Acronyms Used

2D	Two Dimensional
3D	Three Dimensional
ADC	Analog-to-Digital Converter
ADP	Atomic Displacement Parameters
AFM	Atomic Force Microscope
ANL	Argonne National Laboratory
AOD	APS Operations Division
APD	Avalanche Photodiode
APS	Advanced Photon Source
ASD	Accelerator Systems Division
ASRP	Australian Synchrotron Radiation Project
BA	Born Approximation
BCDA	Beamline Controls and Data Acquisition
BCTF	Beamline Components Test Facility
BESSY	Berliner Elektronenspeicherring-Gesellschaft fur Synchrotronstrahlung (Germany)
BINP	Budker Institute of Nuclear Physics (Russia)
BM	Bending Magnet
BWR	Boiling Water Reactors
CAT	Collaborative Access Team
CCD	Charge Coupled Device
CCST	Coordination Council for Science and Technology
CMR	Colossal Magnetoresistance
CNM	Center for Nanoscale Materials
CPU	Circularly Polarized Undulator
CVD	Chemical Vapor Deposition
DAC	Digital-to-Analog Converter
DESY	Deutsches Elektronen-Synchrotron (Germany)
DMM	Double-Multilayer Monochromator
DOE	Department of Energy
DOS	Density of States
EDX	Energy Dispersive X-ray
EPICS	Experimental Physics and Industrial Control System
ESRF	European Synchrotron Radiation Facility (France)
FEL	Free-Electron Laser
FIB	Focused Ion Beam
FM	Ferromagnetic

FOE	First Optics Enclosure
FWHM	Full Width Half Maximum
FZP	Fresnel Zone Plate
GPIB	General Purpose Interface Bus
GSAS	General Structure Analysis System
HASYLAB	Hamburger Synchrotronstrahlungslabor (Germany)
HDF	Hierarchical Data Format
HEX	High-Energy X-ray
HHL	High Heat Load
HP	High Pressure
I	Insulating Layer
ID	Insertion Device
IDL	Interactive Data Language
IXS	Inelastic X-ray Scattering
JCA	Java Channel Access
KB	Kirkpatrick Baez
KEK	Japanese High Energy Accelerator Research Organization
LCLS	Linac Coherent Light Source
LDRD	Laboratory Directed Research & Development
LEGe	Low-Energy Germanium
LEUTL	Low-Energy Undulator Test Line
LLL	Triple Laue
LTP	Long Trace Profiler
Mb	Myoglobin
MDA	Multidimensional Archive
MCS	Mathematics and Computer Science Division at ANL
ML	Multilayer
MPF	Message Passing Facility
MPI	Message Passing Interface
MR	Magnetoresistance
MRAM	Magnetic Random Access Memory
MSD	Materials Science Division at ANL
MTJ	Magnetic Tunneling Junctions
Nano	Nanoscience
NIST	National Institute of Standards and Technology
NRIXS	Nuclear Resonant Inelastic X-ray Scattering
NRS	Nuclear Resonant Scattering
NSLS	National Synchrotron Light Source

OFM	Optics Fabrication and Metrology
OMCTS	Octamethylcyclotetrasiloxane
ORNL	Oak Ridge National Laboratory
OSA	Order-Sorting Aperture
PEEM	Photoelectron Microscope
PEM-FC	Polymer-Electrolyte Membrane Fuel Cell
PID	Proportional Integral Differential
PLY	Partial Luminescence Yield
PMMA	Polymethylmethacrylate
PTBA	Poly(Tert-Butyl Acrylate)
PWR	Pressurized Water Reactors
PZT	Piezoelectric Transducer
R&D	Research & Development
RE	Rare Earth
SAM	Self-Assembled Monolayers
SASE	Self-Amplified Spontaneous Emission
SFA	Surface Force Apparatus
SIRT	Simultaneous Iterative Reconstruction Technique
SLS	Swiss Light Source (Switzerland)
SPring	Super Photon Ring – 8 GeV (Japan)
SRI	Synchrotron Radiation Instrumentation
SSRL	Stanford Synchrotron Radiation Laboratory
STXM	Scanning Transmission X-ray Microscope
TEM	Transmission Electron Microscopy
TFY	Total X-ray Fluorescence Yield
TLY	Total Luminescence Yield
TM	Transition Metal
TTU	Topo Test Unit
UPD	User Program Division
VUV	Vacuum Ultraviolet
XANES	X-ray Absorption Near-Edge Spectroscopy
XAS	X-ray Absorption Spectroscopy
XBPM	X-ray Beam Position Monitor
XFD	Experimental Facilities Division
XMCD	X-ray Magnetic Circular Dichroism
XMLD	X-ray Magnetic Linear Dichroism
XMLL	X-ray Magnetic Linear Loop
XRF	X-ray Fluorescence
XRMS	X-ray Resonant Magnetic Scattering