

# IRCCS-JST CREST Joint Symposium

“Chemical sciences facing difficult challenges”

[Part I] Jan. 24<sup>th</sup>-25<sup>th</sup>, IRCCS The 1<sup>st</sup> International Symposium

[Part II] Jan. 25<sup>th</sup>-26<sup>th</sup>, The 2<sup>nd</sup> Base Metal Catalysis Symposium

*Chikushi Hall, Chikushi Campus, Kyushu University, Fukuoka, Japan*

## January 24<sup>th</sup> (Wed.)

- 12:00–13:00 Registration
- 13:00–13:10 Opening Remarks
- (Chair: Osamu Sato, Kyushu University)*
- 13:10–13:50 [IL-1] **Ren-Gen Xiong** (*Southeast University, P. R. China*)  
“Ceramic-like Molecular Ferroelectrics”
- 13:50–14:10 [YR-1] **Tomoyasu Hirai** (*Kyushu University, Japan*)  
“Synthesis and Characterization of Novel Polymer Brush with Well-controlled Stereoregularity”
- (Chair: Tamaki Nakano, Hokkaido University)*
- 14:10–14:30 [YR-2] **Soichiro Ogi** (*Nagoya University, Japan*)  
“Seed-initiated Supramolecular Polymerization of  $\pi$ -Conjugated Molecules”
- 14:30–15:00 [SR-1] **Shiroh Futaki** (*Kyoto University, Japan*)  
“Cytosolic Antibody Delivery by Lipid-sensitive Endosomolytic Peptide”
- 15:00–15:20 Break
- (Chair: Kazunari Yoshizawa, Kyushu University)*
- 15:20–15:50 [SR-2] **Kentaro Tanaka** (*Nagoya University, Japan*)  
“Molecular Architectures towards Soft Materials and Switching Molecular Systems”

- 15:50–16:10 [YR-3] **Zhiyi Song** (*Hokkaido University, Japan*)  
“Lithiation of Palladated Dihydropentacene: New Route for Introduction of Substituents from Both of Electrophiles and Nucleophiles to Pentacene”  
  
(Chair: *Shigehiro Yamaguchi, Nagoya University*)
- 16:10–16:30 [YR-4] **Takahiro Iwamoto** (*Kyoto University, Japan*)  
“Iron-Catalyzed *anti*-Selective Carbosilylation of Internal Alkynes”
- 16:30–17:00 [SR-3] **Katsuhiko Tomooka** (*Kyushu University, Japan*)  
“Chemistry of Medium-sized Unsaturated Heterocycles”
- 17:00–18:30 Poster Session 1 (P-001 ~ P-091)
- 18:40–20:10 Banquet

## January 25<sup>th</sup> (Thu.)

- (Chair: *Yuichi Shimakawa, Kyoto University*)
- 09:20–09:50 [SR-4] **Ken-ichi Shimizu** (*Hokkaido University, Japan*)  
“Cooperative Heterogeneous Catalysis for Selective Transformations of Carboxylic Acid Derivatives, CO<sub>2</sub> and Hydrocarbons”
- 09:50–10:10 Short Talk 1  
[ST-1] **Hajime Hojo** (*Kyushu University, Japan*)  
[ST-2] **Hiroshi Yoshida** (*Kumamoto University, Japan*)  
  
(Chair: *Yasuhiro Uozumi, Institute for Molecular Science*)
- 10:10–10:50 [IL-2] **Audrey Moores** (*McGill University, Canada*)  
“Sustainable Nanoparticles and Surface Plasmon Resonance enhanced Hydrogenation Catalysis”
- 10:50–11:10 Break  
  
(Chair: *Satoshi Hata, Kyushu University*)
- 11:10–11:30 [IL-3] **Mitsuhiro Murayama** (*Virginia Tech, USA*)  
“Dynamic Observation on the Propagation of a Nanoscale Crack in an Industrial

Aluminum Alloy: an Application of in-situ Electron Tomography System to an Engineering Material”

*(Chair: Jun-ichiro Hayashi, Kyushu University)*

11:30–12:30 [PL-1] **Eiichi Nakamura** (*The University of Tokyo, Japan*)  
“Atomic Resolution Electron Microscopy for Organic Chemists”

12:30–13:30 Lunch Break

*(Chair: Katsuhiko Tomooka, Kyushu University)*

13:30–14:10 [IL-4] **Jonathan Clayden** (*University of Bristol, UK*)  
“Naturally Inspired Solutions in Synthesis: Reactivity, Relays and Receptors”

*(Chair: Hisashi Shimakoshi, Kyushu University)*

14:10–14:50 Short Talk 2  
[ST-3] **Yoichi M. A. Yamada** (*RIKEN, Japan*)  
[ST-4] **Ryoichi Kuwano** (*Kyushu University, Japan*)

*(Chair: Hiroshi Furuno, Kyushu University)*

14:10–14:50 Short Talk 3  
[ST-5] **Masaya Sawamura** (*Hokkaido University, Japan*)  
[ST-6] **Masanari Kimura** (*Nagasaki University, Japan*)

*(Chair: Mitsuru Shindo, Kyushu University)*

14:50–15:30 [IL-5] **Takashi Ohshima** (*Kyushu University, Japan*)  
“Direct Catalytic Asymmetric Addition of Various Nucleophiles to *N*-Unprotected Ketimines”

15:30–15:50 Break

*(Chair: Toru Oishi, Kyushu University)*

15:50–16:30 [IL-6] **Ning Jiao** (*Peking University, P. R. China*)  
“Base Metal Catalyzed Oxygenation and Nitrogenation Reactions”

*(Chair: Seiji Shirakawa, Nagasaki University)*

16:30–17:00 Short Talk 4  
[ST-7] **Hikaru Takaya** (*Kyoto University, Japan*)  
[ST-8] **Yasuhiro Arikawa** (*Nagasaki University, Japan*)

[ST-9] **Yoshihito Shiota** (*Kyushu University, Japan*)

(Chair: *Takashi Ohshima, Kyushu University*)

17:00–17:40 [IL-7] **Rinaldo Poli** (*CNRS, Laboratoire de Chimie de Coordination, France*)  
“Copper and Iron-catalyzed Processes Involving Radicals”

17:40–19:10 Poster Session 2 (P-070 ~ P-140)

## January 26<sup>th</sup> (Fri.)

(Chair: *Ryoichi Kuwano, Kyushu University*)

09:20–10:00 [IL-8] **Hairong Guan** (*University of Cincinnati, USA*)  
“Iron- and Cobalt-Catalyzed Hydrogenation of Esters and Nitriles”

(Chair: *Yusuke Sunada, The University of Tokyo*)

10:00–10:30 Short Talk 5  
[ST-10] **Kouki Matsubara** (*Fukuoka University, Japan*)  
[ST-11] **Hisashi Shimakoshi** (*Kyushu University, Japan*)  
[ST-12] **Sachie Arae** (*Kumamoto University, Japan*)

10:30–10:50 Break

(Chair: *Takashi Nishikata, Yamaguchi University*)

10:50–11:10 Short Talk 6  
[ST-13] **Yoshiaki Nakao** (*Kyoto University, Japan*)  
[ST-14] **Naohiko Yoshikai** (*Nanyang Technological University, Singapore*)

(Chair: *Hideo Nagashima, Kyushu University*)

11:10–12:10 [PL-2] **Paul J. Chirik** (*Princeton University, USA*)  
“New Opportunities in Synthesis with Iron and Cobalt Catalysts”

12:10–13:40 Lunch Break & Poster Session 3 (P-070 ~ P-140)

(Chair: *Yoshiaki Nakao, Kyoto University*)

13:40–14:20 [IL-9] **Karl Kirchner** (*Vienna University of Technology, Austria*)  
“New Chemistry Based on Non-Precious Metal Pincer Complexes”

*(Chair: Naohiko Yoshikai, Nanyang Technological University)*

14:20–15:00 [IL-10] **Shaohong Ge** (*National University of Singapore, Singapore*)  
“Cobalt-Catalyzed Hydrofunctionalization of Unsaturated Hydrocarbons”

15:00–15:20 Break

*(Chair: Shigeki Sasaki, Kyushu University)*

15:20–16:00 [IL-11] **Nobuaki Kambe** (*Osaka University, Japan*)  
“Cross- and Multicomponent-Coupling Reactions Catalyzed by Base Metals”

16:00–16:10 Closing Remarks