Categories	Reference number	Title of Research Project	Affiliation	Principle Researcher	Key Person in IAE
Planned joint research	ZE2023A-01	Ionics of super-locally-concentrated electrolytes	The University of Tokyo	Atsushi Kitada	Masato Katahira
Planned joint research	ZE2023A-02	Development and evaluation of Fe2M type bulk Laves compounds	Tohoku University	Ryuta Kasada	Juro Yagi
Planned joint research	ZE2023A-03	Structural analysis of lignocellulosic biomass by NMR spectroscopy toward decarbonized society	Kyoto University	Hiroshi Nishimura	Masato Katahira
Planned joint research	ZE2023A-04	Fermentation of a useful polysaccharide using hydrogen sulfide as energy source	Yokohama National University	Minoru Takeda	Masato Katahira
Planned joint research	ZE2023A-05	Influence of Alloying Elements on Radiation Damage Formation and Hydrogen Isotope Trapping in Tungsten	Toyama University	Yuji Hatano	Kiyohiro Yabuuchi
Planned joint research	ZE2023A-06	Visualization of mitochondrial temperature fluctuation towards the development of energy production system mimicking mitochondria	University of Occupational and Environmental Health	Reiko Sakaguchi	Takashi Morii
Planned joint research	ZE2023A-07	Determining the conditions of heat treatments for extending the lifetime of nuclear reactors (2)	Kumamoto University	Yoshitaka Matsukawa	Kiyohiro Yabuuchi
Planned joint research	ZE2023A-08	Development of anode/electrolyte interface for advanced Na-ion battery	Tottori University	Hiroki Sakaguchi	Toshiyuki Nohira
Planned joint research	ZE2023A-09	Formation of buffer layer on lithium-ion conductive electrolyte diaphragm for electrodialysis	Hirosaki University	Kazuya Sasaki	Juro Yagi
Planned joint research	ZE2023A-10	Photoinduced electron-transfer reactions of photosensitizers bound to the active site of enzyme	Nara Women's University	Hiroshi Takashima	Eiji Nakata
Planned joint research	ZE2023A-11	Constructing fluorescenet biosensor for visualizing nuclear localization signal of tanscription factor Sp1 involved in regulating metabolic pathway	Doshisha Women's College of Liberal Arts	Shunsuke Tajima	Eiji Nakata
Planned joint research	ZE2023A-12	Isolation of phase-separation regulatory long noncoding RNA and NMR analysis of its molecular mechanism	Saitama Medical University	Riki Kurokawa	Masato Katahira

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Planned joint research	ZE2023A-13	Novel pulsed terahertz source by super-radiance free electron laser oscillator	The University of Tokyo	Kazuyuki Sakaue	Heishun Zen
Planned joint research	ZE2023A-14	Structural basis of DNA recognition by the replication initiator ORC	Japan women's University	Shou Waga	Yudai Yamaoki
Planned joint research	ZE2023A-15	Applicaion of mode-selective phonon-excitation method in semiconductors of energy functionality with mid-infrared free-electron laser	Kyoto University	Kan Hachiya	Hideaki Ohgaki
Planned joint research	ZE2023A-16	Generation of High intensity THz pulse by superposition of undulator superradiant	Tohoku University	Shigeru Kashiwagi	Heishun Zen
Planned joint research	ZE2023A-17	Research for control of cell growth mechanism using viral protein-derived peptides	National Institute of Infectious Diseases	Hideki Kusunoki	Takashi Nagata
Planned joint research	ZE2023A-18	Change in hardness by hydrogen charging in tungsten irradiated with Fe and He ions	Kagoshima University	Koichi Sato	Kiyohiro Yabuuchi
Planned joint research	ZE2023A-19	Observation of a distribution of mode-selectively excited phonon on SiC	Kumamoto Industrial Research Institute	Kyohei Yoshida	Hideaki Ohgaki
Planned joint research	ZE2023A-20	Wavelength-dependent degradation of polyurethane with molecular vibrational excitation	High Energy Accelerator Research Organization	Takayasu Kawasaki	Heishun Zen
Planned joint research	ZE2023A-21	Study on development of compound-based anode for K-ion battery and on compatibility with ionic liquid electrolyte	Tottori University	Yasuhiro Domi	Takayuki Yamamoto
Planned joint research	ZE2023A-22	Ionaization energy of Ce3+ ion in multicomponent garnets determined by photoinduced free carier plasma absorption spectroscopy using a MIR free-electron laser	Yamagata University	Mamoru Kitaura	Heishun Zen
Planned joint research	ZE2023A-23	Analysis of transition from axisymmetric torus to helical axis toroidal plasma	Kyoto Institute of Technology	Akio Sanpei	Kazunobu Nagasaki
Planned joint research	ZE2023A-24	Experimental verification of hydrogen adsorption and desorption behavior for advanced neutron multipliers	National Institutes for Quantum and Radiological Science and Technology	Jae-Hwan KIM	Juro Yagi

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Planned joint research	ZE2023A-25	Development of Solid-State Emitters Appicable to Luminescent Solar Concentrators	Kyoto Institute of Technology	Masaki Shimizu	Hiroshi Sakaguchi
Planned joint research	ZE2023A-26	Study of Hydrogen Isotope Separation Technology by Molten Salt	Hokkaido University	Hisayoshi Matsushima	Toshiyuki Nohira
Planned joint research	ZE2023A-27	Evaluation of Irradiation Effects on High-Entropy Compound Superconductors	Yokohama National University	Naoko Oono	Kiyohiro Yabuuchi
Planned joint research	ZE2023A-28	Irradiation and Material Variables Dependence of Bubbles/Voids Formation in Fusion Reactor Structural Materials	University of California Santa Barbara	Takuya Yamamoto	Kiyohiro Yabuuchi
Planned joint research	ZE2023A-29	Irradiation Effects on Ceramics Coatings	Tohoku University	Sosuke Kondo	Kiyohiro Yabuuchi
Planned joint research	ZE2023A-30	Study and experiment of an interaction process between a low-density stacked CNT and a high-power	Kyoto University	Ryutaro Matsui	Kazunari Matsuda
Planned joint research	ZE2023A-31	NMR analysis of biomolecules for development of novel biomaterials	Chiba Institute of Technology	Taiichi Sakamoto	Takashi Nagata
Planned joint research	ZE2023A-32	Irradiation damage effect on plasma driven hydrogen isotope permeation for plasma facing materials	Shizuoka University	Yasuhisa Oya	Kiyohiro Yabuuchi
Planned joint research	ZE2023A-33	Investigation on interaction structure and dynamics of room-temperature ionic liquid solvation using pulse-selected MIR free-electron laser	Chiang Mai University	Sakhorn Rimjaem	Hideaki Ohgaki
Planned joint research	ZE2023A-34	Structural Analysis of Cell Wall Lignin for Advanced Biomass Utilization: Precise analysis of differences in lignin structure in each cell wall layer	Tokyo University of Agriculture and Technology	Yasuyuki Matsushita	Masato Katahira
Planned joint research	ZE2023A-35	Chamical approach to surface reaction of ablation on organic material	Tokyo University of Science	Jun Fujioka	Heishun Zen
Planned joint research	ZE2023A-36	Development of strong superconducting bulk magnets with high shape-flexibility	Aoyama Gakuin University	Takanori Motoki	Toshiteru Kii

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Planned joint research	ZE2023A-37	Development of negative ion source using microwave and its application to nano processing	Kyoto Institute of Technology	Haruhiko Himura	Shigeru Inagaki
Planned joint research	ZE2023A-38	Identification of quadruplexes that can regulate gene expression	Yokohama National University	Yoichiro Tanaka	Takashi Nagata
Planned joint research	ZE2023A-39	Analysis and Design of Electrode/Electrolyte Interface for All Solid State Battery	Chiba Institute of Technology	Ikuma Takahashi	Juro Yagi
Planned joint research	ZE2023A-40	Development of the crystalline cellulose degradation system consisting of the psychrophilic fungus-type hybrid enzymes.	Health Sciences University of Hokkaido	Masataka Horiuchi	Takashi Nagata
Proposal based project	ZE2023B-01	Physical properties of heterostructures of atomic layer materials	University of Tsukuba	Susumu Okada	Kazunari Matsuda
Proposal based project	ZE2023B-02	Development of highly efficient fabrication technique of two-dimensional heterostructures.	National Institute for Materials Science	Ryo Kitaura	Yuhei Miyauchi
Proposal based project	ZE2023B-03	Surface processing of semiconductors using graphene nanoribbons	Kyoto University	Kazuhiro Fukami	Hiroshi Sakaguchi
Proposal based project	ZE2023B-04	Development of reduced activation high entropy materials for high energy reactor	Hokkaido University	Naoyuki Hashimoto	Kiyohiro Yabuuchi
Proposal based project	ZE2023B-05	Fabrication and characterization of two-dimensional heterostructures for energy conversion applications	Tokyo Metropolitan University	Wenjin Zhang	Yuhei Miyauchi
Proposal based project	ZE2023B-06	A small-molecule-based technology for live-cell imaging of energy metabolism	Kyoto University	Shin-ichi Sato	Takashi Morii
Proposal based project	ZE2023B-07	High performance nanocarbon material development based on moleclularly functionalized carbon nanotubes for zero emission energy society	Kyushu University	Tomohiro Shiraki	Yuhei Miyauchi
Proposal based project	ZE2023B-08	Highly efficient photochemical reactions induced by optimal laser pulses	Tohoku University	Yukiyoshi Ohtsuki	Takashi Nakajima

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Proposal based project	ZE2023B-09	Study of temporal evolution of coherent edge radiation during free-electron laser oscillations	National Institute of Advanced Industrial Science and Technology	Norihiro Sei	Hideaki Ohgaki
Proposal based project	ZE2023B-10	Development of hydrogen-oxidizing bacteria strains with high prolifiration capability in low hydrogen concentration condition	Tokyo Institute of Technology	Yasunori Aizawa	Takashi Morii
Proposal based project	ZE2023B-11	Rooftop PV Hosting Capacity in AC Low Voltage Distribution Systems: Future Perspective in Cambodia	Institute of Technology of Cambodia	Vannak Vai	Hideaki Ohgaki
Proposal based project	ZE2023B-12	Structural studies on hierarchical molecular architectures created in microfluidic device	Kyoto Prefectural University	Munenori Numata	Eiji Nakata
Proposal based project	ZE2023B-13	Oxidation behavior of mechanically alloyed oxide dispersion strengthened alloy powders	Kurume College	Noriyuki Iwata	Kiyohiro Yabuuchi
Proposal based project	ZE2023B-14	AFM/EM imaging of intracellular metals with nanostructures constructed via signal amplification systems	Tohoku University	Ippei Takashima	Eiji Nakata
Proposal based project	ZE2023B-15	Elucidation of the novel competitive function between microorganisms of genus Rhizoctonia by genomic approach	Tokyo University of Agriculture	Yuh Shiwa	Tomijiro Hara
Proposal based project	ZE2023B-16	Development of an RNA eiding oligonucleotide to regulate the biological energy system in the cell	Fukuoka University	Masatora Fukuda	Takashi Morii
Proposal based project	ZE2023B-17	Development of novel guanine-tethered antisennse oligonucleotides	Hirosaki University	Masaki Hagihara	Takashi Morii
Proposal based project	ZE2023B-18	Bactericidal effect of the infrared free electron laser	Kanagawa Dental College	Toshizo Toyama	Heishun Zen
Proposal based project	ZE2023B-19	Study of minor element addition (Ni, Si) on irradiation hardening of pressure vessel model steels	University of Fukui	Ken-ichi Fukumoto	Kiyohiro Yabuuchi
Proposal based project	ZE2023B-20	Gas Ionization with Ultrafast Intense Long-Wavelegth Infrared Pulses	National Institutes for Quantum and Radiological Science and Technology	Ryoichi Hajima	Heishun Zen

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Proposal based project	ZE2023B-21	High intensity broadband THz pulse generation using external optical cavity	High Energy Accelerator Research Organization	Yosuke Honda	Heishun Zen
Proposal based project	ZE2023B-22	Ultra Sensitive Electrochemical Nucleic Acid Sensor	University of Hyogo	Kazushige Yamana	Takashi Morii
Proposal based project	ZE2023B-23	Enzyme-free selective structural control of glycan by means of molecular vibrational excitation	High Energy Accelerator Research Organization	Takashi Honda	Heishun Zen
Proposal based project	ZE2023B-24	Application of infrared free electron laser to insulin ball seen in diabetes patients	Gunma University	Kazuhiro Nakamura	Heishun Zen
Proposal based project	ZE2023B-25	In-situ measurement of periodic nanostructures on semiconductor surface induced by mid-infrared free electron lasers	Tokai University	Masaki Hashida	Heishun Zen
Proposal based project	ZE2023B-26	Development of 3 dimensional radiative distribution measurement system using incoherent digital holography in Heliotron J.	National Institute of Technology, Kagawa College	Hayato Kawazome	Shinichiro Kado
Proposal based project	ZE2023B-27	Development of dispersion strengthened high entropy alloys for high burn-up core materials	Hokkaido University	Hiroshi Oka	Kiyohiro Yabuuchi
Proposal based project	ZE2023B-28	Optimization of reactive oxygen radical production process by atmospheric pressure plasma irradiation	Osaka Metropolitan University	Hiroto Matsuura	Shinichiro Kado
Proposal based project	ZE2023B-29	Experimental study on the advanced methods of fault diagnosis and reliability evaluation to be applied for complex energy systems	Kyoto University	Hidekazu Yoshikawa	Kazunori Morishita
Proposal based project	ZE2023B-30	Raman Spectroscopy of Molten Salts Containing Boron Ions	National Institute of Advanced Industrial Science and Technology	Yumi Katasho	Yutaro Norikawa
Proposal based project	ZE2023B-31	Synthesis of apatite-coated surface-modified organic polymer microspheres at ambient temperature and pressure	Kyoto University	Takeshi Yabutsuka	Kiyohiro Yabuuchi
Proposal based project	ZE2023B-32	Study of nanomaterials torward efficient and high-performance energy conversion	Hosei University	Satoru Konabe	Yuhei Miyauchi

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Proposal based project	ZE2023B-33	Development of a New Method for Controlling Thermal Radiation by Quantum Metamaterials	Niigata University	Atsushi Sakurai	Yuhei Miyauchi
Proposal based project	ZE2023B-34	Development of automated algorithms for high-speed camera image analysis	Bauhutte Co. Ltd.	Nobuhiro Nishino	Shinichiro Kado
Proposal based project	ZE2023B-35	Study on reaction mechanism of visible-light-inducedliving radical polymerization for high energy efficiency	Kyoto Institute of Technology	Yusuke Miyake	Hiroshi Sakaguchi
Proposal based project	ZE2023B-36	NMR analysis of the three-dimensional solution structure of the sequence-specific RNA-binding protein Musashi1 involved in translation control of the downstream target RNA	The University of Electro-Communications	Takao Imai	Takashi Nagata
Proposal based project	ZE2023B-37	High beta plasma formation in advanced heliotron configuration using stochastic acceleration	University of Tsukuba	Masayuki Yoshikawa	Shinji Kobayashi
Proposal based project	ZE2023B-38	Analysis of reaction meachanism of haloacid dehalogenase	Nagahama Institute of Bio-Science and Technology	Takashi Nakamura	Takashi Morii
Proposal based project	ZE2023B-39	Kinetic study on the Paraquat Dichloride removal in the water.	Mea Fah Luang University	Pannipha DOKMAINGAM	Hideaki Ohgaki
Proposal based project	ZE2023B-40	High-efficient plasma current drive by electron cyclotron waves in fusion reactor	Tohoku University	Kenji Tobita	Kazunobu Nagasaki
Proposal based project	ZE2023B-41	Development of New Semiconductor Power Control Devices Aiming for Carbon Neutrality	Opto-Semiconductor Laboratory	Kensho Okamoto	Kazunori Morishita
Proposal based project	ZE2023B-42	Laser decontamination using a high repetition-rate nanosecond fiber laser	Applied Laser and Innovative Technology Institute, Tsuruga Comprehensive Research and Development Center, Japan Atomic Energy Agency	Atsushi Kosuge	Takashi Nakajima
Proposal based project	ZE2023B-43	Thermal properties of photoluminescence in single-walled carbon nanotubes for optical thermometry	Hyogo Prefectural Institute of Technology	Shun Aota	Yuhei Miyauchi
Proposal based project	ZE2023B-44	Hydrogen and Oxygen evolution on the micro/nano-structured electrode	Japan Synchrotron Radiation Research Institute	Kota Ando	Takashi Nakajima

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Joint usage of facilities	ZE2023C-01	Study on emission process and evaluation of light outputs for novel scintillation materials using the one electron beam II	Tohoku University	Shunsuke Kurosawa	Hideaki Ohgaki
Joint usage of facilities	ZE2023C-02	Development of a method for compsiting Li2TiO3 and nanocarbon by microwave irradiation	National Institute for Fusion Science	Sadatsugu Takayama	Juro Yagi
Joint usage of facilities	ZE2023C-03	Radial Correlation Analysis on Edge Plasma Turbulence in a Toroidal Plasma and its Dependence on Plasma Configuration	Kyushu University	Yoshihiko Nagashima	Shigeru Inagaki
Joint usage of facilities	ZE2023C-04	Deuterium desorption from heavy ion irradiated tungsten using isothermal desorption method	National Institute for Fusion Science	Naoko Ashikawa	Kiyohiro Yabuuchi
Joint usage of facilities	ZE2023C-05	Role of irradiation defects in the formation of plasma induced surface structures on tungsten	National Institute for Fusion Science	Mingzhong Zhao	Kiyohiro Yabuuchi
Joint usage of facilities	ZE2023C-06	Study of ion irradiation effects on oxide dispersion strengthened ferritic steel	National Institute for Fusion Science	Jingjie SHEN	Kiyohiro Yabuuchi
Joint usage of facilities	ZE2023C-07	Lithium Migration Phenomena in Graphite - SiO Composite during Relaxation	Kyoto University	Shigeomi Takai	Takashi Morii
Joint usage of facilities	ZE2023C-08	Intracellular calcification of Corynebacterium matruchotti by FEL irradiation	Nihon University	Tetsuro Kono	Hideaki Ohgaki
Research meetings	ZE2023D-01	Distributed Workshop on "Physics and control of non-linear and non-equlibrium plasma based on the concept of broad-band energy science"	Kyoto University	Yasuaki Kishimoto	Kazunari Matsuda
Research meetings	ZE2023D-02	Active Learning for Public Outreach in Energy Science	Kyoto University	Takeshi Yao	Kazunori Morishita