

# AECOR-2

## The Second Symposium on Academic Exchange and Collaborative Research between GSE-HU and MRC-ETHZ (Coorganized by Global-COE Project of GSE-HU)

GSE-HU : Graduate School of Engineering, Hokkaido University, Sapporo

MRC-ETHZ : Material Research Center - Swiss Federal Institute of Technology  
Zürich, Switzerland

**Date:** 8 Mon. - 9 Tue. February 2010

**Place:** Graduate School of Engineering, Hokkaido University, Sapporo  
Academic Lounge #3, Material Research Building MC526 & MC102

**Coordinator** GSE-HU: Prof. Y. Takeda, Dr. Y. Murai  
MRC-ETH: Prof. R. Spolenak, Prof. E. Windhab

### Program

<b>8th February, Monday</b>	
Visiting Hokkaido University President	
10:00 - 10:30	Visiting President by ETH delegates
Opening Address and Visiting Ceremony	
11:00 - 11:10	Welcome Address: Dean of GSE-HU, Prof. T. Mikami
11:10 - 11:30	Visiting Address and Introduction of ETHZ and MRC Director of MRC-ETHZ, Prof. R. Spolenak
Special Lecture	
11:30 - 12:30	Prof. Y. Takeda, Fluid Dynamics
Lunch Break	
12:30 - 13:30	Restaurant Enreiso
Invited Session	
13:30 - 14:00	Invited Presentation MRC-ETH #1: Prof. R. Spolenak
14:00 - 14:30	Invited Presentation GSE-HU #1: Prof. T. Ohashi
14:30 - 15:00	Invited Presentation MRC-ETH #2: Prof. N.D. Spencer
15:00 - 15:20	Coffee
15:20 - 15:50	Invited Presentation GSE-HU #2: Prof. J.P. Gong
15:50 - 16:20	Invited Presentation MRC-ETH #3: Dr. J. Shaik
Campus and Lab Tour	
16:30 - 18:00	
Banquet	
18:30 - 20:30	Sapporo Aspen Hotel

<b>9th February, Tuesday</b>		
G-COE Session	Organic Chemistry	Inorganic Chemistry
10:00 - 10:30	Prof. A. D. Schlueter	Prof. S. Kikkawa
10:30 - 11:00	Dr. J. Sakamoto	Prof. H. Habazaki
11:10 - 11:40	Prof. N. Miyaoura	Dr. A. Bieberle
11:40 - 12:10	Prof. T. Kakuchi	Prof. M. Niederberger
<b>Lunch Break</b>		
12:10 - 13:30	Restaurant Enreiso	
<b>Individual Research Meeting of Collaboration Partners or Lectures</b>		
13:30 - 16:00	Meeting or Lectures	
<b>Closing Remarks</b>		
16:00 - 16:15		
<b>Farewell Party</b>		
18:30 - 20:30	Sapporo Beer Hall	

(A) Individual research meeting of collaboration partners

Academic Fields and Lab	GSE-HU	MRC-ETH
Nano-metallurgy		Prof. R. Spolenak
Biomechanics	Prof. S. Tadano	
Cell Engineering	Prof. T. Ohashi	
Computational Material Science	Prof. T. Mohri	
Concrete Engineering	Prof. T. Nawa	
Inorganic Materials Chemistry	Prof. S. Kikkawa	Prof. M. Niederberger
Polymer Chemistry	Prof. T. Kakuchi	Prof. A.D. Schlueter Dr. J. Sakamoto
Functional Materials Chemistry	Prof. H. Habazaki	Dr. Anja Bieberle- Hütter
Fluid Mechanics	Prof. Y. Takeda Dr. Y. Murai	Dr. J. Shaik
Solid Mechanics	Prof. K. Sasaki	
	Prof. K. Matsuura	
	Prof. T. Ueda	
	Prof. R. Suzuki	
Polymer Tribology	Prof. J. P. Gong (Faculty of Science)	Prof. N.D. Spencer

(B) Participants

ERC-ETHZ Delegates	GSU-HU
Prof. R. Spolenak: Director Prof. A.D. Schlueter Prof. M. Niederberger Prof. N.D. Spencer Dr. J. Shaik Dr. J. Sakamoto Dr. Anja Bieberle- Hütter	Prof. H. Saeki: President Prof. T. Hondo: Vice President Prof. T. Mikami: Dean Prof. S. Tadano: Vice Dean Prof. Y. Takeda Prof. Y. Murai Prof. T. Ohashi Prof. T. Mohri Prof. T. Nawa Prof. S. Kikkawa Prof. T. Kakuchi Prof. H. Habazaki Prof. K. Sasaki Prof. K. Matsuura Prof. T. Ueda Prof. R. Suzuki Prof. O. Wright Prof. J. P. Gong (Faculty of Science)
7 persons	17 persons

The symposium is open to professors and researchers including PhD students of HU.

# Presentations

- ✧ Professor Ralph Spolenak : Introduction of ETH-MRC
- ✧ Professor Toshiro Ohashi : Mechanical characterization of vascular endothelial cells focusing on intracellular structures
- ✧ Professor Nicos. D.Spencer : Chemical and Morphological Gradients on Surfaces: High-Throughput Tools for Engineering and Biology
- ✧ Professor J.P.Gong : Learn from nature: Cartilage-like tough double network gels
- ✧ Dr. Jeelani. Shaik : Tailored food structure processing for functionalized nutrition
  
- ✧ Professor Norio Miyaoura: Metal-Catalyzed Reactions of Organoboronic Acids
- ✧ Professor A. Dieter Schlueter: Towards Sheet-like Polymers and more
- ✧ Dr. Junji Sakamoto: Towards Synthetic 2D Polymers
- ✧ Professor Toyoji Kakuchi: Group Transfer Polymerization Catalyzed by Organocatalyst
  
- ✧ Professor Markus Niederberger: Inorganic Nanomaterials Synthesis in Organic Solvents
- ✧ Professor Shinichi Kikkawa: Microstructure control of iron oxides and nitrides
- ✧ Dr. Anja Bieberle//Hütter : Nanoionics: From Thin Metal Oxide-Films to Devices
- ✧ D. Kowalski, Y. Aoki and H. Habazaki : Proton Conductivity of Anodic ZrO<sub>2</sub>-WO<sub>3</sub> Nanofilms
- ✧ Professor Yasushi Takeda: How turbulent is turbulence?