

New Trends of Photofunctional Metal Complexes

Photofunction transition metal complexes are of great interest because of their potential for application in various fields such as light-harvesting and light-emitting devices, sensors, and molecular memories. In this international mini-symposium, we will focus on recent development of photochemistry and photophysics of metal complexes, especially their photofunctions such as luminescence phenomena applied for electroluminescent devices, photochromic reactions, and supramolecular chemistry aimed at solar energy conversion. We can fortunately invite three speakers from Taiwan, Hong Kong, and USA, who are top runners in this research fields, and totally 5 speakers including two from Japan will introduce their recent results, the list of the speakers and some of their recent publications are as follows:

1. Professor Yun Chi (National Tsing Hua University, Taiwan)
“Synthesis and Characterization of Metal Complexes Possessing the 5-(2-Pyridyl) Pyrazolate Ligands: The Observation of Remarkable Osmium-Induced Blue Phosphorescence in Solution at Room Temperature” *Organometallics*, **2003**, *22*, 4938-4946.
2. Professor Vivian Wing-Wah Yam (The University of Hong Kong, P. R. China)
“Metal Coordination-Assisted Near-Infrared Photochromic Behavior: A Large Perturbation on Absorption Wavelength Properties of N,N-Donor Ligands Containing Diarylethene Derivatives by Coordination to the Rhenium(I) Metal Center” *J. Am. Chem. Soc.* **2007**, *129*, 6058-6059.
3. Dr. Etsuko Fujita (Brookhaven National Laboratory, USA)
“Water Oxidation by a Ruthenium Complex with Noninnocent Quinone Ligands: Possible Formation of an O-O Bond at a Low Oxidation State of the Metal” *Inorg. Chem.* **2008**, *47*, 1787-1802.
4. Professor Noboru Kitamura (Hokkaido University, Japan)
“Temperature Dependent Emission of Hexarhenium(III) Clusters $[\text{Re}_6(\text{S})_8\text{X}_6]^{4+}$ (X = Cl, Br, and I): Analysis by Four Excited Triplet-State Sublevels”, *Inorg. Chem.* **2005**, *44*, 6308-6313.
5. Professor Osamu Ishitani (Tokyo Institute of Technology, Japan)
“Development of an Efficient Photocatalytic System for CO₂ Reduction Using Rhenium(I) Complexes Based on Mechanistic Studies” *J. Am. Chem. Soc.* **2008**, *130*, 2023-2031.

The organizer hopes that you will attend the symposium to catch some flavor of this interesting field.