

SELECTED GRANTS

DIVISION OF SYNTHETIC CHEMISTRY

— Organoelement Chemistry —

Tokitoh, N.
New Main Group Element Chemistry and Materials Science
Based on Heavy Aryl Anions
Grant-in-Aid for Scientific Research (S)
26 June 2019–31 March 2024

Tokitoh, N.
Synthesis of Hexasilabenzene
Grant-in-Aid for Challenging Research (Pioneering)
1 April 2020–31 March 2022

Yukimoto, M.
Creation of Tautomerizable Heavy Amides
Grant-in-Aid for Early-Career Scientists
1 April 2022–31 March 2024

— Structural Organic Chemistry —

Murata, Y.
Creation and Development of Nanoscale Laboratory
Grant-in-Aid for Scientific Research (S)
31 May 2017–31 March 2022

Hirose, T.
Creation of Asymmetric Molecular Functions Based on the
Precise Molecular Arrangements of Helical π -Conjugated
Compounds
PRESTO (Precursory Research for Embryonic Science and
Technology), JST
1 December 2020–31 March 2024

Hashikawa, Y.
Creation of Carbon Nanocages Targeting Single Molecule
Chemistry
Grant-in-Aid for Early-Career Scientists
1 April 2020–31 March 2022

Hashikawa, Y.
Creation of Metal-Doped Spherically π -Conjugated Systems
ISHIZUE 2022 of Kyoto University
1 April 2022–31 March 2023

Hashikawa, Y.
Creation of Functional Elbow-Shaped Nanocarbon Materials
The Mazda Foundation
1 November 2022–31 March 2024

Hashikawa, Y.
Construction of Higher Order Structures Integrated by Precisely
Arranged Hydroxy Groups in a 3D Manner
Grant-in-Aid for Scientific Research on Innovative Areas
(Research in a Proposed Research Area)
1 April 2020–31 March 2022

Hashikawa, Y.
Creation of Experimental Hydration Models Based on Spherical
 π -Systems
Grant-in-Aid for Scientific Research on Innovative Areas
(Research in a Proposed Research Area)
1 April 2022–31 March 2024

Zhang, S.
Creation of Expanded and Heteroatom-Embedded New
Fullerenes
Grant-in-Aid for JSPS Fellows
11 October 2019–31 March 2022

— Synthetic Organic Chemistry —

Ohmiya, H.
Development of Highly Selective Reactions Based on Organo/
Metal Hybrid Catalysis
Grant-in-Aid for Scientific Research on Innovative Areas
(Research in a Proposed Research Area)
30 June 2017–31 March 2022

Ohmiya, H.
Development of Organocatalysis Enabling Controlled Reactions
by Electrons
PRESTO (Precursory Research for Embryonic Science and
Technology), JST
1 October 2019–31 March 2023

Ohmiya, H.
Organocatalytic Chemistry Pioneered by Radicals
Grant-in-Aid for Scientific Research (A)
5 April 2021–31 March 2025

Ueda, Y.
Catalytic Asymmetric Synthesis of Inherently Chiral Calixarenes
and Its Application to Unique Molecular Recognition
Grant-in-Aid for Scientific Research (C)
1 April 2020–31 March 2023

Ueda, Y.
Selective Chemical Transformation of Specific Sugars for Diver-
sification of Glycan Mediating Membrane Dynamics
Grant-in-Aid for Transformative Research Areas (B)
23 August 2021–31 March 2024

Abbreviations and Acronyms

AMED : Japan Agency for Medical Research and Development
JSPS : Japan Society for the Promotion of Science
JST : Japan Science and Technology Agency
MEXT : Ministry of Education, Culture, Sports, Science and Technology
NEDO : New Energy and Industrial Technology Development Organization

Nagao, K.
Bond Formation through Non-Acidic Catalytic Generation of Carbocation
Grant-in-Aid for Early-Career Scientists
1 April 2021–31 March 2024

Nagao, K.
Catalytic Generation of Sulfur Cation Radical Species by Dynamic Exciton and Its Application to Bond Formation Reactions
Grant-in-Aid for Transformative Research Areas (A)
10 September 2021–31 March 2023

— **Advanced Inorganic Synthesis** —

Teranishi, T.
Nanoscale Element Replacement Science: Structural Transformation of Nanocrystalline Phases and Development of Novel Functions
Grant-in-Aid for Scientific Research (S)
26 June 2019–31 March 2024

Teranishi, T.
Synthesis of Unprecedented Ordered Alloy Nanoparticles and Development of Their Structure-Specific Properties
Grant-in-Aid for Challenging Research (Exploratory)
28 June 2019–31 March 2022

Teranishi, T.
Creation of Unprecedented Nanomaterials by Precious Arrangement of Atomic Layers and Crystal Phases
CREST (Core Research for Evolutional Science and Technology), JST
1 October 2021–31 March 2027

Sakamoto, M.
Infrared Light Responsive Photocatalyst for Infrared Light to Energy Conversion
Grant-in-Aid for Scientific Research (B)
1 April 2018–31 March 2022

Saruyama, M.
Synthesis and Function of Diverse Three-Dimensional Inorganic Nanoparticle Superstructures
Grant-in-Aid for Challenging Research (Exploratory)
30 July 2020–31 March 2023

Sakamoto, M.
Development of Flexible and Transparent Conductive Sheet A-STEP (Adaptable and Seamless Technology Transfer Program through Target-Driven R&D), JST
1 December 2020–31 March 2023

Sakamoto, M.
Development of Transparent Solar Cells Converting Infrared Light
FOREST (Fusion Oriented Research for Disruptive Science and Technology), JST
1 January 2021–31 March 2023

Sakamoto, M.
Infrared Light Responsive Photocatalyst for Infrared Light to Energy Conversion
Grant-in-Aid for Scientific Research (A)
5 April 2021–31 March 2026

Takahata, R.
Modeling of Defects and Exploration of Novel Materials by Using Cadmium Chalcogenide Clusters with Definite Structures
Grant-in-Aid for Early-Career Scientists
1 April 2021–31 March 2024

Saruyama, M.
Creation of Structure-Specific Reaction Sites through Self-Assembly of Nanocrystals
FOREST (Fusion Oriented Research for Disruptive Science and Technology), JST
1 April 2022–31 March 2025

Sato, R.
Scientific Principles of Visible Plasmonic Nanoalloys
Grant-in-Aid for Scientific Research (B)
1 April 2018–31 March 2022

Matsumoto, K.
Inter-Element Miscibility Driven Rearrangement from Disordered to Long-Range Ordered Alloy Structures
Grant-in-Aid for Early-Career Scientists
1 April 2022–31 March 2025

Trinh, T.
Evolution of New Magnetic Materials with Ultrahigh Coercivity
Grant-in-Aid for Early-Career Scientists
1 April 2019–31 March 2022

DIVISION OF MATERIALS CHEMISTRY
— **Chemistry of Polymer Materials** —

Tsujii, Y.
Development of High-Performance Sliding Parts with Concentrated Polymer Brushes (CPB) and Their Application to Devices A-STEP (Adaptable and Seamless Technology Transfer Program through Target-Driven R&D), JST
1 December 2020–31 March 2025

Tsujii, Y.
Hierarchical Understanding and Controlling the Wear Phenomena of Ultralow-Friction Polymer Brushes
CREST (Core Research for Evolutional Science and Technology), JST
1 October 2021–31 March 2027

Tsujii, Y.
Development of Next-Generation Ship-Bottom Coating and Coating Process toward Energy Saving and Low Environmental Load
Environment Research and Technology Development Fund, ERCA (Environmental Restoration and Conservation Agency)
1 April 2022–31 March 2025

— **Polymer Controlled Synthesis** —

Yamago, S.
Development of New Fabrication Methods of Polymer Materials Based on the Structurally Controlled Hyperbranched Polymers
Grant-in-Aid for Scientific Research (S)
5 July 2021–31 March 2026

Yamago, S.
International Research Center for Basic Organic Device Chemistry by True Integration of Synthesis and Device
Core-to-Core Program, JSPS
1 April 2022–31 March 2026

— **Inorganic Photonics Materials** —

Mizuochi, N.
Research of Quantum Sensing by Advanced Control of the Quantum State of NV Center in Diamond
Grant-in-Aid for Scientific Research (A)
5 April 2021–31 March 2024

Morishita, H.
Development of NV Quantum Spintronics Fundamental Technologies for Connecting Classical and Quantum Information
PRESTO (Precursory Research for Embryonic Science and Technology), JST
1 October 2021–31 March 2025

Morioka, N.
Study of Spin-Optical-Charge Dynamics of Defects in Silicon Carbide for Highly Efficient Electrical Spin Readout
Grant-in-Aid for Scientific Research (B)
1 April 2022–31 March 2025

Herbschleb, E. D.
Enhanced Quantum Sensing with a Nitrogen-Vacancy Centre as Gateway to the Electron Spin of Phosphorus
Grant-in-Aid for Early-Career Scientists
1 April 2022–31 March 2023

Hayashi, K.
2D Placement of Nano-Quantum Sensors on Diamond Surfaces
Grant-in-Aid for Early-Career Scientists
1 April 2021–31 March 2024

— **Nanospintronics** —

Ono, T.
Ferrimagnetic Spintronics and Device Application
Grant-in-Aid for Scientific Research (S)
31 August 2020–31 March 2025

Ono, T.
Development of 3D Magnetic Memory
CREST (Core Research for Evolutional Science and Technology), JST
1 October 2021–31 March 2027

Moriyama, T.
Spin Super Fluidity Using Antiferromagnet
PRESTO (Precursory Research for Embryonic Science and Technology), JST
1 December 2020–31 March 2024

Moriyama, T.
Antiferromagnetic THz Spintronics
Grant-in-Aid for Scientific Research (A)
5 April 2021–31 March 2024

Shiota, Y.
Polarization Control of Spin Wave Spin Current and Its Device Application
Grant-in-Aid for Scientific Research (B)
1 April 2022–31 March 2025

Hisatomi, R.
Observation of Spin Rotation Coupling toward Non-Inertial Spintronics
Grant-in-Aid for Early-Career Scientists
1 April 2020–31 March 2022

Hisatomi, R.
Optospinmechanics Using Surface Acoustic Waves
PRESTO (Precursory Research for Embryonic Science and Technology), JST
1 November 2020–31 March 2024

Narita, H.
Control of Superconductivity by Noncollinear Magnetism
Grant-in-Aid for Early-Career Scientists
1 April 2021–31 March 2024

DIVISION OF BIOCHEMISTRY
— **Biofunctional Design-Chemistry** —

Futaki, S.
Intracellular Fate of Extracellular Fine Particles and the Control System
CREST (Core Research for Evolutional Science and Technology), JST
1 October 2018–31 March 2024

Imanishi, M.
Biological Function of Non-Canonical Nucleic Acids
Grant-in-Aid for Transformative Research Areas (B)
23 August 2021–31 March 2024

Kawaguchi, Y.
Intracellular Delivery and Phase Separation Control of Antibodies Based on Coacervate
Strategic Basic Research Programs ACT-X, JST
1 April 2022–31 March 2025

Hirose, H.
Search for Peptides that Promote Internalization and Endoplasmic Release of Extracellular Vesicles
Grant-in-Aid for Scientific Research (C)
1 April 2022–31 March 2025

— **Chemistry of Molecular Biocatalysts** —

Yamaguchi, S.
Molecular Mechanisms for the Timing of the Production of Stem Cells in Plants
Grant-in-Aid for Scientific Research on Innovative Areas (Research in a Proposed Research Area)
30 June 2017–31 March 2022

Mashiguchi, K.
Analysis of the Novel Enzymes Responsible for the Non-Canonical Strigolactone Biosynthesis
Grant-in-Aid for Scientific Research (B)
1 April 2019–31 March 2024

— **Molecular Biology** —

Aoyama, T.
Roles of Phosphoinositid Signaling in Plant Cell Morphogenesis
Grant-in-Aid for Scientific Research (B)
1 April 2021–31 March 2024

Tsuge, T.
Molecular Mechanism Governing Plant Plasticity through Pre-mRNA 3'UTR Regulation
Grant-in-Aid for Scientific Research (C)
1 April 2022–31 March 2025

Kato, M.
Phosphoinositides Involved in Pollen Germination
Grant-in-Aid for Scientific Research (C)
1 April 2021–31 March 2025

— **Chemical Biology** —

Uesugi, M.
Designer Melanin for Analyzing and Controlling Cells
Grant-in-Aid for Challenging Research (Exploratory)
9 July 2021–31 March 2023

Uesugi, M.
Asian Chemical Biology Initiative
Core-to-Core Program, JSPS
1 April 2022–31 March 2025

Uesugi, M.
Chemical Biology of Cellular Self-Assemblies
Grant-in-Aid for Scientific Research (A)
1 April 2022–31 March 2025

Uesugi, M.
Development of Artificial Chaperones
Grant-in-Aid for Transformative Research Areas (A)
16 June 2022–31 March 2024

Uesugi, M.
Grand Design Platform and Database for the Development of
Innovative Adjuvant and Vaccine Carrier
P-PROMOTE (Project for Promotion of Cancer Research and
Therapeutic Evolution), AMED
20 May 2022–31 March 2024

Uesugi, M.
PD-1 Blockade Cancer Immunotherapy Combined with Small
Molecule Activators of T Cell Fatty Acid Oxidation
Program on R&D of New Generation Vaccine Including New
Modality Application, AMED
1 July 2022–31 March 2027

Sato, S.
Understanding Cellular Function with Short RNAs and Small
Molecules
Grant-in-Aid for Scientific Research (B)
1 April 2020–31 March 2023

Sato, S.
A New Oligonucleotide Therapeutics that Induces a Cooperative
RNA G-Quadruplex Formation for Gene Silencing
Grant-in-Aid for Challenging Research (Pioneering)
9 July 2021–31 March 2025

Takemoto, Y.
Exploration of Radical-Sensitive Signal Peptide
Grant-in-Aid for Scientific Research (C)
1 April 2022–31 March 2025

Takemoto, Y.
Understanding and Application of Radical-Sensitive Peptide
Takeda Science Foundation
1 September 2021–31 May 2024

Abo, M.
Development of Self-Assembling Chemicals which Have
Chaperone Activity in Live Cells
Grant-in-Aid for Scientific Research (C)
1 April 2021–31 March 2024

Takemoto, M.
Mechanistic Analysis for the Immune Activation of T Cells by
Covalent Natural Compounds
Grant-in-Aid for Scientific Research (C)
1 April 2022–31 March 2025

DIVISION OF ENVIRONMENTAL CHEMISTRY

— **Molecular Materials Chemistry** —

Kaji, H.
Material Design Based on Dynamic Excitation and Their
Applications
Grant-in-Aid for Transformative Research Areas (A)
19 November 2020–31 March 2025

Suzuki, K.
Spatiotemporal Analysis of Dynamic Excitation by Solid-State
NMR
Grant-in-Aid for Transformative Research Areas (A)
19 November 2020–31 March 2025

Shizu, K.
A Unified Theory of Electronic Transition Rate Constants for
High Throughput Materials Screening
Grant-in-Aid for Scientific Research (C)
1 April 2022–31 March 2025

— **Hydrospheric Environment Analytical Chemistry** —

Sohrin, Y.
Ocean Section Diagnosis on the Basis of Stoichiometry and
Stable Isotope Ratios of Trace Metals
Grant-in-Aid for Scientific Research (A)
1 April 2019–31 March 2023

Takano, S.
Isotopic Analysis for Estimating the Sources of Particulate Trace
Metals in the Ocean
Grant-in-Aid for Early-Career Scientists
1 April 2020–31 March 2023

Takano, S.
Analysis of Silver Isotope Ratios in River Water
Mitsumasa Ito Memorial Research Grant, Research Institute for
Ocean Chemistry Foundation
1 April 2022–31 March 2023

Zheng, L.
Speciation and Sectional Distribution of Al, Mn, Fe, Co, Ni, Cu,
Zn, Cd, and Pb in the South Pacific and Indian Oceans
Grant-in-Aid for Early-Career Scientists
1 April 2021–31 March 2024

Zheng, L.
The Effect of UV Irradiation on the Determination of Trace
Metals in the Seawater
Mitsumasa Ito Memorial Research Grant, Research Institute for
Ocean Chemistry Foundation
1 April 2022–31 March 2023

— **Chemistry for Functionalized Surfaces** —

Hasegawa, T.
Innovation in Control of Physical Properties of Polymer Thin-
Film Materials by Micro-Morphology Analysis of Amorphous
Grant-in-Aid for Challenging Research (Exploratory)
9 July 2021–31 March 2024

Hasegawa, T.
Evolution of Near-Infrared Spectroscopy for Materials Structure Analysis: Development of NIR-MAIRS
Grant-in-Aid for Scientific Research (B)
1 April 2022–31 March 2026

Shioya, N.
Visualization of Monolayer Structures Specifically Formed by Functional Organic Materials at the Substrate Interface
Grant-in-Aid for Early-Career Scientists
1 April 2022–31 March 2025

— **Molecular Microbial Science** —

Kurihara, T.
Dissection of the Molecular Basis of Membrane Vesicle Biogenesis and Construction of an Extracellular Platform for Substance Production by Using a Hyper-Vesiculating Bacterium
Grant-in-Aid for Challenging Research (Pioneering)
30 July 2020–31 March 2023

Kurihara, T.
Molecular Basis for Generation of the Diversity of Bacterial Membrane Phospholipid Acyl Chains and Mechanisms Underlying their Physiological Functions
Grant-in-Aid for Scientific Research (B)
1 April 2021–31 March 2024

Kawamoto, J.
A Novel Platform for Functional Nanoparticle –The Synthesis Mechanism of Unique Outer-Membrane Vesicles of Bacteria and Its Application–
Grant-in-Aid for Scientific Research (C)
1 April 2020–31 March 2023

Kawamoto, J.
Development of Low-Temperature Biotechnology based on Bacterial Outer Membrane Vesicles
Asahi Glass Foundation
1 April 2022–31 March 2023

Kawamoto, J.
Elucidation of Outer-Membrane Vesicle Production of a Cold-Adapted Bacterium and its Application
Aid for Research of Sugiyama Chemical & Industrial Laboratory
1 April 2022–31 March 2023

Ogawa, T.
Exploration and Functional Elucidation of a Novel Protein Involved in the Metabolism of ω -3 Polyunsaturated Fatty Acids in Bacteria
Grant-in-Aid for Early-Career Scientists
1 April 2019–31 March 2022

Ogawa, T.
Study on the Metabolic Conversion of Omega-3 Polyunsaturated Fatty Acids through a Reconsideration of Beta-Oxidation Pathway
Grant-in-Aid for Scientific Research (C)
1 April 2021–31 March 2024

DIVISION OF MULTIDISCIPLINARY CHEMISTRY
— **Molecular Rheology** —

Matsumiya, Y.
Molecular Dynamics of Associative Polymers and Its Experimental Validation: Effect of Dissociation Equilibrium on Entanglement Relaxation Modes
Grant-in-Aid for Scientific Research (B)
1 April 2021–31 March 2024

Sato, T.
Development of Coarse-Grained Molecular Model for Predicting Dynamics of Entangled Associating Polymers
Grant-in-Aid for Early-Career Scientists
1 April 2021–31 March 2024

Sato, T.
A New Fluid Science for Non-Newtonian/Non-Uniform/Non-Equilibrium Flows
PRESTO (Precursory Research for Embryonic Science and Technology), JST
1 April 2022–31 March 2026

— **Molecular Aggregation Analysis** —

Wakamiya, A.
Fundamental Chemical Research for Efficient Lead Free Perovskite Solar Cells
Grant-in-Aid for Scientific Research (A)
5 April 2021–31 March 2024

Wakamiya, A.
Pb-Free Perovskite Solar Cells Consisting of Sn
Mirai Program, JST
1 April 2022–31 March 2027

Murdey, R.
Aging and Passivation Effects in Perovskite Solar Cells
Grant-in-Aid for Scientific Research (C)
1 April 2019–31 March 2022

Nakamura, T.
Two-Dimensionally Expanded pi-Systems for High-Performance Tin Perovskite Solar Cells
Grant-in-Aid for Early-Career Scientists
1 April 2021–31 March 2023

Truong, M. A.
Development of Charge-Transporting Materials for Efficient Tin-Based Perovskite Solar Cells
Grant-in-Aid for Research Activity Start-up
11 September 2020–31 March 2022

Truong, M. A.
Development of Multipodal Hole-Transporting Monolayer Materials for High Performance Perovskite Solar Cells
Grant-in-Aid for Early-Career Scientists
1 April 2022–31 March 2024

ADVANCED RESEARCH CENTER FOR BEAM SCIENCE
— **Particle Beam Science** —

Wakasugi, M.
Development of Fixed Unstable Nuclear Target for Unclear Reaction Study of Rare RI
Grant-in-Aid for Challenging Research (Pioneering)
30 July 2020–31 March 2023

Tsukada, K.
Isotope Dependences of Nuclear Charge Distributions and Neutron Radius by Electron Scattering
Grant-in-Aid for Scientific Research (A)
1 April 2020–31 March 2025

Ogawara, R.
Development of Prototype Device for Ion Extraction System with Resonant Oscillation
Grant-in-Aid for Early-Career Scientists
1 April 2020–31 March 2022

Ogawara, R.
Development of Internal Active Target for Beam Recycling Technology
Grant-in-Aid for Early-Career Scientists
1 April 2022–31 March 2024

— **Laser Matter Interaction Science** —

Tokita, S.
Formation of Ultrashort Femtosecond Pulses in the Mid-Infrared Range Based on Iron-Doped Chalcogenides for Problems of Nonlinear Optics of Media with a Reduced Dimension
Bilateral Joint Research Projects, JSPS
1 April 2021–31 March 2023

Tokita, S.
Development of Mid-Infrared High-Power Ultrashort Pulse Lasers and Its Application to Soft-Matter Micro-Processing
Grant-in-Aid for Scientific Research (B)
1 April 2021–31 March 2024

Tokita, S.
Development of an Industrial Femtosecond Laser
A Project of NEDO
15 January 2021–31 March 2023

Tokita, S.
The Power Laser DX Platform
Project for Promoting Public Utilization of Advanced Research Infrastructure, MEXT
1 April 2021–31 March 2026

Hashida, M.
Operando Measurements Using Advanced Beams to Study the Mechanism of Fine Structure Formation
Q-LEAP (Quantum Leap Flagship Program), MEXT
1 April 2018–31 March 2028

— **Electron Microscopy and Crystal Chemistry** —

Kurata, H.
Analysis of Electronic Structure by Aloof Beam EELS
Grant-in-Aid for Challenging Research (Exploratory)
28 June 2019–31 March 2022

Haruta, M.
Visualization of Electronic Orbitals by Transmission Electron Microscopy
Grant-in-Aid for Scientific Research (B)
1 April 2022–31 March 2025

Haruta, M.
High Spatical and High Energy Resolution Electronic State Mapping
Grant-in-Aid for Scientific Research (B)
1 April 2019–31 March 2022

INTERNATIONAL RESEARCH CENTER FOR ELEMENTS SCIENCE
— **Synthetic Organotransformation** —

Nakamura, M.
Application and Evaluation of Quantum Effect Control in Iron-Catalyzed Cross Coupling
Grant-in-Aid for Scientific Research (B)
1 April 2020–31 March 2023

— **Advanced Solid State Chemistry** —

Shimakawa, Y.
Exploring for Novel Multicaloric Materials
Grant-in-Aid for Challenging Research (Pioneering)
30 July 2020–31 March 2024

Shimakawa, Y.
Exploring for Novel Functional Oxide Materials by Advanced High-Pressure Synthesis and Evaluation of the Structure-Property Relationships
Fund for the Promotion of Joint International Research (Fostering Joint International Research (B))
7 October 2022–31 March 2028

Shimakawa, Y.
High-Pressure Synthesis of Novel Transition-Metal Oxides and Exploring Their Functional Properties
Grant-in-Aid for Scientific Research (A)
1 April 2020–31 March 2024

— **Organometallic Chemistry** —

Ohki, Y.
Electron Transfer Networks of Transition Metal Cluster Complexes for Catalytic Applications
CREST (Core Research for Evolutionary Science and Technology), JST
1 October 2021–31 March 2027

Ohki, Y.
Synthesis and Reactions of Mo-Fe-S Clusters Toward Understanding of the Mechanism of Nitrogenase
Grant-in-Aid for Scientific Research (B)
1 April 2019–31 March 2022

Ohki, Y.
Synthesis of Metal-Nanoclusters of Iron Group Metals
Grant-in-Aid for Challenging Research (Exploratory)
30 July 2020–31 March 2023

Ohki, Y.
Synthesis and Reactions of Bio-Inspired Molecular Metal-Hydride Compounds
Grant-in-Aid for Scientific Research on Innovative Areas (Research in a Proposed Research Area)
1 April 2021–31 March 2023

Tanifuji, T.
Structure-Function Relationships of a Fe/Mo-S-C Cluster Unique to N₂-Reducing Enzymes
Grant-in-Aid for Research Activity Start-up
30 August 2021–31 March 2023

Tanifuji, T.
CO₂/CO Reduction into Short-Chain Hydrocarbons Promoted by Cuboidal Metal-Sulfur Clusters
Grant-in-Aid for Scientific Research (C)
1 April 2022–31 March 2025

Higaki, T.
Atomically Precise Synthesis of Iron-Group Metal Nanoclusters to Probe the Origin of Superparamagnetism
Grant-in-Aid for Research Activity Start-up
31 August 2022–31 March 2024

— Nanophotonics —

Kanemitsu, Y.
Design of Next-Generation Flexible Photonic Devices Based on Metal Halide Perovskites
CREST (Core Research for Evolutionary Science and Technology), JST
1 September 2016–31 March 2022

Kanemitsu, Y.
Fusing Nanomaterials and Strong Electric Field Nonlinear Optics for New Advances in Photonics
Grant-in-Aid for Specially Promoted Research
23 April 2019–31 March 2024

Hirori, H.
Phononic Strong Coupling by THz Metamaterial and Its Applications to Material Control
Grant-in-Aid for Scientific Research (B)
1 April 2021–31 March 2025

BIOINFORMATICS CENTER

— Chemical Life Science —

Ogata, H.
Ecology of Giant Viruses Inhabiting the Aphotic Zone of the Sea
Grant-in-Aid for Scientific Research (A)
1 April 2022–31 March 2026

Ogata, H.
The Biosphere of Aggregated Particles Elucidating the Regulatory Mechanisms of Marine Carbon Cycles
Grant-in-Aid for Scientific Research (S)
1 April 2019–31 March 2023

Ogata, H.
Virus-Host Database
Grant-in-Aid for Publication of Scientific Research Results
1 April 2020–31 March 2025

Ogata, H.
Elucidation of the Virus-Driven Clockwork of the Marine Lower Trophic Level Ecosystem and Its Influence on Our Ocean
Grant-in-Aid for Scientific Research (S)
1 April 2021–31 March 2026

Ogata, H.
Study on the Molecular and Ecological Mechanisms of the Demise of Red Tides through Viral Infection
Grant-in-Aid for Scientific Research (A)
1 April 2022–31 March 2027

Endo, H.
Viral Infection and Its Control Mechanisms of Marine Plankton Communities as Revealed by Dissolved Ribosomal RNA
Grant-in-Aid for Scientific Research (B)
1 April 2022–31 March 2026

Endo, H.
Integrative Understanding of Marine Nitrogen Fixation Based on Global Observations from Tropics to Polar Regions
Grant-in-Aid for Scientific Research (B)
1 April 2022–31 March 2025

Okazaki, Y.
Who is the Host of Uncultivated Viruses? Linking Viral and Bacterial Genomes in the Environment
Grant-in-Aid for Early-Career Scientists
1 April 2022–31 March 2025

Okazaki, Y.
Challenging Dry Questions in Environmental Microbiology and Virology from Wet
Kyoto University 125th Anniversary Fund Kusunoki 125
1 April 2022–31 March 2025

Okazaki, Y.
Unveiling the Organic Matter Dynamics Functioning in Lake Hypolimnion
Grant-in-Aid for Scientific Research (A)
1 April 2022–31 March 2026

Okazaki, Y.
Microbial Nitrogen Pump: Bacterial Semi-Labile Dissolved Organic Nitrogen as a Nutrient Transport Pathway in Aquatic Systems
Grant-in-Aid for Scientific Research (B)
1 April 2021–31 March 2024

Okazaki, Y.
Elucidating the Molecular Heterogeneity of Dissolved Organic Matter that Governs Its Long-Term Persistence
Grant-in-Aid for Scientific Research (B)
1 April 2022–31 March 2025

Hikida, H.
Development of Novel Gene Engineering Technology Utilizing Giant Viruses
Strategic Basic Research Programs ACT-X, JST
1 October 2022–31 March 2025

Hikida, H.
Diversity of Giant Virus Infection Strategy
Grant-in-Aid for Early-Career Scientists
1 April 2022–31 March 2025

— **Mathematical Bioinformatics** —

Akutsu, T.
Analysis and Applications of Discrete Preimage Problems
Grant-in-Aid for Scientific Research (A)
1 April 2018–31 March 2022

Akutsu, T.
Advanced Studies and Developments on Discrete Preimage Problems
Grant-in-Aid for Scientific Research (A)
1 April 2022–31 March 2027

Akutsu, T.
Analysis and Control of Steady States of Multiple Biological Networks
Grant-in-Aid for Challenging Research (Exploratory)
30 June 2022–31 March 2025

Tamura, T.
Algorithms for Metabolic Network Design for Producing Useful Substances
Grant-in-Aid for Scientific Research (B)
1 April 2020–31 March 2025

— **Bio-knowledge Engineering** —

Mamitsuka, H.
Efficient Estimation of Data Structure from Multiple Tensors
Grant-in-Aid for Scientific Research (B)
1 April 2019–31 March 2022

Mamitsuka, H.
Integrative Diverse-Data Structure Estimation
Grant-in-Aid for Scientific Research (B)
1 April 2022–31 March 2025

Nguyen, H.
Machine Learning for Structure-Rich Data-Scarce Domains
Grant-in-Aid for Scientific Research (C)
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Nguyen, H.
Machine Learning on Large Graphs
Grant-in-Aid for Scientific Research (C)
1 April 2018–31 March 2022

Petschner, P.
Developing Machine Learning Based Bioinformatics to Decipher Hidden Biology of Depression Symptoms
Grant-in-Aid for JSPS Fellows
13 November 2020–31 March 2023