophyll Derivatives Possessing Alkyl Groups at the 3- and 17-Positions
Ryo Inoue, Kengo Kanaya, Daiki Tsutsui, Tomohiro Miyatake
Ryukoku Univ., Otsu, Japan

- P-10** Formation of Metal Complex with Short Lifetime by Photochromic Spiropyran
Yusuke Kasai, Yutaka Nagasawa
Ritsumeikan Univ., Kusatsu, Japan
- P-11** Stereoselective Self-Aggregation of Synthetic Zinc Bacteriochlorophyll-*d* Analogs Bearing an Oxime Group at the 13¹-Position
Airi Katayama, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-12** Optical Properties of Synthetic Tin(IV) Chlorophyll-*a* Derivatives
Yuki Kawamoto, Yusuke Kinoshita, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-13** Isolation and Optical Properties of Epimerically Pure Bacteriochlorophyll-*f* Homologs
Yusuke Kinoshita¹, Jiro Harada², Tadashi Mizoguchi¹, Hitoshi Tamiaki¹
¹*Ritsumeikan Univ., Kusatsu, Japan*; ²*Kurume Univ. Sch. Med., Kurume, Japan*
- P-14** Synthesis and Self-Aggregation of Zinc Bacteriochlorophyll-*c* Analogues Bearing the 20-Substituent with Some Oxygen Atoms
Masashi Kishi, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-15** Fabrication and Characterization of Guanidinium Halide Addition to CH₃NH₃PbI_{3-x}Cl_x-Based Perovskite Solar Cells
Taku Kishimoto, Takeo Oku, Atsushi Suzuki, Naoki Ueoka
Univ. Shiga Pref., Hikone, Japan
- P-16** Fabrication and Characterization of K-Added Perovskite Solar Cells
Satsuki Kandori, Takeo Oku, Naoki Ueoka, Taku Kishimoto, Atsushi Suzuki
Univ. Shiga Pref., Hikone, Japan
- P-17** Analysis of Liquid Crystallinity of an Azobenzene-Triphenylene Derivative with *n*-Dodecyl Terminal Chains at SPring-8
Koji Kitagawa¹, Ryuki Sugita¹, Hiroki Matsumoto¹, Naoki Kawahara¹, Ryota Minobe¹, Noboru Ohta³, Hiroshi Sekiguchi³, Yohei Hattori¹, Tsuyoshi Kawai², Yo Shimizu², Kingo Uchida¹
¹*Ryukoku Univ., Otsu, Japan*; ²*NAIST, Ikoma, Japan*; ³*JASRI, Sayo, Japan*
- P-18** Synthesis of Cyclic Anion-Responsive π -Electronic Molecules by Metal Coordination
Ai Koike, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-19** Synthesis of Dipyrrolyldiketone Pt^{II} Complexes as New Anion-Responsive π -Electronic Systems
Atsuko Kuno, Goki Hirata, Yoichi Kobayashi, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan

- P-20** Electronic Dephasing of Chlorophyll Derivatives: Measurement by Femtosecond Photon Echo
Yuto Masaoka, Keita Sugihara, Yusuke Kinoshita, Yutaka Nagasawa, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-21** Artificial Growth Model in Light-Harvesting Antenna “Chlorosome”
Shogo Matsubara, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-22** Nonplanar Heterocycle-Bridged Dipyrrolyl π -Electronic Molecules Exhibiting Ordered Arrangement
Mika Miyasue, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-23** Ion-Pairing Assemblies of Anion-Introduced Anion-Responsive π -Electronic Molecules
Tomoki Murata, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-24** Photosalient Effect at the Crystalline Capsules of a Diarylethene Having Trimethylsilylphenyl Groups
Akira Nagai¹, Eri Hatano¹, Masakazu Morimoto², Nobuhiro Yasuda³, Akiko Sekine⁴, Yohei Hattori¹, Satoshi Yokojima⁵, Shinichiro Nakamura⁶, Kingo Uchida¹
¹*Ryukoku Univ., Otsu, Japan*; ²*Rikkyo Univ., Toshima, Japan*; ³*JASRI, Sayo, Japan*; ⁴*Tokyo Tech., Meguro, Japan*; ⁵*Tokyo Univ. Pharm. Life Sci., Hachioji, Japan*; ⁶*RIKEN, Wako, Japan*
- P-25** MRI-Visible Supramolecular Nanomicelles Containing Nitroxide Radicals: Preparation, Stability and Structural Elucidation
Kota Nagura, Rui Tamura, Naoki Komatsu
Kyoto Univ., Kyoto, Japan
- P-26** Comparison of Epimerization Kinetics among Bacteriochlorophyll *a*, Chlorophyll *a*, and 3-Acetyl Chlorophyll *a*
Shiori Nakagawa, Yoshitaka Saga
Kindai Univ., Higashi-Osaka, Japan
- P-27** Photosalient Effect of Diarylethene Crystals of Thiazoyl and Thienyl Derivatives~The Dependency of UV Light Intensity and Temperatures~
Yuma Nakagawa¹, Masakazu Morimoto², Nobuhiro Yasuda³, Satoshi Yokojima^{4,5}, Shinichiro Nakamura⁵, Kingo Uchida^{1,5}
¹*Ryukoku Univ., Otsu, Japan*; ²*Rikkyo Univ., Toshima, Japan*; ³*JASRI, Sayo, Japan*; ⁴*Tokyo Univ. Pharm. Life Sci., Hachioji, Japan*; ⁵*RIKEN, Wako, Japan*

- P-28** Synthesis of Zinc Porphyrins Possessing a Dialkylaminomethyl Group and Their Supramolecular Complexation with Histidines
Soichi Nakamura, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-29** Synthesis of Anion-Responsive π -Electronic Systems by Huisgen Cycloaddition
Tadahiro Nishimura, Yohei Haketa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-30** Synthesis of Chlorophyll-*a* Homologs by C13²-Substitutions and Their Physico- and Biochemical Properties
Mitsuaki Hirose, Shin Ogasawara, Yuki Egami, Hitoshi Tamiaki
Ritsumeikan Univ., Kusatsu, Japan
- P-31** Oxidation of B800 Bacteriochlorophyll *a* in LH2 Protein from the Purple Photosynthetic Bacterium *Rhodoblastus acidophilus* by 2,3-Dichloro-5,6-dicyano-1,4-benzoquinone
Yuji Otsuka, Yoshitaka Saga
Kindai Univ., Higashi-Osaka, Japan
- P-32** Single Material Organic Solar Cells Based on Covalently-Linked (Bacterio)chlorin-Fullerenes
Shin-ichi Sasaki^{1,2}, Shengnan Duan³, Xiao-Feng Wang³, Hitoshi Tamiaki²
¹*Nagahama Inst. Bio-Sci. Tech., Nagahama, Japan*; ²*Ritsumeikan Univ., Kusatsu, Japan*; ³*Jilin Univ., Changchun, China*
- P-33** Incorporation of Plasmonic Nanoparticles into Organic Solar Cells and Its Effects on Photovoltaic Performances
Tomoyuki Shimasaki, Tsuyoshi Akiyama, Takeo Oku
Univ. Shiga Pref., Hikone, Japan
- P-34** A Study Aiming at Structural and Functional Mimicry of the Special Pair in Natural Photosynthesis
Yoshinao Shinozaki¹, Chiasa Uragami², Hideki Hashimoto², Hitoshi Tamiaki¹
¹*Ritsumeikan Univ., Kusatsu, Japan*; ²*Kwansei Gakuin Univ., Sanda, Japan*
- P-35** Supramolecular Nanosheets of a Zinc 3¹-Methoxy Bacteriochlorophyll-*d* Analog
Sunao Shoji^{1,2}, Tetsuya Ogawa³, Shogo Matsubara², Hitoshi Tamiaki²
¹*Hokkaido Univ., Sapporo, Japan*; ²*Ritsumeikan Univ., Kusatsu, Japan*; ³*Kyoto Univ., Uji, Japan*.
- P-36** Synthesis and Emissive Properties of Multiply Aryl-Substituted Pyrrole-Based Anion-Responsive π -Electronic Molecules
Shinya Sugiura, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan

- P-37** Fabrication and Characterization of Perovskite Solar Cells Using Zinc Phthalocyanine or Zinc Naphthalocyanine
Atsushi Suzuki¹, Yuto Hayashi¹, Yasuhiro Yamasaki², Takeo Oku¹
¹Univ. Shiga Pref., Hikone, Japan; ²Orient Chem. Ind. Co. Ltd., Neyagawa, Japan
- P-38** Electronic Structure, Spectroscopic and Thermodynamic Characterization of Perovskite Crystals with Alkali Metal by First-Principles Calculation
Atsushi Suzuki, Yasutaka Miyamoto, Takeo Oku
 Univ. Shiga Pref., Hikone, Japan
- P-39** Photovoltaic Characterization of Perovskite Solar Cells Incorporating Polysilane Compounds
Masaya Taguchi¹, Atsushi Suzuki¹, Takeo Oku¹, Satoshi Minami², Masanobu Okita²
¹Univ. Shiga Pref., Hikone, Japan; ²Orient Chem. Ind. Co. Ltd., Neyagawa, Japan
- P-40** Synthesis of Pyridinium Cation-Chlorophyll Conjugates Possessing a Bacteriochlorin, Chlorin or Porphyrin π Skeleton and Their Optical Properties
Tatsuya Takahashi, Shin Ogasawara, Yoshinao Shinozaki, Hitoshi Tamiaki
 Ritsumeikan Univ., Kusatsu, Japan
- P-41** Porphyrin-Based Ion-Pairing Assemblies
Hiroki Tanaka, Yohei Haketa, Hiromitsu Maeda
 Ritsumeikan Univ., Kusatsu, Japan
- P-42** Photochromic Reaction of Indigo Derivatives: Observation of Isomerization by Femtosecond Transient Absorption Measurements
Shuntaro Tani, Yuto Masaoka, Tsubasa Hidaka, Keita Sugihara, Hirofumi Nakagawa, Yutaka Nagasawa
 Ritsumeikan Univ., Kusatsu, Japan
- P-43** Observation of Molecular Motion in Saccharide Glasses by Two-Dimensional Fluorescence Excitation Spectroscopy
Atsushi Toyo, Tetsuro Matsuoka, Akifumi Matsumoto, Yutaka Nagasawa
 Ritsumeikan Univ., Kusatsu, Japan
- P-44** Fabrication Characterization of $\text{CH}_3\text{NH}_3\text{PbI}_3(\text{Cl})$ Solar Cells Added with CuBr or CuBr_2
Naoki Ueoka, Takeo Oku, Atsushi Suzuki
 Univ. Shiga Pref., Hikone, Japan
- P-45** Fabrication and Evaluation of K-Added $\text{MA}_{0.8}\text{FA}_{0.1}\text{K}_{0.1}\text{PbI}_3(\text{Cl})$ Perovskite Solar Cells
 Hayato Machiba, Takeo Oku, Taku Kishimoto, Naoki Ueoka, Atsushi Suzuki
 Univ. Shiga Pref., Hikone, Japan

- P-46** Synthesis of Pyridinium-Substituted Dipyrrolylpyrimidines as Anion-Responsive π -Electronic Systems
Kazuki Urakawa, Hiromitsu Maeda
Ritsumeikan Univ., Kusatsu, Japan
- P-47** Comparison of Reconstitution Behaviors of Bacteriochlorophyll *a* and 3-Acetyl Chlorophyll *a* into Tow Structure Determined LH2 Proteins from Purple Photosynthetic Bacteria *Rhodoblastus acidophilus* and *Phaeospirillum molischianum*
Madoka Yamashita, Yoshitaka Saga
Kindai Univ., Higashi-Osaka, Japan
- P-48** Synthesis and Photovoltaic Application of Fullerenes-Ethylene Diamine Adducts
Seigo Yamazaki, Tsuyoshi Akiyama, Takeo Oku
Univ. Shiga Pref., Hikone, Japan