

April 18, 2006

Mitsui Chemicals to Jointly Organize the Singapore International Symposium 2006

Mitsui Chemicals, Inc. (MCI) co-hosted “the Singapore International Symposium 2006 (SIS2006)” with the two governmental agencies of Singapore, A*STAR^{*1)} and EDB^{*2)}, with the theme of “advances in materials and chemicals” from April 17 to 18.

Dr. Vivian Balakrishnan, Minister For Community Development, Youth And Sports And Second Minister For Trade & Industry, delivered an opening speech.

“This is the 4th in a series of yearly international scientific symposiums, organized by Mitsui Chemicals. The first three entitled “Mitsui Chemicals Inc. Symposium (MCIS)” were held twice in Japan and once in France. Mitsui Chemicals has graciously renamed its 4th MCIS to the Singapore International Symposium, to recognize the efforts A*STAR and EDB have invested to realize this symposium.

I am pleased to note that Singapore has been chosen as the location for Mitsui’s prestigious annual scientific symposia. It is a testimony of Mitsui’s long-standing partnership with Singapore in the development and growth of the republic’s chemicals industry.”

This symposium was held at Biopolis, which is located southwest of Singapore and is the world’s leading research complex. Eight reputable scientists from Japan and overseas engaging in the research of advanced materials and chemicals delivered lecture besides displaying 20 items of poster (see the attachment for further details).

SIS2006 marks the first time MCI holds the international symposium in Asia outside Japan to step up partnerships between research institutions and corporations in the field of advanced materials and chemicals in Asia. It became a big symposium. There were about 300 participants mainly from the industry and academia in Singapore and other Asian countries.

MCI held “the Mitsui Chemicals International Symposium on Catalysis Science” twice in Japan in 2003 and 2005 as a part of CSR and its efforts to build a global science network with the world’s scientists. Furthermore, MCI hosted the advanced material symposium at University Louis Pasteur in France in 2004. At this time, MCI provides a forum for the exchange of leading-edge information in collaboration with A*STAR and EDB, which helps intensify its global network beyond the frameworks of industry, government and academia as well as states.

^{*1)} The Agency for Science, Technology and Research

^{*2)} The Economic Development Board

Attachment: the summary of the symposium

Symposium Content



1. Name of Symposium:

Singapore International Symposium (SIS 2006)
< A*STAR – EDB – Mitsui Chemicals >

2. Theme:

Advances in Materials & Chemicals

3. Date:

17th & 18th, April 2006

4. Place:

Auditorium, Level 2, Matrix Building, Singapore

5. Presenters:

· **Prof. Krzysztof Matyjaszewski (Carnegie Mellon University, U. S. A.)**

Pioneer of highly controlled living radical polymerization. With the arrival of ATRP*, creation of polymers with various unique structures, such as gradient function polymers, has become possible. (*ATRP: Atom Transfer Radical Polymerization)

“New nanostructured materials enabled by controlled/living radical polymerization”

· **Prof. Yoshiki Chujo (Kyoto University, Japan)**

His research program focuses on the synthesis of the functional high-performance polymer materials on the basis of synthetic organic chemistry. His research topics include organic-inorganic polymer hybrids as molecular composite materials.

“Organic-Inorganic Polymer Hybrids”

· **Prof. Andy Hor (National University of Singapore, Singapore)**

His research interests include; Homogeneous Catalysis - Materials & Catalyst design, Ferrocenyl Materials-Complex monomers and oligomers, Clusters and Aggregates-Catalytically active clusters, etc.

“Stabilization and Catalytic Activation of Unstable and Elusive Organometallic Complexes”

· **Prof. Dr. Dr. h.c. Stan Veprek (Technical University Munich, Germany)**

Well-known materials scientist who greatly contributed to the design and characterization of novel nanomaterials. His research interest includes the generic design concept of strong and hard materials as well as their deposition as thin films by plasma assisted techniques.

“Superhard and Functional Nanostructured Thin Films: From a Generic Design Principle to Industrial Applications”

· Dr. Shin Fukuda (Mitsui Chemicals, Inc., Japan)

He is a research fellow of Mitsui Chemicals R&D and an expert in inorganic thin film on polymeric substrate and its applications, and surface science and thin film technology. The technology is applied to optical filters for PDP and to reflectors for LCD.

“Applications of Sputtered Thin Film on Polymeric Substrate to Electronic Materials”

· Prof. William A. Goddard III (California Institute of Technology, U. S. A.)

His long-term objective is to describe the properties of chemical, biological, and materials systems directly from first principles. Developing new methods for theory including: quantum mechanics, force fields, molecular dynamics, statistical mechanics, etc.

“First principles Design of Materials and Catalysts”

· Prof. Myongsoo Lee (Yonsei University, Korea)

His research combines organic, macromolecular, materials, and biological chemistry to explore nanometer-scale self-organizing systems of controlled molecular and supramolecular architectures.

“Supramolecular Assembly toward Functional Nanostructures”

· Prof. Takuzo Aida (The University of Tokyo, Japan)

His research interest includes utilization and fabrication of a variety of functional nano objects such as light-harvesting dendrimers, mesoporous silicates for processing of polymeric materials, development of conductive soft materials based on carbon nanotubes, and fabrication of self-assembled graphitic nanotubes. He is now the leader of ERATO-SORST AIDA Nanospace Project.

“Novel Electronic Nanomaterials by Programmed Self-Organization”

6. Posters : (20 Items)

< Mitsui Chemicals, Inc., Japan >

- High Performance Processing Tape ICROS™ (New Tape for Wafer Thin Grinding)
- Mitsui's Agrochemicals - High Performance - Around the World
- PDP Optical Filters - FILTOP™ and FILFINE™ -
- A Novel Chemo-Enzymatic Hybrid Process for Deoxynucleosides
- Nano-Crystalline Structure-Controlled Elastomer “NOTIO™”
- Super Polyolefin TPX™ for Release and Heat Resistant Application
- Functional Polyethylene Wax for Polymer Processing EXCEREX™
- Organic-Inorganic Hybrid Coatings with High Gas Barrier and Abrasion Resistance
- Orientation Control by Laser Heating for Organic Semiconductor Materials
- New Value-Added Polyolefinic Materials Created by FI Catalysts

< Singapore >

Institute of Materials Research & Engineering, A*STAR

- Polymer Nanocomposites
- Novel Design of Hyperbranched Polymers and Applications

Institute of Chemical & Engineering Sciences, A*STAR

- Three Dimensional Ligands (Carboranes) in Homogeneous Catalysis
- Functionalised Specialty Polymers- Synthesis and Applications
- The Use of Raman Array Microscopy and Numerical Analysis for the Authentication of Commercial Objects

Institute of High Performance Computing, A*STAR

- DFT Calculations on Nanometal-Polymer Composites,
the Case of Polyimide-Cu(100) / Ni(100) Adhesion

National University of Singapore

- Mesoporous Functional Materials with Highly Ordered Nanoarrays
- Functional Polymers for Applications in Environmental Analytical Chemistry

Nanyang Technological University

- Asymmetric Synthesis of Amine Derivatives Using Ferrocene-Based Chiral Carbocation
- Multi-Layered Biodegradable Polymer Structure for Drug Eluting Stents

< Photo 1: Opening Speech by Dr. Vivian Balakrishnan (Minister For Community Development, Youth And Sports And Second Minister For Trade & Industry) >



< Photo 2: Opening Speech by Kenji Fujiyoshi (President of Mitsui Chemicals, Inc.) >



< Photo 3: Presentation by Prof. Krzysztof Matyjaszewski (Carnegie Mellon University, U.S.A.) >



< Photo 4: Co-host & Presenters of SIS2006 >

