

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

June 16, 2014 Mitsui Chemicals, Inc.

Winners of the "2014 Mitsui Chemicals Catalysis Science Award"

Mitsui Chemicals, Inc. (Tsutomu Tannowa, President & CEO) is pleased to announce the winners of the "2014 Mitsui Chemicals Catalysis Science Awards" and the "Mitsui Chemicals Catalysis Science Award of Encouragement".

Established in 2004, this award aims to contribute to the sustainable development of chemistry and the chemical industry by recognizing researchers who have outstanding achievements in catalysis science. The first winners were awarded in March 2005.

The awards will be presented on October 14th at the "Fourth CSJ Chemistry Festa 2014" which will be held at the Tower Hall Funabori in Edogawa-ku, Tokyo and followed by commemorative lectures by the winners.

Winner of the "2014 Mitsui Chemicals Catalysis Science Award"





Winners of the "2014 Mitsui Chemicals Catalysis Science Award of Encouragement"

Associate Professor Shunsuke Chiba Nanyang Technological University, Singapore	Chief Researcher Naoya Kumagai Institute of Microbial Chemistry, Japan

Winner of the "2014 Mitsui Chemicals Catalysis Science Award"

Professor F. Dean Toste

University of California Berkeley, U.S.A.
Born in 1971

"Introduction of Concepts and Catalysts for Organic Synthesis, including those based on Homogeneous Gold Catalysis and Chiral Anion Catalysis"

Professor Toste has pioneered the development of novel catalysts with gold complexes, high-valent metal oxides, and chiral counteranions including: (a) homogeneous low-valent gold catalysts; (b) high-valent metal oxide catalysts; and (c) chiral counteranion-assisted asymmetric metal-free phase-transfer catalysis. More recently he has developed metal catalyst-fermentation hybrid processes for the synthesis of biofuels and chemicals from biomass.

Winners of the "2014 Mitsui Chemicals Catalysis Science Award of Encouragement"

Chief Researcher Associate Professor Naoya Kumagai Shunsuke Chiba Institute of Microbial Chemistry, Japan Nanyang Technological University, Singapore **Born in 1978 Born in 1978** "Development of Cooperative Asymmetric "Development of Single-Electron-Transfer Catalysts and their Application to the Redox Catalytic Systems for Synthesis of Streamlined Enantioselective Synthesis of Azaheterocycles" Pharmaceuticals" Dr. Chiba has developed unique molecular Dr. Kumagai has developed novel transformations based on cooperative asymmetric catalysts with soft single-electron-transfer oxidation-reduction Lewis acid/hard Brönsted base and rare (redox) in the copper-catalyzed aerobic earth metal/hydrogen-bonding ligand oxidation and in the manganese-catalyzed combinations and thereby achieved the radical reactions and thereby paved a way to highly efficient enantioselective synthesis synthesize azaheterocycles, a family of of a variety of pharmaceuticals and related nitrogen-containing heterocyclic compounds chemicals. that are widely used in medicine, agriculture,

Award ceremony and lectures by the winners

1. Date: October 14, 2014

and materials science.

2. Venue: Tower Hall Funabori (Edogawa-ku, Tokyo, Japan)

3. Lectures:

Plenary Lectures

Professor Keiji Maruoka (Kyoto University, Japan)

Dr. Kazuhiko Sato (National Institute of Advanced Industrial Science and Technology)

Commemorative lectures by the winners

2014 Mitsui Chemicals Catalysis Science Award

Professor F. Dean Toste (University of California Berkeley, U.S.A.)

2014 Mitsui Chemicals Catalysis Science Award of Encouragement

Associate Professor Shunsuke Chiba (Nanyang Technological University, Singapore)

Dr. Naoya Kumagai (Institute of Microbial Chemistry, Japan)