



The 3rd  
Frontier Chemistry Center  
International Symposium



**“Challenges at the Frontier of Chemical Sciences”**

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

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

Chair: Professor Takeshi Ohkuma (Hokkaido University)

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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“Strategic Molecular and Materials Chemistry through Innovative Coupling Reactions”  
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The Graduate School of Chemical Sciences and Engineering, Hokkaido University  
Hokkaido University “Ambitious Leader’s Program”  
The Suginome Memorial Foundation  
Hokkaido Branch, The Society of Chemical Engineers

## Day 1: Friday, 13 June, 2014

10:00 Opening Remarks

### SESSION 1

10:20 Plenary Lecture 1

“Title is to be announced”

Professor Robert H. Grubbs (California Institute of Technology, USA)

11:20 Keynote Lecture 1

“Novel Catalysis by Gold Clusters”

Professor Masatake Haruta (Tokyo Metropolitan University, Japan)

12:05 – Lunch Break –

13:30 Invited Lecture 1

“C-H Coupling for Advanced Biology and Materials”

Professor Kenichiro Itami (Nagoya University, Japan)

13:55 Invited Lecture 2

“Structure Modification of Platinum Deposited on Supports for Electrocatalytic Reactions”

Professor Hyunjoo Lee (Yonsei University, Korea)

14:20 – Coffee Break –

14:40 Invited Lecture 3

“High-Density Monolayer of Metal Complex as a Novel Challenge  
in Heterogeneous Catalysis”

Professor Kenji Hara (Hokkaido University, Japan)

15:05 Young Lecture 1

“Static and Dynamic Control of Polymorphic and Luminescent Gold(I)  
Isocyanide Complexes”

Professor Tomohiro Seki (Hokkaido University, Japan)

### POSTER SESSION

15:20 Poster Parade

16:10 Poster Presentation

18:10 Session Ends

19:00 – Banquet – (@Sapporo Aspen Hotel)

## Day 2: Saturday, 14 June, 2014

### SESSION 2

- 09:00 Plenary Lecture 2  
“Some Thoughts on Materials for Photovoltaic Solar Cells”  
Professor Paul O’Brien (The University of Manchester, UK)
- 10:00 Keynote Lecture 2  
“Title is to be announced”  
Professor Hideo Hosono (Tokyo Institute of Technology, Japan)
- 10:40 – Coffee Break –
- 11:00 Invited Lecture 4  
“Hybrid Nanostructures for Electronic and Biomedical Applications”  
Professor Luisa De Cola (University of Strasbourg, France)
- 11:25 Invited Lecture 5  
“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  
“Present and Future Status of Quantum Chemistry”  
Professor Takao Tsuneda (University of Yamanashi, Japan)
- 12:15 Young Lecture 2  
“Synthesis of Carbon-Based 3-D Network Polymer with a High  $sp^3/sp^2$  Ratio  
as a Precursor of Diamond and Diamond Like Carbon”  
Professor Takashi Yanase (Hokkaido University, Japan)
- 12:30 – Lunch Break –

### SESSION 3

- 14:00 Plenary Lecture 3  
“Synthetic Two-Dimensional Polymers”  
Professor Dieter A. Schlüter (ETH Zürich, Switzerland)
- 15:00 Keynote Lecture 3  
“Molecular Tools and Chemistry in Cell Receptor Research”  
Professor Yasuyuki Shimohigashi (Kyushu University, Japan)
- 15:40 – Coffee Break –

- 16:00 Invited Lecture 7  
“Tetramer Formation of Tumor Suppressor Protein p53:  
Mutation, Evolution and Application”  
Professor Kazuyasu Sakaguchi (Hokkaido University, Japan)
- 16:25 Invited Lecture 8  
“In situ Biomolecular Analysis by On-Cell Supramolecular Chemistry”  
Professor Shinsuke Sando (The University of Tokyo, Japan)
- 16:50 Invited Lecture 9  
“Novel Integrated Analytical Devices by Nanofluidic Technology”  
Professor Kazuma Mawatari (The University of Tokyo, Japan)
- 17:15 Young Lecture 3  
“Novel Group Transfer Polymerization of Acrylic Monomers Using Boron Catalyst”  
Professor Yougen Chen (Hokkaido University, Japan)
- 17:30 Closing Remarks