

The 14th Japan-Korea Joint Symposium on Organometallic and Coordination Chemistry

October 8 – 10, 2009
Nagoya, Japan

Chairman Kazuyuki Tatsumi (Nagoya Univ)

Co-chairman Kimoon Kim (POSTECH)

Secretaries

Tsuyoshi Matsumoto (Nagoya Univ)

Hee Cheul Choi (POSTECH)

Supported by

Inoue Foundation for Science, Japan

The Society of Silicon Chemistry, Japan

Daiko Foundation, Japan

*Kyoto University/Nagoya University/Kyushu University
Joint Project of Chemical Synthesis Core Research Institutions*

*Nagoya University Global COE Program
“Elucidation and Design of Materials and Molecular Functions”*

Under the Auspices of

The Chemical Society of Japan

Research Center for Materials Science, Nagoya University

Schedule

October 8 (Thursday)

18:30 – 20:30 Welcome Reception (Nagoya Tokyu Hotel)

October 9 (Friday)

8:00 Meet at the Lobby in Nagoya Tokyu Hotel
Leave for Nagoya Univ (bus)

8:30 – 8:50 Registration (Nagoya Univ)

8:50 – 9:00 Opening Remarks

9:00 – 10:20 Oral Presentations

10:20 – 10:40 Coffee Break

10:40 – 12:20 Oral Presentations

12:20 – 14:30 Lunch and Poster Presentations

14:30 – 16:10 Oral Presentations

16:10 – 16:30 Coffee Break

16:30 – 18:10 Oral Presentations

18:10 – 18:20 Photo Session

18:30 Leave for Banquet (bus)

19:00 – 21:00 Banquet (Gajou-en)

21:00 Leave for Nagoya Tokyu Hotel (bus)

October 10 (Saturday)

8:00 Meet at the Lobby in Nagoya Tokyu Hotel
Leave for Nagoya Univ (bus)

8:50 – 10:10 Oral Presentations

10:10 – 10:30 Coffee Break

10:30 – 11:50 Oral Presentations

11:50 – 12:00 Closing Remarks

Optional Program

12:30 – 21:30 Excursion (Lunch on bus)

Scientific Program

October 9 (Fri) Morning Session

- 08:50 – 09:00 Opening Remarks;
Kazuyuki Tatsumi (Nagoya University)
Kimoon Kim (Pohang University of Science and Technology)
- Chairperson: Yasushi Mizobe (The University of Tokyo)
- 09:00 – 09:20 **Masato Tanaka** (Tokyo Institute of Technology)
Palladium-Catalyzed Addition-Cyclization of Dienes with Diphenylphosphine Oxide in the Presence of Diphenylphosphinic Acid.
- 09:20 – 09:40 **Kimoon Kim** (Pohang University of Science and Technology)
New Synthetic Approach to Polymer Nanocapsules and Two-Dimensional Polymers.
- 09:40 – 10:00 **Akira Sekiguchi** (University of Tsukuba)
From Cyclobutadiene Dianion to Tetrasilabutadiene Dianion: New Aromatics and New Ligands.
- 10:00 – 10:20 **Chungkyun Kim** (Donga University)
Preparation and Identification of Chromophores-Substituted Carbosilane Dendrimers up to 7th Generations.

10:20 ~ 10:40 *Coffee Break*

- Chairperson: Yohsuke Yamamoto (Hiroshima University)
- 10:40 – 11:00 **Norihiro Tokitoh** (Kyoto University)
New Progress in the Chemistry of Sila-aromatic Compounds.
- 11:00 – 11:20 **Jin-Kyu Lee** (Seoul National University)
Thermal Decomposition Mechanism of Single-Molecule Precursors Forming Metal Sulfide Nanoparticles.
- 11:20 – 11:40 **Fumiyuki Ozawa** (Kyoto University)
Synthesis and Properties of Bis(phosphaethenyl)pyridine Iron Complexes.
- 11:40 – 12:00 **Moonhyun Oh** (Yonsei University)
Controlled Formation of Coordination Polymer Particles (CPPs) and their Utilization.
- 12:00 – 12:20 **Hideo Nagashima** (Kyushu University)
New Dynamic Chemistry of Iron-TMEDA Complexes Explaining the Coupling Reaction of Ar-MgX with Alkyl Halides

12:20 ~ 14:30 Lunch and Poster Session

- P01 **Yasuhiro Ohki, Kazuyuki Tatsumi** (Nagoya University)
Synthetic Approaches toward the Nitrogenase Metallo-Clusters.
- P02 **Masafumi Unno** (Gunma University)
Recent New Application of Silanols.
- P03 **Takeaki Iwamoto** (Tohoku University)
Stable Disilenes with Polycyclic Aromatic Substituents.
- P04 **Kohtaro Osakada** (Tokyo Institute of Technology)
Tetranuclear Pd Complexes with Bridging Si- and Ge- ligands.
- P05 **Yasushi Mizobe** (The University of Tokyo)
Preparation of Ru-Sb, Ru-Bi, and Ru-Sn Mixed-Metal Sulfido Clusters and their Reactions with Oxygen Gas.
- P06 **Tsukasa Matsuo, Kohei Tamao** (RIKEN Advanced Science Institute)
 π -Conjugated Disilenes and Phosphasilenes Stabilized by Fused-Ring Bulky Groups.
- P07 **Yohsuke Yamamoto** (Hiroshima University)
Synthesis and Properties of 16π Porphyrin.
- P08 **Keiji Ueno** (Gunma University)
Synthesis, Reactivity, and Bonding of Gallane σ Complexes.
- P09 **Toshiro Takao** (Tokyo Institute of Technology)
Control over the Reactivity of a Polyhydrido Cluster via Interaction with Alcohol.
- P10 **Munetaka Akita** (Tokyo Institute of Technology)
Organometallic Dithienylethene Complexes: Dual Chromic and Switching Behavior.
- P11 **Kazushi Mashima** (Osaka University).
Tetranuclear Zinc Cluster As a Versatile Catalyst for Chemoselective Transesterification.
- P12 **Hiroyuki Kawaguchi** (Tokyo Institute of Technology)
Group 5 Metal Hydride Complexes Supported by Triphenoxide Ligands.
- P13 **Hiroshi Nakazawa** (Osaka City University)
Strong Bond Cleavage Induced by Silyl Migration from a Transition Metal.
- P14 **Hiromi Tobita** (Tohoku University)
Synthesis and Comparison of Reactivity of Neutral Hydrosilylene and Hydrogermylene Transition Metal Complexes.
- P15 **Tsuyoshi Matsumoto, Kazuyuki Tatsumi** (Nagoya University)
Activation of Dihydrogen and Carbon monoxide by the OH-bridged Ru-Ge Dinuclear Complexes.

October 9 (Fri) Afternoon Session

Chairperson: Kazushi Mashima (Gunma University)

- 14:30 – 14:50 **Tamotsu Takahashi** (Hokkaido University)
Coupling Reaction of Cp Ligand on Ti and Zr.
- 14:50 – 15:10 **Myunghyun Paik Suh** (Seoul National University)
Assembly and Applications of Porous Metal-Organic Frameworks in H₂
Storage and CO₂ Capture.
- 15:10 – 15:30 **Makoto Fujita** (The University of Tokyo)
Crystalline Molecular Flasks: Reactions in Crystalline, Finite and
Infinite Coordination Hosts.
- 15:30 – 15:50 **Myoung Soo Lah** (Hanyang University)
Metal–Organic Frameworks Based on Metal–Organic Polyhedra.
- 15:50 – 16:10 **Soichiro Kyushin** (Gunma University)
 π Single Bonds between Group 14 Elements.
- 16:10 – 16:30** *Coffee Break*

Chairperson: Hiromi Tobita (Tohoku University)

- 16:30 – 16:50 **Hee Cheul Choi** (Pohang University of Science and Technology)
Structure Confinement of Carbon-Based Nanomaterials in Vapor
Phase for their Applications in Nanoelectronic/photonic Systems.
- 16:50 – 17:10 **Shigehiro Yamaguchi** (Nagoya University)
Intramolecular Double Cyclization of Diarylacetylenes.
- 17:10 – 17:30 **Jaejung Ko** (Korea University)
New Concept of Highly Efficient Dye-Sensitized Solar Cells.
- 17:30 – 17:50 **Koji Tanaka** (Institute for Molecular Science)
Approach to Metal Catalyzed Conversion Between Carbon Dioxide
and Methanol through Six-electron Redox Reactions.
- 17:50 – 18:10 **Sung-Hwan Han** (Hanyang University)
Hybrid Solar Cells with water-soluble conducting polymers and
SWCNTs.
- 18:10 – 18:20** *Photo Session*
- 19:00 – 21:00** **BANQUET address: Honorary members**
Prof. Hideki Sakurai (Professor Emeritus Tohoku University)
Prof. Si-Joong Kim (Past Minister of Science & Technology)

October 10 (Saturday)

Chairperson: Keiji Ueno (Gunma University)

- 08:50 – 09:10 **Kyung Byung Yoon** (Sogang University)
Organization of Zeolite Microcrystals into Functional Materials.
- 09:10 – 09:30 **Takayuki Kawashima** (The University of Tokyo)
Synthesis and Optical Properties of Dipyrromethene Dyes Bearing
Divalent Heavier Group 14 Elements.
- 09:30 – 09:50 **Youngkyu Do** (KAIST)
o-Carborane-Assisted Functionality Enhancement of Photonic
Materials: Case of Fluoride Ion Affinity and Metal-free
Phosphorescence
- 09:50 – 10:10 **Sanshiro Komiya** (Tokyo University of Agriculture and Technology)
Visible Light Enhanced Reductive Elimination of Methylmanganese
from Heterodinuclear Triorganoplatinum-manganese Complex.
- 10:10 – 10:30 *Coffee Break***

Chairperson: Hiroshi Nakazawa (Osaka City University)

- 10:30 – 10:50 **Shim Sung Lee** (Gyeongsang National University)
Thiacrowns and Calix-thiacrowns as Building Blocks for Sensing
Materials and Coordination Polymers Exhibiting Crystal
Transformation and Switching.
- 10:50 – 11:10 **Shigeyoshi Sakaki** (Kyoto University)
Theoretical Study of Cross-Coupling Reaction. The Reason Why
Fluoride Anion Accelerates the Transmetallation.
- 11:10 – 11:30 **Bun Yeoul Lee** (Ajou University)
Catalyst Development for CO₂/Epoxide Copolymerization: From Flask
to Industrial Reactor.
- 11:30 – 11:50 **Takao Ikariya** (Tokyo Institute of Technology)
Recent Progress in *Concerto* Molecular Catalysis: Aerobic Oxidation
of Alcohols with Bifunctional Molecular Catalysts.
- 11:50 – 12:00 Closing Remarks:**
- 12:30 – 21:30 Excursion**