

**The International Symposium on  
Bioinorganic Chemistry 2018**

**November 30th-December 1st, 2018**

**Venue: Okazaki Conference Center, Institute for Molecular Science**

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Date: November 30th-December 1st, 2018

## November 30th (Fri)

9:30 – 9:40     *Opening Remarks*     **Osami SHOJI** (Nagoya University)

*Chaired by Takashi MATSUO*

### *Invited talks*

- 9:40 – 10:00     **Satoshi ABE** (Tokyo Institute of Technology)  
                         “In cell protein crystals containing organometallic Pd complexes”
- 10:00 – 10:20     **Norifumi KAWAKAMI** (Keio University)  
                         “Enzyme immobilization in protein aggregates composed of a protein nanoparticle, TIP60”
- 10:20 – 10:40     **Shigeyuki MASAOKA** (Institute for Molecular Science)  
                         “Pentanuclear iron catalysts for water oxidation”

10:40 – 11:00     *Break*

*Chaired by Toshitaka MATSUI*

### *Keynote Lecture*

- 11:00 – 11:40     **Thomas M. Makris** (University of South Carolina)  
                         “Controlling the Fate of Activated Radical Species in Cytochrome P450 Enzymes”

### *Invited talks*

- 11:40 – 12:00     **Yoshihito SHIOTA** (Kyushu University)  
                         “C-H bond activation by dicopper-oxo species”
- 12:00 – 12:20     **Hiroaki KOTANI** (University of Tsukuba)  
                         “Redox Noninnocent Behavior of Tris(2-pyridylmethyl)amine Bound to Lewis Acidic Metal Ions Induced by C-H Deprotonation”

12:20 – 13:30     *Lunch Break*

*Chaired by Norifumi KAWAKAMI*

*Invited talks*

- 13:30 – 13:50    **Tasuku HIRAYAMA** (Gifu Pharmaceutical University)  
                         “Development of fluorescent probes for the detection of Fe(II) ion in living cells”
- 13:50 – 14:10    **Taiho KAMBE** (Kyoto University)  
                         “Physiology and biochemistry of zinc-requiring ectoenzymes”
- 14:10 – 14:30    **Masayasu TAKI** (Nagoya University)  
                         “Design of new fluorophores for optical imaging”

14:30 – 14:50    *Break*

*Chaired by Yutaka HITOMI*

*Keynote Lecture*

- 14:50 – 15:30    **Christoph J. Fahrni** (Georgia Institute of Technology)  
                         “Illuminating biological trace metals with high- and low-energy photons”

15:30 – 15:50    *Break*

*Chaired by Yasuhiro FUNAHASHI*

*Invited talks*

- 15:50 – 16:10    **Yoshiaki FURUKAWA** (Keio University)  
                         “Copper in ALS: a neurodegeneration caused by metal deficiency in SOD1”
- 16:10 – 16:30    **Minoru KUBO** (University of Hyogo)  
                         “Time-resolved IR analysis of the catalytic reaction pathway of NO reductase”
- 16:30 – 16:50    **Takashi FUJISHIRO** (Saitama University)  
                         “X-ray crystallographic snapshots of sulfur mobilization to iron-sulfur cluster biosynthesis”
- 16:50 – 17:10    *Break*

*Chaired by Shinobu ITOH*

*Special Lecture*

- 17:10 – 18:10    **Yoshihito WATANABE** (Nagoya University)  
                         “Hydroxylation of Less-reactive Hydrocarbons utilizing Substrate Misrecognition of Cytochrome P450”

18:30 – 20:30    *Banquet*

**December 1st (Sat)**

*Chaired by Yuichiro AIBA*

*Invited talks*

- 9:30 – 9:50     **Nobutaka FUJIEDA** (Osaka Prefecture University)  
                    “Cupin proteins as multipotent macromolecular ligands”
- 9:50 – 10:10   **Koji OOHORA** (Osaka University)  
                    “Hemoprotein engineered with artificial heme analogues showing unique catalysis via the detectable active species”
- 10:10 – 10:30   **Takehiko TOSHA** (RIKEN SPring-8 center)  
                    “Regulation of nitric oxide dynamics in microbial denitrification”
- 10:30 – 10:50   **Toshikazu ONO** (Kyushu University)  
                    “Learning from vitamin B<sub>12</sub>-mediated reactions: Cobalt(III)–carbon bond assisted catalytic C–H fluoroalkylation of arenes and heteroarenes”
- 10:50 – 11:10   *Break*

*Chaired by Takehiko TOSHA*

*Keynote Lecture*

- 11:10 – 11:50   **Lionel Cheruzel** (San José State University)  
                    “Hybrid P450 Enzymes Featuring Ru(II)-diimine Complexes”
- 11:50 – 13:00   *Lunch Break*

*Chaired by Shinya ARIYASU*

*Invited talks*

- 13:00 – 13:20   **Hitoshi UBE** (The University of Tokyo)  
                    “Metal-mediated Molecular Gearing Systems based on Triptycene”
- 13:20 – 13:40   **Shin-ichiro KAWANO** (Nagoya University)  
                    “Nanoporous Liquid Crystals and Double-Decker Cages Utilizing Shape-Persistent Metallomacrocyclic”
- 13:40 – 14:00   **Yuma MORIMOTO** (Osaka University)  
                    “Detailed Characterization and Reactivity Studies of a Bis( $\mu$ -oxido)dinickel(III) Complex”
- 14:00 – 14:20   *Break*

*Chaired by Takeshi UCHIDA*

*Invited talks*

- 14:20 – 14:40    **Tomohiko INOMATA** (Nagoya Institute of Technology)  
                    “Immobilization of microbes on artificial siderophore complexes-modified substrates”
- 14:40 – 15:00    **Norifumi MURAKI** (Institute for Molecular Science)  
                    “The structure basis of the novel heme-iron uptake system in *Corynebacteria*”
- 15:00 – 15:20    **Satoshi NAGAO** (Nara Institute of Science and Technology)  
                    “NMR study on structures and dynamic properties of cytochrome *c* bound to lipid  
                    bicelles”
- 15:20 – 15:30    *Closing Remarks*            **Shigetoshi AONO** (Institute for Molecular Science)