

June 27, 2024
Mitsui Chemicals, Inc.

Winners of the 2024 Mitsui Chemicals Catalysis Science Awards

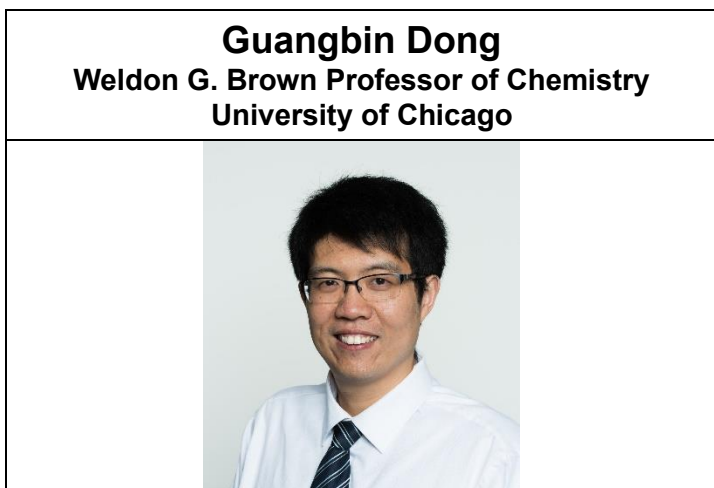
Mitsui Chemicals, Inc. (Head Office: Chuo-ku, Tokyo; President & CEO: HASHIMOTO Osamu) is pleased to announce the winners of the 2024 Mitsui Chemicals Catalysis Science Award and the Mitsui Chemicals Catalysis Science Award for Creative Work.

The awards have been established in 2004 with the aim of contributing to the sustainable development of chemistry and the chemical industry by recognizing researchers who have made outstanding achievements in catalysis science. The first awards were given in March 2005. Now in its 10th iteration, this year's awards again saw numerous applicants. Following thorough examination and consideration by our Selection Committee, the winners have been selected as listed below.

The award ceremony, as well as commemorative lectures by the winners, will be held in autumn 2024. (For further details, please see the addendum below.)

Winner of the 2024 Mitsui Chemicals Catalysis Science Award

Guangbin Dong
Weldon G. Brown Professor of Chemistry
University of Chicago



Winners of the 2024 Mitsui Chemicals Catalysis Science Award for Creative Work

Keary Mark Engle
Professor
The Scripps Research Institute



Ming Joo Koh
Associate Professor
National University of Singapore



Addendum

1. The winners and their achievements for the awards

Winner of the 2024 Mitsui Chemicals Catalysis Science Award

<p style="text-align: center;">Guangbin Dong Weldon G. Brown Professor of Chemistry University of Chicago</p> <p style="text-align: center;">“Revolutionary development of the catalytic carbon-carbon bond activation, the palladium/norbornene cooperative catalysis and carbonyl functionalization methods, enabling streamlined and efficient organic synthesis”</p>
<p>Dr. Guangbin Dong has established an original and creative research program in the development of new catalytic methods for the activation and subsequent functionalization of inert chemical bonds. In particular, his work on catalytic C–C bond activation, palladium (Pd)/norbornene cooperative catalysis, and atom-efficient carbonyl functionalization has had a significant impact on synthetic chemistry. These innovative research achievements have contributed to the development of green chemistry processes and have the potential to make a significant impact in fields such as pharmaceutical and natural product synthesis.</p>

Winners of the 2024 Mitsui Chemicals Catalysis Science Award for Creative Work

<p style="text-align: center;">Keary M. Engle Professor The Scripps Research Institute</p> <p style="text-align: center;">“Discovery of selective, predictable, and modular alkene functionalization methods and the development of widely used organometallic precatalysts”</p>	<p style="text-align: center;">Ming Joo Koh Associate Professor National University of Singapore</p> <p style="text-align: center;">“Developing base metal catalysis and radical chemistry for sustainable organic synthesis”</p>
<p>Using unique catalysis based on nickel (Ni) and palladium (Pd), Dr. Keary M. Engle has achieved innovative functionalization of unactivated alkenes, including 1,2-difunctionalization, C(alkenyl)-H functionalization and conjunctive cross-coupling. These highly controlled reactions are facilitated by specially designed directing groups or, in some cases, even in their absence. Many of the novel Ni(0) pre-catalysts developed by his group have been commercialized and are now widely used in various catalytic applications. These achievements are recognized as significant contributions to the field of catalysis science.</p>	<p>Dr. Ming Joo Koh has developed directing group-free selective cross-coupling and functionalization reactions of alkenes catalyzed by complexes of earth abundant metals such as iron (Fe), nickel (Ni), and copper (Cu). Furthermore, he has also expanded his research into C-glycosylation using Fe- and Ni-catalysts and has succeeded in synthesizing a variety of unique sugar derivatives. Further developments are expected in future.</p>

2. Award ceremony and commemorative lectures by the winners

Mitsui Chemicals will be holding “Catalysis Science Forum”, where the awardees will deliver commemorative lectures that will be followed by the award ceremony. The forum will take place as a part of the “14th CSJ Chemistry Festa 2024” held by the Chemical Society of Japan.

1. Date: October 24, 2024
2. Venue: Tower Hall Funabori, Edogawa-ku, Tokyo, Japan