

### Mitsui Chemicals

Shiodome City Center 1-5-2, Higashi-Shimbashi, Minato-ku, Tokyo 105-7117 Japan

December 21, 2006

# Announcement of the Winners of the "2007 Mitsui Chemicals Catalysis Science Award"

Mitsui Chemicals, Inc. (MCI) hereby announces the winners of the "2007 Mitsui Chemicals Catalysis Science Award." This award was established in 2004 with the aim of contributing to the sustainable development of chemistry and chemical industry, having been established to recognize researchers who have made outstanding achievements in catalysis science. The first winners were honored in March, 2005.

#### The Winners of the "2007 Mitsui Chemicals Catalysis Science Award"

Chief Scientist Zhaomin Hou (Age: 44)* RIKEN	Professor Gregory C. Fu (Age: 42)* Massachusetts Institute of Technology
"Development of Polymerization Reactions Based on New Organo Rare Earth Metal Catalysts"	"Coupling Reactions and Asymmetric Synthesis Based on Novel Catalyst Designs"
Dr. Zhaomin Hou has discovered the regio-, stereoselective polymerization and copolymerization of a wide range of olefins and dienes by use of new organo rare earth metal catalysts, thereby opening up the path to new polymer materials.	Dr. Gregory C. Fu developed new designs for chiral catalysts that are based on planar-chiral asymmetry, and he greatly expanded the scope of coupling reactions.

### The Winners of the "2007 Mitsui Chemicals Catalysis Science Award of Encouragement"

Assistant Professor Jun Terao (Age: 35)* Osaka University	Assistant Professor Michael C. W. Chan (Age: 35)* City University of Hong Kong
"Carbon Bond Formation Reactions Using Anionic Transition Metal Complexes as the Key Catalytic Intermediates"	"Importance of Weak Attractive Polymer-Ligand Interactions in Olefin Polymerization Catalysis"
Dr. Jun Terao has established that anionic olefin transition metal complexes are useful as new catalysts for carbon-carbon bond formation reactions including coupling reactions and addition reactions, thereby opening up a new field in organic synthesis.	Dr. Michael C. W. Chan experimentally demonstrated the feasibility of weak attractive polymer-ligand interactions and their significance in olefin polymerization processes, and thereby presented new guidelines for the design of polymerization catalysts.

<sup>\*</sup>at the date of April 1, 2006

Although the "Mitsui Chemicals Catalysis Scientific Award" is supposed to be presented to only one researcher with the best achievements, the Award Selection Committee selected two winners after much deliberation as there were a lot of strong candidates this year.

The award ceremony and commemorative lectures by the winners will be held during "The Third Mitsui Chemicals International Symposium on Catalysis Science (MICS2007)" on March 14 and 15, at Kazusa Akademia Hall in Kisarazu City, Chiba Prefecture in Japan.

Please refer to "Mitsui Chemicals to Host "The Third Mitsui Chemicals International Symposium on Catalysis Science (MICS2007)" separately released on the same day for details of MICS2007.

### <u>Summary of the "2007 Mitsui Chemicals Catalysis Science Award"</u> and the "2007 Mitsui Chemicals Catalysis Science Award of Encouragement"

1. The "2007 Mitsui Chemicals Catalysis Science Award"

(1) Research field: polymerization catalysts, fine synthesis catalysts and other catalysts

contributing to environmental protection

(2) Eligible: Researchers (aged 45 years or younger at the date of April 1, 2006) who

belong to institutions of higher learning or public research institutes with

the best achievements

(3) Prize: a commemorative plaque and cash prize of ¥5 million

2. The "2007 Mitsui Chemicals Catalysis Science Award of Encouragement"

(1) Research field: the same as the "2007 Mitsui Chemicals Catalysis Science Award"

(2) Eligible: Researchers (aged 35 years or younger at the date of April 1, 2006)

with the most original achievements

(3) Prize: a commemorative plaque and cash prize of ¥1 million

\_\_\_\_\_\_

<Reference: the Winners in 2005>

### The "2005 Mitsui Chemicals Catalysis Science Award"

Professor Eric N. Jacobsen	Professor Shu Kobayashi
Harvard University	The University of Tokyo
"General Asymmetric Catalysts for	"Development of Novel Catalysts Directed
Oxidation, Hydrolysis and C-C	toward Environmentally Benign Organic
Bond-forming Reactions"	Synthesis"
Dr. Jacobsen has formulated several key	Dr. Kobayashi has developed new organic
principles in asymmetric catalysis; these	reactions using water as a solvent, by
principles can be applied in industrially	inventing the water-stable Lewis acid, which
important target molecules.	indicates a new direction for environmentally
	benign research for processes.

### The "2005 Mitsui Chemicals Catalysis Science Award of Encouragement"

Associate Professor Ryoichi Kuwano Kyushu University	Assistant Professor Kenichiro Itami Kyoto University
"Development of New Asymmetric Catalysis and Transition Metal-Catalyzed Reactions"	"Removable Directing Group Strategy in Metal Catalysis"
Dr. Kuwano has developed a new chiral phosphine ligand whose trans-chelation property was essential for the high degree of chirality.	Dr. Itami has developed removable directing groups, particularly in palladium catalyzed reaction and has succeeded in enhancing the efficiency of organic synthesis.

Affiliations and titles are of those at the time of award.

## <u>Winners' Photos of the "2007 Mitsui Chemicals Catalysis Science Award"</u> and the "2007 Mitsui Chemicals Catalysis Science Award of Encouragement"

#### The Winners of the "2007 Mitsui Chemicals Catalysis Science Award"

Chief Scientist Zhaomin Hou (Age: 44)\* RIKEN Professor
Gregory C. Fu (Age: 42)\*
Massachusetts Institute of Technology





The Winners of the "2007 Mitsui Chemicals Catalysis Science Award of Encouragement"

Assistant Professor Jun Terao (Age: 35)\* Osaka University



Assistant Professor Michael C. W. Chan (Age: 35)\* City University of Hong Kong



<sup>\*</sup>at the date of April 1, 2006