

AECOR-4

The fourth Symposium on Academic Exchange and Collaborative Research between MRC-ETHZ and FoE-HU (Coorganized by Frontier Chemistry Center of FoE-HU)

“Materials in Flow”

FoE-HU : Faculty of Engineering, Hokkaido University, Sapporo, Hokkaido, Japan
MRC-ETHZ : Material Research Center – Swiss Federal Institute of Technology, Zurich, Switzerland

Date : 21 Thu. – 22 Fri. February 2013

Place : Faculty of Engineering, Hokkaido University, N13W8, Sapporo, Japan

Coordinator : FoE-HU: Prof. Y. Murai, and Prof. H. Habazaki

: MRC-ETHZ: Prof. E. Windhab, and Prof. Y. Takeda (Prof. Emeritus, HU)



Program

21st February, Thursday @ Academic Lounge 3, Faculty of Engineering

11:00-11:30	Visiting Dean, Prof. Baba, by ETH delegates
12:30-13:30	Lunch at <i>Enreisou</i>
13:30-13:40	Opening Address by Vice Dean, Prof. Takagi (HU)
	Session I: Chair/ Prof. Murai (HU)
13:40-14:20	Invited Lecture by Prof. Windhab (ETH) "Gastro-Intestinal Engineering and related Flow Processing Concept"
14:20-15:00	Invited Lecture by Prof. Takeda (ETH & HU) "Peristaltic Tube Flow investigations by advanced UVP methodology"
15:00-15:40	Invited Lecture by Dr. Rondeau (ETH) "Experimental Flow Process Engineering by Microfluidics"
15:40-16:00	Coffee Break
	Session II: Chair/ Prof. Habazaki (HU)
16:00-16:40	Invited Lecture by Prof. Ohkuma (HU) "Asymmetric Hydrogenation for Practical Synthesis of Chiral Molecules"
16:40-17:20	Invited Lecture by Prof. Kovalenko (ETH) "Novel Strategies for Combining Molecules, Clusters, and Nanocrystals into Functional Inorganic Solids"
17:20-17:40	Photo Time
17:40	Taxis to Dinner Place
18:00-20:00	Dinner at <i>Garden Grill, Sapporo Beer Garden</i>

22nd February, Friday

Two symposia will be held in parallel, where lunch and dinner are arranged in each event.

Symposium I: Multi-physics Flow Control
Organizer: Prof. Murai (HU) and Prof. Windhab (ETH)
Place : Seminar Room A5-66, Faculty of Engineering
Time : 10:00-17:30

Symposium II: Next Generation of Molecular Chemistry
Organizer: Profs. Ohkuma and Ito (HU)
Place : A21, Graduate School of Information Science and Technology
Time : 13:00-18:20

Symposium I: Multi-physics Flow Control

Organizer: Prof. Murai and Prof. Windhab
Place: Seminar Room A5-66, Faculty of Engineering

- 10:00-10:40 Special Lecture by Dr. Rondeau (ETH)
“The WFSC protein platform and its flow processing implications”
- 11:00-11:20 Presentation by Dr. Kumagai (Meisei Univ. & HU)
“Rhythm of buoyant plumes in deformable porous media”
- 10:40-11:00 Presentation by Dr. Tasaka (HU)
“Liquid metal convection in magnetic field”
- 11:20-11:40 Presentation by Dr. Oishi (HU)
“Small channel flow containing microbubbles”
- 11:40-12:00 Presentation by Mr. Shiratori (PhD student, HU)
“UVP-based rotational rheometry”
- 12:15-13:30 Lunch at *Enreisou Restaurant*
- 13:30-15:30 Laboratory Tour (Including Faculty of Science)
- 1) Laboratory for Soft & Wet Matter
Prof. Gong
Graduate School of Life Science
http://altair.sci.hokudai.ac.jp/g2/index_e.html
 - 2) Laboratory of Micro and Nanomechanics (Prof. Ohashi)
Prof. Ohashi
Division of Human Mechanical Systems and Design
Faculty of Engineering
http://mech-hm.eng.hokudai.ac.jp/~micro-nano/index_en.htm
 - 3) Laboratory of BioMechanical Design (Prof. Tadano, Dr. Todoh)
Division of Human Mechanical Systems and Design
Faculty of Engineering
http://labs.eng.hokudai.ac.jp/labo/biomech/?page_id=7
 - 4) Laboratory for Flow Control (Prof. Murai, Dr. Tasaka, Dr. Oishi)
Division of Energy and Environmental Systems
Faculty of Engineering
<http://ring-me.eng.hokudai.ac.jp/>
- 15:30-17:30 Free or Participation to the Symposium II
- 18:00-20:00 Dinner @ Japanese Style Restaurant, Nakajima-koen, Sapporo

Symposium II : Next Generation of Molecular Chemistry

Organizer: Profs. Ohkuma and Ito
Place: A21, Graduate School of Information Science and Technology

- 13:00- Opening Remarks by Prof. Ohkuma
- 13:10-13:50 Lecture by Professor Hirohisa Ohmiya (FoS-HU)
“Development of Highly-controlled Allylic Bond Formation Reactions”
- 13:50-14:30 Lecture by Professor Xingang Zhang (Chines Acad. Sci.)
“Transition-Metal-Catalyzed Direct Functionalization of Polyfluoroarenes”
- 14:30-15:10 Lecture by Professor Hajime Ito (FoE-HU)
“Mechanical Stimulation-Induced Crystal Phase Conversion of Organogold Crystals”
- 15:10-15:50 Lecture by Professor Kálmán J. Szabó (Stockholm Univ. Sweden)
“Pd-Catalyzed Synthesis of Silyl- and Allyboronates from Allyl Alcohols”
- 15:50-16:10 Coffee Break
- 16:10-16:50 Lecture by Professor Naoto Chatani (Osaka Univ.)
“New Chelation-Assisted Transformations of C–H Bonds”
- 16:50-17:30 Lecture by Professor Isaac J. Krauss (Brandeis Univ. USA)
“A Paradigm for Stereoselective Homoallylation”
- 17:30-18:10 Lecture by Professor Kazuhiko Takai (Okayama Univ.)
“Rhodium-Catalyzed Cleavage of Silicon–Hydrogen and Carbon–Hydrogen Bonds: Synthesis of Silafluorene Derivatives”
- 18:10- Closing Remarks by Prof. Ito
- 19:00-20:30 Banquet @Sapporo Aspen Hotel