

KAWAI, Maki
Former Director General

Person of Cultural Merit in 2021

Former Director General Maki Kawai was honored by the Minister of Education, Culture, Sports, Science and Technology as a Person of Cultural Merit in 2021 for her outstanding contributions to research on molecules on surfaces. The highest honor for cultural figures is the Order of Cultural Merit, but since the Constitution of Japan stipulates that the Order of Cultural Merit does not entail any privileges, the Person of Cultural Merit system was established to reward contributors to culture by providing them with pensions. The Person of Cultural Merit is an honor equivalent to the Order of Cultural Merit. Former Director General Maki Kawai has led the world in the field of research on molecules on surfaces. She has realized single-molecule chemical reactions using scanning tunneling microscope (STM). She also realized single-molecule vibrational spectroscopy by “action spectroscopy” using STM, which opened a new way for the study of the dynamics of molecules on surface. We hope that Former Director General Maki Kawai will continue to lead not only the surface science but also all the natural sciences in Japan.

OHMORI, Kenji
Photo-Molecular Science

National Medal with Purple Ribbon “For His Achievements on Quantum Physics”

Professor Kenji Ohmori is awarded a national honor, the Medal with Purple Ribbon, by His Majesty the Emperor of Japan for his achievements on quantum physics. The Medal with Purple Ribbon is awarded for inventions and discoveries in science and technology, and for outstanding achievements in the fields of science, sports, art and culture.

Professor Ohmori, in the field of quantum physics, has developed a revolutionary method in which the relative oscillation timing of two laser electric fields is controlled with attosecond precision, and imprinted on the wave functions of matter to control their interference almost perfectly. He has applied this method to various phases of matter including atoms, molecules, solids and artificial crystal of ultracold atoms cooled down to temperatures close to absolute zero, making significant contributions to the advancement of the relevant fields of science. These achievements have been highly appreciated, leading to the nation's Medal with Purple Ribbon this time.

Professor Ohmori is currently leading large-scale/long-term national projects on the development of ultrafast quantum computers and simulators, expected as one of the top runners in the quantum technologies to further promote its progress.

KOBAYASHI, Genki
Materials Molecular Science

NAGAI Foundation for Science & Technology Academic Award “Development of Elemental Technologies for Pioneering Hydride Ion Conductive Materials and Creating Novel Electrochemical Devices”

SEGAWA, Yasutomo
Life and Coordination-Complex
Molecular Science

Thieme Chemistry Journals Award 2022 “Chemical Synthesis, Catalysis, and Related Areas of Organic Chemistry” Chemist Award BCA 2021 “Synthesis and Properties of Nonplanar Aromatic Hydrocarbons” 62nd Academic Encouragement Award from the Ube Industries Foundation “Development of Crystalline Organic Semiconducting Materials by the Topological Control of Three-Dimensional Structures”

MINATO, Taketoshi
Instrument Center

RIEC Award “Development of the Design Principles of Rechargeable Batteries as Mobile Power by Controlling Electrode/Electrolyte Interface”

IZAWA, Seiichiro
Materials Molecular Science

NF Foundation R&D Encouragement Award “Photon Upconversion at an Organic Semiconductor Interface” The 11th Young Scientist Award of National Institutes of Natural Sciences “Novel Photon Up-Conversion for Low Energy Light Utilization” Morino Foundation for Molecular Science “Exploring Efficient Photoconversion System at Organic Semiconductor Interface”

OKUMURA, Shintaro
Life and Coordination-Complex
Molecular Science

The Society of Synthetic Organic Chemistry, Fujifilm Research Proposal Award, 2021 “Photocatalytic Umpolung of Carbonyl Compounds by Activation with Carbon Dioxide”

FURUIKE, Yoshihiko
Research Center of Integrative
Molecular Systems

The Early Career Award in Biophysics “Visualizing a Day of Circadian Clock at Atomic Resolution” SPRUC 2022 Young Scientist Award “Elucidation of Master Allostery Essential for Circadian Clock Oscillation in Cyanobacteria”

AWARDS

YONEDA, Yusuke
Research Center of Integrative
Molecular Systems

The Early Career Award in Biophysics
“Exciton-Charge Transfer Mixing Drives Oxygenic Photosynthesis”

TOYODA, Tomonori
Equipment Development Center

The Chemical Society of Japan Award for Technical Achievements for 2021
“Development of Arithmetic Instruments in Photo-Induced Force Microscope and
Control Systems for Promoting Molecular Science”