

KAWAI, Maki
Director General



21st L'Oréal-UNESCO For Women in Science Awards
“Using Chemistry and Physics to Address Pressing Environmental Issues”

The 2019 (21st) L'Oréal-UNESCO For Women in Science Awards was awarded to Director General Dr. Maki Kawai for her ground-breaking work in manipulating molecules at the atomic level. The Awards are presented every year to five women in recognition of their scientific accomplishments. Her exceptional research has been recognized as establishing the foundations of nanotechnologies at the forefront of discoveries of new chemical and physical phenomena that stand to address critical environmental issues such as energy efficiency. In particular, she explored surface chemical reactions at a nanoscopic level using vibrational spectroscopy. She also succeeded in manipulating surface atoms and converting the energy absorbed to generate certain chemical reactions on a surface. This could lead to ground-breaking physical and chemical discoveries, and pave the way to creating innovative materials with improved characteristics.

2018 Honorary Fellow of the Royal Society of Chemistry

Director General Dr. Maki Kawai has been elected as a Honorary Fellow of the Royal Society of Chemistry for her significant contribution to chemical science. The Royal Society of Chemistry (RSC) was founded in 1841. The RSC is the world's leading chemistry community with the aims of advancing chemistry, developing its applications, and disseminating chemical knowledge. Their Honorary Fellows are annually nominated by Members of Council, Division Presidents, Chairs of Committees, Section Chairs and other Interest Groups. The RSC currently have 115 Honorary Fellows of world-leading chemists.

FUJITA, Makoto
Division of Advanced Molecular
Science



2019 the Imperial Prize and the Japan Academy Prize
“Crystalline Sponge Method: Innovation of X-Ray Crystallography and its Development into Molecular Science and Technology”

In the train of the big awarding of the 2018 Wolf Prize, distinguished Professor Makoto Fujita has been awarded the Imperial Prize and the Japan Academy Prize for “Crystalline Sponge Method: Innovation of X-Ray Crystallography and its Development into Molecular Science and Technology.” The Imperial Prize is the most prestigious prize among the prizes awarded by the Japan Academy, and elected from the recipients of the Japan Academy Prize. Professor Fujita introduced the concept of “metal-guided synthesis” or “metal-directed self-assembly” for creating large, stable cyclic and three-dimensional molecular structures. The 3D structures form a regular “cage” that can be used as “containers” for other molecules. One revolutionary application of these structures is to capture other molecules within those spaces allowing the use of standard X-ray crystallography to determine structures without the need to obtain a crystallized sample. This method, also known as the “crystalline sponge method,” should make a paradigm shift in a wide variety of scientific fields.

YAMAMOTO, Hiroshi
Research Center of Integrative
Molecular Systems

The Chemical Society of Japan Award for Creative Work
“Studies on Phase-Transition Devices Based on Organic Mott Insulators”

TAIRA, Takunori
Division of Research Innovation
and Collaboration

Fellow, The Laser Society of Japan
“Outstanding Contribution in Research and Development of Lasers and Related Fields, and Leadership Role to the Development of the Laser Society of Japan and the General Public”

MINAMITANI, Emi
Theoretical and Computational
Molecular Science

The Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology The Young Scientists' Prize
“Theoretical Study on Quantum Many-Body Interaction at Surface and Interfaces”

KOBAYASHI, Genki
Materials Molecular Science

The 7th Nagoya University Ishida Prize
“Study on Hydride Ion Conductive Oxyhydrides”
Tagawa Solid State Chemistry Award
“Material Research on Hydride Ion Conductors”

MASAOKA, Shigeyuki
Life and Coordination-Complex
Molecular Science

The 25th Yomiuri Techno Forum Gold Medal Prize
“Development of Metal Complex Catalysts Inspired by Photosynthesis”

MORI, Toshifumi
Theoretical and Computational
Molecular Science

The 11th Young Scientist Awards of the Japan Society for Molecular Science
“Theoretical Studies of Reaction Dynamics in Gas and Condensed Phases”

NAGASAKA, Masanari Photo-Molecular Science	The 8 th Young Scientist Award of National Institutes of Natural Sciences “Molecular Interactions in Liquid Phase Observed by Operando Soft X-Ray Absorption Spectroscopy”
IZAWA, Seiichiro Materials Molecular Science	Young Scientist Presentation Award at 10 th International Conference on Molecular Electronics and Bioelectronics (M&BE10) “Controlling Donor/Acceptor Interfacial Structures in Organic Solar Cells”
NAKAMURA, Akihiko Life and Coordination-Complex Molecular Science	ATI Research Encouragement Award “Functional and Structural Analysis of Unidirectional Movement of ‘Energy-Saving’ Linear Motor”
TAKAYAMA, Takashi Instrument Center	The Chemical Society of Japan Award for Technical Achievements for 2018 “Development of Cryogenic Technology and Achievement of Stable Supply of Cryogen”
MIZUTANI, Nobuo Equipment Development Center	The Chemical Society of Japan Award for Technical Achievements for 2018 “Design and Fabrication of Experimental Equipment for Molecular Science”