



## NEWS RELEASE

### **Mitsui Chemicals' vested interests in Singapore boosts the local Science & Engineering Arena**

*Japanese chemicals giant convenes first-ever Singapore International Symposium (SIS2006)*

Singapore, 13 January 2006 – The Agency for Science, Technology and Research (A\*STAR), the Economic Development Board (EDB) and Mitsui Chemicals Inc. (MCI) will jointly organise the Singapore International Symposium (SIS2006), April 17-18 2006. To be held at the Biopolis, the two-day symposium will focus on, “Advances in Materials and Chemicals”

To be graced by Dr. Vivian Balakrishnan, the Minister for Community, Youth Development and Sports and Second Minister for Trade and Industry, and Mr. Kenji Fujiyoshi, President of Mitsui Chemicals Inc., it is expected that the event will be attended by about 500 key players from both industry and academia. SIS2006 seeks to promote advances in materials and chemical sciences, raise the profile of these scientific fields in Singapore and foster cross institutional dialogues and interaction. Eight distinguished lectures will be given at the Symposium and 20 scientific posters will be presented.

Mitsui Chemicals, one of the largest chemical companies in Japan, has organized the Mitsui Chemicals Symposiums since 2003. In March 2003, the first Mitsui Chemicals International Symposium on Catalysis Science (MICS2003) was organized, themed – “Advanced Catalysts for Polymers” – it garnered global participation from top tier scientists, industry and academia. This year, SIS2006 gathers eight scientists from US, Europe, Japan, Korea and Singapore to lecture on topics in advanced material and chemical sciences. Professor Krzysztof Matyjaszewski, one of the top-10 scientists in the 2005 Essential Science Indicators' list of the 100 most cited scientists, will be speaking about his famed work in controlled polymerization. Prof Matyjaszewski's first paper on Atom Transfer Radical Polymerization (ATRP), published in 1995, has spawned considerable industrial and academic research in this field of controlled polymerization and has been cited more than 1,000 times.

Speaking for Mitsui Chemicals Inc., President Kenji Fujiyoshi said, "Singapore plays a central role for diverse research institutes and enterprises in Asia and succeeds in achieving a remarkable growth. Mitsui Chemicals proactively engages in "promoting cooperative relationships between research institutes and enterprises in the fields of advanced materials and chemicals in Asia". This is also the main purpose of SIS2006 and we are confident that a global network can be created to exchange research knowledge through a symposium like this!"

Mitsui Chemicals is heavily engaged in the development of state-of-the-art chemical products by effectively utilizing the global science network nurtured over the years past. In the organization of its symposia, Mitsui Chemicals is committed to providing a high-level forum for scientists, researchers and business leaders alike, to interact and exchange ideas, towards the creation of new knowledge in the various fields of chemical science.

Mitsui Chemicals has played a key role in the growth of the chemical industry in Singapore for the last thirty years. It operates world-class phenol and bisphenol-A complexes on Jurong Island. These, combined with Mitsui Chemicals Singapore (MCS), Mitsui Elastomers Singapore (MELS) and MTK Chemicals, represent some S\$900 million of the company's operations in Singapore.

In September 2004, Mitsui Chemicals signed a master R&D agreement with A\*STAR, and initiated collaborations with the Institute of Chemical and Engineering Sciences (ICES) and the Institute of Materials Research and Engineering (IMRE) in advancing the production of key petrochemical products and nano-structured hybrid materials for new product applications respectively. The scientific collaborations between Mitsui Chemicals and A\*STAR represents some of the new frontiers in materials and chemical sciences. In light of the recent volatility in oil prices and the constant debate about the long-term sustainability of fossil fuels, chemical industries are in the race to design lower cost routes or replace older technologies by using cheaper or alternative feedstocks to derive existing petrochemical products.

"Singapore's continued drive to innovate and our commitment to develop a vibrant R&D community has fueled the rapid evolution of the local economy – the combination of a culture of innovation and ready pool of human capital has no doubt contributed to the anchoring of many MNCs to Singapore. Mitsui Chemicals' vested interests in Singapore today is testament to our R&D capabilities and caliber of human capital. The convening of SIS2006 is a clear indication of the high level of research interest and the critical mass of research talents and projects we have achieved in this area," commented Mr Boon Swan Foo, Managing Director, A\*STAR.

To date, Mitsui and ICES scientists have developed a new catalyst which gives superior enantioselectivity for the C-C bond formation reactions. The products have great potential to become key compounds in pharmaceutical or agrochemical ingredients. The turnover numbers and optical yield of the catalyst is so high that it can potentially lead to cost reduction to the production process of key compounds.

Mitsui's R&D collaboration with IMRE leverages on the Institute's strength and capabilities in materials design, synthesis and characterization expertise. IMRE and Mitsui have worked together to develop a nano-structured material – Silsesquioxane – which when applied to Mitsui Chemical's polymeric material, it greatly improved its mechanical properties. Both Mitsui and IMRE are considering filing a patent application for this material.

Mitsui Chemicals has evolved its business in Singapore from manufacturing to R&D collaborations. The company's latest partnership in the form of the SIS2006 scientific symposium is indicative of the value that Mitsui Chemicals recognizes in the Republic – the local chemicals industry benefits not only from the very favourable manufacturing environment here, particularly in Jurong Island, but also builds on the government's investment in R&D infrastructure and human capital to help companies develop novel manufacturing technology for next generation plants and processes. The consequent development and organization of SIS2006 can provide the perfect platform to propel the level of research in Asia; as well as encourage interdisciplinary collaboration amongst the scientists that attend this symposium.

"To ensure the continued growth and competitiveness of the chemicals industry, the EDB is encouraging companies to move up the value chain – into higher value-added manufacturing operations, R&D and intellectual property creation. Mitsui's latest initiative to hold the Singapore International Symposium supports this thrust. The Symposium will bring world renowned researchers here, and help stimulate new ideas and add to the vibrancy of the local chemicals R&D community.," said Mr Ko Kheng Hwa, Managing Director, EDB.

SIS2006 marks the first time Mitsui Chemicals Inc. is holding the symposium in Asia outside Japan – previous symposiums were held in Japan, and once in France. Mitsui Chemicals decided to rename this particular Symposium as the Singapore International Symposium (SIS2006) to recognize the contribution and support of its host country. See Annex A for list of speakers.

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For more information on SIS2006, log onto [www.a-star.edu.sg/SIS2006](http://www.a-star.edu.sg/SIS2006)

For media enquiries, please contact:

**Mr Julian SEAH**

Agency for Science, Technology and Research

Tel : +65 6826 6344

Fax: +65 6478 9593

Email: [julian\\_seah@a-star.edu.sg](mailto:julian_seah@a-star.edu.sg)

-OR-

**Mr Hiroshi YUASA**

Mitsui Chemicals Singapore, Ltd.

tel +65-6534 2611

fax +65-6535 5161

Email: [Hiroshi.Yuasa@mitsui-chem.co.jp](mailto:Hiroshi.Yuasa@mitsui-chem.co.jp) or [SIS2006@mitsui-chem.co.jp](mailto:SIS2006@mitsui-chem.co.jp)

**About Mitsui Chemicals Inc.**

Mitsui Chemicals Inc. is one of the largest chemical companies in Japan, headquartered in Tokyo. It was established in 1997 via a merger between Mitsui Petrochemical and Mitsui Toatsu Chemicals. It is expanding its operation and business in the area of Functional Chemicals & Engineered Materials, Functional Polymeric Materials, Petrochemicals and Basic Chemicals at 33 production sites in the world. [Paid Up Capital: USD977million, Net Sales: USD10,309million (as of March 2004 consolidated basis), Head Office: Minato-ku, Tokyo, Japan]

For more information, please visit: <http://www.mitsui-chem.co.jp/e/>

**About the Singapore Economic Development Board (EDB)**

The Economic Development Board (EDB) is Singapore's lead agency responsible for planning and executing strategies to sustain Singapore's position as a compelling global hub for business and investment.

We work closely with local and foreign companies across a diverse range of activities in both manufacturing and services to help them move towards higher value-creating operations in an increasingly knowledge-based and innovation-driven environment. We also encourage companies to use Singapore as a headquarters and total business centre to manage their global or regional functions to service their global or Asia Pacific operations.

Singapore is today a "Global Entrepolis" – a compelling global hub for business and investment where entrepreneurs and enterprise converge, spark and realise innovations, forge partnerships, and create value in manufacturing and services industries. EDB acts as a catalyst and facilitator to ensure a thriving "enterprise ecosystem" in Singapore. We encourage innovation and entrepreneurship by helping to create an environment which is conducive for start-ups and companies of all sizes to interact with each other with good corporate governance practices and where intellectual property is protected.

For more information on how EDB can help in your business and investment, please visit [www.sedb.com](http://www.sedb.com)

### **About the Agency for Science, Technology and Research (A\*STAR)**

A\*STARs' mission is to foster world-class scientific research and talent for a vibrant knowledge-based Singapore. The Agency comprises the Biomedical Research Council (BMRC), the Science and Engineering Research Council (SERC), the A\*STAR Graduate Academy (A\*GA), the Corporate Planning and Administration Division (CPAD) and a commercialization arm, Exploit Technologies Pte Ltd (ETPL).

The Science and Engineering Research Council (SERC) funds and oversee 7 public research institutes in areas such as chemical sciences, materials, high performance computing, information technology and communications, manufacturing technology, microelectronics and data storage.

For more information, please visit: [www.a-star.edu.sg](http://www.a-star.edu.sg)

### **About Institute of Chemical and Engineering Sciences (ICES)**

Institute of Chemical and Engineering Sciences (ICES) is a member of the Agency for Science, Technology and Research (A\*STAR). Established in 2002, ICES' mission is to develop scientific knowledge, R&D manpower and technological capabilities to support future and current needs of Singapore's chemical, biomedical and process engineering industries. The research programme covers chemistry and chemical engineering science, combined with advanced analytical characterization and measurement to develop state of the art technology for the petrochemical, general chemical, fine chemical and pharmaceutical industries.

For more information, please visit [www.ices.a-star.edu.sg](http://www.ices.a-star.edu.sg)

### **About the Institute of Materials Research and Engineering (IMRE)**

The Institute of Materials Research and Engineering (IMRE) is a member of the Agency for Science, Technology and Research (A\*STAR). Established in 1996, its mission is to create materials knowledge, develop human capital and to transform technology through innovative research. IMRE undertakes research in selected fields of materials science and engineering, including optoelectronics, nanomaterials, chemicals and polymers. The research institute's innovations and discoveries are constantly being explored to further the applications of advanced materials and processes.

For more information, please visit: [www.imre.a-star.edu.sg](http://www.imre.a-star.edu.sg)

## **Annex A**

The invited speakers include:

1. Prof Krzysztof Matyjaszewski, Department of Chemistry, Carnegie Mellon University, USA
2. Prof Yoshiki Chujo, Graduate School of Engineering, Kyoto University, Japan
3. Prof Andy Hor, Department of Chemistry, Faculty of Science, National University of Singapore
4. Prof Dr. Dr. h.c. Stan Veprek, Chair for Chemistry of Inorganic Materials Department of Chemistry, Technical University Munich, Germany
5. Dr Shin Fukuda, Material Science Lab. R&D Center, Mitsui Chemicals, Inc., Japan
6. Prof William A. Goddard III, Department of Chemistry and Chemical Engineering, California Institute of Tehcnology, USA
7. Prof Myongsoo Lee, Department of Chemistry, Yonsei University, Seoul, Korea
8. Prof Takuzo Aida, School of Engineering, The University of Tokyo, Japan