The 5th International Conference on MEXT Project of Integrated Research on Chemical Synthesis
“Chemical Science for Future Societies”

Noyori Materials Science Laboratory

Program

January 29 (Friday)
Drawing a Lesson from the Brilliant Functions of the Metalloenzymes for Future Societies

9:00-9:10 Opening Remarks: Kunio Awaga (Nagoya University)

9:10-9:50 Kazuyuki Tatsumi (Nagoya University, Japan)
“Cluster Active Sites of Nitrogenase: Stereo-electronic Flexibility of Fe(Mo)-Sulfide Clusters”

9:50-10:30 Serena DeBeer (Max-Planck Institute, Germany)
“X-ray spectroscopic studies of the nitrogenase and hydrogenase active sites”

10:30-10:50 Coffee Break

10:50-11:30 Markus Ribbe (University of California, Irvine, U.S.A.)
“Nitrogenase: A Tale of Carbon(s)”

11:30-12:10 Luis Rubio (Univerisdad Politécnica de Madrid, Spain)
“Nitrogenase assembly in eukaryotes”

12:10-12:50 Yuichi Fujita (Nagoya University, Japan)
“Complex Conjugated Architectures – from Synthesis through to Device Applications.”

12:50-13:30 Lunch

13:30-15:00 Poster session
15:00-15:40  **Marc Fontecave** (College de France)
“New homogeneous and heterogeneous catalysts for (photo)electro-reduction of protons and carbon dioxide”

15:40-16:20  **Yoshinori Naruta** (Chubu University, Japan)
“Efficient CO2 Reduction with Dinuclear Iron Complexes: Lesson from Enzymes”

16:20-17:00  **Kazunari Yoshizawa** (Kyusyu University, Japan)
“Molecular Understanding of the Mechanism of Adhesion: From Epoxy Resin to Biological Recognition”

17:30-19:00  *Reception*

**January 30 (Saturday)**

09:00-9:40  **Yuichi Shimakawa** (Kyoto University, Japan)
“Control of properties by cation order in transition-metal oxides”

9:40-10:20  **Mario Ruben** (Karlsruhe Institute of Technology, Germany)
“Molecules as Qubits in Quantum Spintronics Devices”

10:20-10:40  *Coffee Break*

10:40-11:20  **Kathryn Preuss** (University of Guelph, Canada)
“Supramolecular Architectures with Metal-Radical Complexes”

11:20-12:00  **Kiyotaka Asakura** (Hokkaido University, Japan)
“Time-resolved X-ray Absorption Spectroscopy and Catalytic Reactions”

12:00-12:40  **Wei Zhang** (Soochow University, China)
“Construction of Supramolecular Chirality in Achiral Polymer Systems”

12:40-14:00  *Lunch Break*
14:00-14:40  **Udo Radius** (Julius-Maximilians Universität Würzburg, Germany)  
“25 years of N-Heterocyclic Carbenes: Activation of Both Main Group Element-Element bonds and NHCs themselves”

14:40-15:20  **Jarvo Elizabeth** (University of California, Irvine, U.S.A.)  
“Mechanism-Based Design and Development of Nickel-Catalyzed Reactions Stereospecific Cross-Coupling Reactions”

15:20- Closing Remarks