

| Categories | Reference number | Title of Research Project | Affiliation | Principle Researcher | Key Person in IAE |
|------------------------|------------------|---|--|----------------------|--------------------|
| Planned joint research | ZE2025A-01 | Chemical dicing of semiconductors by non-metal catalysts | Kyoto University | Kazuhiro Fukami | Hiroshi Sakaguchi |
| Planned joint research | ZE2025A-02 | Development of Innovative Neutron Shielding Materials for Miniaturization of Fusion Reactors | Tohoku University | Ryuta Kasada | Juro Yagi |
| Planned joint research | ZE2025A-03 | 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 | ZE2025A-04 | Structural analysis of lignocellulosic biomass by NMR spectroscopy toward decarbonized society | Kyoto University | Hiroshi Nishimura | Masato Katahira |
| Planned joint research | ZE2025A-05 | Emission properties and photoinduced electron-transfer reactions of photosensitizers bound to the reaction site of enzyme | Nara Women's University | Hiroshi Takashima | Eiji Nakata |
| Planned joint research | ZE2025A-06 | Elucidation of the highly efficient energy production system utilized by intracellular organelle | University of Occupational and Environmental Health, Japan | Reiko Sakaguchi | Eiji Nakata |
| Planned joint research | ZE2025A-07 | Study on textile degradation by using infrared free electron laser | High Energy Accelerator Research Organization (KEK) | Takayasu Kawasaki | Heishun Zen |
| Planned joint research | ZE2025A-08 | Research on the Creation of Functional Peptides to Control Cell Proliferation Based on Complex Structures | National Institute of Infectious Diseases (NIID) | Hideki Kusunoki | Takashi Nagata |
| Planned joint research | ZE2025A-09 | The quantitative estimation of coherent phonon on wide-bandgap semiconductors | Kumamoto Industrial Research Institute | Kyohei Yoshida | Hideaki Ohgaki |
| Planned joint research | ZE2025A-10 | Determining the conditions of heat treatments for extending the lifetime of nuclear reactors (4) | Kumamoto University | Yoshitaka Matsukawa | Kazunori Morishita |
| Planned joint research | ZE2025A-11 | Elucidation of the mechanism of electronic conduction in lithium ion conductive solid electrolytes by rf-GD-OES analysis | Hiroshima University | Kazuya Sasaki | Juro Yagi |
| Planned joint research | ZE2025A-12 | Control of behavior of organic fluorescent molecules via strong Mid-IR irradiation | Kyoto University | Yusuke Tsutsui | Heishun Zen |

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| Planned joint research | ZE2025A-13 | Structural basis of G-quadruplex recognition by the replication initiator ORC | Japan Women's University | Shou Waga | Yudai Yamaoki |
| Planned joint research | ZE2025A-14 | Experimental verification of hydrogen adsorption and desorption behavior for advanced neutron multipliers | National Institutes for Quantum Science and Technology(QST) | Jae-Hwan Kim | Juro Yagi |
| Planned joint research | ZE2025A-15 | Novel Na-storage materials based on construction of electrode-electrolyte interface | Tottori University | Hiroyuki Usui | Toshiyuki Nohira |
| Planned joint research | ZE2025A-16 | Effect of mechanical alloying treatment on thermal changes on oxide dispersion strengthened alloy powder | National Institute of Technology, Kurume College | Noriyuki Iwata | Juro Yagi |
| Planned joint research | ZE2025A-17 | NMR analysis for the development of biomolecules that control the growth of plants or microorganisms | Chiba Institute of Technology | Taiichi Sakamoto | Takashi Nagata |
| Planned joint research | ZE2025A-18 | Development of Organic Luminescent Materials for Luminescent Solar Concentrators | Kyoto Institute of Technology | Masaki Shimizu | Hiroshi Sakaguchi |
| Planned joint research | ZE2025A-19 | Innovative Approach for Lignin Utilization: Precise Reaction Behavior Analysis by Selective Stable Isotope Labeling Technique | Tokyo University of Agriculture and Technology | Yasuyuki Matsushita | Masato Katahira |
| Planned joint research | ZE2025A-20 | Tunable Surface Engineering of Electrochemically Grown Quantum Dots via Free Electron Laser Irradiation in the IR Range for PSCs | Chiang Mai University, Thailand | Sukrit Sucharitakul | Hideaki Ohgaki |
| Planned joint research | ZE2025A-21 | Construction of fluorescent biosensor for visualizing zinc finger structure of transcription factor Sp1 participating in metabolic reaction control | Fukuoka University | Shunsuke Tajima | Eiji Nakata |
| Planned joint research | ZE2025A-22 | Dynamic process of trivalent/tetravalent cerium valence change in multi-component oxide garnet crystals investigated by photoinduced transient absorption spectroscopy | Yamagata University | Mamoru Kitaura | Heishun Zen |
| Planned joint research | ZE2025A-23 | Hydrogen isotope release behavior of accident-tolerant hybrid ceramics | National Institute for Fusion Science (NIFS) | Keisuke Mukai | Juro Yagi |
| Planned joint research | ZE2025A-24 | Enzymatic degradation of crystalline PET using quantum beams | Kyoto University | Daisuke Tadokoro | Heishun Zen |

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| Planned joint research | ZE2025A-25 | Impact of Irradiation on the Structural and Functional Properties of Polymer-Based Nanoparticles for Drug Delivery Applications | Chiang Mai University, Thailand | Winita Punyodom | Hideaki Ohgaki |
| Planned joint research | ZE2025A-26 | Analysis of interaction between TLS and RNA that induces liquid-liquid phase separation caused by TLS | Saitama Medical University | Riki Kurokawa | Masato Katahira |
| Planned joint research | ZE2025A-27 | Novel pulsed terahertz source by super-radiance free electron laser oscillator | The University of Tokyo | Kazuyuki Sakaue | Heishun Zen |
| Planned joint research | ZE2025A-28 | Structural analysis of noncanonical/damaged nucleic acids | Nagahama Institute of Bio-Science and Technology | Hiroshi Imamura | Yudai Yamaoki |
| Planned joint research | ZE2025A-29 | Elucidation of polymerization mechanism and chemical structure of lignin | Kyoto University | Takao Kishimoto | Masato Katahira |
| Planned joint research | ZE2025A-30 | Fabrication of All-Solid-State Battery by Photo-Induced Chemical Solution Process | Chiba Institute of Technology | Ikuma Takahashi | Juro Yagi |
| Planned joint research | ZE2025A-31 | Study of Hydrogen Isotope Separation Technology by Molten Salt | Hokkaido University | Hisayoshi Matsushima | Toshiyuki Nohira |
| Planned joint research | ZE2025A-32 | Study of the crystalline cellulose degradation system consisting of the psychrophilic fungus-type cellulase. | Health Sciences University of Hokkaido | Masataka Horiuchi | Takashi Nagata |
| Planned joint research | ZE2025A-33 | Enhancing mechanical properties of PCL-based sutures using selective-wavelength mid-infrared free-electron laser irradiation | Chiang Mai University, Thailand | Sakhorn Rimjaem | Hideaki Ohgaki |
| Planned joint research | ZE2025A-34 | Characterization of E.coli-Derived G-quadruplexes Capable of Regulating gene expression. | Yokohama National University | Yoichiro Tanaka | Takashi Nagata |
| Planned joint research | ZE2025A-35 | Variation of atomic density distribution of sintered two-phase mixture of tritium breeders Li8ZrO6 and Li2O | Hirosaki University | Kiyoto Shin-Mura | Juro Yagi |
| Planned joint research | ZE2025A-36 | Thermal Expansion Coefficients of PbWO4-BiVO4-based Oxide Ion Conductors with Oxygen Excess and Oxygen Deficient Compositions | Kyoto University | Shigeomi Takai | Toshiyuki Nohira |

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| Planned joint research | ZE2025A-37 | Selective ablation and surge reaction analysis of composite resin material | Tokyo University of Science | Jun Fujioka | Heishun Zen |
| Planned joint research | ZE2025N-01 | Fermentative production of a novel polysaccharide from fishery processing by-products | Yokohama National University | Minoru Takeda | Masato Katahira |
| Planned joint research | ZE2025N-02 | Experimental research on the sophistication of advanced information infrastructure for the operation and maintenance of complex energy systems | Utsunomiya University | Takeshi Matsuoka | Kazunori Morishita |
| Planned joint research | ZE2025N-03 | Achieving Carbon-Neutral Organic Coffee Cultivation through Biocontrol | National University of Laos | Keonakhone Khounvilay | Hideaki Ohgaki |
| Planned joint research | ZE2025N-04 | Renewable Energy (Solar & Wind) Transition in Indonesia: Perspective of Policy and Community Empowerment | National Research and Innovation Agency of Indonesia (BRIN) | Anugerah Yuka Asmara | Hideaki Ohgaki |
| Planned joint research | ZE2025N-05 | Electricity Usage Behavior and Habits for Rural and Urban Community to Facilitate Lifestyle Life Cycle Assessment Research | UMPEDAC, University of Malaya, Malaysia | Chia-Kwang Tan | Hideaki Ohgaki |
| Proposal based project | ZE2025B-01 | Calcium phosphate coating on aluminum-free magnesium alloys and microstructure evaluation | Kyoto University | Takeshi Yabutsuka | Juro Yagi |
| Proposal based project | ZE2025B-02 | Elucidation of free electron laser interactions by observing coherent edge radiation | National Institute of Advanced Industrial Science and Technology (AIST) | Norihiro Sei | Hideaki Ohgaki |
| Proposal based project | ZE2025B-03 | Compatibility of Li-Br/F/I based low-melting point molten salt applied for fusion reactors' liquid blanket | Tohoku University | Yasuyuki Ogino | Juro Yagi |
| Proposal based project | ZE2025B-04 | Investigation of the physical properties of atomic layer materials induced by structural imperfections | University of Tsukuba | Susumu Okada | Kazunari Matsuda |
| Proposal based project | ZE2025B-05 | Exploring Quantum Materials for High-Efficiency and High-Performance Energy Conversion | Hosei University | Satoru Konabe | Yuhei Miyauchi |
| Proposal based project | ZE2025B-06 | Highly efficient laser-induced photochemical processes by using machine-learning approaches combined with quantum optimal control | Tohoku University | Yukiyoshi Ohtsuki | Takashi Nakajima |

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| Proposal based project | ZE2025B-07 | Basic study on pulse water surface discharge with needle electrodes and its improvement | Osaka Metropolitan University | Hiroto Matsuura | Shinichiro Kado |
| Proposal based project | ZE2025B-08 | Clarifying the difference in the dynamics of hydrogen and oxygen bubbles during water electrolysis for hydrogen evolution | Japan Synchrotron Radiation Research Institute (JASRI) | Kota Ando | Takashi Nakajima |
| Proposal based project | ZE2025B-09 | Gas ionization by high-repetition rate infrared pulses | National Institutes for Quantum Science and Technology(QST) | Ryoichi Hajima | Heishun Zen |
| Proposal based project | ZE2025B-10 | 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 | ZE2025B-11 | Development of RNA Editing Technology Targeting Energy-Producing Genes | Fukuoka University | Masatora Fukuda | Eiji Nakata |
| Proposal based project | ZE2025B-12 | Fabrication of high-quality tin chalcogenide single-crystals and evaluation of their physical properties | Kyoto University | Sakiko Kawanishi | Yuhei Miyauchi |
| Proposal based project | ZE2025B-13 | Enhancing optical thermometric sensitivity of single-walled carbon nanotubes by oxygen doping | Hyogo Prefectural Institute of Technology | Shun Aota | Yuhei Miyauchi |
| Proposal based project | ZE2025B-14 | Synthesis and optical properties of semiconductor moiré superlattices | National Institute for Materials Science (NIMS) | Wenjin Zhang | Yuhei Miyauchi |
| Proposal based project | ZE2025B-15 | Structural studies on hierarchical molecular architectures created in microfluidic device | Kyoto Prefectural University | Munenori Numata | Eiji Nakata |
| Proposal based project | ZE2025B-16 | Generation and sustainment of high-energy density plasmas via the interaction between high power laser and structured medium | Kyoto University | Yasuaki Kishimoto | Hiroshi Sakaguchi |
| Proposal based project | ZE2025B-17 | In-situ measurement of periodic nanostructures on semiconductor surface induced by mid-infrared free electron lasers | Tokai University/Kyoto University | Masaki Hashida | Heishun Zen |
| Proposal based project | ZE2025B-18 | Development of an On-Site Simple and Rapid Detection Method for Virus and Viroid Infections. | Hirosaki University | Masaki Hagihara | Eiji Nakata |

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| Proposal based project | ZE2025B-19 | Towards Zero-Emission Agriculture: Advanced Hyperspectral Imaging for Early Detection of Coffee Paramyothecium Leaf Blotch | Chiang Mai University, Thailand | Ratchadawan Cheewangkoon | Tomijiro Hara |
| Proposal based project | ZE2025B-20 | AFM/EM imaging of intracellular metals with nanostructures constructed via signal amplification systems | National Institute of Technology, Hakodate College | Ippei Takashima | Eiji Nakata |
| Proposal based project | ZE2025B-21 | Innovation of Decision-Making Processes in Transscience Issues Promoting Social Cohesion | University of the Ryukyus | Hiroto Iwakiri | Kazunori Morishita |
| Proposal based project | ZE2025B-22 | An artificial-nucleic-acid probe for live-cell imaging of energy metabolism | Kumamoto University | Shinichi Sato | Eiji Nakata |
| Proposal based project | ZE2025B-23 | Residential Microgrid Design and Management with Open-Source Tool and GIS | Department of Electrical and Energy Engineering, Institute of Technology of Cambodia | Vannak Vai | Hideaki Ohgaki |
| Proposal based project | ZE2025B-24 | Efficient removal of infected layers by FEL irradiation of Gram-positive bacteria infected layers | Kanagawa Dental University | Toshizo Toyama | Heishun Zen |
| Proposal based project | ZE2025B-25 | Study and experiment of the high-energy electron generation by the high-power laser-irradiation to the structured target | Kyoto University | Ryutaro Matsui | Kazunari Matsuda |
| Proposal based project | ZE2025B-26 | Whole genome analysis and culture method development of Thai coffee leaf rust fungus | Pibulsongkram Rajabhat University, Thailand | Rampai Kodsueb | Yumiko Takatsuka |
| Proposal based project | ZE2025B-27 | Developing the in-situ technique to measure the size of radioactive fragments during nanosecond pulsed laser decontamination | Japan Atomic Energy Agency (JAEA) | Atsushi Kosuge | Takashi Nakajima |
| Proposal based project | ZE2025B-28 | High-resolution observation of exciton transport in atomically thin layered materials | University of Yamanashi | Masaru Sakai | Kazunari Matsuda |
| Proposal based project | ZE2025B-29 | Application of Model Inclusive Learning to Fusion Plasma Science - Equilibrium Reconstruction of Plasma - | Doshisha University | Yasuaki Kuroe | Shinji Kobayashi |
| Proposal based project | ZE2025B-30 | Analysis of direct energy conversion method using charge separation by cyclotron motion | Bauhutte Co. Ltd. | Nobuhiro Nishino | Shinichiro Kado |

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| Joint usage of facilities | ZE2025C-01 | Study on the mechanism of direct conversion of cellulosic materials into glucose under microwave irradiation condition | National Institute for Fusion Science (NIFS) | Sadatsugu Takayama | Juro Yagi |
| Joint usage of facilities | ZE2025C-02 | FEL irradiation-induced changes in biofilm formation by human resident bacteria. | Nihon University | Tetsuro Kono | Hideaki Ohgaki |
| Joint usage of facilities | ZE2025C-03 | Elucidation of inhibitor action mechanism of Na ⁺ -transporting NADH-quinone oxidoreductase and development of new inhibitors | Kyoto University | Takahiro Masuya | Eiji Nakata |
| Joint usage of facilities | ZE2025C-04 | Study on ultrafast measurement of relativistic electromagnetic fields | National Institute for Fusion Science (NIFS) | Masato Ota | Heishun Zen |
| Research meetings | ZE2025D-01 | The 2nd KU-FEL User Meeting | Yamagata University | Mamoru Kitaura | Heishun Zen |
| Research meetings | ZE2025D-02 | Biothermology Workshop 2025 | University of Occupational and Environmental Health, Japan | Reiko Sakaguchi | Eiji Nakata |
| Research meetings | ZE2025D-03 | Distributed Workshop on "Physics and control of non-linear and non-equilibrium plasma based on the concept of broad-band energy science" | Kyoto University | Yasuaki Kishimoto | Kazunari Matsuda |