



|      | SHCLI                   |   |                      |  |             |   |          | 1Shift =12Hours |
|------|-------------------------|---|----------------------|--|-------------|---|----------|-----------------|
| Ė    | Proposal No.            | Performed Proposal Title  Direct observation of soft phonon mode dynamics in SrTiO3 through time-   | Project Leader       | Affiliation  | Country     | Type of Proposal  SACLA General Proposal                    | Beamline | Performed Shift |
| 1    | 2017B8001               | domain analysis of stimulated x-ray thermal diffuse scattering  | Tai Chiang           | University of Illinois  Max Planck Institute for medical                   | USA         | (Non-proprietary)   | BL3      | 5               |
| 2    | 2017B8002 <sup>1)</sup> | Monitoring the R-T transition in hemoglobin by time-resolved serial<br>femtosecond crystallography  | Ilme Schlichting     | Research   | Germany     | SACLA General Proposal<br>(Non-proprietary)                 | BL2      | 5               |
| 3    | 2017B8003               | XFEL-CXDI experiments toward high-resolution structure analyses of<br>biological specimens by signal enhancement and classification of phase-<br>retrieved images   | Masayoshi NAKASAKO   | Keio University  | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL2      | 4               |
| 4    | 2017B8004               | Research on interaction of SXFEL with matter for EUV ultra-precision<br>nano-fabrication  | Masaharu NISHIKINO   | National Institutes for Quantum and<br>Radiological Science and Technology | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL1      | 7               |
| 5    | 2017B8006               | Visualizing femtosecond X-ray damage processes via an XFEL pump-<br>harmonic XFEL probe scheme  | Ichiro INOUE         | RIKEN  | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL3      | 5               |
| 6    | 2017B8008               | Optical control of biological photoisomerisation using TR-SFX   | Jasper vanThor       | Imperial College London  | UK          | SACLA General Proposal<br>(Non-proprietary)                 | BL3      | 3               |
| 7    | 2017B8011               | C 1s photoelectron diffraction of rotational-wave-packet-controlled CO2 molecules   | Shinichirou MINEMOTO | The University of Tokyo  | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL1      | 7               |
| 8    | 2017B8012               | Time-resolved EXAFS studies of reaction intermediates in CO2 reduction photocatalytic reaction using Ir complex   | Takeshi MORIKAWA     | TOYOTA CENTRAL R&D LABS., INC.   | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL3      | 5               |
| 9    | 2017B8013               | Dislocation dynamics and carbon diffusion in steels using femto—second X-<br>ray diffraction  | Mitsuharu YONEMURA   | NIPPON STEEL & SUMITOMO<br>METAL CORPORATION                               | Japan       | SACLA General Proposal                                      | BL3      | 3               |
| 10   | 2017B8014               | High throughput determination of intact structures of radiation-sensitive Cu  | Michael Hough        | University of Essex  | UK          | (Non-proprietary) SACLA General Proposal                    | BL2      | 3               |
| 11   | 2017B8015 <sup>1)</sup> | and Fe metalloproteins using nanofabricated silicon nitride chips High-resolution structure of photosystem II in the intermediate state of the oxygen-evolving and water-splitting reaction using fixed-target protein          | Michihiro SUGA       | Okayama University   | Japan       | (Non-proprietary)  SACLA General Proposal (Non-proprietary) | BL2      | 4               |
| 12   | 2017B8019               | crystallography Time-resolved electron transfer and fragmentation dynamics of metallo-  | Nora Berrah          | University of Connecticut  | USA         | SACLA General Proposal                                      | BL3      | 5               |
|      | 2017B8020               | endohedral fullerenes using hard x-rays at SACLA Observation of photo-induced charge separation process of tungsten   | Kiyotaka ASAKURA     | Hokkaido University  | Japan       | (Non-proprietary)<br>SACLA General Proposal                 | BL3      | 5               |
| 15   | 201780020               | trioxide by femtoseconds time-resolved X-ray absorption spectroscopy  Dynamic observation of electronic structure of photodissociating iodine-  | Nyotaka ASAKSINA     | Tionnal of liver sity  | Supun       | (Non-proprietary)   | BES      | 3               |
| 14   | 2017B8021               | containing molecules by means of time-resolved electron spectroscopy using SX-FEL   | Masaki OURA          | RIKEN  | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL1      | 7               |
| 15   | 2017B8022               | Rapid structure determination system for drug-target proteins using the X-<br>ray free electron laser   | So IWATA             | RIKEN  | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL2      | 6               |
| 16   | 2017B8023               | Femtosecond X-ray protein nanocrystallography on the chloride pumping<br>mechanis of light-driven transport by a new type of chloride ion pump  | Mikako SHIROUZU      | RIKEN  | Japan       | SACLA General Proposal (Non-proprietary)                    | BL2      | 3               |
| 17   | 2017B8024               | Revealing the primary events in the photolysis of triruthenium dodecacarbonyl (Ru3(CO)12) using femtosecond X-ray solution scattering   | Hyotcherl Ihee       | Korea Advanced Institute of Science<br>and Technology                      | Korea       | SACLA General Proposal<br>(Non-proprietary)                 | BL3      | 5               |
| 18   | 2017B8025 <sup>1)</sup> | Structural analysis of the intermediate states of photosystem II water-<br>splitting reaction by pump-probe serial femtosecond crystallography  | Jian-Ren SHEN        | Okayama University   | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL2      | 5               |
| 19   | 2017B8028               | Spiriting reaction by pump-probe serial reintosection or ystallography Development of femtosecond X-ray crystallography and its utilization in structural biology on biological macromolecules susceptible to radiation damade. | Hideo AGO            | RIKEN  | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL2      | 7               |
| 20   | 2017B8029               | Femtosecond time-resolved XAFS study of renium complex for detecting transient electronic and molecular structures of the CO2-reducing  | Shin-ichi ADACHI     | High Energy Accelerator Research<br>Organization                           | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL3      | 5               |
| 21   | 2017B8031               | photocatalyst  Experiments of cherent controlled hard x-ray lasers  | Hitoki YONEDA        | The University of Electro-   | Japan       | SACLA General Proposal                                      | BL3      | 5               |
|      | 2017B8034               | Search for X-ray coherent Raman scattering  | Kenji TAMASAKU       | Communications RIKEN   | Japan       | (Non-proprietary)<br>SACLA General Proposal                 | BL3      | 5               |
|      | 2017B8035               | Time-resolved Serial Femtoseconds Crystallography (TR-SFX) for  | Osamu NUREKI         | The University of Tokyo  | Japan       | (Non-proprietary)<br>SACLA General Proposal                 | BL2      | 3               |
|      |                         | Developing Optogenetics Tools Structure determination of bovine heart cytochrome c oxidase at a reaction  | Atsuhiro SHIMADA     |  |             | (Non-proprietary)<br>SACLA General Proposal                 | BL2      | 3               |
|      | 2017B8036               | intermediate state by time-resolved SFX method  Development of versatile methods for protein structural dynamics analysis   |                      | Gifu University  | Japan       | (Non-proprietary)<br>SACLA General Proposal                 |          |                 |
|      | 2017B8038               | using time-resolved serial femtosecond crystallography Femtosecond resonant x-ray study of the ultrafast interplay between  | Eriko NANGO          | RIKEN  | Japan       | (Non-proprietary)<br>SACLA General Proposal                 | BL2      | 3               |
|      | 2017B8039               | excitonic, orbital and structural order in 1T-TiSe2 Time-resolved serial femtosecond crystallography of photocycle  | Urs Staub            | Paul Scherrer Institut   | Switzerland | (Non-proprietary)<br>SACLA General Proposal                 | BL3      | 7               |
|      | 2017B8041               | intermediates of the AR3 photoreceptor from Halorubrum sodomense Dynamical observation of thermal propagation using X-ray interferometric   | Isabel Moraes        | Diamond Light Source   | UK          | (Non-proprietary) SACLA General Proposal                    | BL2      | 3               |
| 28   | 2017B8042               | imaging and hybrid fringe scanning method Time-resolved serial femtosecond crystallography studies of the photo-  | Akio YONEYAMA        | Hitachi, Ltd.  | Japan       | (Non-proprietary)   | BL3      | 3               |
| 29   | 2017B8043               | dissociation of carbon monoxide from the active site of the proton pump cytochrome oxidase.   | Richard Neutze       | University of Gothenburg   | Sweden      | SACLA General Proposal<br>(Non-proprietary)                 | BL2      | 4               |
| 30   | 2017B8046               | All-X-ray time-resolved diffuse scattering from phonons using split and delay   | David Reis           | Stanford University/SLAC National<br>Accelerator Laboratory                | USA         | SACLA General Proposal<br>(Non-proprietary)                 | BL3      | 7               |
| 31   | 2017B8048               | Retrieval of structural and spin changes during the recombination of nitric<br>oxide (NO) to deoxy-Myoglobin in physiological solution  | Majed Chergui        | Ecole Polytechnique Fédérale de<br>Lausanne                                | Switzerland | SACLA General Proposal<br>(Non-proprietary)                 | BL3      | 7               |
| 32   | 2017B8050               | Time and energy resolution of the rich molecular dynamics of thiophene and its halogenated derivatives  | Edwin Kukk           | University of Turku  | Finland     | SACLA General Proposal<br>(Non-proprietary)                 | BL1      | 7               |
| 33   | 2017B8051               | Study on high-pressure phase transition of carbon using compound targets: exploration of ultrahigh pressure polymorphs above 1 TPa  | Norimasa OZAKI       | Osaka University   | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL3      | 5               |
| 34   | 2017B8052 <sup>2)</sup> | Time-resolved crystallography of ultrafast light driven DNA repair by photolyases   | Yoshitaka BESSHO     | Academia Sinica  | Taiwan, ROC | SACLA General Proposal<br>(Non-proprietary)                 | BL2      | 3.5             |
| 35   | 2017B8055               | Generalizing Time-resolved Crystallography: Temperature-Jump Studies of a Dynamic Enzyme  | Michael Thompson     | University of California, San<br>Francisco                                 | USA         | SACLA General Proposal<br>(Non-proprietary)                 | BL2      | 3               |
| 36   | 2017B8056               | Transient nanoparticle core structural dynamics at the solid-to-plasma  | Yoshiaki KUMAGAI     | Argonne National Laboratory  | USA         | SACLA General Proposal                                      | BL3      | 7               |
| 37   | 2017B8059 <sup>1)</sup> | transition Elucidating spin-lattice structure correlations in multi-ferroics and spin erossover compounds by using a pulsed high magnetic field X-ray diffraction system  | Hiroyuki NOJIRI      | Tohoku University  | Japan       | (Non-proprietary)  SACLA General Proposal (Non-proprietary) | BL3      | 5               |
| 38   | 2017B8060               | Time-resolved X-ray magnetic circular dichroism study of magnetization  | Hiroki WADATI        | The University of Tokyo  | Japan       | SACLA General Proposal                                      | BL3      | 5               |
|      | 2017B8061 <sup>1)</sup> | reversal dynamics in perpendicularly magnetized thin films with Pt atoms Bioimaging by Pulsed Coherent X-Ray Solution Scattering  | Yoshinori NISHINO    | Hokkaido University  | Japan       | (Non-proprietary) SACLA General Proposal                    | BL2      | 5               |
|      | 2017B8065               | Interatomic Coulombic decay between heavy atoms in organic molecule   | Tsukasa TAKANASHI    | Tohoku University  | Japan       | (Non-proprietary) SACLA General Proposal                    | BL1      | 7               |
|      | 2017B8066               | Two-color Detection of Mn K $\alpha$ Stimulated X-ray Emission Signals  | Uwe Bergmann         | SLAC National Accelerator  | USA         | (Non-proprietary)<br>SACLA General Proposal                 | BL3      | 5               |
|      | 2017B8067               | Femtosecond time-resolved X-ray diffraction study of atomic displacement  | Iwao MATSUDA         | Laboratory The University of Tokyo   | Japan       | (Non-proprietary)<br>SACLA General Proposal                 | BL3      | 5               |
|      |                         | during the photo-induced superconducting transition in a FeSe crystal   |                      |  | ·           | (Non-proprietary)<br>SACLA General Proposal                 |          |                 |
|      | 2017B8072               | Characterization of Liquid Carbon by X-ray Scattering  Ultrafast spin dynamics at an interface of magnetic heterojunctions studied  | Richard Saykally     | University of California, Berkeley   | USA         | (Non-proprietary)<br>SACLA General Proposal                 | BL3      | 3               |
|      | 2017B8074               | by resonant soft X-ray non-linear spectroscopy  | Masato KOTSUGI       | Tokyo University of Science  | Japan       | (Non-proprietary) SACLA General Proposal                    | BL1      | 7               |
|      | 2017B8075               | Crystal Mismatch Heating as a Mechanism for Ultrafast Melting   | Nicholas Hartley     | HZDR   | Germany     | (Non-proprietary) SACLA General Proposal                    | BL3      | 5               |
| 46   | 2017B8079               | Liquid mixing jet experiments using protein microcrystals for time-resolved serial crystallography  | Michihiro SUGAHARA   | RIKEN  | Japan       | (Non-proprietary)   | BL2      | 3               |
| 47   | 2017B8080               | Transformation dynamics of forsterite by lattice slipping using time-<br>resolved single crystal diffraction of XFEL  | Takuo OKUCHI         | Okayama University   | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL3      | 2               |
| 48   | 2017B8081               | Manipulation of nonlinear processes of atoms in EUV by ultrashort intense laser pulses  | Mizuho FUSHITANI     | Nagoya University  | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL1      | 7               |
| 49   | 2017B8083               | Development of time-resolved fluorescence spectroscopy with using<br>superfluorescence  | Hiroshi IWAYAMA      | National Institutes of Natural<br>Sciences                                 | Japan       | SACLA General Proposal<br>(Non-proprietary)                 | BL1      | 5               |
| 50   | 2017B8085               | Probing of oxygen induced intermediate states in Fe containing<br>metalloenzymes  | Jan Kern             | Lawrence Berkeley National<br>Laboratory                                   | USA         | SACLA General Proposal (Non-proprietary)                    | BL2      | 5               |
| 1) 0 |                         | h Proposals for Complementary Use with SPring-8, I-PARC/MLF or the Kico   |                      |  | _           |   |          |                 |

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