



The 3rd  
Frontier Chemistry Center  
International Symposium



“Challenges at the Frontier of Chemical Sciences”

Date: 13 (Friday) -14 (Saturday) June, 2014

Venue: <Oral Session> Akira Suzuki Hall  
<Poster Session> Akira Suzuki Hall, Entrance Hall & Seminar Rooms  
Frontier Research in Applied Sciences Building, Faculty of Engineering,  
Hokkaido University, Sapporo, Japan

Chair: Professor Takeshi Ohkuma (Hokkaido University, Japan)

Day 1: Friday, 13 June, 2014

10:00 **Opening Remarks**

Welcome Address by Professor Takeshi Ohkuma  
(Director of the Frontier Chemistry Center, Hokkaido University, Japan)  
Greeting Address by Professor Toyoharu Nawa  
(Dean of the Graduate School of Engineering, Hokkaido University, Japan)

**SESSION 1**

- 10:20 **Plenary Lecture 1** (Chair: Professor Takeshi Ohkuma)  
“Discovery and Applications of Selective Olefin Metathesis Catalysts”  
Professor Robert H. Grubbs (California Institute of Technology, USA)
- 11:20 **Keynote Lecture 1** (Chair: Professor Atsushi Fukuoka)  
“Novel Catalysis by Gold Clusters”  
Professor Masatake Haruta (Tokyo Metropolitan University, Japan)
- 12:05 – Lunch Break –
- 13:30 **Invited Lecture 1** (Chair: Professor Hajime Ito)  
“C-H Coupling for Advanced Biology and Materials”  
Professor Kenichiro Itami (Nagoya University, Japan)
- 13:55 **Invited Lecture 2** (Chair: Professor Shin Mukai)  
“Structure Modification of Platinum Deposited on Supports for Electrocatalytic Reactions”  
Professor Hyunjoo Lee (Korea Advanced Institute of Science and Technology, Korea)
- 14:20 – Coffee Break –
- 14:35 **Keynote Lecture 2** (Chair: Professor Kiyoharu Tadanaga)  
“Transparent Oxide Electronics”  
Professor Hideo Hosono (Tokyo Institute of Technology, Japan)

## POSTER SESSION

- 15:20 **Poster Parade**  
Molecular Chemistry and Engineering: @Akira Suzuki Hall (Chair: Professor Tomohiro Seki)  
Materials Chemistry and Engineering: @Seminar Room 2 (Chair: Professor Takashi Yanase)  
Biological Chemistry and Engineering & Leading Program Pilot Students: @Seminar Room 1  
(Chairs: Professor Yougen Chen and Professor Akiko Nakatomi)
- 16:10 **Poster Presentation**  
@Entrance Hall & Seminar Room 1
- 18:10 **Session Ends**

## BANQUET

- 19:00 @Sapporo Aspen Hotel

## Day 2: Saturday, 14 June, 2014

### SESSION 2

- 09:00 **Plenary Lecture 2** (Chair: Professor Yasuchika Hasegawa)  
"Some Thoughts on Delivering Materials for Photovoltaic Solar Cells"  
Professor Paul O'Brien (The University of Manchester, UK)
- 10:00 **Invited Lecture 3** (Chair: Professor Ken-ichi Shimizu)  
"High-Density Monolayer of Metal Complex as a Novel Challenge  
in Heterogeneous Catalysis"  
Professor Kenji Hara (Hokkaido University, Japan)
- 10:25 **Young Lecture 1** (Chair: Professor Ken-ichi Shimizu)  
"Static and Dynamic Control of Polymorphic Luminescent Gold(I) Isocyanide Complexes"  
Professor Tomohiro Seki (Hokkaido University, Japan)
- 10:40 – Coffee Break –
- 11:00 **Invited Lecture 4** (Chair: Professor Masako Kato)  
"Dynamic and Hybrid Materials. Properties and Applications"  
Professor Luisa De Cola (University of Strasbourg, France)
- 11:25 **Invited Lecture 5** (Chair: Professor Noboru Kitamura)  
"Construction of Photochemical Hydrogen Evolution Systems  
Based on the Effective Utilization of 3d Metals"  
Professor Masako Kato (Hokkaido University, Japan)
- 11:50 **Invited Lecture 6** (Chair: Professor Tetsuya Taketsugu)  
"Present and Future Status of Quantum Chemistry"  
Professor Takao Tsuneda (University of Yamanashi, Japan)
- 12:15 **Young Lecture 2** (Chair: Professor Tetsuya Taketsugu)  
"Fabrication of MoS<sub>2</sub> Large-Area Thin Films by Chemical Vapor Deposition and  
Their Ionic Liquid-Gated FET Characteristics"  
Professor Takashi Yanase (Hokkaido University, Japan)
- 12:30 – Lunch Break –

### SESSION 3

- 14:00 **Plenary Lecture 3** (Chair: Professor Toyoji Kakuchi)  
“Synthetic Two-Dimensional Polymers”  
**Professor A. Dieter Schlüter (ETH Zürich, Switzerland)**
- 15:00 **Keynote Lecture 3** (Chair: Professor Kazuyasu Sakaguchi)  
“Molecular Tools and Chemistry in Cell Receptor Research”  
**Professor Yasuyuki Shimohigashi (Kyushu University, Japan)**
- 15:45 – Coffee Break –
- 16:00 **Invited Lecture 7** (Chair: Professor Seiichi Taguchi)  
“Tetramer Formation of Tumor Suppressor Protein p53:  
Mutation, Evolution and Application”  
**Professor Kazuyasu Sakaguchi (Hokkaido University, Japan)**
- 16:25 **Invited Lecture 8** (Chair: Professor Koichiro Ishimori)  
“In situ Biomolecular Analysis by On-Cell Supramolecular Chemistry”  
**Professor Shinsuke Sando (The University of Tokyo, Japan)**
- 16:50 **Invited Lecture 9** (Chair: Professor Manabu Tokeshi)  
“Novel Integrated Analytical Devices by Micro/Extended-Nano Fluidic Technology”  
**Professor Kazuma Mawatari (The University of Tokyo, Japan)**
- 17:15 **Young Lecture 3** (Chair: Professor Manabu Tokeshi)  
“Novel Group Transfer Polymerization of Acrylic Monomers Using Boron Catalyst”  
**Professor Yougen Chen (Hokkaido University, Japan)**
- 17:30 **Closing Remarks** by Professor Toshifumi Satoh
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Organizing Committee:

Professor Hajime Ito (Hokkaido University)  
Professor Shin Mukai (Hokkaido University)  
Professor Yasuchika Hasegawa (Hokkaido University)  
Professor Kiyoharu Tadanaga (Hokkaido University)  
Professor Toshifumi Satoh (Hokkaido University)  
Professor Manabu Tokeshi (Hokkaido University)  
Professor Keiji Tanino (Hokkaido University)  
Professor Tetsuya Taketsugu (Hokkaido University)  
Professor Koichiro Ishimori (Hokkaido University)  
Professor Atsushi Fukuoka (Hokkaido University)

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