

**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