

The 27th International SPACC Symposium

Program *This symposium will be held in Japanese Standard Time (UTC+9).

December 10th, Sat.

09:30–09:40 Opening Remarks: Kazuya Kobiro (Kochi University of Technology, Japan)

09:40–10:40 Oral Session 1 Presiding: Kazuhiro Manseki (Gifu University, Japan)

[IL-1] Syuhei Yamaguchi (Ehime University, Japan)

“Oxidation of Thioanisole with Hydrogen Peroxide Using Copper(II)-Terpy Complexes Encapsulated into Supercages of Zeolite”

[O-01] Hiroki Nakahara, Mami Okamura, Akiko Nomura, Masahito Kodera, Kiyoshi Fujisawa, Yasuhiro Yoshida, Yutaka Hitomi (Doshisha University, Japan; Ibaraki University, Japan; University of Occupational and Environmental Health, Japan)

“Antioxidant Activity of Copper-Substituted Zeolitic Imidazolate Framework-8 (Cu-ZIF-8)”

[O-02] Haruo Akashi, Reina Ishikawa (Okayama University of Science, Japan)

“Reactions of The Iron(III) Complex of Fluorochlorin with Olefines”

10:40–10:55 Break

10:55–12:10 Award Lecture Session 1

[AL-1] The SPACC Award 2021

Presiding: Ichiro Okura (Tokyo Institute of Technology, Japan)

Hiroyuki Nakamura (Tokyo Institute of Technology, Japan)

“Chemical Manipulation of Target Proteins Using Ruthenium Bis(bipyridine) Complexes”

[AS-1] The SPACC Young Investigator Award 2022 [Takeda Rika Kogyo Co. Ltd]

Presiding: Kenji Matsumoto (Kochi University, Japan)

Hinano Kusunose, Tsubasa Hatanaka, Hiroyuki Kawaguchi, Yasuhiro Funahashi (Osaka University, Japan; Tokyo Institute of Technology, Japan)

“Study on Small Molecule Activation Mediated by Heterometallic Complexes of First-Row Transition Metals”

[AS-2] The SPACC Young Investigator Award 2021 [Takeda Rika Kogyo Co. Ltd]

Presiding: Kenji Matsumoto (Kochi University, Japan)

Daiki Kaji, Yuriko Matsumura, Atsuo Iwasawa, Satoshi Kimura, Akiko Iwama (Tokyo Healthcare University, Japan; Kimitsu Chuo Hospital, Japan)

“Rapid Detection of Bacteria That Produce Extended-Spectrum β -Lactamase by Matrix Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry”

12:10–13:30 Break

13:30–16:00 Poster Session (Remo)

16:00–17:00 Break

17:00–18:30 Banquet (Remo)

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December 11th, Sun.

10:00–10:45 Plenary Lecture Presiding: Kenji Matsumoto (Kochi University, Japan)

[PL-1] Tan Siew San, Mohammad B. Kassim (Tunku Abdul Rahman University of Management and Technology, Malaysia; Universiti Kebangsaan Malaysia, Malaysia)

“Structure and Electronic Properties of Ruthenium(II) Bipyridyl *N*-(*R*-Benzoyl)-*N'*-(1,10-phenanthroline-5-yl)thiourea”

10:45–11:00 Break

11:00–12:00 Oral Session 2 Presiding: Mitsunobu Sato (Kogakuin University, Japan)

[O-03] Shozo Yanagida, Masatoshi Yanagida, Susumu Yanagisawa, Hiroshi Segawa (Osaka University, Japan; NIMS, Japan; University of Ryukyu, Japan; The University of Tokyo, Japan)

“So-Called Perovskite Solar Cells Are Lead Iodide Coordination Complex (PbI₆⁴⁻)-Sensitized Ones (Molecular Modeling Prediction & Verification)”

[O-04] Toranathumkul Shinapol, Takashi Sugiura, Kazuhiro Manseki (Gifu University, Japan)

“Growth Control of Nanostructured TiO₂ Using A Polynuclear Ti(IV)-Oxo Complex for Photoenergy Conversion”

[O-05] Pijush Kanti Roy, Yutaka Hitomi (Doshisha University, Japan)

“Carbon–Carbon Bond Formation via Visible-Light-Driven Generation of Nucleophilic α -Thiomethyl Radicals over Titanium Dioxide”

12:00–13:15 Break

13:15–14:15 Oral Session 3 Presiding: Yutaka Hitomi (Doshisha University, Japan)

[IL-2] Toshiaki Tsukuda (University of Yamanashi, Japan)

“Luminescent Mechanochromism of d¹⁰ Metal Complexes with Diphosphines Bridged by Phenylene Groups”

[O-06] Natsuki Yabune, Hiroshi Nakajima, Takanori Nishioka (Osaka City University, Japan; Osaka Metropolitan University, Japan)

“Activation of M₃S₂ Core in Trinuclear Sulfide Complexes”

[O-07] Shin Aoki, Kenta Yokoi, Azusa Kanbe, Nozomi Narushima, Chandrasekar Balachandran, Masaki Kakihana (Tokyo University of Science, Japan)

“Development of Cyclometalated Iridium(III) Complex-Peptide Hybrids That Induce Cell Death in Cancer Cells and Detect Dead Cells”

14:15–14:30 Break

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14:30–15:25 Award Lecture Session 2

[AY-1] The SPACC Young Investigator Award 2019

Presiding: Naoto Kuwamura (Kogakuin University, Japan)

Chiasa Uragami, Hiroki Sato, Nao Yukihiro, Masazumi Fujiwara, Daisuke Kosumi, Alastair T. Gardiner, Richard J. Cogdell, and Hideki Hashimoto (Kwansei Gakuin University, Japan; Okayama University, Japan; Kumamoto University, Japan; Institute of Microbiology of the Czech Academy of Sciences, Czech Republic; University of Glasgow, United Kingdom)

“Using The Time-Resolved Absorption Spectroscopy to Investigate The Photoprotective Mechanisms of LH1 of The Purple Photosynthetic Bacterium, *Rhodospirillum rubrum*”

[AL-2] The SPACC Award 2019

Presiding: Shigenobu Yano (Nara Women's University, Japan)

Akihiro Nomoto, Ayako Shimmasu, Hiromi Kataoka, Shigenobu Yano, Akiya Ogawa (Osaka Metropolitan University, Japan; Nagoya City University, Japan; Nara Women's University, Japan)

“Synthesis of Sugar or Amino Acid Ester-Containing Compounds for Medical Materials”

15:25–15:40 Closing Remarks: Hideki Hashimoto (Kwansei Gakuin University, Japan)

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Poster (December 10th, Sat.)

13:30–14:00 Preparation, 14:00–15:00 Odd numbers, 15:00–16:00 Even numbers

- P-01 Anna C. M. San Esteban, Naoto Kuwamura, Takumi Konno (Ateneo de Manila University, Philippines; Kogakuin University, Japan; Osaka University, Japan; National Taiwan Normal University, Taiwan)
“Effect of Metal Linker on Structures and Catalytic Activities of Heterometallic Coordination Polymers”
- P-02 Ikuya Kishida, Chiasa Uragami, Hideki Hashimoto (Kwansei Gakuin University, Japan)
“Spectroscopic Measurements on The LH1-RC Light-Harvesting Antenna Pigment-Protein Complex from The Purple Photosynthetic Bacterium *Blastochloris viridis*”
- P-03 Jinya Nomura, Naoto Kuwamura, Takumi Konno (Osaka University, Japan; Kogakuin University, Japan; National Taiwan Normal University, Taiwan)
“Hydrogen-bonded Supramolecular Structures of Au₆Pd₃ Complex Co-crystallized with Inorganic Acid”
- P-04 Koki Mitani, Chiasa Uragami, Nao Yukihiro, Alastair T. Gardiner, Richard J. Cogdell, Hideki Hashimoto (Kwansei Gakuin University, Japan; Czech Academy of Sciences, Czech Republic; University of Glasgow, UK)
“Reconstitution of Spheroidene into The LH1 Complex from A Carotenoidless Purple Photosynthetic Bacterium, *Rhodospirillum rubrum* Strain G9+”
- P-05 Kotaro Matsumura, Keigo Kinjo, Kotaro Tateno, Yoshitaka Tsuchido, Hidetoshi Kawai (Tokyo University of Science, Japan)
“Structural Controls of Double-Helical Mononuclear Complexes Based on L-shaped Heteroarene Foldamers”
- P-06 Marino Miwa, Akitaka Ito (Kochi University of Technology, Japan)
“Fluorescent Solvatochromism of Charge-Transfer-Type Compounds Having A Nitro Group”
- P-07 Mayu Echigo, Kota Horiuchi, Chiasa Uragami, Hideki Hashimoto (Kwansei Gakuin University, Japan)
“Structural Optimization of Isomeric β -Apo-8'-carotenal Using Molecular Orbital Calculations and Evaluation of Its Photophysical Properties”
- P-08 Misaki Nakai, Xu Xiao, Hitoshi Ishida (Kansai University, Japan)
“Syntheses and Photochemical Reactions of The Polypyridyl Ru Complexes with 2,2'-Dithiodipyridine as PACT Drugs”
- P-09 Nikita Madhukar, Taizo Misato, Akitaka Ito (Kochi University of Technology, Japan)
“Sensitized Luminescence from Terbium(III) Ion Doped in Ionic Nanosphere”

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- P-10 Ruohan Tao, Yumeka Kakuta, Chiasa Uragami, Hideki Hashimoto (Kwansei Gakuin University, Japan)
“Geometry Optimization and Raman Spectra Calculations of Spirilloxanthin and β -Carotene Using Density Functional Theory”
- P-11 Suiho Kobayashi, Tsubasa Hatanaka, Yasuhiro Funahashi (Osaka University, Japan)
“Intramolecular C–H Bond Activation and Functionalization by Low-Valent Cobalt Complexes”
- P-12 Taizo Misato, Akitaka Ito (Kochi University of Technology, Japan)
“Enhanced Emission from Polypyridyl Ruthenium(II) Complexes Doped in Ionic Nanosphere”
- P-13 Yumeka Kakuta, Chiasa Uragami, Naoto Kuwamura, Hideki Hashimoto (Kwansei Gakuin University, Japan; Kogakuin University, Japan)
“Spectroscopic Analyses on The Radical Cation Species of Carotenoids Produced by Chemical and Electrochemical Oxidation”
- P-14 Yuta Hino, Chiasa Uragami, Alastair T. Gardiner, Richard J. Cogdell, Yoshitaka Saga, Hideki Hashimoto (Kwansei Gakuin University, Japan; Czech Academy of Sciences, Czech Republic; University of Glasgow, UK; Kindai University, Japan)
“Excitation Energy Transfer Process in The LH2 Light-Harvesting Complex from The Purple Photosynthetic Bacterium, *Rhodoblastus acidophilus*”