



The 4th  
Frontier Chemistry Center  
International Symposium



“Future Dreams in Chemical Science and Technology:  
Bridges to Global Innovations”

Date: 23 (Tuesday) -24 (Wednesday) February, 2016

Venue: <Oral Session> Akira Suzuki Hall  
<Poster Session> Entrance Hall & Seminar Room 1  
Frontier Research in Applied Sciences Building, Faculty of Engineering,  
Hokkaido University, Sapporo, Japan

Chair: Professor Takeshi Ohkuma (Hokkaido University, Japan)

Day 1: Tuesday, 23 February, 2016

9:00 Opening Remarks

**SESSION 1**

9:15 Plenary Lecture 1

“From molecules to dynamic molecular systems”

Professor Ben L. Feringa (University of Groningen, the Netherlands)

10:15 Keynote Lecture 1

“Precision molecular self-assembly across multiple length scales”

Professor Takanori Fukushima (Tokyo Institute of Technology, Japan)

10:55 – Coffee Break –

11:10 Invited Lecture 1

“Phosphine-branched polystyrenes as platforms for creating highly active metal catalysts”

Professor Masaya Sawamura (Hokkaido University, Japan)

11:40 Young Lecture 1

“Anisotropically deforming materials obtained by using crystal crosslinking method”

Professor Kenta Kokado (Hokkaido University, Japan)

12:00 – Lunch Break –

**SESSION 2**

13:30 Plenary Lecture 2

“Biosynthesis of cyclic peptide antibiotics”

Professor Wilfred A. van der Donk (University of Illinois, USA)

14:30 Keynote Lecture 2

“Recent advances in the study of actin-targeting natural products”

Professor Masaki Kita (University of Tsukuba, Japan)

15:10 – Coffee Break –

- 15:25 [Invited Lecture 2](#)  
“A bacterial symbiont in Japanese marine sponges produce biologically active metabolites”  
[Professor Toshiyuki Wakimoto \(Hokkaido University, Japan\)](#)
- 15:55 [Young Lecture 2](#)  
“Biosynthesis of glycolate-based polyesters with hydrolytic degradability”  
[Professor Ken'ichiro Matsumoto \(Hokkaido University, Japan\)](#)

### POSTER SESSION

- 16:15 [Poster Presentation](#)  
@Entrance Hall & Seminar Room 1

- 17:45 [Session Ends](#)

### BANQUET

- 19:00 @Sapporo Aspen Hotel

## Day 2: Wednesday, 24 February, 2016

### SESSION 3

- 09:00 [Plenary Lecture 3](#)  
“Photoelectrochemical energy conversion on earth and mars”  
[Professor Bruce A. Parkinson \(University of Wyoming, USA\)](#)
- 10:00 [Keynote Lecture 3](#)  
“Strategies for the design of luminescent lanthanide coordination polymers and their photonic applications”  
[Professor Yasuchika Hasegawa \(Hokkaido University, Japan\)](#)
- 10:40 – Coffee Break –
- 10:55 [Invited Lecture 3](#)  
“Molecular catalysts designed for water oxidation”  
[Professor Shigeyuki Masaoka \(Institute for Molecular Science, Japan\)](#)
- 11:25 [Young Lecture 3](#)  
“Design of ionics devices based on mixed ion-electron conducting oxides/metal heterojunctions”  
[Professor Yoshitaka Aoki \(Hokkaido University, Japan\)](#)
- 11:45 [Closing Remarks](#)

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#### Organizing Committee:

Professor Shin Mukai (Hokkaido University)  
Professor Hajime Ito (Hokkaido University)  
Professor Toshihiro Shimada (Hokkaido University)  
Professor Tohru Dairi (Hokkaido University)  
Professor Ken-ichi Shimizu (Hokkaido University)  
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Professor Yasushi Ogasawara (Hokkaido University)  
Professor Atsushi Minami (Hokkaido University)

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