

## ***List of User Experiments***

*See our web site*

***"[http://www.spring8.or.jp/ENGLISH/user\\_info/user\\_ex\\_repo/](http://www.spring8.or.jp/ENGLISH/user_info/user_ex_repo/)"***

*SPring-8 opened for research in October 1997 and holds two calls per year for proposals to use beamlines. The results in the third period 1999A (November through June 1999) and the fourth period 1999B (September through November 1999) are to be recorded in this annual report, which we have already issued SPring-8 User Experiment Report No. 3 (1999A) and No. 4 (1999B) and opened on the Web*

*([http://www.spring8.or.jp/ENGLISH/user\\_info/user\\_ex\\_repo/](http://www.spring8.or.jp/ENGLISH/user_info/user_ex_repo/)).*

*The contents of the report are the collection of papers submitted by users in their experimental report forms within 60 days after their experiments. In this annual report, therefore, only the titles of Experiments are listed. If the reader want to know more, please visit our website*

*([http://www.spring8.or.jp/ENGLISH/user\\_info/user\\_ex\\_repo/](http://www.spring8.or.jp/ENGLISH/user_info/user_ex_repo/)).*

# List of User Experiments

*first author*

## **BL01B1**

The Elucidation of the Charge Order by XANES Measurement of $MV_2O_5$ Compound	T. Shobu
XAFS Study on the Structure of Palladium or Platinum Carbonyl Complex	Q. Xu
XAFS Studies on the Interaction between Pd and $CeO_2$ Ultrafine Particles	Y. Matsumura
Influence of the kind and Bronsted acid amount of zeolite on the structure and methane combustion activity of Pd	K. Okumura
XAFS Study of Local Structure in PMN Based Thin Film Materials	K. Yasukawa
Evaluation of Energy Resolution of BL01B1 Using XANES Spectra of Various Metal Ions	T. Tanaka
XAFS Study on Liquid Selenium under High Temperature and High Pressure	Y. Katayama
A Feasibility Study of Silicon PN Photodiodes as X-ray Intensity Monitors for High Flux X-ray Beam and their Application to XAFS Experiments	K. Sato
XAFS Studies of Local Structure of Thin Film of Alkali Halide Single Crystals	T. Murata
XAFS Studies on $(Ba,Sr)TiO_3$ Thin Films	H. Kimura
XAFS Study on the Role of Pb on Formation of Corrosion Products(Rust) of Structural Materials	T. Nakayama
Temperature-dependent EXAFS study on a superionic-conducting halide glass based on AgI	H. Kageyama
XAFS Study on the Local Structure Change around Silver in Zeolites. II. Differences with the Exchange Ratio and the Treatment Temperature	H. Sakane
Total-Reflection XAFS of Aqueous Solution Surface	I. Watanabe
Development of the Light-Modulated XAFS Spectroscopy	K. Okamoto
XAFS Study on Nitrogenation of $CoZrSn$	M. Kurisu
Study on the Local Structure of Lanthanoid Complex by Ln K-edge EXAFS	T. Miyanaga
Local structure analysis for low-loading supported Ir catalysts by means of	T. Kubota

## XAFS

Local Structure and Magnetic Property for Hard Magnetic Materials $\text{Sm}_2\text{Fe}_{17}\text{N}_x$	H. Kasatani
XAFS Analysis of Corroded Metal Surface with Molten Salts by Conversion-Electron-Yield Method	E. Yanase
Local structure of Ag-In-Sb-Te alloy films	K. Tani
XAFS Study of the Local Structures in Mixed Conducting Oxides	Y. Uchimoto
XAFS Studies on the Titanium Oxide-Based Photocatalysts Capable of Operating under Visible Light Irradiation Prepared by an Advanced Metal Ion-Implantation Method	M. Anpo
The nondestructive characterization for cadmium and zinc accumulated in the deep-sea organism	C. Numako
Energy Characteristics of Radiophotoluminescence Glass Dosimeter	K. Tabushi
Characterization of BL01B1 in High Energy Region	S. Emura
EXAFS Measurements of $\text{Nd}_3^+$ -doped Sodium Borate Glasses on the Nd K-edge	H. Takebe
Eu K-and LIII-XANES spectra for new red phosphor $(\text{La}_{1-x}\text{Eu}_x)_2\text{O}_2\text{CN}_2$	M. Takahashi
XAFS Analysis for Complex Formation of 1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetic acid and Ce(III) Ion	H. Wakita
Local structure analysis of tantalum oxide films by Ta L-shell XAFS	M. Takemura
EXAFS study of mechanically alloyed $\text{Y}_2\text{Ni}$	I. Nakai
Studies on the formation and structure of highly dispersed PdO interacted with Brønsted acid sites of zeolite by EXAFS	K. Okumura
Local Structure of Erbium Doped Glasses Studied with XAFS Measurements II.	K. Haga
An application of the conversion electron yield technique to the higher energy XAFS measurement	M. Takahashi
Electronic Structure of $\text{Eu}@C_{60}$	Y. Kubozono
XAFS Studies of Local Structure of Thin Film of Alkali Halide Single Crystals	T. Murata
XAFS Study of Local Structure in PMN Based Thin Film Materials	K. Yasukawa
EXAFS on adsorption of Cs in Bentonite barriers of nuclear waste repositories	M. Nakano

Mixed Valence State in Double-Perovskite-Type Iron Oxides by XANES Measurements	H.Yamauchi
Structural analyses of Cd(II) Surface Complex on Montmorillonite	R. Takamatsu
Solvation Structure of Iodide Ions Affected by the Counter Ions	H. Tanida
Double-electron excitation in Xe	Y. Ito
XAFS Structure Analysis of Triiodide Ion in Solutions	H. Sakane
Low Temperature High Energy XAFS Study of Sm:K-edge of Hard Magnetic Materials $\text{Sm}_2\text{Fe}_{17}\text{N}_x$	H. Kasatani
K-XAFS study of rare earth ions doped in long-lasting phosphor	Y. Shimizugawa
Structural Analysis of Tin-doped Indium Oxide (ITO) Thin Film by XAFS Spectroscopy	J. Matsuo
XAFS Study on $\text{La}_2\text{@C}_{80}$	T. Akasaka
Tellurium K-edge XAFS of Sb-Te alloy films on polycarbonate substrates	K. Tani
XAFS Study of Molybdenum Magneli-Phase	Y. Kuroiwa
Analysis of the active site structure of Pd-promoted Mo sulfide catalysts by means of XAFS	T. Kubota
In Situ Structural Analysis of Model Complexes for Enzymatic Oxygenation	T. Tanaka
Analysis of local structure and perpendicular magnetic anisotropy of GdCo and GdFe thin films	Y. Fujiwara
EXAFS study on the Debye-Waller factor of perovskite crystals	Y. Nishihata
Local Structure of Iodide Anions Adsorbed on Ion-Exchange Resin	M. Harada
XAFS measurement of rare earth elements in $\text{CeO}_2\text{-Gd}_2\text{O}_3$ binary oxide system	T. Nakagawa
<b><i>BL02B1</i></b>	
Development of accessories and apparatus at BL02B1	Y. Noda
Precursor Phenomena on the First-Order Phase Transition in a ferroelastic compound $\text{NdNbO}_4$	Y. Kuroiwa
Single Crystal Analysis of $\beta\text{-O}_2$ of High Pressure Phase	T. Shobu
Charge Sub-lattice Structure of $\text{RFe}_2\text{O}_4$	N. Ikeda
Development of Electronic Excited State Crystallography by Imaging Plate	Y. Ozawa

Detector

Crystal Structures of TCNQ derivatives / Radical Anion 1:2 mixed Salts	Y. Kai
Crystal Structure Analysis of $\text{Mg}_2\text{SiO}_4$ Powder Using High-Energy and High-Resolution X-ray Beams	H. Toraya
Precise Measurements of Lattice Parameters of $\gamma$ and $\gamma'$ Phases in Ni Base Alloys	T. Sakon
Micro-Crystal Structure Analysis and Its Application to the Study of Photo-Induced Structural Change of the Metal Complex	K. Toriumi
Lattice modulation and charge ordering in the superconducting $\text{La}_{1.885}\text{Sr}_{0.115}\text{CuO}_4$	H. Kimura
Study of the critical diffuse scattering of $(\text{P}(\text{CH}_3)_4)_2\text{CoBr}_4$	Y. Noda
Stress analysis of processed Si chip	Y. Mori
Crystal Structure Analyses of Bovine Rhodopsin	T. Okada
Crystal Structure of Low-Temperature Twinned Phase in $\text{Rb}_2\text{ZnBr}_4$ and $\text{K}_2\text{ZnCl}_4$	H. Shigematsu
Precise Crystal Structure Analysis of $\text{K}_3\text{H}(\text{SO}_4)_2$ by High Energy X-ray Diffraction Method	H. Kasatani
Accurate Electron Density Measurement in Rare-Earth Complexes with SR and Vacuum Camera	K. Tanaka
Temperature dependence of the crystalline and magnetic structure of Er thin films	Y. Tanaka
Structure refinements of a $\text{FeTiO}_3$ ilmenite single crystal at high pressure using hard x-rays of 30keV	T. Hattori
Development of Power Diffractometry Suitable for the Maximum Entropy Method	M. Sakata
Co-existence of Two-Wavelength Fluctuations in Lead Scandium Niobate	N. Takesue
Lattice Modulation and Charge Ordering Associated with the Spin Ordering in CeP	Y. Noda
Accurate Electron Density Measurement in Rare-Earth Complexes with SR and Vacuum Camera.	K. Tanaka
A Set-Up and a Performance Test of the Vacuum Type Low-Background X-ray Camera	K. Toriumi

Charge Sub-lattice Structure of $RFe_2O_4$	N. Ikeda
X-ray Induced Structural Phase Transition of Endohedral Metallofullerene $La@C_{82}$	T. Watanuki
X-ray critical scattering of magnetite at Verwey transition	T. Toyoda
X-ray Diffuse Scattering in $Pr_{0.6}Ca_{0.4}MnO_3$	S. Shimomura
Crystal Structure Analysis of $Mg_2SiO_4$ Powder Using High-Energy and High-Resolution X-ray Beam	H. Toraya
Precise Crystal Structure Analysis of $K_3H(SO_4)_2$ by High Energy X-ray Diffraction Method	H. Kasatani
X-ray study of the phason strains in Al-Ni-Co and Al-Cu-Fe quasicrystals	Y. Matsuo
Low temperature superstructure in intramolecular hydrogen bonded materials Me-HPLN	M. Watanabe
Lattice Modulation and Charge Ordering Associated with the Spin Ordering in CeP	Y. Noda
Development of accessories and apparatus at BL02B1, II	Y. Noda
Charge and lattice state of $NaV_2O_5$ under low-temperature and high pressure	K. Ohwada
Structural Study on the CDW Transitions in Molybdenum Oxides $ETA-Mo_4O_{11}$	Y. Kuroiwa
Stress analysis of processed Semiconductor chips	K. Okada
Structure refinements of a $FeTiO_3$ ilmenite single crystal at 6.1GPa using hard x-rays of 30keV	T. Hattori

### ***BL02B2***

The Structural Study of Novel Functional Materials by Using New Large Dabye-Scherrer Camera at BL02B2.	E. Nishibori
A Study of Structural Phase Transition for the Fullerene Compounds in the Electron Density Level by the Maximum Entropy Method.	E. Nishibori
Direct Observation of the Charge and/or Orbital-control in Layered-type Doped Manganites by the MEM Charge Density Study.	E. Nishibori
Step-Scanned Intensity and Angular Resolution of Powder Diffraction Data Collected at BL02B2 Station	H. Toraya

### ***BL04B1***

In Situ Observation of Cotunnite-type $ZrO_2$	O. Ohtaka
---	-----------

In-situ X-ray diffraction study of crystallization process of Nd-Fe-B amorphous alloys under high pressure	S. Hirosawa
The Structural Change near the Semiconductor-Metal Transition in Arsenic Chalcogenides	H. Endo
Density dependent structural changes in supercritical sulphur	S. Hosokawa
X-ray Diffraction Measurements for Expanded Fluid Mercury	K. Tamura
The equation of state experiments of dry wadsleyite, $Mg_2SiO_4$ and hydrous wadsleyite, $Mg_{1.75}SiO_4H_{0.5}$ under the condition of the mantle transition zone	T. Inoue
Spinel-postspinel phase transition boundary in a pyrolite composition determined by in situ X-ray diffraction at high pressure and high temperature	T. Irifune
Structure of liquid phosphorus under high pressure	T. Mizutani
In situ x-ray diffraction study of graphite-diamond transition without catalysts under high pressures	W. Utsumi
In situ observation of pressure-induced amorphization in quartz	W. Utsumi
Viscosity of basaltic silicate melt at High Pressure	K. Funakoshi
In situ X ray Diffraction Study of High-pressure phases of $SnO_2$	E. Ito
Breakdown of Pyrope Garnet at High Pressures	K. Hirose
High-pressure and high-temperature in situ X-ray diffraction study of garnet	T. Sumita
Precise determination of the phase boundary between spinel and perovskite+periclase in the system $Mg_2SiO_4$ - $Fe_2SiO_4$	T. Katsura
In-situ viscosity measurement of $SiO_2$ melt at high pressure	M. Kanzaki
Structure of the Fe-FeS Eutectic Melt at High Pressure	S. Urakawa
$H_2O$ effect on the rheological behavior of $Py_{50}Mj_{50}$ -garnet at high pressure condition	J. Ando
Structure of Liquid Tellurium under Pressure	N. Funamori
In situ X-ray diffraction study on the olivine-spinel transformation kinetics of $Mg_2SiO_4$	T. Kubo
Structure of liquid IIIb-Te mixtures at high temperature	S. Takeda
Structure of liquid IIIb-Te mixtures at high temperature	S. Takeda

Equation of state and melting temperatures of iron at high pressures and temperatures	Y. Wang
In situ viscosity measurement of melt in the system of Fe-FeS under high pressure	H. Terasaki
Melting reaction of $\text{Ca}(\text{OH})_2$	H. Fukui
In situ x-ray diffraction study of hexagonal diamond formation under high pressures and temperatures	W. Utsumi
Structure of liquid IIIb-Te mixtures at high temperature	S. Takeda
Viscosity of melt in diopside-jadeite system at high pressure by x-ray radiograph	A. Suzuki
Viscosity of basaltic silicate melt at high pressure	K. Funakoshi
Breakdown of Pyrope Garnet at High Pressures	K. Hirose
Time-resolved X-ray diffraction study on the a-b transformation kinetics of $\text{Mg}_2\text{SiO}_4$	T. Kubo
Re-determination of the Phase Boundary of the Post-Spinel Transition in $\text{Mg}_2\text{SiO}_4$	T. Katsura
Exploration of beta-Fe using sintered diamond anvils	E. Ito
Structure of Liquid Silicon under Pressure	N. Funamori
X-ray Diffraction Measurements for Expanded Fluid Selenium	M. Inui
Research and development of a sapphire cell used for x-ray diffraction experiments of supercritical metallic fluids	K. Tamura
In-situ measurement of rheological behavior of $\text{Py}_{50}\text{Mj}_{50}$ -garnet at high pressure and temperature	J. Ando
Development of experimental techniques for in situ X-ray diffraction observations at pressures beyond 30 GPa	T. Irifune
The phase boundary of BETA-GAMMA in $\text{Mg}_2\text{SiO}_4$ and the equation of state of GAMMA- $\text{Mg}_2\text{SiO}_4$	T. Inoue
<b><i>BL04B2</i></b>	
Single crystal X-ray structure analyses of micro crystals of small molecules using high energy X-rays and a cylindrical image plate	T. Ozeki
Development of high-energy X-ray diffractometer for amorphous materials	K. Suzuya



The development of containerless measurement for the high temperature fused melts by high energy X-ray diffraction	S. Kohara
High Energy Monochromatic X-ray Crystallography under High-pressure	Y. Ohishi
Development of Structural Analysis for Molten Salts and Solution by High-Energy X-ray Diffraction	N. Umesaki
Small angle x-ray scattering experiments for supercritical metallic fluids	K. Tamura
Performance of Bent Crystal Monochromators for High Energy Synchrotron Radiation	H. Yamaoka
Performance of a high-resolution Compton scattering spectrometer for heavy elements at BL08W	Y. Sakurai
Improvement of 90°-Scattering Magnetic Compton-Profile method with High Energy X-Rays	M. Seigo
Evaluation of complex magnetic moment in amorphous $Gd_{60}Fe_{10}Al_{30}$ by Magnetic Compton Profile measurements	M. Fujio
First trial of coincidence measurement between Compton scattered x-rays and recoiled electrons associated with the Bormann effect.	M. Toutani
Temperature dependence of Compton Profile in CeNi	N. Hiraoka
Orbital distribution of Mn-3d(eg) electrons in the layered Mn perovskite $La_{2-2x}Sr_{1+2x}Mn_2O_7$ (x=0.42)	A. Koizumi
Magnetic Compton profiles in the intermetallic compounds $SmFe_2$ and pure Iron	H. Miyagawa
Magnetic Compton Profiles of $CeFe_2$ and $CeRu_2$ based compounds: Phase I	B. Sharma
X-ray fluorescence analysis of heavy elements by using $K\alpha$ lines excited by high energy X-rays	I. Nakai
Evaluation of complex magnetic moment in amorphous $Gd_{60}Fe_{30}Al_{10}$ by Magnetic Compton Profile measurements	M. Fujio
Verification of Magnetic State of Ni in $Gd_{0.5}Ni_{0.5}$ Utilizing Magnetic Compton-Profile Method	K. Yano
Temperature dependence of a Compton Profile of CeNi	N. Hiraoka
Measurement of Magnetic Compton Profile of Ferro-magnet $Eu(Sr)O$	N. Sakai
Spin-resolved Measurement of Recoil Electrons in Compton Scattering	M. Itou
Experimental Determination of Multiply Scattered X-ray Spectra in Compton	M. Itou

## Scattering Measurement

Development and application of high energy X-ray fluorescence technique for provenance analysis of archaeological samples	I. Nakai
Verification of Y magnetic moment in amorphous Fe <sub>78</sub> Y <sub>22</sub> by magnetic Compton scattering	K. Yano
Magnetic Compton Scattering Studies of the Temperature Dependence of the Spin Moments in DyCo <sub>5</sub>	H. Miyagawa
The X-ray fluorescence analysis for archaeological samples	K. Yamahana
X-ray fluorescence analysis of heavy elements by using K $\alpha$ lines excited by high energy X-rays(II)	I. Nakai

## ***BL09XU***

Orderde Structure in Buried Oxide Layers of SIMOX wafers	T. Shimura
Surface Structure Analysis at Solid Liquid Interfaces: A Preliminary Study of Cu Underpotential Deposition on a Au(111) electrode in a Sulfuric Acid Solution	M. Nakamura
Dynamical beats of the nuclear forward scattering at the Neel temperature of <sup>57</sup> FeBO <sub>3</sub> single crystal	T. Mitsui
Development of Fabry-Perot type X-ray Interferometer	S. Kikuta
Intensity correlation with x-ray photons	M. Yabashi
Study of X-ray parametric down-conversion	Y. Yoda
Lattice Dynamical Studies of Low-Dimensional Materials by Nuclear Resonance Inelastic Excitation	M. Seto
Study of Iron-Storage Protein Ferritin by using Nuclear Resonant Quasi-elastic and Inelastic Scattering	Y. Maeda
Study of the GaAs(111)B/Ge/GaAs(111)A Structure by X-ray Diffraction	S. Nakatani
Modulation of CTR scattering intensity under the Bragg condition	W. Yashiro
Interface Structure Revealed by Anomalous X-Ray Diffraction	M. Seto
Study on Site Specific Nuclear Resonant Inelastic Scattering	K. Akimoto
In-Beam Mossbauer Study on the fast diffusion in metals and semiconductors using a conversion electron counter	Y. Yoshida
Preliminary Study for the X-ray Standing Wave Analysis of the Electrode /	A. Saito

Zirconia (solid state electrolyte)Interface	
Observation of Nuclear Excitation in $^{197}\text{Au}$ with an APD electron detector	S. Kishimoto
Development of X-ray Timing detectors using multi-element APDs	S. Kishimoto
Inelastic X-ray nuclear resonant scattering of $^{57}\text{Fe}$ fine particle	I. Koyama
Measurement of Internal Conversion Electrons from Monatomic Layer on Surfaces	T. Okano
Structure analysis at solid liquid interfaces	M. Nakamura
Development of X-ray Timing detectors using multi-element APDs	S. Kishimoto
Study on Magnetite by Using Site Specific Nuclear Resonance Inelastic Scattering	M. Seto
Extremely asymmetric x-ray diffraction from silicon wafers covered with a thin $\text{SiO}_2$ film	Y. Kudo
Generation of idler soft X-rays using X-ray non-linear effect	Y. Yoda
Study of nuclear cascade scattering	Y. Yoda
Structure analysis at solid liquid interfaces: Underpotential deposition of copper on Pt(111) and Au(111) electrodes in sulfuric acid solution	M. Nakamura
In-Beam Mössbauer Study on the fast diffusion and the gettering processes of Fe in Si	Y. Yoshida
Structural study on ultra-thin $\text{SiO}_2$ crystal on Ni(111)	H. Tajiri
Dynamics of Fe Cations in Nafion Membranes with $^{57}\text{Fe}$ Nuclear Resonant Quasielastic Scattering	M. Seto
X-ray Standing Wave Analysis of the Electrode/ Zirconia (solid state electrolyte) Interface	A. Saito

### ***BL10XU***

Compressibility measurements of hydrous ringwoodite	H. Yusa
Powder X-ray diffraction Study on Solid Hydrogen	H. Kawamura
Ruby scale and NaCl scale at low temperatures and high pressures	H. Kawamura
High-pressure and high-temperature in-situ X-ray diffraction study of $\text{FeSiO}_3$ using a resistive heated diamond anvil cell	T. Nagai
Structure Analysis of Tetrahedral-Molecular Crystal and Amorphous at High	N. Hamaya

## Pressure

Search for Crystal Structure of $\text{SnI}_4$ Showing Anomaly of Superconductivity at Low Temperature and High Pressure	N. Hamaya
Crystal Structure Analyses of Solid Oxygen High-Pressure Phases and Research for Molecular Dissociation	Y. Akahama
Study on Simple Cubic-Simple Hexagonal Structure Transition in Phosphorus	Y. Akahama
Study of synthetic process of lead-zirconate-titanate thick film using a new sol-gel precursor with poly vinyl butyral binder	M. Ishii
Local Structural Analyses of Multilayers by Standing Wave XAFS Method	T. Uruga
The Capacitance-XAFS (C-XAFS) - A first C-XAFS signal from DX center in AlGaAs	K. Takarabe
Electron density study of high pressure phase GaAs by MEM method	N. Ishimatsu
Density of Liquid Selenium under High Temperature and High Pressure	Y. Katayama
Constraction of the Laser-heated Diamond Anvil Cell System	T. Watanuki
Electron Density Distribution Analysis of Pressure-Induced s-d Transition of Cesium by MEM	Y. Ohishi
Optics using X-ray Refractive Lens at BL10XU	Y. Ohishi
XANES Study of Rare-Earth Valency in $\text{CeRu}_4\text{P}_{12}$	C. Lee
Powder X-ray Diffraction Study of $\text{LaFeO}_3$ under High Pressure up to 80 GPa	S. Nasu
Crystal Structure of NiO under High Pressure	T. Eto
Charge Dnsity Study of $\text{YBa}_2\text{Cu}_4\text{O}_8$ under High Pressure by the Maximum Entropy Method	M. Takata
Compression behavior of diamond	A. Onodera
Structure of Chalcogens under High Pressure	K. Nagata
Solid solubility relations between Mg-perovskite and Ca-perovskite under the lower mantle conditions	K. Fujino
Polarized XAFS Studies of Local Lattice Distortions and Charge Ordering	N.L. Saini
Structural Phase Transition of Molecular Crystals under High Pressure: X-Ray Powder Diffraction of $\text{CH}_4$ and $\text{H}_2$	H. Kawamura

Direct Observation of the Pressure Induced Orbital-control in Layered-type Doped Manganites by the MEM Charge Density Study	M. Takata
Crystal structure of Li under high pressure	Y. Mori
X-ray Absorption Fine Structure of Selenium Free Clusters	M. Yao
Powder X-ray diffraction of solid hydrogen	H. Kawamura
High Pressure X-ray Diffraction from Single Wall Carbon Nanotubes Bundles	S.M. Sharma
Crystal Structure Analyses of Solid Oxygen High-Pressure Phases and Research for Molecular Dissociation	Y. Akahama
Structural phase transitions of FeS under high pressure	H. Kobayashi
X-ray fluorescence holography using multi element solid state detector	K. Hayashi
Search for Crystal Structure of $\text{SnI}_4$ Showing Anomaly of Superconductivity at Low Temperature and High Pressure	N. Hamaya
Fluorescence XAFS measurement of ultra-diluted biological samples with Undulator Gap Scan XAFS method	Y. Shiro
Photoemission process of localized electron in carrier trap and its application to site-selective x-ray absorption fine structure	M. Ishii
Diffraction Experiment of $\text{CaFeO}_3$ under High Pressure Condition	I. Koyama
Local Structural Analyses of Multilayers by Standing Wave XAFS Method	T. Uruga
High Pressure Powder X-ray Diffraction Study of a Hexagonal Phase in Zn-Mg-Dy Alloy	T. Watanuki
Pressure variation of electron density distribution of CeP and CeSb	N. Ishimatsu
Construction of the Laser-heated Diamond Anvil Cell System	T. Watanuki
Site-selective XAFS Spectroscopy of Surface Active Sites of Copper Catalyst Utilizing a Fluorescence Spectrometer	Y. Izumi
Phase transition of SmAs with NaCl-type structure at high pressures	J. Hayashi
Powder X-ray Diffraction Study of $\alpha\text{-Fe}_2\text{O}_3$ under High Pressure up to 101 GPa	S. Nasu
Compression behavior of $\text{CeCu}_2\text{Ge}_2$ at cryogenic temperature	S. Tsuduki
Powder X-ray diffraction experiments of carbon nanotubes under high pressure	H. Yusa

### ***BL14B1***

High Pressure-High Temperature Synthesis of Perovskite BaZrS <sub>3</sub>	H. Kawamura
Application of time resolved x-ray diffraction measurements to kinetic study during the SiO <sub>2</sub> quartz-to-coesite transition	T. Nagai
<i>In situ</i> SXS Study of Electrodeposition Process on Electrode	K. Uosaki
Effect of uniaxial stress to lattice strain of MgO at high-pressure and high-temperature	T. Sumita
Structural Study of Liquids under Pressure Using Angle-Dispersive X-Ray Diffraction	K. Tsuji
XAFS for Probing the Hole Distribution among the Different Layers in Superconducting Cuprates	H. Yamauchi
In-situ observation of an atomic structure of underpotential decomposition tellurium monolayer	A. Awakura
Kinetics of the quartz-to-coesite transformation by time resolved X-ray diffraction experiments	T. Fujisawa
Structural Study of Liquid Silicon under Pressure Using Angle-Dispersive X-Ray Diffraction	K. Tsuji
Observation of the formation and the melting of high pressure phase of (VO) <sub>2</sub> P <sub>2</sub> O <sub>7</sub>	M. Azuma

### ***BL20B2***

Production of x-ray microbeam with a grazing incidence mirror	A. Takeuchi
Development of micro-angiography system for observation and analysis of microcirculation	K. Umetani
Development of Refraction-contrast Imaging System at BL20B2	Y. Suzuki
Development of a novel radiography for visualization of a bone fracture and a bone trabecula	K. Mori
Quantitative Measurement of Phase-Contrast In Terms of X-Ray Imaging Using Biological Phantom	M. Urakawa
Refraction Imaging of the Resected Specimen Using Synchrotron Radiation (SPring-8): Imaging and Pathologic Correlation on the Bronchogenic Carcinoma and the Breast Cancer	M. Kono
High resolution X-ray imaging using refraction-contrast imaging	K. Yamasaki

Development of X-Ray Zooming Optics	M. Ando
Zernike Phase Contrast Microscopy Experiments Using X-ray Refractive Lenses	Y. Kohmura
A study of three-dimensional structures of chondrules by an XTM	A. Tsuchiyama
Test of Ultra-small-angle Scattering Experiments using a Medium-length Beamline	N. Yagi
Development of Medical CT Apparatus using SPring-8	N. Yagi
Development of advanced topography at BL20B2	S. Iida
Development of X-ray fluorescen technique for analysis of large samples for criminal investigation	I. Nakai

### ***BL23SU***

Production of multiply charged ion target for photoionization studies	M. Oura
Photon Ion Collision Experiments at the SPring-8	H. Yamaoka
Feasibility study of the experimental apparatus for photoabsorption processes of multiply charged ions-III	M. Oura
3d and 3p Photoionization of Xe	H. Yamaoka

### ***BL25SU***

Small MCD of nonmagnetic $\text{CeFe}_4\text{P}_{12}$ and $\text{LaFe}_4\text{P}_{12}$	T. Miyahara
Soft X-ray Magnetic Circular Dichroism of Laves Phase Compounds	M. Mizumaki
Study on the magnetism of amorphous Fe in RE/Fe and CoFeB	Y. Fujiwara
Circularly-Polarized Light Photoelectron Diffraction	M. Kotsugi
Magnetic Circular Dichroism in the Transition-Metal L <sub>2,3</sub> Edge Regions of the DO3-related $(\text{Fe}_{1-x}\text{V}_x)_3\text{Al}$ and $(\text{Fe}_{1-x}\text{Mn}_x)_3\text{Al}$ Alloys	K. Soda
Installation of a Photoemission Instrument and Test by Means of Magnetic Circular Dichroism	S. Suga
High resolution Ce 3d-4f resonant photoemission study of heavy fermion Ce compounds	A. Sekiyama
Soft X-ray magnetic circular dichroism of ferromagnetic $\text{Co}_2\text{TiSn}$	S. Imada
Experimental investigation of magnetic microstructures in ultrathin layered	W. Kuch

systems	
Studies of the electronic structure and magnetic properties of the ferromagnetic $\text{La}_4\text{Ba}_2\text{Cu}_2\text{O}_{10}$ by resonance HRPES	T. Takeuchi
Study on the magnetism of amorphous Fe in RE/Fe and CoFeB	Y. Fujiwara
Resonant photoemission study of diluted magnetic semiconductors $\text{Hg}_{1-x}\text{y}$ $\text{Cd}_x\text{Mn}_y\text{Te}$	A. Sekiyama
Magnetic Circular Dichroism of Gd/Co Multilayer Film in Gd 3d and Co 2p core excitation regions	H. Ishii
High-Resolution X-Ray Photoelectron Spectra of D03-related $(\text{Fe}_{1-x}\text{V}_x)_3\text{Al}_{1-z}\text{Si}_z$ Alloys	K. Soda
Bulk and surface V 3d spectral weight of $\text{Sr}_{1-x}\text{Ca}_x\text{VO}_3$ resolved by high-energy and high-resolution photoemission	A. Sekiyama
Bulk 4f spectral weight of antiferromagnet $\text{CeRh}_2\text{Si}_2$ by high-resolution Ce3d-4f resonance photoemission spectroscopy	A. Sekiyama
3d Edge Resonance Photoelectron Spectroscopy Study of High Kondo Temperature Cerium Compounds	R. Jung
Spin polarized photoemission and magnetic circular dichroism of photoemission	S. Suga
XAS-MCD of 1T-TiS <sub>2</sub> intercalated with Fe and Co	S. Suga
Study on the Magnetism of 3d Transition Metals for Transition metal - Pt alloy films and Mn - Co - Pt superlattices	T. Kato
Electronic state analysis of TaSe <sub>2</sub> and W(110) by two-dimensional circularly-polarized light photoelectron spectroscopy	M. Kotsugi
Refinement of two-dimensional photoelectron spectrometer and preparation of the preparation chamber	M. Kotsugi
Spin analysis of magnetic thin films on W(110) by two-dimensional circularly-polarized light photoelectron diffraction	Y. Miyatake
High Resolution Resonant Photoemission Study of $\text{CeCoGe}_{3-x}\text{Six}$ ( $0 \leq x \leq 3.0$ )	K. Kanai
Rare-earth magnetic moment and electronic states of frustated systems $\text{R}_2\text{Mo}_2\text{O}_7$	S. Imada
High-resolution resonant photoemission and MCD of $\text{CeCo}_{5-x}\text{B}_x$	S. Imada
Eptaxial-film preparation chamber for MCD test experiment	S. Imada



## *BL27SU*

Improvement in resolving power of the soft X-ray grating monochromator	H. Ohashi
Microbeam focusing of soft X-ray undulator light using an elliptically bent mirror	E. Ishiguro
Determination of photon-beam axis at BL27SU	T. Tanaka
Performance Test of a Reflectron-Type Mass Spectrometer for Soft X-ray Photochemistry	H. Yoshida
Preparation and Etching of Oxide Thin Films	M. Shimizu
Performance Test of a Resonant Auger Electron Spectrometer for Atoms and Molecules	I.H. Suzuki
Properties of Titanium/3C-SiC(100) Interfaces Exposed to Soft X-ray from Synchrotron Radiation	M. Hirai
Performance Test and Preliminary SiO <sub>2</sub> Etching Experiment in BL27SU Soft X-ray CVD Station	O. Maida
Performance Test and Preliminary Experiment in BL27SU Soft X-ray CVD Station	O. Maida
Absolute flux measurement at BL27SU	T. Tanaka
Improvement in resolving power of the soft X-ray grating monochromator of BL27SU	H. Ohashi
Microbeam focusing of soft X-ray undulator light using an elliptically bent mirror	E. Ishiguro
Development of method to determine the photon-beam axis of SR from figure-8 undulator by means of inner-shell photoionization of rare gas	M. Oura
Preparation and Etching of Oxide Thin Films	M. Shimizu
Formation and Dissociation Dynamics of Multiply Charged Species by Inner-Shell Excitation of Molecules	N. Saito
Anisotropy in a Resonant Auger Electron from Rare Gas Atoms and Diatomic Molecules	I.H. Suzuki
Vibrational Level Dependence in Core Excited Dissociation Processes of Diatomic and Triatomic Molecules	A. Hiraya
Soft X-ray Irradiation Effect of PTFE using Figure-8 Undulator at BL27SU Soft X-ray CVD Station	O. Maida

Construction of soft x-ray CVD experimental station and irradiation effects to the surface of electrical materials T. Kanashima

***BL28B2***

Design Concepts and Construction of White-Beam Topography Experimental Station at BL28B2 Y. Chikaura

***BL39XU***

Detection of 10-14g order trace metals in a droplet K. Sakurai

X-ray fluorescence spectrometer for trace chemical characterization K. Sakurai

First q-scan magnetic scattering experiment at BL-39XU N. Ishimatsu

Full polarization measurements of alternating circularly polarized x-rays M. Suzuki

Crystal Orientation Dependence of Spin Polarization on Cu in Single Crystal Co/Cu Multilayers by MCD Method. J. Mizuki

Dependence of XMCD hysteresis on the thickness of Fe in Gd/Fe multilayer M. Takagaki

Chemical state analysis of the transition elements in meteorites by  $\mu$ -XANES spectra I. Nakai

X-Ray Resonant Emission Spectroscopy in garnet-type ferrites  $R_3Fe_5O_{12}$  (R=Gd and Ho) N. Kawamura

Time-Serial Measurement of X-Ray Intensity and Fractal Analysis H. Maruyama

XMCD Spectrum at Mn K-Edge in  $Mn_3MC$  (M=Nn,Ga and Sn) Perovskite H. Maruyama

New technique for enhancement of X-ray fluorescence hologram K. Hayashi

Temperature Dependence of Orbital Magnetic Moment of Ho in Holmium Iron Garnet M. Ito

X-Ray Fluorescence Tomography with a Wolter Mirror X-Ray Microscope N. Watanabe

Development of a Polarized XAFS method for the Solution Surface Study I. Watanabe

Trace element analysis of calcareous skeleton in Anthozoa N. Haga

Study of Local Magnetic Structure of Ni-Mn alloys by Magnetic XSFS T. Miyanaga

X-ray Fluorescence analyses of in the elements associated to the pearl formation in the pearl oyster C. Numako

High resolution X-ray fluorescence spectroscopy and trace element S. Hayakawa

characterization using an x-ray microprobe

Fe K-edge XMCD STUDY IN $R_6\text{Fe}_{23}$ COMPOUNDS NEAR COMPENSATION TEMPERATURE.	J. Chaboy
Preliminary Experimental Results of $\mu$ -XAFS Spectroscopy of A Single Brain Cell from Patients with Parkinson's Disease	K. Takada
Downsizing of X-ray fluorescence spectrometer for trace analysis	K. Sakurai
Specular charge-magnetic scattering from a Fe-Gd multilayer	H. Okuda
Crystal Orientation Dependence of Spin Polarization on Cu in Single Crystal Co/Cu Multilayers by MCD Method	J. Mizuki
In-vivo, in-situ, micro XRF imaging and micro XAFS of a Single Living Cell	A. M. Ektessabi
Investigation of chemical state of iron in Parkinsonian substantia nigra	K. Takada
Investigation of metal ion distribution in a single cell using SR micro beam	A. M. Ektessabi
X-ray fluorescence holography using toroidal bend graphite and APD	K. Hayashi
Study of Electronic States in 3d Transition-Metal Oxides by X-Ray Resonance Magnetic Scattering	K. Namikawa
X-ray powder diffraction analysis of micro-samples using a combination of a Gandolfi camera and Imaging Plate	I. Nakai
Temperature Variation of The Spin-and Orbital-Magnetic Moment of Holmium Iron Garnet by X-ray Magnetic Diffraction	M. Ito
XMCD in $(\text{Nd}_{1-x}\text{Tb}_x)\text{-Fe-B}$ thin film alloy	T. Nakamura
Generation of a hard x-ray microbeam and its application to spectromicroscopy	S. Hayakawa
Micro EXAFS measurements of Ni, Co and Mn dissolved into synthetic diamonds	S. Hayakawa
Element-specific magnetometry in amorphous $\text{Tb}_{60}\text{Fe}_{20}\text{Al}_{20}$ by using XMCD	A. Koizumi
XMCD Spectrum around Curie Temperature and Critical Phenomenon	H. Maruyama
Installation of Superconducting Magnet and XMCD Spectrum under High Magnetic Fields	H. Maruyama
Development of a Polarized XAFS Method for the Solution Surface Study	I. Watanabe
<b>BL40B2</b>	
Test measurements of the Small Angle X-ray Scattering of Latex Particles	T. Fujisawa

for the Evaluation of BL40B2

Study on structural change of Prostaglandin D synthase with X-ray small angle scattering	K. Inoue
Commissioning for wide-angle routine proteomix beamline BL40B2: protein crystallography and small angle scattering	K. Miura
Application studies of Wide Range Public Beamline on Proteomics	Y. Katsube
Effect of X-ray energy on the reflection intensities and radiation damage of skeletal muscle specimens.	H. Iwamoto
Feasibility of SAXS/WAXS measurements using tunability and its application on supramolecule systems	Y. Inoko
Structural information revealed by wide-angle solution scattering of several proteins	M. Hirai
X-ray fiber diffraction experiments at BL40B2	K. Hasegawa
Evaluation of Monochromatic Focused X-ray Beamline and verification of annealing effect on extremely thin protein crystals	K. Imada
Structural analysis of GAMMA-glutamylcysteins synthetase from <i>Escherichia coli</i> B	T. Hibi

### ***BLAIXU***

X-ray crystal structure analysis of cathepsin B-noncovalent-type inhibitor complex	K. Tomoo
X-Ray crystal structure analysis of full-length human initiation factor 4E	T. Ishida
High resolution data collection for colicin E7 and malic enzyme	W. Yang
Crystal Structure Analyses of Allergens Der p 5, Blo t 5, and BG60 by MIR-MAD methods	S. Liaw
Structure and function of photosystem I complexes	K. Satoh
Crystal structure analysis of FMN binding protein at atomic resolution	K. Suto
Crystallographic Study of Mitochondrial Import Stimulating Factor (MSF).	Y. Morimoto
Crystallographic study of the archaeal clamp loader small subunit	T. Oyama
Crystallographic Study of Tryptophan synthase from <i>E.coli</i>	Y. Morimoto
Preliminary X-ray diffraction study of prostaglandin D synthase	H. Sakai

X-ray diffraction data collection of the crystal of importin $\beta$ mutant at BL41XU	S. Lee
X-Ray Crystallographic Study of D-Amino Acid Oxidase	I. Miyahara
X-Ray Crystallographic Study of Thermostable Aspartate Aminotransferase	K. Hirotsu
Crystallographic characterization of Pap1-DNA complex	Y. Fujii
X-ray Crystallographic Studies of Human VHR and Antibiotics RK Complexes	M. Kawamoto
X-ray Crystal Structure Analysis of Photo-Activated Nitrite Hydratase	Y. Kawano
Establishment of Automated Beamline Alignment Method at BL41XU	M. Kawamoto
Test for the On-line IP Reader of MIROAS diffractometer	Y. Kawano
Usefulness of High-Energy X-rays for Protein Crystallography	N. Kamiya
Crystal Structure Analysis of Oxygen-Evolving Photosystem II Complex	J. Shen
High Resolution X-ray Crystallographic Analysis of Cytochrome $bc_1$ complex	K. Itoh
X-ray crystallographic analysis of bovine heart cytochrome c oxidase in the respiratory inhibitor-bound state.	K. Muramoto
X-ray Crystal Structure Analysis of Each Reaction Step of Dehalogenase Enzyme	T. Fujii
Molecular and Crystal Structures of <i>Thermoactinomyces vulgaris</i> R-47 $\alpha$ -amylases	S. Kamitori
X-ray Crystallography of Ultra-thin Membrane Protein Crystals	C. Toyoshima
Native Data Collection for structural analysis of Phosphoenolpyruvate Carboxylase from Maize	Y. Kai
X-ray Data Collection from Native and Heavy-atom Derivative Crystals of High-Alkaline Pectate Lyase	M. Akita
X-ray Crystallographic Study of Bacteriorhodopsin Intermediates	T. Kouyama
X-ray Structural Analyses for a Series of Mutant Human Lysozymes	K. Takano
High Resolution X-Ray Crystal Structure Analyses of Cytochrome c Oxidase	E. Yamashita
Crystal Structure Analyses of Human High-affinity Receptor for IgE	H. Nishida
X-ray Crystallographic study of NfsA, a nitroreductase from <i>Escherichia coli</i>	T. Hirai
X-ray crystallography of mutant actin	Y. Matsuura

Protein crystallographic studies of flagellar HAP2 and F41 fragment of flagellin	K. Imada
Fiber diffraction data collection at BL41XU with a specially designed helium chamber and collimator with a four-way guard slit -further optimization of the guard slit position-	K. Hasegawa
Cryogenic crystal structure analysis of the Fv fragment of an antibody at an atomic resolution	M. Nakasako
X-ray Structural Study of H <sub>2</sub> -reduced [Ni-Fe] Hydrogenase	H. Ogata
X-ray Structure Analysis of Thermophilic Enzymes for Studying Protein Thermostability	R. Hirose
Structure of Human Low Density Lipoproteins	M.W. Baumstark
X-ray Data Collection from Au-derivative crystal of <i>Streptomyces antibioticus</i> Phospholipase D	A. Suzuki
X-ray crystallographic study of light-harvesting chlorophyll protein complex (LHC-II)	T. Kouyama
X-ray Crystallographic Study of Bacteriorhodopsin Mutants	T. Kouyama
Studies on Structure-Function Relationship of DNA Replication Control Proteins by Means of X-ray Crystallography	H. Komori
Mechanism of Thermostabilization of Membrane Protein on the Basis of High-Resolution Crystal Structure of Thermophilic Photosynthetic Reaction Center	T. Nogi
X-ray Crystallographic Analysis of Japanese Pear S-RNase	S. Norioka
Crystal Structure Analyses of Bovine Rhodopsin	T. Okada
Structural analysis of the homing-endonuclease ApeI from hyperthermophilic archaeobacteria <i>Aeropyrum pernix</i> by X-ray crystallography	H. Ito
X-Ray Crystallographic Studies on DNA Repair Enzymes	K. Fukuyama
The flexibility of protein molecule in terms of the crystallography of DHFR mutants	K. Katayanagi
X-ray crystallographic analysis of the evolution of vertebrate hemoglobins	K. Chong
X-ray structure analysis of tetragonal crystal of hen egg white lysozyme at 1.3 Å resolution	H. Kobayashi
XAFS measurements of xenon derivative crystals of hen egg white lysozyme at the Xe K-edge	S. Yuda

Crystal Structure Analysis of the complex of Drosophila Sxl protein and its target RNA	O. Nureki
Crystal Structure Analysis of Valyl-tRNA Synthetase in a complex with tRNA <sup>Val</sup>	O. Nureki
X-ray crystallography of antibiotics and its target aminoacyl-tRNA synthetase for drug design	O. Nureki
X-ray crystallography of <i>T. thermophilus</i> Arginyl-tRNA synthetase complexed with its substrates	O. Nureki
Crystal structure analysis at 2.5 Å resolution of 20S proteasome from bovine liver	M. Unno
X-Ray Crystallographic Analysis of Heme-Hemeoxygenase Complex	K. Fukuyama
X-ray crystallographic studies of flagellar HAP2 and F41 fragment of flagellin	K. Imada
X-ray structure determination of a fragment of a Paramyxoviridae fusion protein	M.C. Lawrence
Availability of BL41XU for data collection from small crystals of proteins	M. Sugishima
Structure and function of photosystem I complexes	K. Satoh
X-Ray Crystallographic Study of Ribulose 1,5-Bisphosphate Carboxylase /Oxygenase from a Red Alga, <i>Galdieria Partita</i> , with High Specificity Factor	Y. Kai
Structure of diol dehydratase containing vitamin B <sub>12</sub> analogue	N. Shibata
Crystal Structure of Pap1-DNA complex	Y. Fujii
Crystal Structure Analysis of TPO/Fab complex	T. Tamada
Crystal Structure Analysis of PDZ2 domain of FAP-1	T. Tamada
Crystallographic analyses of Halorhodopsin	H. Nishida
X-ray Structure Analysis of CO-bound [Ni-Fe] hydrogenase	H. Ogata
Crystal structure analysis of Hmc by using anomalous dispersion	N. Shibata
Synchrotron Radiation Study of cobalamin-dependant enzymes complexed with cobalamins	N. Shibata
Crystal structures of proteinase A from <i>Aspergillus niger</i> and 40 kDa calcium binding protein from <i>Physarum polycephalum</i>	H. Sasaki
Crystallographic analysis of the protein with unknown function from	S. Kawaguchi

*Thermus thermophilus* HB8

Crystal Structure Analysis of Oxygen-Evolving Photosystem II Complex	J. Shen
X-ray crystallography of cell surface antigen CD38 complexed with ganglioside	O. Nureki
X-ray crystallography of human AUH protein complexed with AU-rich element from Interleukin-3 mRNA	O. Nureki
X-ray Crystallographic Study of Histidinol Phosphate Aminotransferase	K. Hirotsu
Structural analysis of cathepsin L specific inhibitor-papain complex	H. Tsuge
Studies on structure and function of photosystem I complexes isolated from a cyanobacterium	K. Satoh
Preliminary Results of Diffraction Measurements from Crystals Formed in 30S Subunit Probes From <i>Halobacterium marismortui</i>	S.D. Trakhanov
X-ray crystallography of <i>Thermus thermophilus</i> glutamyl-tRNA synthetase complexed with the cognate tRNA	S. Sekine
X-ray Crystallography of Ultra-thin Membrane Protein Crystals	C. Toyoshima
Improvement and Test for the MIROAS diffractometer	M. Kawamoto
Usefulness of X-ray CCD Detector for Protein Crystallography	N. Kamiya
Structural study of methylated DNA recognition by MeCP2 in transcriptional repression	T. Tahirov
Structural study of cooperative DNA recognition by CBF	T. Tahirov
X-ray crystallographic study of SH3 domain of Vav complexed with Grb2	M. Nishida
Structure analysis of an orthorhombic complex crystal between Ferredoxin and Ferredoxin-NADP <sup>+</sup> reductase	G. Kurisu
Crystallographic Study of Bacteriorhodopsin Mutants (D96N)	T. Kouyama
X-ray Crystallographic Study of Bacteriorhodopsin Intermediates at Low Temperature.	T. Kouyama
The flexibility of protein molecule in terms of the crystallography of DHFR mutants	K. Katayanagi
High-Resolution Crystal Structure Analysis of Archaeal Rubisco Protein Having a New-Type Architecture for Supramolecular Complex	K. Kitano
Crystal structure analysis of Ribosomal protein L5	T. Nakashima



X-ray Crystallography of Light-Harvesting Chlorophyll a/b Protein Complex of Photo System II	T. Kouyama
An example of SIRAS phase determination using a single protein crystal	S. Yuda
Structural analysis of the homing-endonuclease ApeI from hyperthermophilic archaeobacteria <i>Aeropyrum pernix</i> by X-ray crystallography	H. Ito
Structural analysis of the calcium binding protein MRP14 by X-ray crystallography	H. Ito
Crystal structure analysis of monomeric isocitrate dehydrogenase	I. Tanaka
Reaction Mechanism Analysis of circular amino acid ACC opening by ACC deaminase from <i>Pseudomonas</i> sp.ACP	T. Ose
X-ray fiber diffraction from oriented liquid crystalline of the bacterial flagellar filaments at BL41XU	K. Hasegawa
Protein crystallographic studies of flagellar HAP2 and F41 fragment of flagellin.	K. Imada
X-ray Crystallography of <i>E.coli</i> enzyme that hydrolyzes 8-oxo-dGTP,a mutagenic substrate for DNA synthesis	Y. Yamagata
X-ray crystallography of hyperthermophile leucyl-tRNA synthetase	O. Nureki
Fiber diffraction experiments aiming for high-resolution structure analysis of F-actin filament	T. Oda
Substrate Recognition of Branched-chain Amino Acid Aminotransferase	I. Miyahara
X-Ray Crystallographic Study of 4-Amino-4-deoxychorismate Lyase from <i>E.coli</i>	T. Nakai
High resolution crystallographic study of the D298K mutant of Copper-Containing Amine Oxidase from <i>Arthrobacter globiformis</i> which should contain LTQ-like species	M. Kim
X-ray Crystallographic Analysis of Heme Oxygenase in Complex with Heme	K. Fukuyama
Crystallographic Studies of sulfotransferase domain of human heparin sulfate N-deacetylase/N-sulfotransferase	Y. Kakuta
High Resolutional Structure Analysis for Concerted Movement upon Reduction of Blue Nitrite Reductase	Y. Kai
Structural analysis of archaeal intein endonuclease obtained from polA gene	Y. Kai
Structual analysis of phosphorylated and dephosphorylated phosphoenolpyruvate carboxylase from maize	Y. Kai

Molecular and Crystal Structures of *Thermoactinomyces vulgaris* R-47 ALPHA-amylases(TVAI,TVAII) S. Kamitori

### ***BL44B2***

Nanocrystallization for Single Molecular Detection using X-rays Y. Sasaki

X-ray Crystallographic study of bacteriorhodopsin's reaction intermediates by the time-resolved Laue method T. Kouyama

The X-ray structures of hemoglobins from the animals around the branching point of vertebrate and invertebrate K. Chong

Direct Observation of Brownian Motion within A Single Protein Molecule using X-rays Y. Sasaki

Time-resolved X-ray Structure Analysis of the Dynamic Ligand Structure of [Ni-Fe] hydrogenase H. Ogata

X-ray crystallographic analysis of the structure change of hemoglobin Y. Naoi

Structural Studies on the Mechanism of Topa Quinone Biogenesis in Copper-Containing Amine Oxidase from *Arthobacter globiformis* M. Kim

### ***BL45XU***

Analyses of Protein Folding by Stopped-Flow X-ray Solution Scattering M. Hoshino

An X-ray Diffraction Study on Rat Cardiac Muscles H. Suga

An X-ray Diffraction Study of Skeletal Muscle during Unloaded Shortening N. Yagi

X-ray Diffraction Pattern Recorded from an Array of Single Muscle Fibers from Rabbit Skeletal Muscle H. Iwamoto

Effect of a sudden reduction of length on the level of thin filament activation in frog muscle as examined by X-ray diffraction H. Iwamoto

Preliminary experiment for the recording of X-ray diffraction pattern from small-size muscle specimens H. Iwamoto

Effects of ADP on the Conformation of Myosin Heads K. Horiuti

X-ray fiber diffraction experiment from well oriented sols of muscular Native Thin Filament and F-actin. K. Makino

Structure and photoreaction of chimeric bacteriorhodopsin M. Kataoka

Dynamics of the Concentration Fluctuation in Diblock Copolymers Induced by Pressure Jump M. Takenaka

X-ray diffraction study on skinned fibers in the absence of certain proteins.	S. Takemori
The Stability of Solution Structure and the Light-Induced Coformation Changes in Photoactive Yellow Protein (PYP)	N. Hamada
Structural analysis during the photocycle of bacteriorhodopsin revealed by time resolved X-ray diffraction	T. Oka
X-ray small-angle scattering study for the quaternary structure of the glutamate dehydrogenase from hyperthermophile bacteria at high temperature	M. Nakasako
X-ray diffraction study of the structure of exogenous myosin subfragment-1 chemically cross-linked to actin filament in skeletal muscle fiber.	H. Iwamoto
X-ray diffraction from isolated cardiac myocytes.	H. Iwamoto
Time-resolved Low-angle X-ray scattering Studies of Fish Muscle	J.J. Harford
An X-ray Diffraction Study on Rat Cardiac Muscles	H. Suga
X-ray diffraction study on skinned fibres without certain proteins	S. Takemori
Dynamics of the Concentration Fluctuation in Diblock Copolymers Induced by Pressure Jump	M. Takenaka
Time resolved X-ray diffraction experiments of the structural changes of the light driven proton pump (bacteriorhodopsin) in its photocycle	T. Oka
Possible Mesophase at Phase Transitions in Polystyrene-block-Isoprene Block Copolymers by Synchrotron Small-Angle X-ray Scattering	S. Okamoto
Ca <sup>2+</sup> -induced structural change in isolated spasmoneme proteins	H. Asai

### ***BL46XU***

Measurement of Gas Bremsstrahlung and Associated Photo-neutron at the SPring-8 Insertion Device Beamline	Y. Asano
--	----------

### ***BL47XU***

Test of X-ray Interferometers for High-Resolution Phase-Contrast X-ray Tomography	K. Hirano
Operation of Separated-Type X-ray Interferometer at SPring-8	A. Momose
Hard X-ray Microbeam Experiments at the SPring-8 BL-47XU: Measurements of Heat Load, Radiation Damage and Light Collecting Efficiency of the Fresnel Zone Plate	N. Kamiyo
X-ray Focusing and X-ray Imaging Test By a Micro Capillary X-ray Lens at	Y. Kohmura

BL47XU

Development of micro-area X-ray diffraction method with micro-pinholes	M. Ohmasa
Development of X-ray CT system for rocks and minerals	A. Tsuchiyama
Diffraction focusing elements for energies higher than 10 keV.	A.A. Firsov
Refraction-enhanced imaging of rat lung	K. Yamasaki
Metal Refractive Collimators for Synchrotron Radiation	A.Q.R. Baron
Production of high energy X-ray micro-beam: Fabrication and characterization of the thick Fresnel zone plate	N. Kamijo
Test of X-ray Imaging Microscopy with Multilayer Zone Plate	Y. Suzuki
Development of high spatial resolution X-ray CT system for rocks and minerals.	A. Tsuchiyama
Development of micro-area X-ray diffraction method with micro-pinholes	M. Ohmasa

### **Contract Beamline**

#### ***BL16XU***

X-ray Diffraction of Co alloy magnetic film	T. Hirose
The Crystal Structure Analysis of Lithium Oxide	K. Yamaura
X-ray Scattering Study on the Structure of Ultra-thin Insulator Films	M. Takahashi
X-ray Diffraction Measurements for Thin Films of (BaSr)TiO <sub>3</sub> /Si and Other Materials	S. Kimura
Crystallographic characterization of high-strength steel wire	K. Yamaguchi
XRD studies on a LiNiO <sub>2</sub> secondary battery utilized anomalous scattering	I. Konomi
Structure Analysis of Thin Oxide Film Formed on Pure Iron Surface	K. Ikeda
Peak Separation of In-plane Diffraction Patterns from Cu/NiFe Thin Film using Anomalous Dispersion Effect	K. Ueda
X-ray fluorescence of magnetic metal films	N. Awaji
Total Reflection X-ray Analysis of ruthenium on a silicon wafer by using wavelength-dispersive method	K. Ogata
Measurements of Submicron Lateral Resolution using Focused X-rays	Y. Hirai

Micro-analysis of Water-Tree in Cross-linked Polyethylene	T. Yamazaki
Diffraction Microscopy with an X-ray Microbeam	M. Hasegawa
Structural Analysis of Iron Oxide (Rust) Layer of Mild Steel by SR-XRD	T. Nakayama
The Analysis of Very Small Quantity Impurities on Silicon Wafer	K. Liu
Analysis of Surface Impurities on Semiconductor Wafers	S. Ozaki
In-situ X-ray diffraction study of crystallization process of GeSbTe thin films during heat treatment	I. Konomi
Structure Analysis of CoPt <sub>3</sub> Using Anomalous X-ray Scattering	H. Deguchi
<b><i>BL16B2</i></b>	
Local Structure Analysis on (Y <sub>2</sub> O <sub>3</sub> ) <sub>x</sub> (ZrO <sub>2</sub> ) <sub>1-x</sub> and La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> by Transmission XAFS	S. Ozaki
Structure Analyses of Electronic Materials: GaAs wafers and Amorphous SiN <sub>x</sub> Films on GaAs	K. Haga
XAFS study of Barium Strontium Titanate	Y. Uehara
An in situ XAFS Study on Lithium-ion Batteries using LiNiO <sub>2</sub> Cathode	T. Okamoto
The Structure Analysis of Lithium Oxide by XAFS Method	A. Yamada
Absolute Measurement of the Energy of X-ray Absorption Edge for Copper	T. Watanabe
Study of the local structures of electrode materials for chemical batteries	J. Hirose
XAFS Measurements of Pt fine particles	H. Teranishi
Analysis of Microstructure of Iron Corrosion Products by SR-XAFS	T. Nakayama
Ta L-shell XAFS measurements of tantalum oxide films	M. Takemura
Local Structure Analysis of Perovskite and Fluorite Oxides for Solid Oxide Fuel Cell	H. Deguchi
X-ray reflectivity study of Silicon Oxides and Nitrides thin films	Y. Uehara
X-ray Reflectivity of Diamond-like Carbon Thin Films	N. Okuda
X-ray diffraction study of magnetic metal films	S. Takeishi
Valency of Co Ion in Sr Ferrite	H. Kubota
XAFS Study on Local Structure of Ce and Zr in Industrial Catalysts -1-	Y. Nagai

The Structure Analysis of GaN by XAFS Method	T. Miyajima
<b><i>BL24XU</i></b>	
Development of High Resolution X-ray Imaging by the Refraction Contrast Method	Y. Tsusaka
X-ray Structure Analyses of Isoamylase and Related Enzymes	Y. Katsuya
X-ray structure analysis of antibodies	Y. Mezaki
Evaluation of Biocrystallography Experimental Hutch of Hyogo Beamline (BL24XU)	Y. Katsuya
Approach for Phase Problems of High-Ordered Brain Function Related and Mid-sized Molecules	M. Doi
X-Ray crystal structure analysis of human initiation factor 4E S209K mutant	T. Ishida
Crystallographic study of molecular mechanism of the thermostability of DNA binding proteins	H. Koike
Crystallographic analysis of proteins related to drug- design I	S. Misaki
Crystal structure analysis of helicase	H. Hiramatsu
Crystallographic analysis of proteins related to drug-design, V.	M. Koizumi
Crystallographic analysis of proteins related to drug design, VI.	M. Miyano
Crystal Structures of 1) Protein Tyrosine Phosphatase IB and 2) Ser/Thr Protein Kinase	S. Sugio
Comparison of diffraction data of trypsin crystal between BL24XU and R-AXIS IV in house.	I. Shiromizu
Crystallographic Analysis of Proteins Related to Drug Design IX	N. Kunishima
Crystallographic analysis of micro crystals II	K. Yanagi
Crystallographic analysis of microcrystals. III	A. Fujishima
XRD experiment on 1) magneticthin films, and 2) Small Crystals	H. Namita
Crystallographic Study of the Proteins Related to DNA Repair	N. Kunishima
Structural analysis of ultra-high quality transparent conducting films	H. Izumi
Surface X-ray Diffractometer for Metalorganic Vapor Phase Epitaxy Growth	T. Kawamura

Observation of Crack Initiation in Structural Materials by Refraction Contrast X-ray Imaging	T. Nakayama
Formation of X-Ray Microbeam Using Ta Phase Zone Plate and Its Application to Scanning X-Ray Microscope	Y. Kagoshima
Development of Parallel X-ray Microbeam and Its Applications	Y. Tsusaka
Precise X-ray Diffraction Measurements using Hard X-ray Microbeam Formed by Asymmetric Diffraction	S. Kimura
X-ray Phase contrast imaging study of activated carbon/carbon composite	K. Kobayashi
Structural modulation of carbides and nitrides by X-ray irradiation using synchrotron radiation	F. Sato
Characterization of polished silicon surfaces by the grazing incidence X-ray diffraction topography	T. Katoh
One dimensional expansion of phase contrast image from micro-stripe patterns	K. Tani
Development of imaging techniques using monochromatic SR with high parallelity	M. Ando
Detection of metastatic lung cancer of nude mice with Synchrotron Resonance and Au-NP <sub>6</sub>	K. Aizawa
Detection resolution of small modules in the lung of the rats using refraction imaging	K. Yamasaki
Characterization of Subsurface Microstructure and Microcrack for Metallic Materials	O. Umezawa
Phase-Contrast X-Ray Imaging of Trace Forensic Samples Using Both Vertical and Horizontally Expanded Synchrotron Radiation X-Rays with Asymmetric Bragg Reflection	T. Ninomiya
X-ray Structure Analyses of Isoamylase and Related Enzymes	Y. Katsuya
Evaluation of Biocrystallography Experimental Hutch of Hyogo Beamline (BL24XU)	Y. Katsuya
Effects of amino acids and chirality for molecular folding of desoxazoline-ascidiacyclamide derivatives : Part 1. Structure of alanine derivative, <i>cyclo(-Ala-aThr-D-Val-Thz-Ile-aThr-D-Val-Thz)</i>	A. Asano
X-Ray structure analysis of human initiation factor 4E	T. Ishida
Study on the Mechanism of Thermostability of Enzymes and Proteins	K. Harata
Crystallographic analysis of proteins related to drug-design I	S. Misaki

Crystallographic analysis of functional organic micro crystals	K. Yanagi
Crystallographic analysis of helicase from <i>E.coli</i>	H. Hiramatsu
Crystallographic analysis of complex crystal of serine protease inhibitor	M. Koizumi
Crystal Structure of Full-Length Ser/Thr Protein Kinase	M. Aoki
Crystallographic Study of <i>Thermus thermophilus</i> RuvB	N. Kunishima
Crystallographic analysis of Serin Protease Inhibitor	M. Kamimura
Local structural analysis of TiAlN films	T. Kaneyoshi
Grazing Incidence X-ray Diffraction of ( $\sqrt{3}\times\sqrt{3}$ )R30°-B on Si(111) Substrate	T. Kawamura
Some Observations on the Surface Structure of Ion Implanted Molds for Rubber	S. Nakagawa
ROCKING CURVE MEASUREMENT OF INFRARED LEDS USING HIGHLY PARALLEL X-RAY MICROBEAM	S. Takeda
Formation of X-Ray Microbeam Using Ta Phase Zone Plate and Its Application to Scanning X-Ray Microscope-II	Y. Kagoshima
Measurements of characteristics of multilayer supermirrors	K. Tamura
Observation of Cracks and Voids in Structural Materials by Refraction Contrast X-ray Imaging	T. Nakayama
High-resolution microbeam x-ray diffractometry applied to narrow-stripe selective MOVPE grown InGaAsP/InP layers	S. Kimura
Real time phase-contrast imaging study for electronic double-layer capacitor (EDLC)	K. Kobayashi
Characterization of the surfaces of silicon wafers by the grazing incidence X-ray diffraction topography and the reflectivity measurements	T. Katoh
Measurements of projection images for micro-tomography	K. Tani
Characterization of Subsurface Microstructure and Microcrack for Metallic Materials	O. Umezawa
Phase-Contrast X-Ray Imaging of Trace Forensic Samples Using Horizontally Expanded Synchrotron Radiation X-Rays with Asymmetric Bragg Reflection	T. Ninomiya
X-Ray Refractive Lenses for Microbeam Technology	Y. Zhang
X-ray refraction contrast imaging of internal structure of power transmission	Y. Matsui



belt

Detection of peripheral type lung cancer of nude mice with Synchrotron Radiation and Au-NP<sub>6</sub> K. Aizawa

Development of X-Ray Imaging Using High Brilliance Undulator Synchrotron Radiation M. Ando

Synchrotron Radiation-Xray Studies of Improvement on SiC Single Crystal K. Tanino