SACLA

2022A, Performed Proposals

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S/ N	Proposal Number	Performed Proposal Title	Project Leader	Affiliation	Country	Type of Proposal	Beamline	Shift
1	2022A8001 1)	Damage-free imaging of catalyst layer nano-structure of polymer electrolyte fuel cell (PEFC)	Hideto Imai	NISSAN ARC, LTD.	Japan	SACLA General Proposal (Non-proprietary)	BL2	4
2	2022A8002	High throughput and time resolved studies of radiation sensitive metalloproteins	Michael Hough	Diamond Light Source	UK	SACLA General Proposal (Non-proprietary)	BL2	5
3	2022A8003 2)	Ferntosecond Pair Distribution Function Studies of Nanocrystal Nucleation and Growth	Bo Iversen	University of Aarhus	Denmark	SACLA General Proposal (Non-proprietary)	BL2	0.5
4	2022A8005	Study of redox state in metal protein crystal by simultaneous measurements of X-ray spectroscopy and SFX	Atsuhiro Shimada	Gifu University	Japan	SACLA General Proposal (Non-proprietary)	BL2	5
5	2022A8006 2)	Direct observation of C-H bond activation and C-C bond formation using XFEL in a computationally designed protein	Jiangyun Wang	Chinese Academy of Sciences	China	SACLA General Proposal (Non-proprietary)	BL2	5.5
6	2022A8007	Analysis of the structural changes of photosystem II probed by the pump-probe SFX method	Jian-Ren Shen	Okayama University	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
7	2022A8008	Studying of shock-inudced phase transition route of High Entropy Alloy using time-resolved X-ray diffraction	Kouhei Ichiyanagi	High Energy Accelerator Research Organization	Japan	SACLA General Proposal (Non-proprietary)	BL3	3
8	2022A8009	Pump-probe TR-SFX for Structural Dynamic Studies of Flexible Metal Organic Frameworks (MOFs) at an XFEL	Jose Martin-Garcia	Consejo Superior de Investigaciones Científicas	Spain	SACLA General Proposal (Non-proprietary)	BL2	4
9	2022A8010	Equation of State measurement of materials using Phase contrast Ultra High Resolution X-ray imaging technique	Michel Koenig	Centre National de la Recherche Scientifique	France	SACLA General Proposal (Non-proprietary)	BL3	4
10	2022A8011	Time-resolved Coulomb explosion imaging of inner-shell excited state dynamics in bromoiodomethane and diiodomethane	Ruaridh Forbes	SLAC National Accelerator Laboratory	USA	SACLA General Proposal (Non-proprietary)	BL1	7
11	2022A8013	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	4
12	2022A8014	Capturing the early structural dynamics associated with the formation of dual emissive excited-states of a copper cluster complex using time-resolved x-ray liquidography.	Hyotcherl lhee	Korea Advanced Institute of Science and Technology	Korea	SACLA General Proposal (Non-proprietary)	BL3	5
13	2022A8017	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
14	2022A8018	Development of wavelength-scale focusing system for soft x-ray free-electron laser pulses	Hiroto Motoyama	The University of Tokyo	Japan	SACLA General Proposal (Non-proprietary)	BL1	7
15	2022A8019	Observation of Bioluminescence Process by Serial Femtosecond Crystallography	Toru Nakatsu	Wakayama Medical University	Japan	SACLA General Proposal (Non-proprietary)	BL2	5
16	2022A8020 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
17	2022A8021	Study of electronic state of manganese compounds using nonlinear spectroscopy II	Kenji Tamasaku	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL3	7
18	2022A8022	Study of transient states of intense-laser-produced plasma using XFEL pulses (II)	Yuichi Inubushi	Japan Synchrotron Radiation Research Institute	Japan	SACLA General Proposal (Non-proprietary)	BL2	9
19	2022A8023	Time-resolved serial femtosecond crystallography using Temperature-jump techniques	Takaaki Fujiwara	Tohoku University	Japan	SACLA General Proposal (Non-proprietary)	BL2	3
20	2022A8024	Study of the photo-induced topological phase transition in a VTe2 crystal	Takeshi Suzuki	The University of Tokyo	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
21	2022A8025	Extended development of serial femtosecond crystallography complementing electron diffraction for structural analysis of organic crystals	Kiyofumi Takaba	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL2	5
22	2022A8026	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
23	2022A8027	Development of soft X-ray azimuthal angle resolved second harmonic generation measurement	Masafumi Horio	The University of Tokyo	Japan	SACLA General Proposal (Non-proprietary)	BL1	7
24	2022A8028	Observation of OH radicals in water using time-resolved soft x-ray absorption spectroscopy and flat liquid jet method	Hiroshi Iwayama	National Institutes of Natural Sciences	Japan	SACLA General Proposal (Non-proprietary)	BL1	7
25	2022A8030	Feasibility study of X-ray structure determination with sub-10 nm focused XFEL beam (III)	Ichiro Inoue	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
26	2022A8031 1)	Exploring quenching mechanism of higher energy state using ultrafast strain measurement behind femtosecond laser- driven shock front	Tomokazu Sano	Osaka University	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
27	2022A8032 1)	Molecular-level imaging using 100-nm Focused XFEL	Yoshinori Nishino	Hokkaido University	Japan	SACLA General Proposal (Non-proprietary)	BL2	7
28	2022A8033	Development of sub-10 nm XFEL focusing system and performance test	Kazuto Yamauchi	Osaka University	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
29	2022A8036	Spin gap control and dynamical quantum criticality in iridate antiferromagnets	Matteo Mitrano	Harvard University	USA	SACLA General Proposal (Non-proprietary)	BL3	5
30	2022A8037	All X-ray Transient Grating spectroscopy on FeGd: ultrafast demagnetization dynamics with chemical specificity	Cristian Svetina	Paul Scherrer Institute	Switzerland	SACLA General Proposal (Non-proprietary)	BL3	5
31	2022A8038 1)	Ultrafast solvation dynamics following photo-induced electron-abstraction from aqueous halides : An X-ray scattering study of the dynamical structure change in solvation shells	Verena Markmann	Technical University of Denmark	Denmark	SACLA General Proposal (Non-proprietary)	BL3	7
32	2022A8043	Exploring Photoinduced Directional Charge Transfer Pathways in Photocatalytic Heterobimetallic Complexes By Ultrafast X-ray Absorption Spectroscopy	Michael Mara	Northwestern University	USA	SACLA General Proposal (Non-proprietary)	BL3	5
33	2022A8045	Time-resolved electron-ion coincidence spectroscopy using double-core-hole states in EUV	Mizuho Fushitani	Nagoya University	Japan	SACLA General Proposal (Non-proprietary)	BL1	7
34	2022A8046	Time-resolved serial femtosecond crystallography of the CO2-fixation enzyme using the mix-and-jet injector	Eiichi Mizohata	Osaka University	Japan	SACLA General Proposal (Non-proprietary)	BL2	5
35	2022A8048	The Role of Hydrogen Metallization for Carbon-Hydrogen Phase Separation under Planetary Interior Conditions	Michael Stevenson	University of Rostock	Germany	SACLA General Proposal (Non-proprietary)	BL3	4
36	2022A8049	Tracking aqueous solvation dynamics with femtosecond X-ray spectroscopy and scattering	Katharina Kubicek	University of Hamburg	Germany	SACLA General Proposal (Non-proprietary)	BL3	5
37	2022A8050	Ultrafast Disordering of Shock-Compressed Matter	Nicholas Hartley	SLAC National Accelerator Laboratory	USA	SACLA General Proposal (Non-proprietary)	BL3	5
38	2022A8052	Determining of the mechanism of CO2 release from calcium carbonate – Do meteorite impacts cause significant CO2 releases	Craig Schwartz	University of Nevada, Las Vegas	USA	SACLA General Proposal (Non-proprietary)	BL3	5
39	2022A8056	Determining the atomic cause of SHG in a nonlinear crystal – Does a single element drive the nonlinear optical properties of LiHgPO4	Keith Lawler	University of Nevada, Las Vegas	USA	SACLA General Proposal (Non-proprietary)	BL1	9
40	2022A8057 1)	Monitoring the ultrafast structural dynamics coupled to charge separation in photosynthetic reaction centers: Why are photosynthetic reaction centers so efficient?	Jan Kern	Lawrence Berkeley National Laboratory	USA	SACLA General Proposal (Non-proprietary)	BL3	5
41	2022A8058	Direct detection of ultrafast nonthermal charge-density wave switching in 1T-TaS2	Xun Jia	Argonne National Laboratory	USA	SACLA General Proposal (Non-proprietary)	BL3	5
42	2022A8059	Investigation of x-ray optical wavemixing at near-resonant optical conditions in semi-conductors	Christina Boemer	Deutsches Elektronen-Synchrotron	Germany	SACLA General Proposal (Non-proprietary)	BL3	5
43	2022A8061	Magnetic Field Induced Phase Transition of Graphite in the Quantum Limit-II	Hiroyuki Nojiri	Tohoku University	Japan	SACLA General Proposal (Non-proprietary)	BL3	5
44	2022A8063	Ultrafast relaxation process of photoexcited WO3 observed by high energy fluorescence detected x-ray absorption spectroscopy (HERFD-XAS)	Yohei Uemura	European XFEL GmbH	Germany	SACLA General Proposal (Non-proprietary)	BL3	5
45	2022A8064	Direct imaging of a shock-induced dynamic fracture of ceramics using phase contrast imaging and in situ X-ray diffraction.	Sota Takagi	High Energy Accelerator Research Organization	Japan	SACLA General Proposal (Non-proprietary)	BL3	2
46	2022A8065	Precision structural determination of metal active center in metalloenzyme by high resolution damage free structural analysis	Takehiko Tosha	RIKEN	Japan	SACLA General Proposal (Non-proprietary)	BL2	4
47	2022A8066 1)	Small-Molecule Serial Femtosecond Crystallography for the Crystal Structure Determination of Silver Organothiolates	Elyse Schriber	University of Connecticut	USA	SACLA General Proposal (Non-proprietary)	BL2	5
48	2022A8067	Time-resolved study of short-wavelength superfluorescence from helium ions	James Harries	and Technology	Japan	SACLA General Proposal (Non-proprietary) SACLA General Proposal	BL1	7
49	2022A8068	single shot x-ray diffraction study of the spin-state ordering in LaCoU3 induced at a high magnetic field of 70 T	Akihiko Ikeda	Communications	Japan	(Non-proprietary)	BL3	5

¹ SACLA Research Proposals for Complementary Use with SPring-8, J-PARC/MLF or HPCI including the K computer / the supercomputer Fugaku. ²⁾ Including the feasibility check beamtime (FCBT) of 0.5 shifts in performed shift.