

S/ N	Proposal Number	Performed Proposal Title	Project Leader	Affiliation	Country	Type of Proposal	Beamline	Shift
1	2022B8001	Deamination and C=O bond formation in a photosensitizer protein captured by XFEL	Jiangyun Wang	Chinese Academy of Sciences	China	SACLA General Proposal (Non-proprietary)	BL3	5
2	2022B8002	Seeded Two-Color Stimulated XES and RIXS on Mn solutions	Uwe Bergmann	University of Wisconsin-Madison	USA	SACLA General Proposal (Non-proprietary)	BL3	5
3	2022B8003	Temporal tailoring of x-ray laser pulses	Taito Osaka	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
4	2022B8004 1)	Damage-free imaging of catalyst layer nano-structure of polymer electrolyte fuel cell (PEFC)	Hideto Imai	Fuel Cell Cutting-Edge Research Center Technology Research Association	Japan	SACLA General Proposal (Non-proprietary)	BL2	4
5	2022B8005	Direct visualization of the structural changes in the excited state of a synthetic copper(I) complex	Takafumi Ueno	Tokyo Institute of Technology	Japan	SACLA General Proposal (Non-proprietary)	BL2	4
6	2022B8007	Time-resolved serial femtosecond crystallography using temperature-jump techniques	Takaaki Fujiwara	Tohoku University	Japan	SACLA General Proposal (Non-proprietary)	BL2	4
7	2022B8010	Controlling atomic scattering factors with intense XFEL beam	Ichiro Inoue	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
8	2022B8012	Semi-real-time structure analysis in XFEL-XDI experiment for non-crystalline particles	Masayoshi Nakasako	Keio University	Japan	SACLA General Proposal (Non-proprietary)	BL2	4
9	2022B8013 1)	Time-resolved SFX analysis of structural changes in the copper amine oxidase reaction	Takeshi Murakawa	Osaka Medical and Pharmaceutical University	Japan	SACLA General Proposal (Non-proprietary)	BL2	4
10	2022B8014	Rapid structure determination system for drug-target proteins using the X-ray free electron laser	So Iwata	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL2	5
11	2022B8015	Time-resolved serial femtosecond crystallography on the recently discovered CarH photoreceptor protein	Martin Weik	Commissariat à l'Energie Atomique	France	SACLA General Proposal (Non-proprietary)	BL2	5
12	2022B8016	Development of versatile methods for protein structural dynamics analysis using X-ray free electron lasers	Eriko Nango	Tohoku University	Japan	SACLA General Proposal (Non-proprietary)	BL2	3
13	2022B8017	Ordinary Water? Examining the Effects of Structural Heterogeneities in Water at Supercritical Conditions	Werner Ihme	Stanford University	USA	SACLA General Proposal (Non-proprietary)	BL3	5
14	2022B8018	Visualization of reaction intermediates in enzymes that catalyze unique reactions by mixing and inject SFX	Fangjia Luo	Japan Synchrotron Radiation Research Institute	Japan	SACLA General Proposal (Non-proprietary)	BL2	3
15	2022B8019	Real time observation of OH radical scavenging effect of cysteine molecules in water	Hiroshi Iwayama	Institute for Molecular Science, National Institutes of Natural Sciences	Japan	SACLA General Proposal (Non-proprietary)	BL1	8
16	2022B8020	Revealing a hypothetical fragile to strong transition in deeply supercooled water using anisotropic scattering under Optical Kerr Effect condition	KyungHwan Kim	Pohang University of Science and Technology	Korea	SACLA General Proposal (Non-proprietary)	BL3	5
17	2022B8024	Nonlinear absorption spectroscopy in K-shell core-hole state II	Kenji Tamasaku	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
18	2022B8025	Development of a beam profiler based on a speckle interferometry for sub-10nm focused XFEL	Takato Inoue	Nagoya University	Japan	SACLA General Proposal (Non-proprietary)	BL3	3
19	2022B8026	Dynamic compression states of high-density germanium and its oxide systems analyzed by X-ray absorption spectroscopy	Takuo Okuchi	Kyoto University	Japan	SACLA General Proposal (Non-proprietary)	BL3	4
20	2022B8027	Coherent diffraction imaging of reacting nanoparticles in solution with a single-pulse XFEL	Takashi Kimura	The University of Tokyo	Japan	SACLA General Proposal (Non-proprietary)	BL2	10
21	2022B8028	Development of single-shot spectro-microscopic system with Wolter mirror optics	Yoko Takeo	The University of Tokyo	Japan	SACLA General Proposal (Non-proprietary)	BL1	9
22	2022B8030	Simultaneous correlative imaging of living HeLa cells with cell stage indicator Fucci2 using soft X-ray and visible fluorescence microscope	Satoru Egawa	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL1	9
23	2022B8032	Characterization of sub-10 nm XFEL focus intensity fields by fluorescence and diffraction X-ray from multiple-ionized metals	Jumpei Yamada	Osaka University	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
24	2022B8033	Capturing the liquid-liquid critical point in supercooled aqueous solutions	Foivos Perakis	Stockholm University	Sweden	SACLA General Proposal (Non-proprietary)	BL3	5
25	2022B8034	Circularly-polarized XFEL-induced ultrafast magnetization dynamics in GdFeCo ferrimagnet (II)	Motohiro Suzuki	Kwansei Gakuin University	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
26	2022B8035	Determination of the damage-free structure of the reaction intermediate of heme-based monooxygenase provides the insights into the reaction mechanism.	Takehiko Toshi	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL2	5
27	2022B8036	Shortening the FEL pulse duration by laser-assisted transient absorption change of noble gas	Shigeki Owada	Japan Synchrotron Radiation Research Institute	Japan	SACLA General Proposal (Non-proprietary)	BL1	9
28	2022B8037	Investigation of anisotropic electronic states at the space-charge layer of semiconductors by azimuthal-angle dependent soft x-ray SHG measurements	Masafumi Horio	The University of Tokyo	Japan	SACLA General Proposal (Non-proprietary)	BL1	8
29	2022B8038 2)	Time-resolved crystallography of light-driven reactions by photolyases and cryptochromes	Junpei Yamamoto	Osaka University	Japan	SACLA General Proposal (Non-proprietary)	BL2	3.5
30	2022B8039	Analysis of structural changes in the oxygen-evolving photosystem II by multiphoton absorption process using femtosecond lasers	Keisuke Kawakami	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL3	4
31	2022B8040 1)	Molecular-level imaging using 100-nm Focused XFEL	Yoshinori Nishino	Hokkaido University	Japan	SACLA General Proposal (Non-proprietary)	BL2	7
32	2022B8041	High throughput and time resolved studies of radiation sensitive metalloproteins	Michael Hough	Diamond Light Source	UK	SACLA General Proposal (Non-proprietary)	BL2	5
33	2022B8042	In-Situ Small-Angle X-ray Scattering and X-ray Diffraction of Copper Morphologies during Shock Loading	Cara Vennari	Lawrence Livermore National Laboratory	USA	SACLA General Proposal (Non-proprietary)	BL3	4
34	2022B8043	Time-resolved Coulomb explosion imaging of sequential photodissociation, transient structure and coherent motion in diiodoethanes	Felix Allum	Stanford University	USA	SACLA General Proposal (Non-proprietary)	BL1	7
35	2022B8044	BN (boron nitride) formation and its nanoparticle quenching process in ammonia borane under laser shock compression.	Norimasa Ozaki	Osaka University	Japan	SACLA General Proposal (Non-proprietary)	BL3	4
36	2022B8045	Enhancing hard x-ray diffraction from Cu atoms by inner-shell population inversion	Andrei Benediktovitch	Deutsches Elektronen-Synchrotron	Germany	SACLA General Proposal (Non-proprietary)	BL3	5
37	2022B8046	Frequency stabilized Bragg diffraction laser and spectral control with complex crystal target	Yurina Michine	The University of Electro-Communications	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
38	2022B8047	Shooting molecular movies of Diels-Alderase and other enzymes	Shingo Nagano	Tottori University	Japan	SACLA General Proposal (Non-proprietary)	BL2	4
39	2022B8048	Site-selectively probing selenophene ring-opening dynamics using X-ray ionization	Emily Warne	University of Oxford	UK	SACLA General Proposal (Non-proprietary)	BL1	7
40	2022B8050	Investigation of lattice distortions excited by mid-infrared laser in Fe-based superconductors II	Yuya Kubota	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
41	2022B8052	High-speed molecular movies of photoswitchable fluorescent protein by time-resolved SFX for application to super-resolution imaging.	Eiichi Mizohata	Osaka University	Japan	SACLA General Proposal (Non-proprietary)	BL2	6
42	2022B8054	Transient modification of oxygen hybridization in a cuprate superconductor probed by ultrafast RIXS	Mark Dean	Brookhaven National Laboratory	USA	SACLA General Proposal (Non-proprietary)	BL3	5
43	2022B8056 2)	Photoactivation of bathy bacterial phytochromes studied by serial femtosecond crystallography	Sebastian Westenhoff	University of Gothenburg	Sweden	SACLA General Proposal (Non-proprietary)	BL2	0.5
44	2022B8057	Probing hydrodynamic charge order fluctuations in the square-planar nickelate La <sub>4</sub> Ni <sub>3</sub> O <sub>8</sub>	Matteo Mitrano	Harvard University	USA	SACLA General Proposal (Non-proprietary)	BL3	5
45	2022B8059 2)	Study of redox state in metal protein crystal by simultaneous measurements of X-ray spectroscopy and SFX	Atsuhiko Shimada	Gifu University	Japan	SACLA General Proposal (Non-proprietary)	BL2	6.5
46	2022B8061	Magnetic Field Induced Phase Transition of Graphite in the Quantum Limit-III-High Field A <sub>y</sub> Phase Investigation	Hiroyuki Nojiri	Tohoku University	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
47	2022B8063	Development of X-ray emission spectroscopy for studying shock-induced spin transition in iron-bearing minerals.	Alexis Amouretti	Osaka University	Japan	SACLA General Proposal (Non-proprietary)	BL3	2
48	2022B8066	Time-resolved electron-ion coincidence spectroscopy of N <sub>2</sub> molecules in highly excited states	Mizuho Fushitani	Nagoya University	Japan	SACLA General Proposal (Non-proprietary)	BL1	7
49	2022B8067	Domain walls, phase modes, and hidden discommensuration in transition metal dichalcogenides	Samuel Teitelbaum	Arizona State University	USA	SACLA General Proposal (Non-proprietary)	BL3	5
50	2022B8068	Investigation of lattice symmetry of the novel phase of a geometrically frustrated magnet induced at 30 Tesla and low temperatures	Akihiko Ikeda	The University of Electro-Communications	Japan	SACLA General Proposal (Non-proprietary)	BL3	5

<sup>1)</sup> SACLA Research Proposals for Complementary Use with Spring-8, J-PARC/MLF or HPC including the K computer / the supercomputer Fugaku.

<sup>2)</sup> Including the feasibility check beamtime (FCBT) of 0.5 shifts in performed shift.