

**June 12, Saturday 2021**

Opening remarks: 14:30–14:40 Hitoshi Tamiaki (Chairman, *Ritsumeikan Univ.*)

**O-1** 14:50–15:20 (Chairperson: Hitoshi Tamiaki, *Ritsumeikan Univ.*)  
Curved Supramolecular Polymers: From Discovery to Polycatenanes  
Shiki Yagai  
*Chiba Univ., Chiba, Japan*

**O-2** 15:20–15:40 (H. Tamiaki)  
Construction of Biomimetic Supramolecular Light-Harvesting Antennas  
Shogo Matsubara  
*Nagoya Inst. Tech., Nagoya, Japan*

Break: 15:40–15:50

**O-3** 15:50–16:20 (Chairperson: Shiki Yagai, *Chiba Univ.*)  
Chlorophyll Derivative-Based Photo-Energy Conversion Systems Inspired from  
Z-Scheme Process of Oxygenic Photosynthesis  
Xiao-Feng Wang<sup>1</sup>, Shengnan Duan<sup>1</sup>, Yuanlin Li<sup>1</sup>, Na Li<sup>1</sup>, Shin-ichi Sasaki<sup>2,3</sup>,  
Hideki Hashimoto<sup>4</sup>, Hitoshi Tamiaki<sup>2</sup>  
<sup>1</sup>*Jilin Univ., Jilin, China*, <sup>2</sup>*Ritsumeikan Univ., Kusatsu, Japan*, <sup>3</sup>*Nagahama Inst.  
Bio-Sci. Tech., Nagahama, Japan*, <sup>4</sup>*Kwansei Gakuin Univ., Sanda, Japan*

**S-1** 16:20–16:30 (S. Yagai)  
**(P-10)** Intramolecular Asymmetric Coordination of Synthetic Zinc Chlorophyll-*a*  
Derivatives Possessing a Pyridyl Group  
Kagari Oyagi, Shin Ogasawara, Hitoshi Tamiaki  
*Ritsumeikan Univ., Kusatsu, Japan*

**S-2** 16:30–16:40 (S. Yagai)  
**(P-19)** BciC Enzymatic Reactions of Synthetic Zinc 13<sup>1</sup>-(Un)substituted Chlorophyll *a*  
Derivatives  
Mitsuaki Hirose<sup>1</sup>, Jiro Harada<sup>2</sup>, Hiroaki Maeda<sup>1</sup>, Hitoshi Tamiaki<sup>1</sup>  
<sup>1</sup>*Ritsumeikan Univ., Kusatsu, Japan*, <sup>2</sup>*Kurume Univ. Sch. Med., Kurume, Japan*

**S-3** 16:40–16:50 (S. Yagai)  
**(P-24)** Pyrrole-Bridged Quinones:  $\pi$ -Electronic Systems That Modulate Electronic  
Structures by Tautomerism and Deprotonation  
Shinya Sugiura, Hiromitsu Maeda  
*Ritsumeikan Univ., Kusatsu, Japan*

Break: 16:50–17:00

- O-4** 17:00–17:50 (Chairperson: Hiromitsu Maeda, *Ritsumeikan Univ.*)  
Interfacing Self-Assembly and External Stimuli: From Responsive to Adaptive Behaviour  
Gustavo Fernández  
*Münster Univ., Münster, Germany*

Break: 17:50–18:00

- O-5** 18:00–18:40 (Chairperson: Gustavo Fernández, *Münster Univ.*)  
Supramolecular Reaction of Linearly Moving Nanofibers  
Chisako Kanzaki, Munenori Numata  
*Kyoto Pref. Univ., Kyoto, Japan*

- O-6** 18:40–19:00 (G. Fernández)  
Ion Pairing of Covalently Linked  $\pi$ -Electronic Cation Dimer  
Kazuhisa Yamasumi, Hiromitsu Maeda  
*Ritsumeikan Univ., Kusatsu, Japan*

Poster session: 19:00–21:00

Odd number poster presenters, please present your abstracts during 19:00–20:00.  
Even number poster presenters, please present your abstracts during 20:00–21:00.

## Poster Session

- P-1** Reconstitution of Chlorophyll *b* into LH2 Protein from the Purple Photosynthetic Bacterium *Rhodoblastus acidophilus*  
Aiko Tanaka, Madoka Yamashita, Yoshitaka Saga  
*Kindai Univ., Higashi-Osaka, Japan*
- P-2** Dissecting Self-Folding Process of Supramolecular Polymers  
Atsushi Isobe, Shiki Yagai  
*Chiba Univ., Chiba, Japan*
- P-3** Synthesis and Optical Properties of Difluoroboron Complexes of Diketonate Moieties in 13<sup>2</sup>,17<sup>3</sup>-Cyclopheophorbides  
Haruki Ishikawa, Yusuke Kinoshita, Hitoshi Tamiaki  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-4** Oxidation of B800 Bacteriochlorophyll *a* in LH2 Protein from the Purple Photosynthetic Bacterium *Thermochromatium tepidum*  
Haruna Hirao<sup>1</sup>, Yukihiro Kimura<sup>2</sup>, Zheng-Yu Wang-Otomo<sup>3</sup>, Yoshitaka Saga<sup>1</sup>  
<sup>1</sup>*Kindai Univ., Higashi-Osaka, Japan*, <sup>2</sup>*Kobe Univ., Kobe, Japan*, <sup>3</sup>*Ibaraki Univ., Mito, Japan*
- P-5** Mechanism of Sm-Col Phase Transition in Calamitic-Discotic Bimesomorphic Liquid Crystals ~ Collaborative Action of the Intermolecular Interactions between Rod-Shaped and Disc-Shaped Units ~  
Hikaru Sanada<sup>1</sup>, Hiroto Nakamura<sup>1</sup>, Koji Kitagawa<sup>1</sup>, Daisuke Tanaka<sup>1</sup>, Noboru Ohta<sup>2</sup>, Hiroshi Sekiguchi<sup>2</sup>, Tsuyoshi Kawai<sup>3</sup>, Kingo Uchida<sup>1</sup>, Yo Shimizu<sup>3</sup>  
<sup>1</sup>*Ryukoku Univ., Otsu, Japan*, <sup>2</sup>*JASRI, Sayo, Japan*, <sup>3</sup>*NAIST, Ikoma, Japan*
- P-6** Synthesis of 3-Arylated Chlorophyll-*a* Derivatives via Diels-Alder Reactions and Their Physical Properties  
Hiroaki Maeda, Hitoshi Tamiaki  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-7** Noncovalent Interactions in  $\pi$ -Electronic Ion-Pairing Assemblies and Resulting Physical Properties  
Hiroki Tanaka, Yoshifumi Sasano, Yohei Haketa, Hiromitsu Maeda  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-8** Self-Assembly of Scissor-Shaped Azobenzene Dyad into Photoresponsive Nanorings  
Hironari Arima<sup>1</sup>, Jorge S. Valera<sup>2</sup>, Luis Sánchez<sup>2</sup>, Shiki Yagai<sup>1</sup>  
<sup>1</sup>*Chiba Univ., Chiba, Japan*, <sup>2</sup>*Ciudad Univ., Madrid, Spain*
- P-9** Synthesis and Photophysical Properties of Amide-Bridged Eu(III) Coordination Polymers  
Joe Hayashi, Sunao Shoji, Yuichi Kitagawa, Koji Fushimi, Yasuchika Hasegawa  
*Hokkaido Univ., Sapporo, Japan*

- P-10** Intramolecular Asymmetric Coordination of Synthetic Zinc Chlorophyll-*a* Derivatives Possessing a Pyridyl Group  
Kagari Oyagi, Shin Ogasawara, and Hitoshi Tamiaki  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-11** Synthesis of Zinc 3-Hydroxymethyl-Chlorophyll-*a* Derivatives Possessing an Electron-Withdrawing Group at the 20-Position and Their Self-Aggregation in an Aqueous Micelle Solution  
Kana Sakaguchi, Masashi Kishi, Yusuke Kinoshita, Hitoshi Tamiaki  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-12** Versatile Photoresponse of the Molecular Crystals of 7-Methoxycoumarin  
Kanae Yano<sup>1</sup>, Ryo Nishimura<sup>1</sup>, Yohei Hattori<sup>1</sup>, Masakazu Morimoto<sup>2</sup>, Haruki Sugiyama<sup>3</sup>, Takashi Kamitanaka<sup>4</sup>, Satoshi Yokojima<sup>5</sup>, Shinichiro Nakamura<sup>6</sup>, Kingo Uchida<sup>1</sup>  
<sup>1</sup>*Ryukoku Univ., Otsu, Japan*, <sup>2</sup>*Rikkyo Univ., Toshima, Japan*, <sup>3</sup>*Keio Univ., Hiyoshi, Japan*, <sup>4</sup>*Northeastern Ind. Res. Center Shiga Pref., Rito, Japan*, <sup>5</sup>*TUPLS, Hachioji, Japan*, <sup>6</sup>*RIKEN, Wako, Japan*
- P-13** Effect of Phylloquinone on Green Sulfur Bacterial Reaction Center Studied by Femtosecond Transient Absorption Spectroscopy  
Kazuki Hinago, Tomomi Inagaki, Tetsuya Yamamoto, Masataka Hoashi, Keita Sugihara, Chihiro Azai, Yutaka Nagasawa  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-14** Induction of Nonuniformity in Photoinduced Unfolding of Helicoidal Supramolecular Polymers by Rigidifying Monomer Scaffold  
Keigo Tashiro, Kosuke Katayama, Shiki Yagai  
*Chiba Univ., Chiba, Japan*
- P-15** Construction of Wavy Supramolecular Polymers  
Kenta Tamaki, Shiki Yagai  
*Chiba Univ., Chiba, Japan*
- P-16** Synthesis of Chlorophyll Derivatives Bearing the 3-Deuterated Substituents and Their Physical Properties  
Mai Shiozaki, Takuya Miyanishi and Hitoshi Tamiaki  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-17** Ion-Pairing Assemblies of  $\pi$ -Electronic Cations Based on Heteroporphyrins  
Masaki Fujita, Hiromitsu Maeda  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-18** Epimerization of Formylated Chlorophylls: Effects of the Formyl Groups Connected with the Tetrapyrrole Macrocycle  
Masayuki Tanaka, Aiko Tanaka, Yoshitaka Saga  
*Kindai Univ., Higashi-Osaka, Japan*

- P-19** BciC Enzymatic Reactions of Synthetic Zinc 13<sup>1</sup>-(Un)substituted Chlorophyll *a* Derivatives  
Mitsuaki Hirose<sup>1</sup>, Jiro Harada<sup>2</sup>, Hiroaki Maeda<sup>1</sup>, Hitoshi Tamiaki<sup>1</sup>  
*<sup>1</sup>Ritsumeikan Univ., Kusatsu, Japan, <sup>2</sup>Kurume Univ. Sch. Med., Kurume, Japan*
- P-20** Porphyrin Zwitterions: Electronic Properties and Ordered Arrangement  
Naoya Hiraishi, Yohei Haketa, Hiromitsu Maeda  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-21** A Ring-Fiber Structural Transition of Scissor-Shaped Azobenzene Dyad  
Natsuki Suda, Shiki Yagai  
*Chiba Univ., Chiba, Japan*
- P-22** Photocatalytic CO<sub>2</sub> Reduction by Multinuclear Rhenium Complexes with Various Conformers  
Rie Iijima, Tatsuki Morimoto  
*Tokyo Univ. Tech., Hachioji, Japan*
- P-23** Peripheral Modifications of Charged Porphyrins as Building Units of Ion-Pairing Assemblies  
Ryota Fujii, Hiromitsu Maeda  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-24** Pyrrole-Bridged Quinones:  $\pi$ -Electronic Systems That Modulate Electronic Structures by Tautomerism and Deprotonation  
Shinya Sugiura, Hiromitsu Maeda  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-25** Exploring Topology-Dependent Fluorescence Properties of Functional Supramolecular Polymers  
Sho Takahashi, Shiki Yagai  
*Chiba Univ., Chiba, Japan*
- P-26** Synthesis of Norcorroles with Assembling Ability  
Soh Ishikawa, Hiromitsu Maeda  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-27** Self-Aggregation of Synthetic Zinc 3<sup>2</sup>-Phenylated Bacteriochlorophyll-*d* Analog  
Shunsuke Tani, Hitoshi Tamiaki  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-28** Assemblies of Nitrogen-Containing  $\pi$ -Electronic Systems Derived from 1,3-Diketone Skeleton  
Taichi Abiko, Hiromitsu Maeda  
*Ritsumeikan Univ., Kusatsu, Japan*

- P-29** Majority-Rule Effect on the Hierarchical Self-Assembly of a Chiral Scissor-Shaped Azobenzene Dyad  
Takuho Saito, Shiki Yagai  
*Chiba Univ., Chiba, Japan*
- P-30** Chromic Behavior of Chlorophyll Derivatives Possessing *N*-Alkylamide Groups  
Takuma Yoshiyama, Ryo Inoue, Tomohiro Miyatake  
*Ryukoku Univ., Otsu, Japan*
- P-31** Control of Aggregation Pathways and Morphologies of Barbiturated  $\pi$ -Systems by Partial Disabling of Hydrogen-Bonding Groups  
Takumi Aizawa, Shiki Yagai  
*Chiba Univ., Chiba, Japan*
- P-32** Removal of a Peripheral Vinyl Group in Nickel Complexes of Chlorophyll Derivatives  
Takumi Hisayasu, Hitoshi Tamiaki  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-33** Physical Properties of Synthetic Chlorophyll–Dyads Linked with a Naphthalene Moiety  
Tatsuma Ishii<sup>1</sup>, Shogo Matsubara<sup>1,2</sup>, Hitoshi Tamiaki<sup>1</sup>  
<sup>1</sup>*Ritsumeikan Univ., Kusatsu, Japan*, <sup>2</sup>*Nagoya Inst. Tech., Nagoya, Japan*
- P-34** Thermochromism and Photochromism of a Spiropyran Derivative SBP- $\beta$ -NP  
Tetsuya Yamamoto, Yusuke Kasai, Yu Kihara, Yutaka Nagasawa  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-35**  $E \rightleftharpoons Z$  Isomerization Dynamics of Photochromic Hemiindigo Derivatives  
Yamato Higashi, Yu Kihara, Kazuki Hinago, Yutaka Nagasawa  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-36** Squaraine Dye–Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene Nanosheets for Photocatalytic Hydrogen Evolution  
Yanxiang Liu<sup>1</sup>, Shin-ichi Sasaki<sup>2</sup>, Ritsuko Fujii<sup>3</sup>, Xiao-Feng Wang<sup>1</sup>  
<sup>1</sup>*Jilin Univ., Jilin, China*, <sup>2</sup>*Nagahama Inst. Bio-Sci. Tech., Nagahama, Japan*,  
<sup>3</sup>*Osaka City Univ., Osaka, Japan*
- P-37** Self-Associating Anion-Responsive Molecules with  $\pi$ -Extended Anionic Unit  
Yosuke Miyamoto, Yohei Haketa, Hiromitsu Maeda  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-38** Dynamics of *Trans*  $\rightleftharpoons$  *Cis* Isomerization of an Indigo Derivative Studied by Time-Resolved Transient Absorption Spectroscopy  
Yu Kihara, Shuntaro Tani, Yamato Higashi, Yutaka Nagasawa  
*Ritsumeikan Univ., Kusatsu, Japan*

- P-39** Solid-State Self-Aggregation of Chlorophyll Derivatives  
Yuki Nagaoka, Daiki Tsutsui, Tomohiro Miyatake  
*Ryukoku Univ., Otsu, Japan*
- P-40** Synthesis and Physical Properties of Hydroxypyridinium–Chlorophyll Derivatives  
Yuki Takarada, Shin Ogasawara, Tatsuya Takahashi, Hitoshi Tamiaki  
*Ritsumeikan Univ., Kusatsu, Japan*
- P-41** Comparison of the Stability of Bacteriochlorophyll *b* and Bacteriopheophytin *b*  
under Weakly Acidic Conditions  
Yusuke Takashima, Yoshitaka Saga  
*Kindai Univ., Higashi-Osaka, Japan*