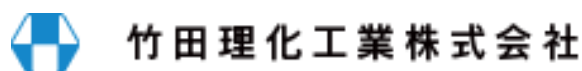


**The 26th International SPACC Symposium
– Metal Complexes Toward a Green and Sustainable Future –**

December 12–14, 2019 Glasgow, Scotland, UK

**Organized by
The Society of Pure and Applied Coordination Chemistry
The University of Glasgow**



INVITATION

Dear Colleagues,

The 26th International SPACC (The Society of Pure and Applied Coordination Chemistry) Symposium is held at The University of Glasgow, Scotland, UK from December 12 to December 14, 2019. The International Advisory and Organizing Committee cordially invite you to attend the symposium and participate in its scientific and social programs. The main theme of the symposium is “Metal Complexes Toward a Green and Sustainable Future.” The symposium focuses on greener processes using unique metal complexes and sustainable development toward new functional materials, as well as basic research on organic, inorganic, and biological chemistry for future inventions.

As with previous SPACC Symposia, it is intended that this Symposium will provide a platform for young scientists to exchange scientific information among themselves and with the selected leading scientists. This series of symposia was initiated in Tokyo about a quarter century ago by the SPACC fellow Prof. Yano, and has been held annually at different venues around the world. It is our great pleasure to host this 26th Symposium in Glasgow, Scotland.

Presentations consist of four categories – plenary lectures, invited lectures, oral presentations, and poster presentations. Prizes will be awarded for the best presentations, especially for those given by students. The International Advisory and Organizing Committee hope all registrants will present a paper, but acceptance of papers will be at the discretion of the Committee. The official language of the symposium will be English.

In the following pages, you will find details concerning the Symposium. We look forward to meeting you in Glasgow, Scotland, UK.

ADVISORY AND ORGANIZING COMMITTEE

Chairperson:

Richard J. Cogdell The University of Glasgow

Co-chairperson:

Hideki Hashimoto Kwansei Gakuin University

Takanori Nishioka Osaka City University/President of SPACC

Secretary:

Misaki Nakai Kansai University

Chiasa Uragami Kwansei Gakuin University

Committee member:

Haruo Akashi Okayama University of Science

Yutaka Amao Osaka City University

Keisuke Kawamoto Kanazawa University

Yuri Maeda Nagoya Institute of Technology

Yuriko Matsumura Tokyo Healthcare University

Yuji Mikata Nara Women's University

Hiroki Nagai Kogakuin University

Ichiro Okura Tokyo Institute of Technology

Toshihiko Ozawa Nihon Pharmaceutical University

Mitsunobu Sato Kogakuin University

Toshifumi Satoh Hokkaido University

Yuko Sugai Kwansei Gakuin University

Motowo Yamaguchi Tokyo Metropolitan University

International Advisory Board

Jianmio Dou	Liaocheng University
Ouyang Jie	Tianjin Institute of Technology
Xiao-Yuan Li	Hong Kong University of Science and Technology
Li Lu	National University of Singapore
Chris Orvig	University of British Columbia
Shie-Ming Peng	National Taiwan University
Tim Storr	Simon Fraser University
Xiangshi Tan	Fudan University
Shenguo Wang	Chinese Academy of Science
James Wright	Auckland University
Shigenobu Yano	Fellow of SPACC/Nara Women's University
Handong Yin	Liaocheng University

SCIENTIFIC PROGRAM

The scientific program includes plenary lectures, awarded lectures, invited lectures, oral and poster presentations. The official language of the symposium is English. Registration, all lectures and the oral and poster presentations are held at The University of Glasgow.

Lectures

Thursday, December 12th

Chairperson: Prof. Hideki Hashimoto (Kwansei Gakuin University)

- | | | | |
|-------|---|-------|--|
| 9:00 | - | | Registration |
| 9:20 | - | 9:30 | Opening Ceremony |
| 9:30 | - | 9:50 | IL-1 Chiasa Uragami (Kwansei Gakuin University)
Photoprotection function of carotenoids in core antenna pigment-protein complex of purple photosynthetic bacteria, <i>Rhodospirillum rubrum</i> |
| 9:50 | - | 10:10 | IL-2 Keisuke Kawamoto (Kanazawa University)
Nucleophilic stabilization of metal hydroxido clusters |
| 10:10 | - | 10:30 | OL-1 Satoru Kamakura (Kanazawa University)
Controlled dimerization reaction of tetramolybdate |
| 10:30 | - | 10:50 | Coffee Break |

Chairperson: Prof. Takanori Nishioka (Osaka City University)

- | | | | |
|-------|---|-------|---|
| 10:50 | - | 11:10 | IL-3 Misaki Nakai (Kansai University)
Antitumor activities of the Pt(II) and Pd(II) complexes with terpyridine as topoisomerase inhibitors |
|-------|---|-------|---|

11:10 - 11:30 IL-4 Yuriko Matsumura (Tokyo Healthcare University)
Primary investigation of sporicidal mechanism using hypochlorous acid and oxidants

11:30 - 11:50 IL-5 Masahiro Mikuriya (Kwansei Gakuin University)
Metal-Assembled Complexes Based on Dinuclear Ruthenium Carboxylates

11:50 - 13:30 Lunch

Chairperson: Prof. Hideki Hashimoto (Kwansei Gakuin University)

13:30 - 14:15 PL-1 Ryu Abe (Kyoto University)
Mimicking Natural Photosynthesis: Visible-Light-Induced Water Splitting into H₂ and O₂ *via* Z-Scheme Photocatalysis Systems

14:15 - 14:30 Coffee Break

14:30 - 14:45 SPACC Award Ceremony

Chairperson: Assis. Prof. Keisuke Kawamoto (Kanazawa University)

14:45 - 15:05 SA-1 Natsuki Yabune (Osaka City University)
Reaction of Metal-Sulfide Cores of Trinuclear Complexes

15:05 - 15:25 SA-2 Yuma Suenaga (Tokyo Institute of Technology)
Investigation of bactericidal effect by interval plasma bubbling

Chairperson: Prof. Hideki Hashimoto (Kwansei Gakuin University)

15:25 - 15:50 TA-1 Ryo Miyasato (Kao Corporation)
Global and Target Analysis toward Semiconductor Photocatalyst Powders for Water-oxidation Reaction

Chairperson: Prof. Nobuaki Kambe (Osaka University)

15:50 - 16:20 AL-1 Takanori Iwasaki (The University of Tokyo)
Ate Complexes of Group 9 Transition Metals

16:20 - 16:40 Coffee Break

Chairperson: Assis. Prof. Chiasa Uragami (Kwansei Gakuin University)

16:40 - 17:40 Poster Short Talks

18:00 Symposium Dinner

Friday, December 13th

Chairperson: Prof. Richard J. Cogdell (University of Glasgow)

9:00 - 9:45 PL-2 Leroy Cronin (University of Glasgow)
Ultra-Reduced and Protonated Aqueous Solutions of
Polyoxometalate Clusters for Flexible Energy Storage

9:45 - 10:00 Coffee Break

Chairperson: Prof. Masahiro Mikuriya (Kwansei Gakuin University)

10:00 - 10:20 IL-6 Motohiro Tsuboi (Kwansei Gakuin University)
Geochemical analyses of river sediments: A case study for
debris flow deposits in Hiroshima city, southwestern Japan

10:20 - 10:40 IL-7 Yoshihiko Sera (Fuji Chemical Industries Co., Ltd.)
Composites of molybdenum chalcogenide/rGO (reduced
graphene oxide) synthesized by using various
thiomolybdates $[\text{MoO}_n\text{S}_{4-n}]^{2-}$ ($n=0, 1, 2, 4$)

10:40 - 11:00 IL-8 Nobuaki Kambe (Osaka University)
Alkylation and Arylation of Butadienes Catalyzed by
Transition Metals

Chairperson: Assis. Prof. Naoto Kuwamura (Osaka Univeristy)

11:00 - 11:20 IL-9 Yasuhiro Funahashi (Osaka Univeristy)
Shell-controlled Ruthenium(II) Terpyridyl Complexes
Exhibiting Photoluminescence Properties

11:20 - 11:40 IL-10 Ross S. Forgan (University of Glasgow)
Tuning Properties and Functionality in the Modulated Self-
Assembly of Metal-Organic Frameworks

11:40 - 12:00 IL-11 De-Liang Long (University of Glasgow)
Coordination Chemistry of Molybdenum Blue
Polyoxomolybdates with Amino Acids

12:00 - 13:30 Lunch

13:30 - 15:30 Poster Session
Odd numbers 13:30 – 14:30
Even numbers 14:30 – 15:30

15:30 - 15:50 Coffee Break

Chairperson: Prof. Kenji Matsumoto (Kochi University)

15:50 - 16:10 IL-12 Nicola Bell (University of Glasgow)
Designer Lanthanide-Substituted Metal Oxides Rings

16:10 - 16:30 IL-13 Laia Vilà-Nadal (University of Glasgow)
Polyoxometalate-based frameworks materials: design and
synthesis

16:30 - 16:50 IL-14 Kazuo Miyamura (Tokyo University of Science)
Thermal properties and crystal structure of alkoxy groups
introduced [Ni (saltn)] derivative

Chairperson: Prof. Takanori Nishioka (Osaka City University)

16:50 - 17:10 IL-15 Kenji Matsumoto (Kochi University)
Iron uptake in rice using a microbial hydroxamate-type
artificial siderophore

17:10 - 17:30 Closing Ceremony & the Rites for Poster Awards

Saturday, December 14th

9:00 - 12:00

Laboratory Tour for Future Collaborations

List of Poster Presentations (held at December 13th)

- P-1 Hiroki Hashimoto (Kwansei Gakuin University)
Resonance Raman spectroscopy of fucoxanthin molecular aggregates
- P-2 Kazuki Hino (Kwansei Gakuin University)
Femtosecond time-resolved transient absorption spectroscopy on β -carotene fixed in polymer films by time-resolved absorption spectroscopy: application of Lissajous scanner
- P-3 Hirona Endo (Kwansei Gakuin University)
Rare earth elements analysis of fossil shells in the Miocene Mizunami group, Gifu prefecture, Japan: A case study of elemental concentration during fossilization
- P-4 Hikari Shimoyama (Kwansei Gakuin University)
Measurement of water content of melt inclusion in quartz phenocryst of the Mukaiyama volcano ejecta, Niijima Island, Izu Islands, Japan
- P-5 Kota Horiuchi (Kwansei Gakuin University)
Analyzing the excited state relaxation dynamics of *cis*- β -Apo-8'-carotenal by femtosecond pump-probe time-resolved absorption spectroscopy
- P-6 Shota Inoue (Kwansei Gakuin University)
Transient absorption spectra of fucoxanthin molecular aggregates
- P-7 Narimi Fujii (Okayama University of Science)
Synthesis and characterization of silver(II) complexes of fluoroporphyrin and fluorochlorin derivatives
- P-8 Hiroki Ikeda (Okayama University of Science)
Synthesis and properties of sulfur-bridged cubane-type clusters of $[\text{Mo}_3\text{CuClS}_4(\text{Tpms})_3]^{n+}$ ($n = 0, 1, 2$)

- P-9 Taiki Inoue (Kwansei Gakuin University)
Effect of temperature on steady-state and Stark absorption bands of β -apo-8'-carotenal
- P-10 Kyoka Kondo (Kwansei Gakuin University)
Measuring the resonance Raman spectra of lycopene molecular aggregates prepared by lycopene extracted and isolated from tomato paste
- P-11 Toru Ishikawa (Tokyo University of Science)
Cold crystallization of Schiff base Ni complex introduced alkoxy group
- P-12 Daiki Kaji (Tokyo Healthcare University)
A study on rapid detection of three kinds of bacteria producing extended-spectrum β -lactamases using Matrix-Assisted Laser Desorption Ionization-Time-of-Flight Mass Spectrometry
- P-13 Rinka Koyama (Kwansei Gakuin University)
Reconstitution of spirilloxanthin-series carotenoids into the LH2 complexes from a purple photosynthetic bacterium *Rhodobacter sphaeroides* R26.1, a carotenoidless strain
- P-14 Chiaki Maeda (Kwansei Gakuin University)
Investigation of the optical properties of lycopene microcrystals by diffuse reflection spectroscopy
- P-15 Naoto Kuwamura (Osaka University)
Heterogeneous Electrocatalysis of Heterotrimetallic Coordination Polymer with Sulfur-containing Amino Acid
- P-16 Daiki Nagata (Kansai University)
Anti-cancer activity of Co(III) complexes with polypyridine ligand against hypoxic tumor cells

- P-17 Mayu Mitarai (Kwansei Gakuin Univeristy)
Measurement of the energy transfer between carotenoids to bacteriochlorophylls in the carotenoid-reconstituted reaction center from the carotenoidless mutant of *Rhodobacter sphaeroides* R26.1
- P-18 Marina Yoshida (Kwansei Gakuin Univeesity)
Investigation of the carotenoids and bacteriochlorophyll *a* reconstituted LH2 complexes from the carotenoidless mutant of a purple photosynthetic bacterium *Rhodobacter sphaeroides* R26.1
- P-19 Takanori Nishioka (Osaka City University)
Roles of Sugar Substituents in Nickel Complexes Bearing a Chelating Bidentate N-Heterocyclic Carbene Ligand
- P-20 Shigenobu Yano (Nara Women's University)
Sugar-linked chlorin e6 for photodynamic therapy