

List of Publications (*Users*)

Journals

BL01B1

M. Takahashi, I. Watanabe, M. Harada, Y. Mizoguchi, T. Miyanaga, E. Yanase, S. Yoshikawa

"Conversion Electron Yield XAFS for Ceramics and Metal Alloys"

J. Soc. Materials Sci. Jpn. **48** (1999) 559. (in Japanese)

T. Yamamoto

"Studies on the Catalysis by New Solid Acid Catalysts and the Characterization"

Ph. D. Thesis, Kyoto University (1999)

T. Yamamoto, T. Matsuyama, T. Tanaka, T. Funabiki, S. Yoshida

"Generation of acid sites on silica-supported rare earth oxide catalysts: Structural characterization and catalysis for α -pinene isomerization"

Phys. Chem. Chem. Phys. **1** (1999) 2841.

T. Yamamoto, T. Tanaka, T. Matsuyama, T. Funabiki, S. Yoshida

"XAFS study of the structure of the silica-supported ytterbium oxide catalyst"

Solid State Commun. **111** (1999) 137.

T. Tanaka, H. Nojima, T. Yamamoto, S. Takenaka, T. Funabiki, S. Yoshida

"Structure of surface tantalate species and photo-oxidation of carbon monoxide over silica-supported tantalum oxide"

Phys. Chem. Chem. Phys. **1** (1999) 5235.

I. Nakai and T. Tokuyoshi

"XANES Spectra in the Solid State Reaction of Y_2Ni "

Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 488.

Y. Uchimoto, M. Kinuhata and T. Yao

"EXAFS Study of Coordination Structures of Gd-doped $Ba_2In_2O_5$ "

Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 111.

T. Inoue, Y. Kubozono, K. Hiraoka, K. Mimura, H.

Maeda, S. Kashino, S. Emura, Y. Nakata and T. Uruga
"XAFS study on $Eu@C_{60}$ "

J. Synchrotron Rad. **6** (1999) 779.

H. Kasatani, M. Ohmura, K. Yokoyama, K. Kobayashi, Y. Nishithata, K. Yagi and H. Terauchi

"High Energy XAFS Study of Sm:K-edge in $Sm_2Fe_{17}N_x$ "

Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 433.

M. Takahashi, M. Harada, I. Watanabe, T. Uruga, H. Tanida, Y. Yoneda, S. Emura, T. Tanaka, H. Kimura, Y. Kubozono and S. Kikkawa

"Eu K-XAFS of europium dioxymonocyanamide with the conversion He^+ ion yield method"

J. Synchrotron Rad. **6** (1999) 222.

BL02B1

Y. Kuroiwa, S. Aoyagi, Y. Noda, T. Shobu, K. Nozawa and S. Tsunekawa

"Diffuse Scattering due to Anisotropic Phonon Softening in Ferroelastic Compounds $NdNbO_4$ and $LaNbO_4$ "

Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 600.

Y. Noda, H. Yamaguchi, K. Akiyama, T. Shobu and Y. Kuroiwa

"High-Resolution Power Diffractometry to Study the Phase Transition of $h-BaTiO_3$ "

Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 73.

M. Takata, N. Machida, E. Nishibori, B. Umeda, M. Sakata, K. Tanigaki, M. Kosaka, I. Hirose and J. Mizuki

"The MEM Charge Density Study of Rb_2CsC_{60} , K_2RbC_{60} , and Li_2CsC_{60} by Synchrotron Radiation Powder Method"

Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 122.

BL04B1

N. Nishikawa, T. Irifune

"Determination of the Phase Boundaries of Mantle Minerals Using in Situ X-ray diffraction Technique"

Kouatsuryoku no Kagaku to Gijutsu **9** (1) (1999) 34. (in Japanese)

W. Utsumi, K. Funakoshi, H. Urakawa, T. Irifune, G. Tamura, M. Inui, K. Tsuji, O. Shimomura
"High Temperature Research Beamline (BL04B1) at SPring-8"
J. Jpn. Soc. SR Res. **12** (1999) 17. (in Japanese)

K. Tamura, M. Inui, I. Nakaso, Y. Oh'ishi, K. Funakoshi and W. Utsumi
"X-ray Diffraction Studies of Expanded Fluid Mercury Using Synchrotron Radiation at SPring-8"
Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 452.

BL09XU

T. Shimura, T. Hosoi, M. Umeno
"Analysis of Ordered Structure of Buried Oxide Layers in Simox Wafers"
Silicon-on-Insulator Technology and Devices IX **99-3** (1999) 155.

T. Mitsui, S. Kitao, M. Seto, Y. Yoda, S. Kikuta
"High-resolution Inelastic Scattering Beamline for Electron Momentum Density Study"
J. Phys. Soc. Jpn. **68** (1999) 4049.

S. Kitao, T. Mitsui, T. Harami, Y. Yoda and M. Seto
"Inelastic Nuclear Resonant Scattering of FeCl₃-Graphite Intercalation Compounds"
Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 535.

BL10XU

I. Nakahata, H. Kawamura, N. Matsui, Y. Akahama
"Structural studies of solid methane at high pressures"
Chem. Phys. Lett. **302** (1999) 359.

M. Takumi, T. Ueda, Y. Koshio, K. Nagata, A. Hirata
"X-ray and Photoluminescence Measurements of β -Ga₂Se₃ under High Pressure"
Fukuoka Univ Sci. Rep. **29** (1999) 85. (in Japanese)

M. Ishii, T. Ishikawa, T. Ueki, H. Oyanagi, S. Komuro, T. Morikawa, Y. Aoyagi
"The optically active center and its activation process in Er-doped Si thin film produced by laser ablation"
J. Appl. Phys. **85** (1999) 4024.

M. Ishii, Y. Yoshino, K. Takarabe, O. Shimomura
"Site-selective x-ray absorption fine structure: Selective observation of Ga local structure in DX center of

Al_{0.33}Ga_{0.67}As:Se"
Appl. Phys. Lett. **74** (1999) 2672.

Y. Akahama, M. Kobayashi, H. Kawamura
"Simple-cubic-simple-hexagonal transition in phosphorus under pressure"
Phys. Rev. **B59** (1999) 8520.

A. Onodera, H. Hirano, T. Yuasa, N.F. Gao, Y. Miyamoto
"Static compression of Ti₃SiC₂ to 61 GPa"
Appl. Phys. Lett. **74** (1999) 3782.

C.H. Lee, H. Oyanagi, C. Sekine, I. Shirotni, M. Ishii
"XANES study of rare-earth valency in LRu₄P₁₂ (L=Ce and Pr)"
Phys. Rev. **B60** (1999) 13253.

M. Ishii, Y. Yoshino, K. Takarabe, O. Shimomura
"Direct observation of local structure of DX center by capacitance X-ray absorption fine structure"
Physica B **273-274** (1999) 774.

M. Takumi, Y. Koshio and K. Nagata
"X-ray, Raman and Photoluminescence Study of Vacancy Ordered β -Ga₂Se₃ under High Pressure"
Phys. Stat. Solidi B **211** (1999) 123.

M. Ishii, T. Ishikawa, T. Ueki, S. Komuro, T. Morikawa and Y. Aoyagi
"XANES Analysis of Optical Activation Process of Er in Si:Er₂O₃ Thin Film: Electronic and Structural Modifications around Er"
Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 191.

M. Ishii, T. Ishikawa, T. Ueki, H. Oyanagi, S. Komuro, T. Morikawa and Y. Aoyagi
"The optically active center of Er-doped Si produced by laser ablation"
J. Synchrotron Rad. **6** (1999) 477.

BL14B1

T. Saito, M. Azuma, M. Takano, Z. Hiroi, Y. Narumi, K. Kindo, W. Utsumi
"Magnetic Properties and Single Crystal Growth of a Spin Gapped Compound, High Pressure Phase of (VO)₂P₂O₇"
Funmatsu oyobi Fummatsuyakin **46** (1999) 1014. (in Japanese)

BL24XU

S. Takashi

"SPRING-8 X-ray Surface Analysis System"
Rigaku Denki J. **30** (1999) 53. (in Japanese)

Y. Kagoshima, K. Takai, Y. Tsusaka, S. Takeda, K. Yokohama, J. Matsui

"Phase Contrast X-ray Imaging Using Both Vertically and Horizontally Expanded Synchrotron Radiation X-rays with Asymmetric Bragg Reflection"
Jpn. J. Appl. Phys. Part 2 **38** (1999) L470.

BL25SU

A. Sekiyama, S. Suga, Y. Saitoh, S. Ueda, H. Harada, T. Matsushita, T. Nakatani, T. Iwasaki, K. Matsuda, M. Kotsugi, S. Imada, T. Takabatake, T. Yoshino, D.T. Adroja, R. Takayama, O. Sakai, H. Harima, T. Nanba

"High resolution Ce 3d-4f resonant photoemission study of CeNiSn and CePdSn"
Solid State Commun. **111** (1999) 373.

S. Suga, S. Imada and A. Sekiyama

"Magnetic Dichroism and High Resolution Photoemission Study of Materials"
Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 348.

K Soda, T Takeuchi, Y. Yanagida, U. Mizutani, T. Matsushita, M. Kato, Y. Nishino, Y. Saito, A. Sekiyama, S. Imada and S. Suga

"Photoemission Study of DO3-related $(\text{Fe}_{1-x}\text{V}_x)_3\text{Al}$ Alloys"
Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 496.

Y. Fujiwara, K. Yano, T. Kato, X.Y. Yu, S. Tsunashima, S. Iwata, T. Kobayashi and M. Masuda

"Structure and MCD Effect of Rare-Earth-Transition Metal Amorphous Multilayers"
J. Magnetism Soc. Jpn **23** Suppl. No.S1 (1999) 39.

BL27SU

E. Ishiguro, M. Kamizato, W. Watari, H. Ohashi, T. Ishikawa, L.-J. Lu

"Design of a monochromator with varied line space plane gratings for a soft X-ray undulator beamline of SPRING-8"
J. Electron Spectrosc. Related Phenomena **101-103** (1999) 979.

T. Tanaka, T. Hara, M. Oura, H. Ohashi, H. Kimura, S. Goto, Y. Suzuki, H. Kitamura

"Construction and performance of a figure-8 undulator"
Rev. Sci. Instrum. **70** (1999) 4153.

O. Maida, N. Kohma, M. Agata, S. Yudate, T. Kanashima, M. Okuyama and H. Ohashi

"SiO₂ Etching Induced by Soft X-ray from Figure-8 Undulator"
IEEJ Report of Photon and Quantum Devices (CQD-**99-47**) (1999) 39 (in Japanese).

BL39XU

I. Nakai

"Application of X-ray Fluorescence Analysis Using Synchrotron Light Source"
Tokushukou **48** (1999) 23. (in Japanese)

I. Nakai

"Synchrotron Radiation Induced X-ray Analyses of Earth and Planetary Materials"
Mineralogical J. **28** (1999) 123. (in Japanese)

K. Hagiwara, M. Kanazawa, K. Horie, J. Kokubun, K. Ishida

"Measurements of ATS Scattering from Magnetite near the Fe K-Absorption Edge in the Temperature Range 290K-80K"
J. Phys. Soc. Jpn. **68** (1999) 1592.

H. Maruyama, M. Suzuki, N. Kawamura, M. Ito, E. Arakawa, J. Kokubun, K. Hirano, K. Horie, S. Uemura, K. Hagiwara, M. Mizumaki, S. Goto, H. Kitamura, K. Namikawa, T. Ishikawa

"Polarization tunability and analysis for observing magnetic effects on BL39XU at SPRING-8"
J. Synchrotron Rad. **6** (1999) 1133.

Y. Terada, N. Kondo, M. Kataoka, M. Izumiyama, I. Nakai, S. Goto

"Development and application of Multi-Purpose X-Ray Fluorescence Analyzer Using Synchrotron and Conventional X-Ray Sources"
X-ray Spectrometry **28** (1999) 461.

K. Sakurai, H. Eba and S. Goto

"Grazing incidence X-ray fluorescence and scattering experiments at BL-39XU, SPRING-8"
Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 332.

K. Sakurai and H. Eba
"X-ray fluorescence analysis with a Johansson-type spectrometer"
Jpn. J. Appl. Phys. Suppl. **38-1** (1999) 650.

M. Suzuki, N. Kawamura, M. Mizumaki, A. Urata, H. Maruyama, S. Goto and T. Ishikawa
"Polarization-modulation technique with diamond phase retarder to improve the accuracy of XMCD measurements"
J. Synchrotron Rad. **6** (1999) 190.

BL40XU

K. Wakabayashi, N. Yagi
"Muscle contraction: challenges for synchrotron radiation"
J. Synchrotron Rad. **6** (1999) 875.

BL41XU

M. Kobayashi, M. Kubota, Y. Matsuura
"Crystallization and improvement of crystal quality for X-ray diffraction of maltooligosyl trehalose synthase by reductive methylation of lysine residues"
Acta Cryst. **D55** (1999) 931.

Y. Higuchi, H. Ogata, K. Miki, N. Yasuoka, T. Yagi
"Removal of the bridging ligand atom at the Ni-Fe active site of [NiFe] hydrogenase upon reduction with H₂, as revealed by X-ray structure analysis at 1.4Å resolution"
Structure **7** (1999) 549.

K. Takano, J. Funahashi, Y. Yamagata, S. Fujii, M. Kubota, K. Yutani
"Contribution of Hydrogen Bonds to the Conformational Stability of Human Lysozyme: Calorimetry and X-ray Analysis of Six Ser→Ala Mutants"
Biochemistry **38** (1999) 6623.

N. Shibata, J. Masuda, K. Suto, Y. Morimoto, N. Yasuoka, T. Tobimatsu, T. Toraya
"A new mode of B12 binding and the direct participation of a potassium ion in enzyme catalysis: X-ray structure of diol dehydratase"
Structure **7** (1999) 997.

H. Komori, F. Matsunaga, Y. Higuchi, M. Ishiai, C. Wada, K. Miki

"Crystal structure of a prokaryotic replication initiator protein bound to DNA at 2.6Å resolution"
EMBO J. **18** (1999) 4597.

K. Takano, M. Ota, K. Ogasahara, Y. Yamagata, K. Nishikawa, K. Yutani
"Experimental verification of the 'stability profile of mutant protein' (SPMP) data using mutant human lysozymes"
Protein Engineering **12** (1999) 663.

M. Aritomi, N. Kunishima, T. Okamoto, R. Kuroki, Y. Ota, K. Morikawa
"Atomic structure of the GCSF-receptor complex showing a new cytokine-receptor recognition scheme"
Nature **401** (1999) 713.

N. Nakagawa, M. Sugahara, R. Masui, R. Kato, K. Fukuyama, S. Kuramitsu
"Crystal Structure of *Thermus thermophilus* HB8 UvrB Protein, a Key Enzyme of Nucleotide Excision Repair"
J. Biochem. **126** (1999) 986.

K. Takano, K. Tsuchimori, Y. Yamagata, K. Yutani
"Effect of foreign N-terminal residues on the conformational stability of human lysozyme"
Eur. J. Biochem. **266** (1999) 675.

BL45XU

H. Iwamoto, T. Suzuki, T. Fujisawa
"Time-resolved two-dimensional X-ray diffraction study of the effect of shortening on activation of contracting skeletal muscle"
Pflügers Archiv: Eur. J. Physiol. DOI10.1007/s0042-49900224 (1999)

BL47XU

N. Yagi, Y. Suzuki, K. Umetani, Y. Kohmura, K. Yamasaki
"Refraction-enhanced x-ray imaging of mouse lung using synchrotron radiation source"
Med. Phys. **26** (1999) 2190.

Y. Kohmura
"X-ray Bubble Lens and SPring-8"
J. Jpn. Soc. SR Res. **12** (1999) 296. (in Japanese)

Proceedings

BL01B1

Y. Uchimoto, M. Kinuhata, H. Takagi, T. Yao, T. Inagaki and H. Yoshida

"Crystal Structure of Metal Cation - Doped $\text{Ba}_2\text{In}_2\text{O}_5$ and its Oxide Ion Conductivity"

Proc. of the Sixth International Symposium of Solid Oxide Fuel Cells 99-19 (1999) 317.

BL02B1

Y. Matsuo, K. Yamamoto, K. Ohshima and Y. Ishii

"Phason Strain in $\text{Al}_{70}\text{Ni}_{10}\text{Co}_{20}$ Decagonal Quasicrystal"

Materials Research Society Symposium Proc. **553** Quasicrystals (1999) 183.