

3. List of Publications

1A

S.Horiuchi, Y.Okimoto, R.Kumai and Y.Tokura

Quantum Phase Transition in Organic Charge-Transfer Complexes
Science, **299** (2003) 229.

T.Arima

Non-Reciprocal Directional Dichroism as an Extension of the Magneto-Electric Effect
Nihon Oyo Jiki Gakkaishi, **27** (2003) 1111. (in Japanese).

Y.Wakabayashi, H.Sawa, M.Nakamura, M.Izumi and K.Miyano

Lack of Influence of Anisotropic Electron Clouds on Resonant X-Ray Scattering from Manganite Thin Films
Phys. Rev. B, **69** (2004) 144414.

M.Kubota, T.Arima, Y.Kaneko, J.P.He, X.Z.Yu and Y.Tokura

X-Ray Directional Dichroism of Polar Ferrimagnet
Phys. Rev. Lett., **92** (2004) 137401.

1B

M.Mito, H.Deguchi, T.Tanimoto, T.Kawae, S.Nakatsuji, H.Morimoto, H.Anzai, H.Nakao, Y.Murakami and K.Takeda

Pressure Effects on an Organic Radical Ferromagnet: 2,5-Difluorophenyl- α -Nitronyl Nitroxide
Phys. Rev. B, **67** (2003) 024427.

M.Mito, H.Akama, H.Deguchi, S.Takagi, T.Kawae, K.Takeda, T.Ishii, M.Yamashita, H.Nakao, Y.Murakami and S.Yamamoto

Pressure Effects on an $S = 1$ Haldane Compound $\text{Ni}(\text{C}_5\text{H}_{14}\text{N}_2)_2\text{N}_3(\text{PF}_6)$
J. Phys. Soc. Jpn., **72** (2003) 399.

Y.Kubozono, Y.Takabayashi, K.Shibata, T.Kanbara, S.Fujiki, S.Kashino, A.Fujiwara and S.Emura

Crystal Structure and Electronic Transport of Dy@C_{82}
Phys. Rev. B, **67** (2003) 115410.

Y.Wakabayashi, Y.Murakami, I.Koyama, T.Kimura, Y.Tokura, Y.Moritomo, Y.Endoh and K.Hirota

Resonant X-Ray Study on the Bi-Layered Perovskite Mn Oxide $\text{LaSr}_2\text{Mn}_2\text{O}_7$
J. Phys. Soc. Jpn., **72** (2003) 618.

K.Ejima, T.Tajiri, H.Deguchi, M.Mito, S.Takagi, K.Ohwada, H.Nakao and Y.Murakami

Pressure Effect on the Magnetism and Structure of a Spin-Peierls Substance: $\text{MEM}[\text{TCNQ}]_2$
Physica B, **329-333** (2003) 1195.

K.Kuwahara, H.Sagayama, K.Iwasa, M.Kohgi, S.Miyazaki, J.Nozaqi, J.Nogami, M.Yokoyama, H.Amitsuka, H.Nakao and Y.Murakami

High Pressure X-Ray Diffraction Study of URu_2Si_2
Acta Physica Polonica B, **34** (2003) 4307.

K.Shibata, Y.Rikiishi, T.Hosokawa, Y.Haruyama, Y.Kubozono, S.Kashino, T.Uruga, A.Fujiwara, H.Kitagawa, T.Takano and Y.Iwasa

Structural and Electronic Properties of Ce@C_{82}
Phys. Rev. B, **68** (2003) 094104.

S.Kohiki, Y.Ishida, S.Nogami, H.Shimooka, T.Tajiri, H.Deguchi, M.Mitome and M.Oku

Magnetic Properties of $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ Nanocrystals Embedded in a Mesoporous Silicate
Mat. Res. Soc. Symp. Proc., **776** (2003) 231.

T.Masuda, D.Yano, R.Kuroda, K.Uchinokura, H.Kuroe, T.Sekine, Y.Katsuki, K.Ohwada, Y.Fujii, H.Nakao and Y.Murakami

Appearance of the Spin-Peierls Phase under Pressure in $\text{Cu}_{1-x}\text{Mg}_x\text{GeO}_3$
Phys. Rev. B, **67** (2003) 024423.

T.Ishimoto, M.Tachikawa, M.Yamauchi, H.Kitagawa, H.Tokiwa and U.Nagashima

Analysis of Isotope Effect of Hydrogen-Absorbing Pd Ultra-Fine Particle by X-Ray Powder Diffraction and First Principle Multi-Component MO Calculation
Chem. Phys. Lett., **372** (2003) 503.

1C

Y.Aiura, H.Bando, R.Kitagawa, S.Maruyama, Y.Nishihara, K.Horiba, M.Oshima, O.Shiino and M.Nakatake

Electronic Structure of Layered $1T\text{-TaSe}_2$ in Commensurate Charge-Density-Wave Phase Studied by Angle-Resolved Photoemission Spectroscopy
Phys. Rev. B, **68** (2003) 073408.

Y.Aiura, I.Hase, H.Bando, K.Yagi-Watanabe, K.Ozawa, T.Iwase, Y.Nishihara, O.Shiino, M.Oshima, M.Kubota and K.Ono

Ta $5d$ Band Symmetry of $1T\text{-TaS}_{1.2}\text{Se}_{0.8}$ in Commensurate Charge-Density-Wave Phase
Phys. Rev. Lett., **91** (2003) 256404.

H.Kumigashira, K.Horiba, H.Ohguchi, K.Ono, M.Oshima, N.Nakagawa, M.Lippmaa, M.Kawasaki and H.Koinuma

In situ Photoemission Characterization of Terminating-Layer-Controlled $\text{La}_{0.6}\text{Sr}_{0.4}\text{MnO}_3$ Thin Films
Appl. Phys. Lett., **82** (2003) 3430.

K.Horiba, H.Ohguchi, H.Kumigashira, M.Oshima, K.Ono, N.Nakagawa, M.Lippmaa, M.Kawasaki and H.Koinuma

A High-Resolution Synchrotron-Radiation Angle-Resolved Photoemission Spectrometer with *in situ* Oxide Thin Film Growth Capability
Rev. Sci. Instrum., **74** (2003) 3406.

M.Oshima, S.Toyoda, T.Okumura, J.Okabayashi, H.Kumigashira, K.Ono, N.Hirashita, M.Niwa and K.Usuda

High Resolution Angle-Resolved Photoelectron Spectroscopy of Si Oxinitride and High-k Films/Si Interfaces
Technical Report of IEICE. SDM, **103** (2003) 31. (in Japanese).

M.Oshima, S.Toyoda, T.Okumura, J.Okabayashi, H.Kumigashira, K.Ono, M.Niwa, K.Usuda and N.Hirashita

Chemistry and Band Offsets of HfO_2 Thin Films for Gate Insulators
Appl. Phys. Lett., **83** (2003) 2172.

M.Oshima, S.Toyoda, J.Okabayashi, H.Kumigashira, K.Ono, M.Niwa, K.Usuda and N.Hirashita

Chemical States and Band Offsets of NH_3 -Treated Si Oxynitride Films Studied by High-Resolution Photoelectron Spectroscopy
J. Vac. Sci. Technol. A, **22** (2004) 176.

H.Kumigashira, K.Horiba, H.Ohguchi, D.Kobayashi, M.Oshima, N.Nakagawa, T.Ohnishi, M.Lippmaa, K.Ono, M.Kawasaki and H.Koinuma

In-situ Photoemission Spectroscopic Study on $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ Thin Films Grown by Combinatorial Laser-MBE
J. Elec. Spec. Relat. Phenom., **272-276** (2004) 1120.

H.Kumigashira, K.Horiba, H.Ohguchi, M.Oshima, N.Nakagawa, M.Lippmaa, K.Ono, M. Kawasaki and H.Koinuma

Surface Electronic Structures of Terminating-Layer-Controlled $\text{La}_{0.6}\text{Sr}_{0.4}\text{MnO}_3$ Thin Films Studied by *in situ* Synchrotron-Radiation Photoemission Spectroscopy
J. Magn. Magn. Mater., **272-276** (2004) 1120.

2A

K.Sugawara, Y.Enda, T.Kato, T.Sugawara and M.Shirai

Effect of Hydrogen Sulfide on Organic Sulfur Behavior in Coal and Char during Heat Treatments
Energy and Fuels, **17** (2003) 204.

T.Tsutsumi, Y.Ohminami, K.Asakura, H.Yasufuku, M.Kato, Y.Sakai, Y.Kitajima and Y.Iwasawa

Observation of Energy-Filtered Images and Energy Dispersive Images of Au/Ta Photoelectron by EXPEEM with a Wien Filter Type Energy Analyzer
Hyomen Kagaku, **24** (2003) 63. (in Japanese).

S.Suzuki, Y.Ohminami and K.Asakura

Well-Defined Inhomogeneous Catalysts-Their Reactivity and Characterization
Petrotech, **26** (2003) 206. (in Japanese).

- M.Oura, T.Mukoyama, M.Taguchi, T.Takeuchi, T.Haruna and S.Shin
Resonant Double Excitation Observed in the Near-Threshold Evolution of the Photoexcited F K_{α} Satellite Intensity in NaF
Phys. Rev. Lett., **90** (2003) 173002.
- J.Adachi, K.Hosaka, S.Furuya, K.Soejima, M.Takahashi, A.Yagishita, S.K.Semenov and N.A.Cherepkov
Shape-Resonance-Enhanced Vibrational Effects in the Angular Distributions of C 1s Photoelectrons from Fixed-in-Space CO Molecules
Phys. Rev. Lett., **91** (2003) 163001.
- J.Nakamura, S.Nasubida, E.Kabasawa, H.Yamazaki, N.Yamada, K.Kuroki, M.Watanabe, T.Oguchi, S.Lee, A.Yamamoto, S.Tajima, Y.Umeda, S.Minakawa, N.Kimura, H.Aoki, S.Ohtani, S.Shin, T.A.Callcott, D.L.Ederer, J.D.Denlinger and R.C.C.Perera
Electronic Structure of B $2p \sigma$ and $p \pi$ States in MgB₂, AlB₂, and ZrB₂ Single Crystals
Phys. Rev. B, **68** (2003) 064515.
- K.Hosaka, J.Adachi, M.Takahashi and A.Yagishita
N 1s Photoionization Cross Sections of the Nitric Oxide Molecules in the Shape Resonance Region
J. Phys. B, **36** (2003) 4617.
- H.Kumigashira, K.Horiba, H.Ohguchi, K.Ono, M.Oshima, N.Nakagawa, M.Lippmaa, M.Kawasaki and H.Koinuma
In situ Photoemission Characterization of Terminating-Layer-Controlled La_{0.6}Sr_{0.4}MnO₃ Thin Films
Appl. Phys. Lett., **82** (2003) 3430.
- K.Horiba, H.Ohguchi, H.Kumigashira, M.Oshima, K.Ono, N.Nakagawa, M.Lippmaa, M.Kawasaki and H.Koinuma
A High-Resolution Synchrotron-Radiation Angle-Resolved Photoemission Spectrometer with *in situ* Oxide Thin Film Growth Capability
Rev. Sci. Instrum., **74** (2003) 3406.
- M.Oshima, S.Toyoda, T.Okumura, J.Okabayashi, H.Kumigashira, K.Ono, N.Hirashita, M.Niwa and K.Usuda
High Resolution Angle-Resolved Photoelectron Spectroscopy of Si Oxynitride and High-k Films/Si Interfaces
Technical Report of IEICE. SDM, **103** (2003) 31. (*in Japanese*).
- M.Oshima, S.Toyoda, T.Okumura, J.Okabayashi, H.Kumigashira, K.Ono, M.Niwa, K.Usuda and N.Hirashita
Chemistry and Band Offsets of HfO₂ Thin Films for Gate Insulators
Appl. Phys. Lett., **83** (2003) 2172.
- J.Adachi, K.Hosaka, S.Furuya, K.Soejima, M.Takahashi, A.Yagishita, S.K.Semenov and N.A.Cherepkov
Angular Distributions of Vibrationally-Resolved C 1s Photoelectrons from Fixed-in-Space CO Molecules: Vibrational Effect in the Shape-Resonant C 1s Photoionization of CO
J. Elec. Spec. Relat. Phenom., **137-140** (2004) 243.
- M.Oshima, S.Toyoda, J.Okabayashi, H.Kumigashira, K.Ono, M.Niwa, K.Usuda and N.Hirashita
Chemical States and Band Offsets of NH₃-Treated Si Oxynitride Films Studied by High-Resolution Photoelectron Spectroscopy
J. Vac. Sci. Technol. A, **22** (2004) 176.
- K.Hosaka, J.Adachi, M.Takahashi, A.Yagishita, P.Lin and R.R.Lucchese
Multiplet-Specific N 1s Photoelectron Angular Distributions from the Fixed-in-Space NO Molecules
J. Phys. B, **37** (2004) L49.
- H.Kumigashira, K.Horiba, H.Ohguchi, D.Kobayashi, M.Oshima, N.Nakagawa, T.Ohnishi, M.Lippmaa, K.Ono, M.Kawasaki and H.Koinuma
In-situ Photoemission Spectroscopic Study on La_{1-x}Sr_xMnO₃ Thin Films Grown by Combinatorial Laser-MBE
J. Elec. Spec. Relat. Phenom., **272-276** (2004) 1120.
- H.Kumigashira, K.Horiba, H.Ohguchi, M.Oshima, N.Nakagawa, M.Lippmaa, K.Ono, M. Kawasaki and H.Koinuma
Surface Electronic Structures of Terminating-Layer-Controlled La_{0.6}Sr_{0.4}MnO₃ Thin Films Studied by *in situ* Synchrotron-Radiation Photoemission Spectroscopy
J. Magn. Magn. Mater., **272-276** (2004) 1120.

3A

- M.Yashima, M.Mori, R.Ali, M.Tanaka and T.Mori
Dependence of the Accuracy of a Continuous Phase Transition Temperature on Angular Resolution in Powder Diffractometry
Chem. Phys. Lett., **371** (2003) 582.
- R.Ali and M.Yashima
Lattice Parameters and Structural Phase Transition of Lanthanum Titanate Perovskite La_{0.68}(Ti_{0.95}Al_{0.05})O₃
J. Synchrotron Rad., **10** (2003) 228.
- H.Suzuki, K.Akita, Y.Yoshioka, Y.Waku and H.Misawa
Evaluation of Phase Stresses of Al₂O₃/YAG Binary MGC by Synchrotron Radiation - Residual Stress State and Stress Behavior of YAG Phase-
J. Soc. Mat. Sci., Jpn., **52** (2003) 770. (*in Japanese*).

K.Akita, Y.Sano, T.Kubo, Y.Yoshioka and H.Suzuki
Residual Stress Analyses in Laser Single Pulse Irradiated Area Using Synchrotron Radiation
Proc. Int. Conf. Advanced Technology in Experimental Mechanics 2003, (2003) CD-ROM.

Y.Takahashi, K.Hayashi, E.Matsubara, T.Shima, K.Takanashi, T.Mori and M.Tanaka
A New Technique for Study of Local Atomic Environment in Artificially Grown Magnetic Thin Film
Scripta Materialia, **48** (2003) 975.

T.Nakamura, T.Noguchi, M.E.Zolensky and M.Tanaka
Mineralogy Noble-Gas Signatures of the Carbonate-Rich Lithology of the Tagish Lake Carbonaceous Chondrite: Evidence for an Accretionary Breccia
Earth and Planetary Sci. Lett., **207** (2003) 83.

D.Nakashima, T.Nakamura and T.Noguchi
Formation History of Cl-like Phyllosilicate-Rich Clasts in the Tsukuba Meteorite Inferred from Mineralogy and Noble Gas Signatures
Earth and Planetary Sci. Lett., **212** (2003) 321.

T.Osawa, T.Nakamura and K.Nagao
Noble Gas Isotopes and Mineral Assemblages of Antarctic Micrometeorites Collected at the Meteorite Ice Field around the Yamato Mountain
Meteoritics and Planetary Sci., **38** (2003) 1627.

K.Akita and S.Tobe
Effects of Residual Stress on Critical Strain for Macroscopic Crack Formation on Thermal Spray Coatings
J. Soc. Mat. Sci. Jpn., **53** (2004) 740. (*in Japanese*).

K.Akita, H.Tanaka, Y.Sano and S.Ohya
Compressive Residual Stress Evolution Process by Laser Peening
Proc. of the 7th Int. Conf. on Residual Stresses, (2004) CD-ROM.

H.Ohara, S.Sasaki, Y.Konoike, T.Toyoda, K.Yamawaki and M.Tanaka
Charge Ordering in Eu₃S₄ Determined by the Valence-Difference Contrast of Synchrotron X-Ray Diffraction
Physica B, **350** (2004) 353.

T.Hanashima, S.Azuhata, K.Yamawaki, N.Shimizu, T.Mori, M.Tanaka and S.Sasaki
Compositional Dependence of X-Ray Absorption Spectra on Magnetic Circular Dichroism and Near-Edge Structure at Co K Edge in La_{1-x}Sr_xCoO₃ (0 ≤ x ≤ 0.6)
Jpn. J. Appl. Phys., **43** (2004) 4171.

- J.R.Harries, J.P.Sullivan, S.Obara, T.Suzuki, P.Hammond, J.Bozek, N.Berrah, M.Halka and Y.Azuma
Double Photoexcitation of Helium in a Strong dc Electric Field
Phys. Rev. Lett., **90** (2003) 133002.
- K.Edamoto, K.Ozawa and S.Otani
Interaction of Oxygen with the Polar HfC(111) Surface: Angle-Resolved Photoemission Study
e-J. Surf. Sci. Nanotech., **1** (2003) 20.
- N.Nakajima, O.Morimoto, H.Kato and Y.Sakisaka
Angle-Resolved Photoemission Study of the Near-Surface Electronic Structure of Clean Cr(001)
Phys. Rev. B, **67** (2003) 041402.
- T.Mikami, H.Nakazawa, Y.Enta, M.Suemitsu and M.Mashita
Structure and Thermal Stability of the Chemical Bondings of Diamond-Like Carbon (DLC) Films Prepared by RF Magnetron Sputtering
J. Surf. Sci. Soc. Jpn., **24** (2003) 411. (*in Japanese*).
- H.Nakazawa, T.Mikami, Y.Enta, M.Suemitsu and M.Mashita
Structure, Chemical Bonding and these Thermal Stabilities of Diamond-Like Carbon (DLC) Films by RF Magnetron Sputtering
Jpn. J. Appl. Phys., **42** (2003) L676.
- Y.Hikosaka, T.Aoto, R.I.Hall, K.Ito, R.Hirayama, N.Yamamoto and E.Miyoshi
Inner-Valence States of O_2^+ and Dissociation Dynamics Studied by Threshold Photoelectron Spectroscopy and a Configuration Interaction Calculation
J. Chem. Phys., **119** (2003) 7693.
- T.Imazono, N.Miyata and M.Yanagihara
Soft-X-Ray Emission Studies of Buried Interfaces in Multilayers
Trans. Mater. Res. Soc. Jpn., **28** (2003) 107.
- J.R.Harries, J.P.Sullivan and Y.Azuma
Experimental Determination of the Lifetimes of the $2(-1,0)_n^0$ '2pnd' ($^1P^o$) Doubly Excited States of Helium by Detection of VUV Fluorescence.
J. Phys. B, **37** (2004) L169.
- T.Aoto, Y.Hikosaka, R.I.Hall, K.Ito, J.Fernandez and F.Martin
Dissociative Photoionization of H_2 at High Photon Energies: Uncovering New Series of Doubly Excited States
Chem. Phys. Lett., **389** (2004) 145.
- Y.Hikosaka, T.Aoto, E.Shigemasa and K.Ito
Autoionization Selectivity of Ne^+ Rydberg states converging to $Ne^{2+} (^1S^o)$
J. Phys. B, **37** (2004) 2823.
- K.Edamoto, M.Sugihara, K.Ozawa and S.Otani
Photoelectron Spectroscopy Study of Oxygen Adsorption on $Mo_2C(0001)$
Surf. Sci., **561** (2004) 101.
- M.Sugihara, K.Ozawa, K.Edamoto and S.Otani
Electronic Structure of $Mo_2C(0001)$ Studied by Resonant Photoemission Spectroscopy
Solid State Commun., **131** (2004) 245.
- N.Nakajima, H.Kato, T.Okazaki and Y.Sakisaka
Photoemission Study of the Modification of the Electronic Structure of Transition-Metal Overlayers on TiO_2 Surfaces : I. Fe on $TiO_2(110)$
Surf. Sci., **561** (2004) 79.
- N.Nakajima, H.Kato, T.Okazaki and Y.Sakisaka
Photoemission Study of the Modification of the Electronic Structure of Transition-Metal Overlayers on TiO_2 Surfaces : II. Cr on $TiO_2(001)$
Surf. Sci., **561** (2004) 87.
- N.Nakajima, H.Kato, T.Okazaki and Y.Sakisaka
Photoemission Study of the Modification of the Electronic Structure of Transition-Metal Overlayers on TiO_2 Surfaces : III. Ni on $TiO_2(001)$ and Cu on $TiO_2(110)$
Surf. Sci., **561** (2004) 93.
- T.Imazono, Y.Hirayama, S.Ichikura, O.Kitakami, M.Yanagihara and M.Watanabe
Study of Interdiffused Layers Near the Surface of Multilayers by Total-Reflection Soft-X-Ray Fluorescence Spectroscopy
Jpn. J. Appl. Phys., **43** (2004) 4334.
- S.Yoshida and A.Ide
Application of A Synchrotron Radiation Micro Beam: Elemental and Chemical State Analyses at Cellular Level in Parkinson Disease and Amyotrophic Lateral Sclerosis
Biomed. Res. Trace Elements, **14** (2003) 196. (*in Japanese*).
- R.Ishihara, T.Kawakami, Y.Mizuno, T.Takeuchi and A.Ide
Neuronal Degeneration from the Perspective of Abnormal Distribution of Cellular Metallic Elements in Cases of Alzheimer's Disease
Biomed. Res. Trace Elements, **14** (2003) 204. (*in Japanese*).
- T.Kawakami, A.Ide-Ektestabi and F.Watt
Chemical State Analysis Using Synchrotron Radiation Micro Beam — Brain Tissues of Monkey with Parkinson's Disease
Biomed. Res. Trace Elements, **14** (2003) 210. (*in Japanese*).
- T.Shirakawa, A.Gotoh, Y.Kitamura, K.Sugimura, T. Kawakami and A.Ide-Ektestabi
Intracellular Levels of Zinc in Androgen-Dependent and -Independent Prostate Cancer Cell Lines
Biomed. Res. Trace Elements, **14** (2003) 215. (*in Japanese*).
- M.Kurokawa, A.Ide-Ektestabi, K.Shirasawa, H.Kuwahara, S.Muraishi, S.Tsutsumi and S.Suzuki
Analysis of Surface of Commercially Pure Mini-Plates Removed After Reduction of Facial Bone Fracture, and Elemental Analysis in Soft Tissues Around the Mini-Plates
Biomed. Res. Trace Elements, **14** (2003) 219. (*in Japanese*).
- S.Yoshida, A.Ide-Ektestabi and S.Fujisawa
Application of Synchrotron Radiation in Neuromicrobiology: Role of Iron in Parkinson's Disease
Structural Chemistry, **14** (2003) 85.
- Y.Takahashi, A.Iida, Y.Takanishi, T.Ogasawara, M.Nakata, K.Ishikawa and H.Takezoe
Dynamic Local-Layer Response of Surface-Stabilized Ferroelectric Liquid Crystals to a High Electric Field by Time-Resolved X-Ray Microdiffraction
Phys. Rev. E, **67** (2003) 051706.
- A.Iida
X-Ray Analysis by Synchrotron Radiation - X-Ray Fluorescence Analysis and XAFS-
Biomed. Res. Trace Elements, **14** (2003) 188. (*in Japanese*).
- Y.Takanishi and A.Iida
Local Layer Structure of Smectic Liquid Crystals by X-Ray Micro-Diffraction
J. Jpn. Soc. Synchrotron Rad. Res., **16** (2003) 142. (*in Japanese*).
- K.Sakurai, H.Eba and M.Mizusawa
X-Ray Fluorescence Microscope - Recent Trends of New Element Mapping Technique without Scans
Bunseki, **11** (2003) 644. (*in Japanese*).
- K.Sakurai and H.Eba
Micro X-Ray Fluorescence Imaging without Scans: Towards an Element-Selective Movie
Anal. Chem., **75** (2003) 355.
- K.Okitsu, Y.Ueji, K.Sato and Y.Amemiya
X-Ray Four-Quadrant Phase Retarder System Compensating for Off-Axis and Chromatic Aberrations
J. Jpn. Soc. Synchrotron Rad. Res., **16** (2003) 236. (*in Japanese*).
- K.Sakurai
Grazing-Incidence X-Ray Spectrometry
X-Ray Spectrometry: Recent Technological Advances, (2004) 277.

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T.Ida, H.Hibino and H.Toraya
Deconvolution of Instrumental Aberrations for Synchrotron Powder X-Ray Diffractometry
J. Appl. Cryst., **36** (2003) 181.

N.Ozaki, K.Ohnuma, K.Kakimoto, H.Ohsato, N.Kozu and H.Kishi
Crystallographic Study on Rear-Earth Doped BaTiO₃ Shell Phase for MLCC Application
Ceramic Engineering and Science Proceedings, **24** (2003) 9.

4C

H.Abe, H.Saitoh, T.Ueno, H.Nakao, Y.Matsuo, K.Ohshima and H.Matsumoto
Diffuse Scattering from an Al₇₂Ni₂₀Co₈ Decagonal Quasicrystal on an Order-Disorder Transformation
J. Phys.: Condens. Matter, **15** (2003) 1665.

H.Ohsumi, Y.Murakami, T.Kiyama, H.Nakao, M.Kubota, Y.Wakabayashi, Y.Konishi, M.Izumi, M.Kawasaki and Y.Tokura
Experimental Elucidation: Microscopic Mechanism of Resonant X-Ray Scattering in Manganite Films
J. Phys. Soc. Jpn., **72** (2003) 1006.

H.Nakao, T.Satoh, J.Satoh, Y.Murakami, M.Kubota, Y.Wakabayashi, H.Sawa, T.Kimura and Y.Tokura
Charge and Orbital Order States in Nd_{1-x}Sr_{1+x}MnO₄ (x=0.67, 0.75)
Physica B, **329-333** (2003) 809.

T.Kiyama, Y.Wakabayashi, H.Nakao, H.Ohsumi, Y.Murakami, M.Izumi, M.Kawasaki and Y.Tokura
Resonant X-Ray Scattering in Perovskite Manganite Superlattice – Observation of “Orbital Superlattice” –
J. Phys. Soc. Jpn., **72** (2003) 785.

K.Ishii, T.Inami, Y.Murakami, L.Hao, K.Iwasa, M.Kohgi, Y.Aoki, H.Sugawara, H.Sato, S.Imada, H.Nakao, H.Sawa and Y.Wakabayashi
Resonant X-Ray Scattering Study on the Filled Skutterudite PrFe₄P₁₂
Physica B, **329-333** (2003) 467.

T.Kimura, S.Ishihara, H.Shintani, T.Arima, K.T.Takahashi, K.Ishizuka and Y.Tokura
Distorted Perovskite with e_g¹ Configuration as a Frustrated Spin System
Phys. Rev. B, **68** (2003) 060403.

H.Abe, H.Saitoh, T.Ueno, H.Nakao, Y.Matsuo, K.Ohshima and H.Matsumoto
Anomalous Debye-Waller Factor Associated with an Order-Disorder Transformation in an Al₇₂Ni₂₀Co₈ Decagonal Quasicrystal
J. Phys. Soc. Jpn., **72** (2003) 1828.

T.Kimura, T.Goto, H.Shintani, K.Ishizuka, T.Arima and Y.Tokura
Magnetic Control of Ferroelectric Polarization
Nature, **426** (2003) 55.

K.Tatsumura, T.Watanabe, D.Yamasaki, T.Shimura, M.Umeno and I.Ohdomari
Effects of Thermal History on Residual Order of Thermally Grown Silicon Dioxide
Jpn. J. Appl. Phys., **42** (2003) 7250.

H.Sato, Y.Kawamura, T.Ogawa, Y.Murakami, H.Ohsumi, M.Mizumaki and N.Ikeda
Critical Phenomena in Helical Magnet β-MnO₂: X-Ray Magnetic Scattering Study
Physica B, **329-333** (2003) 757.

T.Masuda, D.Yano, R.Kuroda, K.Uchinokura, H.Kuroe, T.Sekine, Y.Katsuki, K.Ohwada, Y.Fujii, H.Nakao and Y.Murakami
Appearance of the Spin-Peierls Phase under Pressure in Cu_{1-x}Mg_xGeO₃
Phys. Rev. B, **67** (2003) 024423.

T.Sumii, H.Wano and K.Uosaki
Electrochemical Oxidative Adsorption and Reductive Desorption of a Self-Assembled Monolayer of Decanethiol on the Au(111) Surface in KOH+ethanol Solution
J. of Electroanalytical Chem., **550-551** (2003) 321.

K.Ishizuka, T.Arima, Y.Murakami, R.Kajimoto, H.Yoshizawa, N.Nagaosa and Y.Tokura
Commensurate-Incommensurate Crossover of Charge Stripe in La_{2-x}Sr_xNiO₄ (x=1/3)
Phys. Rev. Lett., **92** (2004) 196404.

D.Okuyama, T.Matsumura, Y.Murakami, Y.Wakabayashi, H.Sawa and D.X.Li
Resonant Magnetic X-Ray Scattering from Antiferromagnetic Order in GdAs
Physica B, **345** (2004) 63.

K.Tatsumura, T.Watanabe, D.Yamasaki, T.Shimura, M.Umeno and I.Ohdomari
Residual Order within Thermally Grown Amorphous SiO₂ on Crystalline Silicon
Phys. Rev. B, **69** (2004) 085212.

6A

H.Tsuge, M.Nagahama, H.Nishimura, J.Hisatsune, Y.Sakaguchi, Y.Itogawa, N.Katunuma and J.Sakurai
Crystal Structure and Site-Directed Mutagenesis of Enzymatic Components from *Clostridium perfringens* Lota-Toxin
J. Mol. Biol., **325** (2003) 471.

N.Tanaka, Y.Kusakabe, K.Ito, T.Yoshimoto and K.T.Nakamura
Crystal Structure of Glutathione-Independent Formaldehyde Dehydrogenase
Chem. Biol. Interact., **143-144** (2003) 211.

M.Fujihashi, D.H.Peapus, E.Nakajima, T.Yamada, J.Saito, A.Kita, Y.Higuchi, Y.Sugawara, A.Ando, N.Kamiya, Y.Nagata and K.Miki
X-Ray Crystallographic Characterization and Phasing of a Fucose-Specific Lectin from *Aleuria aurantia*
Acta Cryst. D, **59** (2003) 378.

K.Shiba, T.Shirai, T.Homma and T.Noda
Translated Products of Tandem Microgene Repeats Exhibit Diverse Properties Also Seen in Natural Proteins.
Protein Engineering, **16** (2003) 57.

Z.Fujimoto, S.Kaneko, M.Momma, H.Kobayashi and H.Mizuno
Crystal Structure of Rice α-Galactosidase Complexed with D-Galactose
J. Biol. Chem., **278** (2003) 20313.

H.Sakuraba, H.Tsuge, I.Shimoya, R.Kawakami, S.Goda, Y.Kawarabayasi, N.Katunuma, H.Ago, M.Miyano and T.Ohshima
The First Crystal Structure of Archaeal Aldolase.
J. Biol. Chem., **278** (2003) 10799.

H.Iwata, H.Hondo, I.Yoshizaki and F.Tanigaki
Microgravity Experiments by High-School Students (a Challenge to Grow Good Protein Crystals in Space)
Kagaku, **58** (2003) 12. (*in Japanese*).

A.Nakagawa, N.Miyazaki, J.Taka, H.Naitow, A.Ogawa, Z.Fujimoto, H.Mizuno, T.Higashi, Y.Watanabe, T.Omura, R.H.Cheng and T.Tsukihara
The Atomic Structure of *Rice dwarf* Virus Reveals the Self-Assembly Mechanism of Component Proteins
Structure, **11** (2003) 1227.

S.Fushinobu, H.Shoun and T.Wakagi
Crystal Structure of Sulerythrin, a Rubrerythrin-Like Protein from a Strictly Aerobic Archaeon, *Sulfolobus tokodaii* Strain 7, Shows Unexpected Domain Swapping
Biochemistry, **42** (2003) 11707.

S.Ito, S.Fushinobu, J.-J.Jeong, I.Yoshioka, S.Koga, H.Shoun and T.Wakagi
Crystal Structure of an ADP-Dependent Glucokinase from *Pyrococcus furiosus*: Implications for a Sugar-Induced Conformational Change in ADP-Dependent Kinase
J. Mol. Biol., **331** (2003) 871.

I.Kumagai, Y.Nishimiya, H.Kondo and K.Tsumoto
Structural Consequences of Target Epitope-Directed Functional Alteration of an Antibody
J. Biol. Chem., **278** (2003) 24929.

- A. Yokota, K. Tsumoto, M. Shiroishi, H. Kondo and I. Kumagai
The Role of Hydrogen Bonding via Interfacial Water Molecules in Antigen-Antibody Complexation: The HyHEL-10-HEL Interaction
J. Biol. Chem., **278** (2003) 5410.
- K. Wada, T. Tada, Y. Nakamura, T. Ishikawa, Y. Yabuta, K. Yoshimura, S. Shigeoka and K. Nishimura
Crystal Structure of Chloroplastic Ascorbate Peroxidase from Tobacco Plants and Structural Insights into its Instability
J. Biochem., **134** (2003) 239.
- T. Shiba, M. Kawasaki, H. Takatsu, T. Nogi, N. Matsugaki, N. Igarashi, M. Suzuki, R. Kato, K. Nakayama and S. Wakatsuki
Molecular Mechanism of Membrane Recruitment of GGA by ARF in Lysosomal Protein Transport
Nature Structural Biology, **10** (2003) 386.
- A. Ohtaki, A. Iguchi, M. Mizuno, T. Tonozuka, Y. Sakano and S. Kamitori
Mutual Conversion of Substrate Specificities of *Thermoactinomyces vulgaris* R-47 α -Amylases TVA1 and TVA2 by Site-Directed Mutagenesis
Carbohydrate Res., **338** (2003) 1553.
- R. Natsume, R. Takeshita, M. Sugiyama, Y. Ohnishi, T. Senda and S. Horinouchi
Crystallization of CprB, an Autoregulator-Receptor Protein from *Streptomyces coelicolor* A3(2).
Acta Cryst. D, **59** (2003) 2313.
- R. Natsume, Y. Ohnishi, T. Senda and S. Horinouchi
Crystal Structure of a γ -Butyrolactone Autoregulator Receptor Protein in *Streptomyces coelicolor* A3(2).
J. Mol. Biol., **336** (2003) 409.
- S. Muraoka, R. Okumura, N. Ogawa, T. Nonaka, K. Miyashita and T. Senda
Crystal Structure of a Full-Length LysR-Type Transcriptional Regulator, CbnR: Unusual Combination of Two Subunit Forms and Molecular Bases for Causing and Changing DNA Bend
J. Mol. Biol., **328** (2003) 555.
- S. Muraoka, R. Okumura, Y. Uragami, T. Nonaka, N. Ogawa, K. Miyashita and T. Senda
Purification and Crystallization of a LysR-Type Transcriptional Regulator CbnR from *Ralstonia eutropha* NH9.
Protein and Peptide Lett., **10** (2003) 325.
- S.-H. Liaw, S.-J. Chen, T.-P. Ko, C.-S. Hsu, C.-J. Chen, A.H.-J. Wang and Y.-C. Tsai
Crystal Structure of D-Aminoacylase from *Alcaligenes faecalis* DA1.
J. Biol. Chem., **278** (2003) 4957.
- T.-P. Ko, J.-J. Lin, C.-Y. Hu, Y.-H. Hsu, A.H.-J. Wang and S.-H. Liaw
Crystal Structure of Yeast Cytosine Deaminase
J. Biol. Chem., **278** (2003) 19111.
- Y.-H. Hsu, C.-Y. Hu, J.-J. Lin and S.-H. Liaw
Crystallization and Preliminary Crystallographic Analysis of Yeast Cytosine Deaminase
Acta Cryst. D, **59** (2003) 950.
- M. Fujihashi, D.H. Peapus, N. Kamiya, Y. Nagata and K. Miki
Crystal Structure of Fucose Specific Lectin from *Aleuria aurantia* Binding Ligands at Three of its Five Sugar Recognition Sites
Biochemistry, **38** (2003) 11093.
- T. Ko, L. Lin, C. Hu, Y. Hsu, A. Wang and S. Liaw
Crystal Structure of the Yeast Cytosine Deaminase. Insights into the Enzyme Mechanism and Evolution.
J. Biol. Chem., **278** (2003) 19111.
- S. Liaw, S. Chen, T. Ko, C. Hsu, C. Chen, A. Wang and Y. Tsai
Crystal Structure of D-Aminoacylase from *Alcaligenes faecalis* DA1. A Novel Subset of Amidohydrolases and Insights into the Enzyme Mechanism.
J. Biol. Chem., **278** (2003) 4957.
- Y. Hsu, C. Hu, J. Lin and S. Liaw
Crystallization and Preliminary Crystallographic Analysis of Yeast Cytosine Deaminase.
Acta Cryst. D, **59** (2003) 950.
- Z. Fujimoto, W.-D. Kim, S. Kaneko, G.-G. Park, M. Momma, H. Kobayashi and H. Mizuno
Crystallization and Preliminary X-Ray Crystallographic Studies of α -galactosidase I from *Mortierella vinacea*
Acta Cryst. D, **59** (2003) 2289.
- M. Momma, Z. Fujimoto, N. Maita, K. Haraguchi and H. Mizuno
Expression, Crystallization and Preliminary X-Ray Crystallographic Studies of *Arthrobacter globiformis* Inulin Fructotransferase
Acta Cryst. D, **59** (2003) 2286.
- Z. Fujimoto, S. Kaneko, A. Kuno, H. Kobayashi, I. Kusakabe and H. Mizuno
Crystal Structures of Decorated Xylooligosaccharides bound to a Family 10 Xylanase from *Streptomyces olivaceoviridis* E-86
J. Biol. Chem., **279** (2004) 9606.
- W.-L. Lai, L.-Y. Chou, C.-Y. Ting, R. Kirby, Y.-C. Tsai, A.H.-J. Wang and S.-H. Liaw
The Functional Role of the Binuclear Metal Center in D-Aminoacylase
J. Biochem., **279** (2004) 13962.
- T. Shiba, S. Kametaka, M. Kawasaki, M. Shibata, S. Waguri, Y. Uchiyama and S. Wakatsuki
Insights into the Phosphoregulation of β -Secretase Sorting Signal by the VHS Domain of GGA1
Traffic, **5** (2004) 437.
- S. Wakatsuki, M. Hiraki, Y. Gaponov, N. Matsugaki, N. Igarashi and M. Suzuki
Automation for Protein Crystallographic Diffraction Experiments
Genomics and Proteomics, (2004) 618. (*in Japanese*).
- M. Suzuki, N. Igarashi, N. Matsugaki and S. Wakatsuki
Protein Crystallographic Beam Lines (Photon Factory)
Genomics and Proteomics, (2004) 612. (*in Japanese*).
- Y. Gaponov, N. Igarashi, M. Hiraki, K. Sasajima, N. Matsugaki, M. Suzuki, T. Kosuge and S. Wakatsuki
Integrated Controlling System and Unified Database for High Throughput Protein Crystallography Experiments
AIP Conf. Proc., **705** (2004) 1213.
- Y. Gaponov, N. Igarashi, M. Hiraki, K. Sasajima, N. Matsugaki, M. Suzuki, T. Kosuge and S. Wakatsuki
Secure UNIX Socket Based Controlling System for High Throughput Protein Crystallography Experiments
J. Synchrotron Rad., **11** (2004) 17.
- A. Miyanaga, S. Fushinobu, K. Ito, H. Shoun and T. Wakagi
Mutational and Structural Analysis of Cobalt-Containing Nitrile Hydratase on Substrate and Metal Binding
Eur. J. Biochem., **271** (2004) 429.
- J.-J. Jeong, T. Sonoda, S. Fushinobu, H. Shoun and T. Wakagi
Crystal Structure of Isocitrate Dehydrogenase from *Aeropyrum pernix*
PROTEINS: Struct. Funct. Bioinform., **55** (2004) 1087.
- M. Hidaka, Y. Honda, M. Kitaoka, S. Nirasawa, K. Hayashi, T. Wakagi, H. Shoun and S. Fushinobu
Chitobiose Phosphorylase from *Vibrio proteolyticus*, a Member of Glycosyl Transferase Family 36, Has a Clan GH-L-like (α/α)₆ Barrel Fold
Structure, **12** (2004) 937.
- B. Padmanabhan, T. Kuzuhara, N. Adachi and M. Horikoshi
The Crystal Structure of CCG1/TAF_{II}250-Interacting Factor B (CIB)
J. Biol. Chem., **279** (2004) 9615.
- W. Lai, L. Chou, C. Ting, R. Kirby, Y. Tsai, A. Wang and S. Liaw
The Functional Role of the Binuclear Metal Center in D-Aminoacylase. One-Metal Activation and Second-Metal Inhibition.
J. Biol. Chem., **279** (2004) 13692.

- I.Yoshizaki, A.Kadowaki, Y.Iimura, N.Igarashi, S.Yoda and H.Komatsu
Impurity Effects on Lysozyme Crystal Growth
J. Synchrotron Rad., **11** (2004) 30.
- A.Kadowaki, I.Yoshizaki, L.Rong, H.Komatsu, O.Odawara and S.Yoda
Improvement of Protein Crystal Quality by Forced Flow Solution
J. Synchrotron Rad., **11** (2004) 38.
- Y.Shomura, T.Yoshida, R.Iizuka, T.Maruyama, M.Yohda and K.Miki
Crystal Structures of the Group II Chaperonin from *Thermococcus* Strain KS-1: Steric Hindrance by the Substituted Amino Acid, and Inter-Subunit Rearrangement between Two Crystal Forms
J. Mol. Biol., **335** (2004) 1265.
- Y.-J.Chang, C.-H.Huang, C.-Y.Hu and S.-H.Liaw
Crystallization and Preliminary Crystallographic Analysis of *Bacillus subtilis* Guanine Deaminase.
Acta Cryst. D, **60** (2004) 1152.
- A.Nakamura, H.Komori, G.Kobayashi, A.Kita, C.Wada and K.Miki
The N-Terminal Domain of the Replication Initiator Protein RepE is a Dimerization Domain Forming a Stable Dimer
Biochem. Biophys. Res. Commun., **315** (2004) 10.
- B.Padmanabhan, N.Adachi, K.Kataoka and M.Horikoshi
Crystal Structure of the Homolog of the Oncoprotein Gankyrin, an Interactor of Rb and CDK4/6.
J. Biol. Chem., **279** (2004) 1546.
- S.Kaneko, H.Ichinose, Z.Fujimoto, A.Kuno, K.Yura, M.Go, H.Mizuno, I.Kusakabe and H.Kobayashi
Structure and Function of a Family 10 β -Xylanase Chimera of *Streptomyces olivaceoviridis* E-86 FXYN and *Cellulomonas fimi* Cex
J. Biol. Chem., **279** (2004) 26619.
- T.S.Kumarevel, Z.Fujimoto, P.Karthe, M.Oda, H.Mizuno and P.K.R.Kumar
Crystal Structure of Activated HutP: an RNA Binding Protein that Regulates the Transcription of the *hut* Operon in *Bacillus subtilis*
Structure, **12** (2004) 1269.
- 6B**
- M.Fujihashi, D.H.Peapus, E.Nakajima, T.Yamada, J.Saito, A.Kita, Y.Higuchi, Y.Sugawara, A.Ando, N.Kamiya, Y.Nagata and K.Miki
X-Ray Crystallographic Characterization and Phasing of a Fucose-Specific Lectin from *Aleuria aurantia*
Acta Cryst. D, **59** (2003) 378.
- A.Nakagawa, N.Miyazaki, J.Taka, H.Naitow, A.Ogawa, Z.Fujimoto, H.Mizuno, T.Higashi, Y.Watanabe, T.Omura, R.H.Cheng and T.Tsukihara
The Atomic Structure of *Rice dwarf* Virus Reveals the Self-Assembly Mechanism of Component Proteins
Structure, **11** (2003) 1227.
- S.Ito, S.Fushinobu, J.-J.Jeong, I.Yoshioka, S.Koga, H.Shoun and T.Wakagi
Crystal Structure of an ADP-Dependent Glucokinase from *Pyrococcus furiosus*: Implications for a Sugar-Induced Conformational Change in ADP-Dependent Kinase
J. Mol. Biol., **331** (2003) 871.
- K.Wada, T.Tada, Y.Nakamura, T.Ishikawa, Y.Yabuta, K.Yoshimura, S.Shigeoka and K.Nishimura
Crystal Structure of Chloroplastic Ascorbate Peroxidase from Tobacco Plants and Structural Insights into its Instability
J. Biochem., **134** (2003) 239.
- M.Fujihashi, D.H.Peapus, N.Kamiya, Y.Nagata and K.Miki
Crystal Structure of Fucose Specific Lectin from *Aleuria aurantia* Binding Ligands at Three of its Five Sugar Recognition Sites
Biochemistry, **38** (2003) 11093.
- T.Ko, L.Lin, C.Hu, Y.Hsu, A.Wang and S.Liaw
Crystal Structure of the Yeast Cytosine Deaminase. Insights into the Enzyme Mechanism and Evolution.
J. Biol. Chem., **278** (2003) 19111.
- M.Momma, Z.Fujimoto, N.Maita, K.Haraguchi and H.Mizuno
Expression, Crystallization and Preliminary X-Ray Crystallographic Studies of *Arthrobacter globiformis* Inulin Fructotransferase
Acta Cryst. D, **59** (2003) 2286.
- W.-L.Lai, L.-Y.Chou, C.-Y.Ting, R.Kirby, Y.-C.Tsai, A.H.-J.Wang and S.-H.Liaw
The Functional Role of the Binuclear Metal Center in D-Aminoacylase
J. Biochem., **279** (2004) 13962.
- Z.Liu, H.Yan, K.Wang, T.Kuang, J.Zhang, L.Gui, X.An and W.Chang
Crystal Structure of Spinach Major Light-Harvesting Complex at 2.72Å Resolution
Nature, **428** (2004) 287.
- H.-T.Li, C.Wang, T.Chang, W.-C.Chang, M.-Y.Liu, J.L.Gall, L.-I.Gui, J.-P.Zhang, X.-M.An and W.-R.Chang
pH-Profile Crystal Structure Studies of C-Terminal Despentapeptide nitrite reductase from *Achromobacter cycloclastes*
Biochem. Biophys. Res. Comm., **316** (2004) 107.
- H.-T.Li, C.Wang, T.Chang, W.-C.Chang, M.-Y.Liu, J.L.Gall, L.-I.Gui, J.-P.Zhang, X.-M.An and W.-R.Chang
pH-Profile Crystal Structure Studies of C-Terminal Despentapeptide nitrite reductase from *Achromobacter cycloclastes*
Biochem. Biophys. Res. Comm., **316** (2004) 107.
- W.Lai, L.Chou, C.Ting, R.Kirby, Y.Tsai, A.Wang and S.Liaw
The Functional Role of the Binuclear Metal Center in D-Aminoacylase. One-Metal Activation and Second-Metal Inhibition.
J. Biol. Chem., **279** (2004) 13692.
- Y.Shomura, T.Yoshida, R.Iizuka, T.Maruyama, M.Yohda and K.Miki
Crystal Structures of the Group II Chaperonin from *Thermococcus* Strain KS-1: Steric Hindrance by the Substituted Amino Acid, and Inter-Subunit Rearrangement between Two Crystal Forms
J. Mol. Biol., **335** (2004) 1265.
- T.Kinoshita, I.Nakanishi, M.Warizaya, A.Iwashita, Y.Kido, K.Hattori and T.Fujii
Inhibitor-Induced Structural Change of the Active Site of Human Poly(ADP-ribose) Polymerase
FEBS Lett., **556** (2004) 43.
- T.Kinoshita, T.Tsutsumi, R.Maruki, M.Warizaya, Y.Ishii and T.Fujii
Cloning, Expression, Purification, Crystallization and Preliminary Diffraction Analysis of the C-Terminal Catalytic Domain of Human Poly(ADP-ribose) Polymerase
Acta Cryst. D, **60** (2004) 109.
- K.Kamata, M.Mitsuya, T.Nishimura, J.Eiki and Y.Nagata
Structural Basis for Allosteric Regulation of the Monomeric Allosteric Enzyme Human Glucokinase
Structure, **12** (2004) 429.
- Z.Fujimoto, S.Kaneko, A.Kuno, H.Kobayashi, I.Kusakabe and H.Mizuno
Crystal Structures of Decorated Xylooligosaccharides bound to a Family 10 Xylanase from *Streptomyces olivaceoviridis* E-86
J. Biol. Chem., **279** (2004) 9606.
- 6C**
- Z.Liu, H.Yan, K.Wang, T.Kuang, J.Zhang, L.Gui, X.An and W.Chang
Crystal Structure of Spinach Major Light-Harvesting Complex at 2.72Å Resolution
Nature, **428** (2004) 287.
- H.-T.Li, C.Wang, T.Chang, W.-C.Chang, M.-Y.Liu, J.L.Gall, L.-I.Gui, J.-P.Zhang, X.-M.An and W.-R.Chang
pH-Profile Crystal Structure Studies of C-Terminal Despentapeptide nitrite reductase from *Achromobacter cycloclastes*
Biochem. Biophys. Res. Comm., **316** (2004) 107.
- 7A**
- H.Kondoh, M.Iwasaki, T.Shimada, K.Amemiya, T.Yokoyama, T.Ohta, M.Shimomura and S.Kono
Adsorption of Thiulates to Singly Coordinated Sites on Au(111) Evidenced by Photoelectron Diffraction
Phys. Rev. Lett., **90** (2003) 066102.

- T.Yokoyama, D.Matsumura, K.Amemiya, S.Kitagawa, N.Suzuki and T.Ohta
Spin Reorientation Transitions of Ultrathin Co/Pd(111) Films Induced by Chemisorption: X-Ray Magnetic Circular Dichroism Study
J. Phys.: Condens. Matter, **15** (2003) S537.
- K.Amemiya, S.Kitagawa, D.Matsumura, T.Yokoyama and T.Ohta
Development of a Depth-Resolved X-Ray Magnetic Circular Dichroism: Application to Fe/Cu(100) Ultrathin Films
J. Phys.: Condens. Matter, **15** (2003) S561.
- A.Nambu, H.Kondoh, I.Nakai, K.Amemiya and T.Ohta
Film Growth and X-Ray Induced Chemical Reactions of Thiophene Adsorbed on Au(111)
Surf. Sci., **530** (2003) 101.
- M.Nagasaka, I.Nakai, H.Kondoh, T.Ohta and V.Carravetta
Oxygen K-Edge Near Edge X-Ray Absorption Fine Structures of O and OH Overlayers on Pt(111)
Chem. Phys. Lett., **375** (2003) 419.
- S.Wada, R.Sumii, K.Isari, S.Waki, E.O.Sako, T.Sekiguchi, T.Sekitani and K.Tanaka
Active Control of Chemical Bond Scission by Site-Specific Core Excitation
Surf. Sci., **528** (2003) 242.
- S.Wada, E.O.Sako, R.Sumii, S.Waki, K.Isari, T.Sekiguchi, T.Sekitani and K.Tanaka
Active Control of Site Specificity in Ion Desorption by Core Excitation
Nucl. Instrum. Meth. Phys. Res. B, **199** (2003) 361.
- Y.Baba
Element-Specific and Site-Specific Ion Desorption from Adsorbed Molecules by Deep Core-Level Photoexcitation at the K-Edges
Low Temperature Physics, **29** (2003) 228.
- 7C**
- H.Yoshitake, T.Sugihara and T.Tatsumi
XAFS Study on the Local Structure of Ti in Amorphous Mesoporous Titania
Phys. Chem. Chem. Phys., **5** (2003) 767.
- Y.Izumi, F.Kiyotaki, H.Nagamori and T.Minato
X-Ray Absorption Fine Structure Utilizing a Fluorescence Spectrometer: Site Selective Structure Determination of Environmental Catalysts and Adsorbents
Studies Surf. Sci. Catal., **145** (2003) 177.
- H.Yamashita
XAFS Analysis and Applications to Carbons and Catalysts
Carbon Alloys, Ed. by E.Yamashita et al., Elsevier, (2003) 189.
- K.Fukumi, A.Chayahara, H.Kageyama, A.Kinomura, Y.Mokuno, N.Kitamura, K.Kadono, Y.Horino and J.Nishii
Sequential Implantation of Halogen and Copper Ions in Silica Glass
Nucl. Instrum. Meth. Phys. Res. B, **206** (2003) 353.
- Y.Okamoto, M.Kawano and T.Kubota
Fraction of the CoMoS Phases Accessible to NO in Co-Mo Hydrodesulfurization Catalysts
Chem. Commun., (2003) 1086.
- S.Matsuo, T.Tsukamoto, A.Kamigaki, Y.Okaue, T.Yokoyama and H.Wakita
X-Ray Absorption Spectroscopic Study on Gold Particle Formed on Titania and Alumina
X-Ray Spectrom., **32** (2003) 158.
- Y.Izumi, D.Masih, N.Yagi, A.-M.Vlaicu, M.Okui, A.Nisawa and S.Fukushima
Structural Changes of Catalysis Site of V-TiO₂ Observed by In situ XAFS Combined with Fluorescence Spectrometry
Kagaku-Kogyo, **54** (2003) 693. (*in Japanese*).
- T.Kawai, S.Sato, S.Suzuki, W.-J.Chun, K.Asakura, K.K.Bando, T.Matsui, Y.Yoshimura, T.Kubota, Y.Okamoto, Y.-K.Lee and S.T.Oyama
In Situ X-Ray Absorption Fine Structure Studies on the Structure of Nickel Phosphide Catalyst Supported on K-USY
Chem. Lett., **32** (2003) 956.
- H.Yoshida, T.Shimizu, C.Murata and T.Hattori
Highly Dispersed Zinc Oxide Species on Silica as Active Sites for Photoepoxidation of Propene by Molecular Oxygen
J. Catal., **220** (2003) 226.
- T.Kubota, N.Hosomi, K.K.Bando, T.Matsui and Y.Okamoto
In Situ Fluorescence XAFS Study for Hydrodesulfurization Catalysts
Phys. Chem. Chem. Phys., **5** (2003) 4510.
- Y.Okamoto
Preparation and Characterization of Co-Mo Model Sulfide Catalysts for Hydrodesulfurization
J. Jpn. Petroleum Institute, **46** (2003) 343.
- T.Takiue, Y.Kawagoe, S.Muroi, R.Murakami, N.Ikeda, M.Aratono, H.Tanida, H.Sakane, M.Harada and I.Watanabe
Surface Density Measurement of the Bromide Ion by the Total-Reflection X-Ray Absorption Fine Structure Technique at the Air/Aqueous Dodecyltrimethylammonium Bromide Solution Interface
Langmuir, **19** (2003) 10803.
- S.Suzuki, M.Saito, M.Kimura, T.Suzuki, H.Kihira and Y.Waseda
A New Method for Describing the Atomic-Scale Structure of Rusts Formed on the Iron Based Alloys Surfaces
ISIJ International, **43** (2003) 366.
- Y.Kimura, D.Abe, T.Ohmori, M.Mizutani and M.Harada
Synthesis of Platinum Nano-Particles in High-Temperatures and High-Pressures Fluids
Colloids and Surfaces A: Physicochem. Eng. Aspects, **231** (2003) 131.
- K.K.Bando, T.Matsui, L.LeBihan, K.Sato, T.Tanaka, M.Imamura, N.Matsubayashi and Y.Yoshimura
In-situ XAFS Study of USY Zeolite Supported Pd-Pt Catalysts under Reduction and Sulfidation Conditions – Effect of Pt on Structure of Bimetallic Pd-Pt Particles –
Studies Surf. Sci. Catal., **145** (2003) 335.
- K.K.Bando, T.Matsui, L.LeBihan, K.Sato, T.Tanaka, M.Imamura, N.Matsubayashi and Y.Yoshimura
In-situ XAFS Observation of Formation of Pd-Pt Bimetallic Particles in Mesopores of a USY Zeolite
Studies Surf. Sci. Catal., **146** (2003) 363.
- M.Shirai, N.Iwasa, K.K.Bando and T.Kubota
In situ XAFS Analysis of Catalytically Active Cobalt Species in Porous Catalysts for Deep Hydrodesulfurization
Catal. Today, **87** (2003) 117.
- X.Guo, J.Qi and K.Sakurai
Mechanochemical Formation of Novel Catalyst for Preparing Carbon Nanotubes: Nanocrystalline Yttrium Aluminum Iron Perovskite
Scripta Mater., **48** (2003) 1185.
- T.Ohkubo, H.Kanoh, H.Sakai, M.Abe and K.Kaneko
Hydration-Structure Anomaly of Restricted Ionic Nanosolution
Hyomen, **41** (2003) 346. (*in Japanese*).
- Q.Zhang, Y.Wang, S.Itsuki, T.Shishido and K.Takehira
Fe-MCM-41 Catalyzed Epoxidation of Alkenes with Hydrogen Peroxide
Studies. Surf. Sci. Catal., **146** (2003) 625.
- Y.Wang, Y.Ohishi, T.Shishido, Q.Zhang, W.Yang, Q.Guo, H.Wan and K.Takehira
Characterizations and Catalytic Properties of Cr-MCM-41 Prepared by Direct Hydrothermal Synthesis and Template-Ion Exchange
J. Catal., **220** (2003) 347.
- N.Ozaki, K.Ohnuma, K.Kakimoto, H.Ohsato, N.Kozu and H.Kishi
Crystallographic Study on Rear-Earth Doped BaTiO₃ Shell Phase for MLCC Application
Ceramic Engineering and Science Proceedings, **24** (2003) 9.

Bouseikanri, **48** (2004) 258. (*in Japanese*).

K.Ebitani, H.-B.Ji, T.Mizugaki and K.Kaneda

Highly Active Trimetallic Ru/CeO₂/Co(OH) Catalyst for Oxidation of Alcohols in the Presence of Molecular Oxygen
J. Mol. Catal. A: Chem., **212** (2004) 161.

S.Suzuki, Y.Koike, K.Fujikawa, W.-J.Chun, M.Nomura and K.Asakura

A Possibility of XANAM (X-Ray Aided Non-Contact Atomic Force Microscopy)
Chem. Lett., **33** (2004) 636.

M.Harada and H.Einaga

Photochemical Deposition of Platinum on TiO₂ by Using Poly(Vinyl Alcohol) as an Electron Donor and a Protecting Polymer
Catal. Commun., **5** (2004) 63.

K.Takehira, Y.Ohishi, T.Shishido, T.Kawabata, K.Takaki, Q.Zhang and Y.Wang

Behavior of Active Sites on Cr-MCM-41 Catalysts during the Dehydrogenation of Propane with CO₂
J. Catal., **224** (2004) 404.

J.Kawai, S.Harada, S.Masaoka, S.Kitagawa, T.Iwazumi, Y.Isozumi, H.Shoji and S.Nanao

Threshold Excitation of Co K β
Adv. X-Ray Chem. Anal. Jpn., **35** (2004) 93. (*in Japanese*).

8A

E.Kobayashi, K.Isari and K.Mase

Excitation Site-Specific Ion Desorption Study of Si(111) Surfaces Fluorinated by XeF₂ Using Photoelectron Photoion Coincidence Spectroscopy
Surf. Sci., **528** (2003) 255.

K.Isari, E.Kobayashi, K.Mase and K.Tanaka
Construction and Evaluation of an Electron-Ion Coincidence Apparatus Using a Large Transmission Coaxially Symmetric Mirror Electron Energy Analyzer
Surf. Sci., **528** (2003) 261.

8C2

K.Hoshino, T.Imagawa, S.Sigematsu, K.Ueda and T.Hirano

Magnetoresistance and Magnetic Properties of Free Layer in a Bottom-Type Spin-Valve with an Fe-Ox Layer Inserted into the Synthetic Ferrimagnet Pinned Layer
J. Magn. Soc. Jpn., **27** (2003) 311. (*in Japanese*).

K.Okitsu, Y.Ueji, K.Sato and Y.Amemiya
X-Ray Four-Quadrant Phase Retarder System Compensating for Off-Axis and Chromatic Aberrations
J. Jpn. Soc. Synchrotron Rad. Res., **16** (2003) 236. (*in Japanese*).

9A

H.Yoshitake, T.Sugihara and T.Tatsumi
XAFS Study on the Local Structure of Ti in Amorphous Mesoporous Titania
Phys. Chem. Chem. Phys., **5** (2003) 767.

S.Sugiyama, H.Mitsuoka, T.Shono, T.Moriga and H.Hayashi
Effects of Redox of Cu-Species in Copper-Strontium Hydroxyapatites on the Oxidative Dehydrogenation of Propane
J. Chemical Engineering of Jpn., **36** (2003) 210.

Y.Shimizugawa, K.Handa and J.R.Qiu
X-Ray and UV Irradiation Effects on Ce³⁺ Ion Doped in UV Sensitive Glass
J. Mater. Sci. Lett., **22** (2003) 15.

M.Kaneko, S.Matsuno, T.Miki, M.Nakayama, H.Ikuta, Y.Uchimoto, M.Wakihara and K.Kawamura
Local Structural Studies of LiC₇Mn_{2-y}O₄ Cathode Materials for Li-Ion Batteries
J. Phys. Chem. B, **107** (2003) 1727.

D.Hara, J.Shirakawa, H.Ikuta, Y.Uchimoto, M.Wakihara, T.Miyayama and I.Watanabe
Charge-Discharge Reaction Mechanism of Manganese Molybdenum Vanadium Oxide as a High Capacity Anode Material for Li Secondary Battery
J. Mater. Chem., **13** (2003) 897.

H.Kato, K.Asakura and A.Kudo
Highly Efficient Water Splitting into H₂ and O₂ over Lanthanum-Doped NaTaO₃ Photocatalysts with High Crystallinity and Surface Nanostructure
J. Am. Chem. Soc., **125** (2003) 3082.

S.Sugiyama, T.Shono, D.Makino, T.Moriga and H.Hayashi
Enhancement of the Catalytic Activities in Propane Oxidation and H-D Exchangeability of Hydroxyl Groups by the Incorporation with Cobalt into Strontium Hydroxyapatites
J. Catal., **214** (2003) 8.

A.Kuno, G.D.Zheng, M.Matsuo, B.Takano, J.A.Shi and Q.Wang
Characterization of Ultramafic Rocks from the Jinchuan Nickel Deposit in China by ⁵⁷Fe Mössbauer Spectroscopy
J. Radioanal. Nucl. Chem., **255** (2003) 279.

M.Nakayama, K.Imaki, W.Ra, H.Ikuta, Y.Uchimoto and M.Wakihara
Using X-Ray Absorption Spectroscopy to Measure Changes of Electronic Structure Accompanying Lithium Insertion into the Perovskite Type Oxides
Chem. Matter., **15** (2003) 1728.

H.Yamashita
XAFS Analysis and Applications to Carbons and Catalysts
Carbon Alloys, Ed. by E.Yamashita et al., Elsevier, (2003) 189.

M.Kataoka, A.Kuno and M.Matsuo
A Study on Vertical Distribution of Elements and their Chemical States in Yatsu Tideland Sediments
J. Radioanal. Nucl. Chem., Articles, **255** (2003) 283.

H.Kato and A.Kudo
Development of Photocatalysts for Production of Hydrogen from Water
Function and Materials, **23** (2003) 17. (*in Japanese*).

K.Okamoto, K.Nagai, J.Miyawaki, H.Kondoh and T.Ohta
XAFS Study on the Photoinduced Spin Transition of [Fe(2-pic)₃]Cl₂-C₂H₅OH
Chem. Phys. Lett., **371** (2003) 707.

K.Okamoto, K.Kohdate, K.Nagai, J.Miyawaki, H.Kondoh, T.Yokoyama, A.Nojima and T.Ohta
Development of Light-Modulated XAFS Spectroscopy
J. Synchrotron Rad., **10** (2003) 242.

S.Takenaka, S.Kobayashi, H.Ogihara and K.Otsuka
Ni/SiO₂ Catalyst Effective for Methane Decomposition into Hydrogen and Carbon Nanofiber
J. Catal., **217** (2003) 79.

H.Yoshitake and T.Tatsumi
Vanadium Oxide Incorporated into Mesoporous Titania with a BET Surface Area above 1000 m²g⁻¹: Preparation, Spectroscopic Characterization and Catalytic Oxidation
Chemistry of Materials, **15** (2003) 1695.

S.Fukuda, Y.Nakanuma, A.Mitsuda, Y.Isikawa and J.Sakurai
Magnetic Properties and Eu Valence in EuCu₂(Si_xGe_{1-x})₂
Acta Physica Polonica B, **34** (2003) 1177.

T.Kawabata, T.Mizugaki, K.Ebitani and K.Kaneda
A Novel Montmorillonite-Enwrapped Scandium as a Heterogeneous Catalyst for Michael Reaction
J. Am. Chem. Soc., **125** (2003) 10486.

T.Kawai, S.Sato, S.Suzuki, W.-J.Chun, K.Asakura, K.K.Bando, T.Matsui, Y.Yoshimura, T.Kubota, Y.Okamoto, Y.-K.Lee and S.T.Oyama
In Situ X-Ray Absorption Fine Structure Studies on the Structure of Nickel Phosphide Catalyst Supported on K-USY
Chem. Lett., **32** (2003) 956.

K.Fukuda, T.Sasaki, M.Watanabe, I.Nakai, K.Inaba and K.Omote
Novel Crystal Growth from a Two-Dimensionally Bound Nanoscopic System. Formation of Oriented Anatase Nanocrystals from Titania Nanosheets
Crystal Growth & Design, **3** (2003) 281.

H.Yoshida, N.Matsushita, Y.Kato and T.Hattori
Synergistic Active Sites on SiO₂-Al₂O₃-TiO₂ Photocatalysts for Direct Methane Coupling
J. Phys. Chem. B, **107** (2003) 8355.

K.Ijima, Y.Koike, W.-J.Chun, Y.Saito, Y.Tanizawa, T.Shido, Y.Iwasawa, M.Nomura and K.Asakura
A Local Structure of Low Coverage Ni Species on the α -Al₂O₃ (001) Surface - A Polarization Dependent EXAFS Study
Chem. Phys. Lett., **384** (2003) 134.

Y.Tanizawa, T.Shido, W.-J.Chun, K.Asakura, M.Nomura and Y.Iwasawa
Three-Dimensional Structure Analyses of Cu Species Dispersed on TiO₂(110) Surfaces Studied by Polarization-Dependent Total-Reflection Fluorescence X-Ray Absorption Fine Structure (PTRF-XAFS)
J. Phys. Chem. B, **107** (2003) 12917.

L.Wang, Y.Omomo, N.Sakai, K.Fukuda, I.Nakai, Y.Ebina, K.Takada, M.Watanabe and T.Sasaki
Fabrication and Characterization of Multilayer Ultrathin Films of Exfoliated MnO₂ Nanosheets and Polycations
Chem. of Mater., **15** (2003) 2873.

S.Fukuda, Y.Nakanuma, J.Sakurai, A.Mitsuda, Y.Isikawa, F.Ishikawa, T.Goto and T.Yamamoto
Application of Doniach Diagram on Valence Transition in EuCu₂(Si_xGe_{1-x})₂
J. Phys. Soc. Jpn., **72** (2003) 3189.

T.Yokoyama, K.Takahashi and O.Sato
Metastable Photoinduced Phase of Cu(II) Ethylenediamine Complexes Studied by X-Ray-Absorption Fine-Structure Spectroscopy
Phys. Rev. B, **67** (2003) 172104.

K.K.Bando, T.Matsui, L.LeBihan, K.Sato, T.Tanaka, M.Imamura, N.Matsubayashi and Y.Yoshimura
In-situ XAFS Study of USY Zeolite Supported Pd-Pt Catalysts under Reduction and Sulfidation Conditions - Effect of Pt on Structure of Bimetallic Pd-Pt Particles -
Studies Surf. Sci. Catal., **145** (2003) 335.

K.K.Bando, T.Matsui, L.LeBihan, K.Sato, T.Tanaka, M.Imamura, N.Matsubayashi and Y.Yoshimura
In-situ XAFS Observation of Formation of Pd-Pt Bimetallic Particles in Mesopores of a USY Zeolite
Studies Surf. Sci. Catal., **146** (2003) 363.

H.Ota, T.Akai, H.Namita, S.Yamaguchi and M.Nomura
XAFS and TOF-SIMS Analysis of SEI Layers on Electrodes
J. Power Sources, **119-121** (2003) 567.

M.Nomura
XAFS
Bouseikanri, **48** (2004) 258. (*in Japanese*).

Y.Takahashi, N.Sakakibara and M.Nomura
Direct Determination of the
Anal. Chem., **76** (2004) 4307.

9C

S.Abe and H.Takahashi
Simultaneous Small-Angle/Wide-Angle X-Ray Scattering and Differential Scanning Calorimetry Study of the Effects of Glycerol on Hydrated Monoolein
J. Appl. Cryst., **36** (2003) 515.

T.Emoto, Y.Yoshida, K.Akimoto, A.Ichimiya, S.Kikuchi, K.Itagaki and H.Namita
Lattice Distortion near InGaP Compound Semiconductor Surface due to Surface Treatment of Bias Sputtering
Appl. Surf. Sci., **216** (2003) 83.

A.Hata, K.Akimoto, S.Horii, T.Emoto, A.Ichimiya, H.Tajiri, T.Takahashi, H.Sugiyama, X.Zhang and H.Kawata
Crystal Orientation of Silver Films on Silicon Surfaces Revealed by Surface X-Ray Diffraction
Surf. Rev. Lett., **10** (2003) 431.

M.Takeuchi, S.Ueno and K.Sato
Synchrotron Radiation SAXS/WAXS Study of Polymorph-Dependent Phase Behavior of Binary Mixtures of Saturated Monoacid Triacylglycerols
Crystal Growth & Design, **3** (2003) 369.

S.Ueno, Y.Hamada and K.Sato
Controlling Polymorphic Crystallization of *n*-Alkane Crystals in Emulsion Droplets through Interfacial Heterogeneous Nucleation
Crystal Growth & Design, **3** (2003) 935.

Y.Iwasawa
In Situ Characterization of Supported Metal Catalysts and Model Surfaces by Time-Resolved and Three-Dimensional XAFS Techniques
J. Catal., **216** (2003) 165.

K.Nagata, C.Yamada, T.Takahashi and Y.Murata
Electronic Properties of Single-Crystal α -Al₂O₃ Films on Ru(001)
J. Phys.: Condens. Matter, **15** (2003) 8165.

A.Suzuki, Y.Inada, A.Yamaguchi, T.Chihara, M.Yuasa, M.Nomura and Y.Iwasawa
Time Scale and Elementary Steps of CO-Induced Disintegration of Surface Rhodium Clusters
Angew. Chem. Int. Ed., **42** (2003) 4795.

Y.Miwa, K.Yamamoto, M.Sakaguchi, M.Sakai, K.Tanida, S.Hara, S.Okamoto and S.Shimada
A Site-Specific ESR Spin-Labeling Study of Molecular Motion in Microphase-Separated Polystyrene-*block*-poly(methyl acrylate) with Lamellar Morphology
Macromolecules, **37** (2004) 831.

S.Okamoto, K.Yamamoto, K.Nomura, S.Hara, I.Akiba, K.Sakurai, A.Koyama, M.Nomura and S.Sakurai
Crystallization in Microdomains of a Block Copolymer Comprising Semicrystalline Block Observed by Simultaneous Measurement of SAXS and WAXS with *Hv*-SALS or DSC
J. Macromolecular Sci., B, Physics, **43** (2004) 279.

Y.Miwa, K.Tanida, K.Yamamoto, S.Okamoto, M.Sakaguchi, M.Sakai, S.Makita, S.Sakurai and S.Shimada
Dynamic Heterogeneity in Interfacial Region of Microphase-Separated Polystyrene-*block*-poly(methyl acrylate) Studied by the ESR Spin-Label Technique
Macromolecules, **37** (2004) 3707.

I.Akiba, H.Masunaga, K.Sasaki, Y.Jeong, K.Sakurai, S.Hara and K.Yamamoto
Self-Organization and Phase Behavior of Hydrogen-Bonded Mixtures of End-Functional Polymer with Surfactant
Macromolecules, **37** (2004) 1152.

Y.Wakabayashi, H.Sawa, M.Nakamura, M.Izumi and K.Miyano
Lack of Influence of Anisotropic Electron Clouds on Resonant X-Ray Scattering from Manganite Thin Films
Phys. Rev. B, **69** (2004) 144414.

Y.Iwasawa, M.Nomura and J.Mizuki
Energy Dispersive XAFS (DXAFS)
Kagaku (Chemistry), **59** (7) (2004) 32. (*in Japanese*).

10A

H.Ohara, S.Sasaki, Y.Konoike, T.Toyoda, K.Yamawaki and M.Tanaka
Charge Ordering in Eu₃S₄ Determined by the Valence-Difference Contrast of Synchrotron X-Ray Diffraction
Physica B, **350** (2004) 353.

10B

S.Sugiyama, H.Mitsuoka, T.Shono, T.Moriga and H.Hayashi
Effects of Redox of Cu-Species in Copper-Strontium Hydroxyapatites on the Oxidative Dehydrogenation of Propane
J. Chemical Engineering of Jpn., **36** (2003) 210.

K.Asakura, C.R.Bing, P.Lu, N.Toshima, N.Watari and S.Ohnishi
Characterization and Catalysis of a CuPd Nanocluster with a Heteroendophilic Structure
Shokubai, **45** (2003) 184. (*in Japanese*).

D.Hara, J.Shirakawa, H.Ikuta, Y.Uchimoto, M.Wakihara, T.Miyanaga and I.Watanabe
Charge-Discharge Reaction Mechanism of Manganese Molybdenum Vanadium Oxide as a High Capacity Anode Material for Li Secondary Battery
J. Mater. Chem., **13** (2003) 897.

- H. Yoshitake, T. Yokoi and T. Tatsumi
Adsorption Behaviour of Arsenate at Transition Metal Cations Captured by Amino-Functionalized Mesoporous Silicas
Chem. Mater., **15** (2003) 1713.
- S. Sugiyama, T. Shono, D. Makino, T. Moriga and H. Hayashi
Enhancement of the Catalytic Activities in Propane Oxidation and H-D Exchangeability of Hydroxyl Groups by the Incorporation with Cobalt into Strontium Hydroxyapatites
J. Catal., **214** (2003) 8.
- S. Sugiyama and H. Hayashi
Role of Hydroxide Groups in Hydroxyapatite Catalysts for the Oxidative Dehydrogenation of Alkanes
Int. J. Mod. Phys. B, **17** (2003) 1476.
- I. Yamanaka, K. Nishikawa, S. Takenaka and K. Otsuka
Complete Hydrodechlorination of Chloro-Aromatics Catalyzed by Pd/TiO₂ with H₂
Studies Surf. Sci. Catal., **145** (2003) 383.
- S. T. Oyama, R. Radhakrishnan, M. Seman, J. N. Kondo, K. Domen and K. Asakura
Control of Reactivity in C-H Bond Breaking Reactions on Oxide Catalysts: Methanol Oxidation on Supported Molybdenum Oxide
J. Phys. Chem. B, **107** (2003) 1845.
- H. Araki, A. Fukuoka, Y. Sakamoto, S. Inagaki, N. Sugimoto, Y. Fukushima and M. Ichikawa
Template Synthesis and Characterization of Gold Nano-Wires and -Particles in Mesoporous Channels of FSM-16
J. Mol. Catal. A: Chem., **199** (2003) 95.
- A. Fukuoka, H. Araki, Y. Sakamoto, S. Inagaki, Y. Fukushima and M. Ichikawa
Palladium Nanowires and Nanoparticles in Mesoporous Silica Templates
Inorg. Chim. Acta, **350** (2003) 371.
- T. Kubota, N. Hosomi, Y. Hamasaki and Y. Okamoto
An XAFS Study of the S-Se Exchange During the Reaction of Selenophene over Mo Sulfide Catalysts
Chem. Phys. Lett., **370** (2003) 813.
- Y. Okamoto, S. Ishihara, M. Kawano, M. Satoh and T. Kubota
Preparation of Co-Mo/Al₂O₃ Model Sulfide Catalysts for Hydrodesulfurization and their Application to the Study of the Effects of Catalyst Preparation
J. Catal., **217** (2003) 12.
- S. Matsuo and H. Wakita
Structural Characterization of Chemical Species in Solution by a Theoretical Analysis of XANES Spectra
Struct. Chem., **14** (2003) 69.
- T. Ohkubo, H. Kanoh, Y. Hattori, T. Konishi and K. Kaneko
Structure of Ultra-Thin RbBr "Solution" in Carbon Nanospace
Studies Surf. Sci. Catal., **146** (2003) 61.
- M. Tada and Y. Iwasawa
Design of Molecular-Imprinting Metal-Complex Catalysts
J. Mol. Catal. A: Chem., **199** (2003) 115.
- Y. Izumi, D. Masih, K. Aika and Y. Seida
Creation of Nanosized Iron Particles Intercalated into Montmorillonite and the Effective Adsorption Sites for Low Concentrations of Arsenic in Aqueous Solution
Shokubai, **45** (2003) 413. (*in Japanese*).
- Y. Ichianagi, H. Kondoh, T. Yokoyama, K. Okamoto, K. Nagai and T. Ohta
X-Ray Absorption Fine Structure Study on the Ni(OH)₂ Moonlayer Nanostructures
Chem. Phys. Lett., **379** (2003) 345.
- M. Nakayama, H. Ikuta, Y. Uchimoto, M. Wakihara, Y. Terada, T. Miyana and I. Watanabe
Changes in Local Structure during Electrochemical Li Insertion into A-Site Deficient Perovskite Oxides, La_{1/3}NbO₃
J. Phys. Chem. B, **107** (2003) 10715.
- N. Ichikuni, T. Eguchi, H. Murayama, K. K. Bando, S. Shimazu and T. Uematsu
Preparation of Mesoporous Silica Anchored Mo Catalysts and in-situ XAFS Characterization under Propene Photometathesis Reaction
Studies Surf. Sci. Catal., **146** (2003) 359.
- T. Ohkubo, H. Kanoh and K. Kaneko
Nanosolution as a New Turn of Nanoconfinement for Fluids
Aust. J. Chem., **56** (2003) 1013.
- T. Ohkubo, Y. Hattori, H. Kanoh, T. Konishi, T. Fujikawa and K. Kaneko
Structural Anomalies of Rb and Br Ionic Nanosolutions in Hydrophobic Slit-Shaped Solid Space as Revealed by the EXAFS Technique
J. Phys. Chem. B, **107** (2003) 13616.
- H. Yoshida, M. G. Chaskar, Y. Kato and T. Hattori
Active Sites on Silica-Supported Zirconium Oxide for Photoinduced Direct Methane Conversion and Photoluminescence
J. Photochem. Photobiol. A, **160** (2003) 47.
- H. Einaga, M. Harada, S. Futamura and T. Ibusuki
Generation of Active Sites for CO Photooxidation on TiO₂ by Platinum Deposition
J. Phys. Chem. B, **107** (2003) 9290.
- T. Yokoi, T. Tatsumi and H. Yoshitake
Selective Selenate Adsorption on Cationated Amino-Functionalized MCM-41
Bull. Chem. Soc. Jpn., **76** (2003) 2225.
- H. Yoshikawa, K. Fukuyama, Y. Nakahara, T. Konishi, N. Ichikuni, Y. Yoshikawa, N. Akuzawa, Y. Takahashi and K. Nishikawa
X-Ray Absorption Fine Structure Study on Residue Bromine in Carbons with Different Degrees of Graphitization
Carbon, **41** (2003) 2931.
- T. Minato, Y. Izumi, K. Aika, A. Ishiguro, T. Nakajima and Y. Wakatsuki
Nitric Oxide Reduction by Carbon Monoxide over Supported Hexaruthenium Cluster Catalysts. 1. The Active Site Structure that Depends on Supporting Metal Oxide and Catalytic Reaction Conditions
J. Phys. Chem. B, **107** (2003) 9022.
- T. Nasu, M. Sakurai and T. Usuki
Exafs Study on Micro-Structure Change of Alloys during Solid State Amorphization Process
Recent Res. Devel. Non-Crystalline Solids, **3** (2003) 97.
- T. Kadono, T. Kubota and Y. Okamoto
Hydrodesulfurization over Intrazeolite Molybdenum Nitride Clusters Prepared by Using Hexacarbonyl Molybdenum as A Precursor
Catal. Today, **87** (2003) 107.
- Y. Okamoto
Preparation and Characterization of Co-Mo Model Sulfide Catalysts for Hydrodesulfurization
J. Jpn. Petroleum Institute, **46** (2003) 343.
- K. Matsuzawa, T. Shido and Y. Iwasawa
Reversible Structure Transformation of Antimony Oxides on SiO₂ Relevant to Selective Catalytic Oxidation of Ethanol
Langmuir, **19** (2003) 2756.
- Y. Kuroda, K. Yagi, N. Horiguchi, Y. Yoshikawa, R. Kumashiro and M. Nagao
New Light on the State of Active Sites in CuZSM-5 for the NO Decomposition Reaction and N₂ Adsorption
Phys. Chem. Chem. Phys., **5** (2003) 3318.
- V. A. Shuvaeva, I. Pirog, Y. Azuma, K. Yagi, K. Sakaue, H. Terauchi, I. P. Raevskii, K. Zhuchkov and M. Y. Antipin
The Local Structure of Mixed-Ion Perovskites
J. Phys.: Condens. Matter, **15** (2003) 2413.
- I. Yonenaga, M. Sakurai, M. Nonaka, T. Ayuzawa, M. H. F. Sluiter and Y. Kawazoe
Local Strain Relaxation in Czochralski-Grown GeSi Bulk Alloys
Physica B, **340-342** (2003) 854.
- Y. Kimura, D. Abe, T. Ohmori, M. Mizutani and M. Harada
Synthesis of Platinum Nano-Particles in High-Temperatures and High-Pressures Fluids
Colloids and Surfaces A: Physicochem. Eng. Aspects, **231** (2003) 131.

- K.K.Bando, T.Matsui, L.LeBihan, K.Sato, T.Tanaka, M.Imamura, N.Matsubayashi and Y.Yoshimura
In-situ XAFS Study of USY Zeolite Supported Pd-Pt Catalysts under Reduction and Sulfidation Conditions – Effect of Pt on Structure of Bimetallic Pd-Pt Particles – Studies Surf. Sci. Catal., **145** (2003) 335.
- K.K.Bando, T.Matsui, L.LeBihan, K.Sato, T.Tanaka, M.Imamura, N.Matsubayashi and Y.Yoshimura
In-situ XAFS Observation of Formation of Pd-Pt Bimetallic Particles in Mesopores of a USY Zeolite
Studies Surf. Sci. Catal., **146** (2003) 363.
- A.Suzuki, Y.Inada, A.Yamaguchi, T.Chihara, M.Yuasa, M.Nomura and Y.Iwasawa
Time Scale and Elementary Steps of CO-Induced Disintegration of Surface Rhodium Clusters
Angew. Chem. Int. Ed., **42** (2003) 4795.
- A.Satsuma, M.Hashimoto, J.Shibata, H.Yoshida and T.Hattori
Nitrous Oxide Free Pathway for Selective Reduction of NO by Hydrogen over Supported Pt Catalysts
Chem. Commun., (2003) 1698.
- H.Yoshida, Y.Yazawa and T.Hattori
Effects of Support and Additive on Oxidation State and Activity of Pt Catalyst in Propane Combustion
Catal. Today, **87** (2003) 19.
- H.Yoshida, T.Hamajima, Y.Kato, J.Shibata, A.Satsuma and T.Hattori
Active Ag Species in MFI Zeolite for Direct Methane Conversion in the Light and Dark
Res. Chem. Intermed., **29** (2003) 897.
- X.Guo, J.Qi and K.Sakurai
Mechanochemical Formation of Novel Catalyst for Preparing Carbon Nanotubes: Nanocrystalline Yttrium Aluminum Iron Perovskite
Scripta Mater., **48** (2003) 1185.
- H.Narita, M.Tanaka, T.Yaita and Y.Okamoto
Fundamental Studies on the Extraction of Rhodium from Hydrochloric Acid Solutions Containing Tin
Proc. of the Japan/Korea Internal. Symp. on Resources Recycling and Materials Sciences, (2003) 106.
- T.Ohkubo, H.Kanoh, H.Sakai, M.Abe and K.Kaneko
Hydration-Structure Anomaly of Restricted Ionic Nanosolution
Hyomen, **41** (2003) 346. (*in Japanese*).
- I.Yonenaga, M.Sakurai, M.H.F.Sluiser and Y.Kawazoe
Local Atomic Structure in Czochralski-Grown $\text{Ge}_{1-x}\text{Si}_x$ Bulk Alloys
Appl. Surf. Sci., **224** (2004) 193.
- C.Shinohara, S.Kawakami, T.Moriga, H.Hayashi, S.Hodoshima, Y.Saito and S.Sugiyama
Local Structure around Platinum in Pt/C Catalysts Employed for Liquid-Phase Dehydrogenation of Decalin in the Liquid-Film State under Reactive Distillation Conditions
Appl. Catal. A: General, **266** (2004) 251.
- M.Harada and H.Einaga
Photochemical Deposition of Platinum on TiO_2 by Using Poly(Vinyl Alcohol) as an Electron Donor and a Protecting Polymer
Catal. Commun., **5** (2004) 63.
- M.Nomura
XAFS
Bouseikanri, **48** (2004) 258. (*in Japanese*).
- K.Sakurai
X-Ray Absorption Fine Structure (XAFS)
Kinzo, **74** (2004) 185. (*in Japanese*).
- Y.Sakamoto, A.Fukuoka, T.Higuchi, N.Shimomura, S.Inagaki and M.Ichikawa
Synthesis of Platinum Nanowires in Organic-Inorganic Mesoporous Silica Templates by Photoreduction: Formation Mechanism and Isolation
J. Phys. Chem. B, **108** (2004) 853.
- 10C**
- T.Yokouchi, H.Nogami, Y.Izumi, H.Yoshino, K.Nakashima and M.Yazawa
Solution X-Ray Scattering Data Show Structural Differences among Chimeras of Yeast and Chicken Calmodulin: Implications for Structure and Function
Biochemistry, **42** (2003) 2195.
- Y.Hiragi, Y.Sano and T.Matsumoto
SAXSANA: An Interactive Program for the Analysis and Monitoring of Static and Time-Resolved Small-Angle X-Ray Solution Scattering Measurements
J. Synchrotron Rad., **10** (2003) 193.
- R.Kawai-Hirai and M.Hirai.
Essential Role of w/o Microemulsion Structure on Catalytic Activity of Entrapped Proteins Studied by SAXS and Circular Dichroism.
J. Appl. Cryst., **36** (2003) 530.
- T.Hayakawa and M.Hirai.
Bilayer Structure of Ganglioside/Cholesterol Mixed System in the Presence of Ca^{2+}
J. Appl. Cryst., **36** (2003) 489.
- H.Hama and K.Tashiro
Structural Changes in Non-Isothermal Crystallization Process of Melt-Cooled Polyoxymethylene[II] Evolution of Lamellar Stacking Structure Derived from SAXS and WAXS Data Analysis
Polymer, **44** (2003) 2159.
- Y.Imamoto, C.Tamura, H.Kamikubo and M.Kataoka
Concentration-Dependent Tetramerization of Bovine Visual Arrestin
Biophys. J., **85** (2003) 1186.
- T.Yokouchi, Y.Izumi, T.Matsufuji, Y.Jinbo and H.Yoshino
Unfolding Intermediate of a Multidomain Protein, Calmodulin, in Urea as Revealed by Small-Angle X-Ray Scattering
FEBS Lett., **551** (2003) 119.
- T.Higurashi, Y.Hiragi, K.Ichimura, Y.Seki, K.Soda, T.Mizobata and Y.Kawata
Structural Stability and Solution Structure of Chaperonin GroES Heptamer Studied by Synchrotron Small-Angle X-Ray Scattering
J. Mol. Biol., **333** (2003) 605.
- Y.Yuguchi, H.Urakawa and K.Kajiwara
Structural Characteristics of Carrageenan Gels: Various Types of Counter Ions
Food Hydrocolloids, **17** (2003) 481.
- S.K.Ghosh, S.Kawaguchi, Y.Jinbo, Y.Izumi, K.Yamaguchi, T.Taniguchi, K.Nagai and K.Koyama
Nanoscale Solution Structure and Transfer Capacity of Amphiphilic Poly(amidoamine) Dendrimers Having Water and Polar Guest Molecules Inside
Macromolecules, **36** (2003) 9162.
- H.Hama and K.Tashiro
Structural Changes in Isothermal Crystallization Process of Polyoxymethylene Investigated by Time-Resolved FTIR, SAXS and WAXS Measurements
Polymer, **44** (2003) 6973.
- H.Hama and K.Tashiro
Structural Changes in Non-Isothermal Crystallization Process of Melt-Cooled Polyoxymethylene [I] Detection of Infrared Bands Characteristic of Folded and Extended Chain Crystal Morphologies and Extraction of a Lamellar Stacking Model
Polymer, **44** (2003) 3107.
- M.Hirai, H.Iwase, T.Hayakawa and H.Takahashi
Determination of Asymmetric Structure of Ganglioside-DPPC Mixed Vesicle Using SANS, SAXS and DLS
Biophys. J., **85** (2003) 1600.
- M.Arai, M.Kataoka, K.Kuwajima, C.R.Matthews and M.Iwakura
Effects of the Difference in the Unfolded-State Ensemble on the Folding of *Escherichia Coli* Dihydrofolate Reductase
J. Mol. Biol., **329** (2003) 779.
- Y.Soejima, S.Kuwajima, M.Sugiyama, M.Annaka, A.Nakamura, N.Hiramatsu and K.Hara
Structure Investigation of Metal Ions Clustering in Dehydrated Gel Using X-Ray Anomalous Dispersion Effect
J. Phys. Soc. Jpn., **72** (2003) 2110.

N.Hayashi, C.Nakagawa, Y.Ito, A.Takasaka, Y.Jinbo, Y.Yamakawa, K.Titani, K.Hashimoto, Y.Izumi and N.Matsushima Myristoylation-Regulated Direct Interaction between Calcium-Bound Calmodulin and N-Terminal Region of pp60^{v-src} J. Mol. Biol., **338** (2004) 169.

M.Tokita and J.Watanabe Shear Flow Orientation and Chain Folded Lamella in Smectic Liquid Crystal of Main-Chain Polymer Kobunshi Kako, **53** (2004) 152. (*in Japanese*).

M.Tokita, K.Tokunaga, S.Funaoka, K.Osada and J.Watanabe Parallel and Perpendicular Orientations Observed in Shear Aligned S_{CA} Liquid Crystal of Main-Chain Polyester Macromolecules, **37** (2004) 2527.

K.Okoshi, A.Saxena, M.Naito, G.Suzuki, M.Tokita, J.Watanabe and M.Fujiki First Observation of a Smectic A-Cholesteric Phase Transition in a Thermotropic Liquid Crystal Consisting of a Rigid-Rod Helical Polysilane Liquid Crystals, **31** (2004) 279.

11A

S.Kitamoto, T.Kohmura, N.Yamamoto, H.Saito, H.Takano, K.Suga, E.Ozawa, K.Suzuki, R.Kato, Y.Tachibana, Y.Tsuji, K.Koganei, K.Hayashida, H.Katayama, H.Enoguchi, Y.Nakashima and T.Shiroshoji Soft X-Ray Transmission of Optical Blocking Filters for the X-Ray CCD Cameras Onboard Astro-E 2 Nucl. Instrum. Meth. Phys. Res. A, **505** (2003) 683.

A.Ito, H.Matsuda, Y.Kitajima and K.Shinohara Analysis of Localization and Chemical Status of Minor Elements in a Mammalian Cell Using Soft X-Ray Contact Microscopy J. Phys. IV France, **104** (2003) 297.

K.Yada, M.Furudate, K.Shinohara, A.Ito, Y.Yurimoto and M.Watanabe A New Magnetic Type of X-PEEM J. Phys. IV France, **104** (2003) 71.

S.Wada, R.Sumii, K.Isari, S.Waki, E.O.Sako, T.Sekiguchi, T.Sekitani and K.Tanaka Active Control of Chemical Bond Scission by Site-Specific Core Excitation Surf. Sci., **528** (2003) 242.

S.Wada, E.O.Sako, R.Sumii, S.Waki, K.Isari, T.Sekiguchi, T.Sekitani and K.Tanaka Active Control of Site Specificity in Ion Desorption by Core Excitation Nucl. Instrum. Meth. Phys. Res. B, **199** (2003) 361.

M.Ohkubo, H.Pressler, D.Fukuda, T.Inou, H.Takahashi and M.Nakazawa Imaging Analysis of Superconducting Transition Edge Sensors for Calorimeters IEEE Trans. Appl. Super., **13** (2003) 634.

M.Ohkubo Current Status and Applications of Superconducting Energy-Dispersive Spectroscopy Oyo Butsuri, **72** (2003) 1057. (*in Japanese*).

S.Kitamoto, H.Takano, H.Saitoh, N.Yamamoto, T.Kohmura, K.Suga and H.Sekiguchi Development of an Ultrahigh Precision X-Ray Telescope with an Adaptive Optics System Proc. of SPIE, **5037** (2003) 294.

M.Ohkubo, M.Ukibe, T.Zama, T.Ikeuchi, M.Katagiri and S.Ichimura Photon Energy Dependence of Spatial Non-Uniformity in Super-Conducting Tunnel Junction Detectors between 200 eV and 10 keV Nucl. Instrum. Meth. Phys. Res. A, **520** (2004) 260.

M.Ukibe, T.Ikeuchi, T.Zama and M.Ohkubo Aluminum Thickness Dependence of Spatial Profile in Niobium-Based Superconducting Tunnel Junctions Nucl. Instrum. Meth. Phys. Res. A, **520** (2004) 260.

M.Ohkubo and M.Ukibe Superconducting Detectors for Energy-Dispersive Spectroscopy Genshiryokugakkaishi, **46** (2004) 121. (*in Japanese*).

T.Okuda, H.Kiwata, T.Matsushima, T.Wakita, A.Harasawa, K.Ono, T.Kihara, M.Oshima, A.Yokoo and T.Kinoshita Magnetic Domain Imaging of Ni Micro Ring and Micro Dot Array by Photoelectron Emission Microscopy Jpn. J. Appl. Phys., **43** (2004) 4179.

11B

J.Kawai, S.Tohno, Y.Kitajima, O.E.Raola and M.Takaoka Depth Selective Chemical State Analysis of Pb and S in Fly Ash in Municipal Solid Waste Incinerators Using X-Ray Absorption Spectroscopy Spectrochim. Acta B, **58** (2003) 635.

T.Tsutsumi, Y.Ohminami, K.Asakura, H.Yasufuku, M.Kato, Y.Sakai, Y.Kitajima and Y.Iwasawa Observation of Energy-Filtered Images and Energy Dispersive Images of Au/Ta Photoelectron by EXPEEM with a Wien Filter Type Energy Analyzer Hyomen Kagaku, **24** (2003) 63. (*in Japanese*).

A.Ito, H.Matsuda, Y.Kitajima and K.Shinohara Analysis of Localization and Chemical Status of Minor Elements in a Mammalian Cell Using Soft X-Ray Contact Microscopy J. Phys. IV France, **104** (2003) 297.

M.Kiguchi, R.Arita, G.Yoshikawa, Y.Tanida, M.Katayama, K.Saiki, A.Koma and H.Aoki Metal-Induced Gap States at Well Defined Alkali-Halide/Metal Interfaces Phys. Rev. Lett., **90** (2003) 196803.

M.Kiguchi, M.Katayama, G.Yoshikawa, K.Saiki and A.Koma Metal Induced Gap States at LiCl/Cu(001) Interface Studied by X-Ray Absorption Fine Structure Appl. Surf. Sci., **212-213** (2003) 701.

S.Suzuki, Y.Ohminami and K.Asakura Well-Defined Inhomogeneous Catalysts-Their Reactivity and Characterization Petrotech, **26** (2003) 206. (*in Japanese*).

M.Kiguchi, G.Yoshikawa and K.Saiki Temperature and Thickness Dependence of Molecular Orientation of α -sexithienyl on Cu(111) J. Appl. Phys., **94** (2003) 4866.

I.Yonenaga, M.Sakurai, M.Nonaka, T.Ayuzawa, M.H.F.Sluiser and Y.Kawazoe Local Strain Relaxation in Czochralski-Grown GeSi Bulk Alloys Physica B, **340-342** (2003) 854.

P.Fons, K.Sakurai, A.Yamada, K.Matsubara, K.Iwata, T.Baba, Y.Kimura, H.Nakanishi and S.Niki The Chemical Environment about Cd Atoms in Cd Chemical Bath Treated CuInSe₂ and CuGaSe₂ J. Phys. Chem. Solids, **64** (2003) 1733.

I.Yonenaga, M.Sakurai, M.H.F.Sluiser and Y.Kawazoe Local Atomic Structure in Czochralski-Grown Ge_{1-x}Si_x Bulk Alloys Appl. Surf. Sci., **224** (2004) 193.

11C

Y.Shirotori, K.Sawada, K.Ozawa, K.Edamoto and S.Otani Photoelectron Spectroscopy Study of the Oxidation of TiC(100) Jpn. J. Appl. Phys., **42** (2003) 1725.

K.Edamoto, K.Ozawa and S.Otani Interaction of Oxygen with the Polar HfC(111) Surface: Angle-Resolved Photoemission Study e-J. Surf. Sci. Nanotech., **1** (2003) 20.

K.Ozawa, K.Sawada, Y.Shirotori, K.Edamoto and M.Nakatake Angle-Resolved Photoelectron Spectroscopy Study of the Anion-Derived Dangling-Bond Band on ZnO(10 $\bar{1}$ 0) Phys. Rev. B, **68** (2003) 125417.

11D

H.Shiozawa, H.Ishii, H.Kataura, H.Yoshioka, H.Otsubo, Y.Takayama, T.Miyahara, S.Suzuki, Y.Achiba, T.Kodama, M.Nakatake, T.Narimura, M.Higashiguchi, K.Shimada, H.Namatame and M.Taniguchi
Valence-Band Photoemission Study of Single-Wall Carbon Nanotubes
AIP Conf. Proc., **685** (2003) 139.

H.Ishii, H.Kataura, H.Shiozawa, H.Yoshioka, H.Otsubo, Y.Takayama, T.Miyahara, S.Suzuki, Y.Achiba, M.Nakatake, T.Narimura, M.Higashiguchi, K.Shimada, H.Namatame and M.Taniguchi
Direct Observation of Tomonaga-Luttinger-Liquid State in Carbon Nanotubes at Low Temperatures
Nature, **426** (2003) 540.

H.Ishii
Direct Observation of Tomonaga-Luttinger Liquid Behavior in Carbon Nanotubes
Kotai Butsuri, **39** (2004) 45. (*in Japanese*).

12A

K.Yada, M.Furudate, K.Shinohara, A.Ito, Y.Yurimoto and M.Watanabe
A New Magnetic Type of X-PEEM
J. Phys. IV France, **104** (2003) 71.

K.Mase, E.Kobayashi, M.Mori, Y.Kobayashi, S.Terashima, K.Okudaira and N.Ueno
Construction and Evaluation of Miniature Cylindrical Mirror Electron Energy Analyzer (CMA), and its Application for Auger-Photoelectron Coincidence Spectroscopy
J. Vac. Soc. Jpn., **47** (2004) 334. (*in Japanese*).

12B

W.H.Parkinson, J.Rufus and K.Yoshino
Absolute Absorption Cross Section Measurements of CO₂ in the Wavelength Region 163-200 nm and the Temperature Dependence
Chem. Phys., **290** (2003) 251.

T.Matsui, A.S.-C.Cheung, K.W-S.Leung, K.Yoshino, W.H.Parkinson, A.P.Thorne, J.E.Murray, K.Ito and T.Imajo
High Resolution Absorption Cross Section Measurements of the Schumann-Runge Bands of O₂ by VUV Fourier Transform Spectroscopy
J. Mol. Spectrosc., **219** (2003) 45.

A.S.-C.Cheung, A.L.Wong, D.H.-Y.Lo, K.W-S.Leung, K.Yoshino, A.P.Thorne, J.E.Murray, T.Imajo, K.Ito and T.Matsui
Application of a VUV Fourier Transform Spectrometer and Synchrotron Radiation Source to Measurements of VI. The $\epsilon(0,0)$ Band of NO
J. Chem. Phys., **119** (2003) 8373.

12C

H.Ofuchi, M.Mizuguchi, K.Ono, M.Oshima, H.Akinaga and T.Manago
Fluorescence Extended X-Ray Absorption Fine Structure Analysis of Half-Metallic Ferromagnet "Zinc-Blende CrAs" Grown on GaAs by Molecular Beam Epitaxy
Nucl. Instrum. Meth. Phys. Res. B, **199** (2003) 227.

H.Ofuchi, Y.Imaizumi, H.Sugawara, H.Fujioka, M.Oshima and Y.Takeda
Fluorescence XAFS Study on Local Structures around Tb Ions Implanted in SiO₂ on Si
Nucl. Instrum. Meth. Phys. Res. B, **199** (2003) 231.

Y.Yamada, Y.Ichihashi, H.Ando, A.Ueda, H.Shioyama and T.Kobayashi
Simple Preparation Method of Isolated Iron(III) Species on Silica Surface
Chem. Lett., **32** (2003) 208.

K.Asakura, C.R.Bing, P.Lu, N.Toshima, N.Watari and S.Ohnishi
Characterization and Catalysis of a CuPd Nanocluster with a Heteroendophilic Structure
Shokubai, **45** (2003) 184. (*in Japanese*).

M.Kataoka, A.Kuno and M.Matsuo
A Study on Vertical Distribution of Elements and their Chemical States in Yatsu Tideland Sediments
J. Radioanal. Nucl. Chem., Articles, **255** (2003) 283.

T.Usuki, F.Araki, O.Uemura, Y.Kameda, T.Nasu and M.Sakurai
Structure Changes during Amorphization of Ge-Se Alloys by Mechanical Milling
Materials Transactions, **44** (2003) 344.

K.Okamoto, K.Nagai, J.Miyawaki, H.Kondoh and T.Ohta
XAFS Study on the Photoinduced Spin Transition of [Fe(2-pic)₃]Cl₂·C₂H₅OH
Chem. Phys. Lett., **371** (2003) 707.

K.Okamoto, K.Kohdate, K.Nagai, J.Miyawaki, H.Kondoh, T.Yokoyama, A.Nojima and T.Ohta
Development of Light-Modulated XAFS Spectroscopy
J. Synchrotron Rad., **10** (2003) 242.

H.Tsuno, H.Kagi, Y.Takahashi, T.Akagi and M.Nomura
Spontaneously Induced Reduction of Trivalent Ytterbium in Synthesized Crystal of Calcite.
Chem. Lett., **32** (2003) 500.

K.Fukumi, A.Chayahara, A.Kinomura, H.Kageyama, K.Kadono, N.Kitamura, J.Nishii and Y.Horino
X-Ray Absorption Fine Structure Study on the Formation of Cu-Br Bonds in (Br + Cu) Ion Implanted Silica Glass
J. Mater. Res., **18** (2003) 885.

K.Fukumi, A.Chayahara, H.Kageyama, A.Kinomura, Y.Mokuno, N.Kitamura, K.Kadono, Y.Horino and J.Nishii
Sequential Implantation of Halogen and Copper Ions in Silica Glass
Nucl. Instrum. Meth. Phys. Res. B, **206** (2003) 353.

Y.Takahashi, N.Ohtaku, S.Mitsunobu, K.Yuita, and M.Nomura
Determination of the As(III)/As(V) Ratio in Soil by X-Ray Absorption Near-Edge Structure (XANES) and its Application to the Arsenic Distribution between Soil and Water
Anal. Sci., **19** (2003) 891.

Y.Takahashi, T.Sakashima and H.Shimizu
Observation of Tetravalent Cerium in Zircon and its Reduction by Radiation Effect
Geophys. Res. Lett., **30** (2003) 1137.

K.Fukuda, T.Sasaki, M.Watanabe, I.Nakai, K.Inaba and K.Omote
Novel Crystal Growth from a Two-Dimensionally Bound Nanoscopic System. Formation of Oriented Anatase Nanocrystals from Titania Nanosheets
Crystal Growth & Design, **3** (2003) 281.

Z.-W.Jin, Y.-Z.Yoo, T.Sekiguchi, T.Chikyow, H.Ofuchi, H.Fujioka, M.Oshima and H.Koinuma
Blue and Ultraviolet Cathodoluminescence from Mn-Doped Epitaxial ZnO Thin Films
Appl. Phys. Lett., **83** (2003) 39.

T.Nasu, M.Sakurai and T.Usuki
Exafs Study on Micro-Structure Change of Alloys during Solid State Amorphization Process
Recent Res. Devel. Non-Crystalline Solids, **3** (2003) 97.

L.Wang, Y.Omomo, N.Sakai, K.Fukuda, I.Nakai, Y.Ebina, K.Takada, M.Watanabe and T.Sasaki
Fabrication and Characterization of Multilayer Ultrathin Films of Exfoliated MnO₂ Nanosheets and Polycations
Chem. of Mater., **15** (2003) 2873.

M.Matsuura, M.Sakurai, K.Amiya and A.Inoue
Local Structures around Zn and Y in the Melt-Quenched Mg₉₇Zn₁Y₂ Ribbon
J. Alloys and Compounds, **353** (2003) 240.

K.Asada, K.Konno, M.Matsuura, M.Sakurai, A.Fujita and K.Fukamichi
Crystallographic Site of Mn in the Icosahedral Cluster of LaCo_{13-x}Mn_x Compounds
J. Alloys and Compounds, **350** (2003) 47.

S.Fukuda, Y.Nakanuma, J.Sakurai, A.Mitsuda, Y.Isikawa, F.Ishikawa, T.Goto and T.Yamamoto
Application of Doniach Diagram on Valence Transition in EuCu₂(Si_xGe_{1-x})₂
J. Phys. Soc. Jpn., **72** (2003) 3189.

- T.Yokoyama, K.Takahashi and O.Sato
Metastable Photoinduced Phase of Cu(II)
Ethylenediamine Complexes Studied
by X-Ray-Absorption Fine-Structure
Spectroscopy
Phys. Rev. B, **67** (2003) 172104.
- A.V.Kolobov, D.Buechel, P.Fons, T.Shima,
M.Kuwahara, J.Tominaga and T.Uruga
Local Structure of AgO_x Thin Layers
Generating Optical Near Field: an X-Ray
Absorption Fine Structure Study
Jpn. J. Appl. Phys., **42** (2003) 1022.
- P.Fons, A.Yamada, K.Iwata, K.Matsubara,
S.Niki, K.Nakahara and H.Takasu
An EXAFS and XANES Study of MBE
Grown Cu-Doped ZnO
Nucl. Instrum. Meth. Phys. Res. B, **199**
(2003) 190.
- A.V.Kolobov, H.Oyanagi, A.Frenkel,
I.Robinson, J.Cross, S.Wei, K.Brunner,
G.Abstreiter, Y.Maeda, A.Shklyaev,
M.Ichikawa, S.Yamasaki and K.Tanaka
Local Structure of Ge/Si Nanostructures:
Uniqueness of XAFS Spectroscopy
Nucl. Instrum. Meth. Phys. Res. B, **199**
(2003) 174.
- A.V.Kolobov, J.Tominaga, P.Fons and
T.Uruga
Local Structure of Crystallized GeTe Films
Appl. Phys. Lett., **82** (2003) 382.
- N.Ozaki, K.Ohnuma, K.Kakimoto,
H.Ohsato, N.Kozu and H.Kishi
Crystallographic Study on Rear-Earth
Doped $BaTiO_3$ Shell Phase for MLCC
Application
Ceramic Engineering and Science
Proceedings, **24** (2003) 9.
- M.Nomura
XAFS
Bouseikanri, **48** (2004) 258. (*in Japanese*).
- M.Sakurai, M.Matsuura, K.Kita, H.Sasaki,
J.Nagahora, T.Kamiyama and E.Matsubara
XAFS and SAXS Analysis for Nano-
Structural Origin of High Strength for
Supersaturated $Al_{100-x}Fe_x$ ($x=1, 2.5$) Alloys
Materials Science & Engineering A, **375/377**
(2004) 1224.
- M.Sakurai, T.Nasu, Y.Nomura, T.Usuki and
E.Matsubara
Local Structure Change around Ni Atoms
in MgNi Alloys during Mechanical Alloying
Process
J. Metastable and Nanocrystalline Materials,
20-21 (2004) 635.
- M.Matsuura, M.Sakurai, K.Konno and
K.Asada
Nano Size Clusters Indicating Precursor
of Intermetallic Compounds in the
Supersaturated $Fe_{99}Y_1$ and $Fe_{99}Zr_1$ Melt-
Quenched Alloys
Mater. Sci. Eng., **A357-377** (2004) 693.
- A.Yamaguchi, M.Yokoyama, A.Suzuki,
Y.Iwasawa, M.Yuasa and M.Abe
Preparation, Characterization, and Catalytic
Properties of Zirconium Containing
Mesoporous Silicas, Zr-MCM-41
J. Jpn. Soc. Color Mater., **77** (2004) 57.
- Y.Takahashi, R.Minamikawa, K.H.Hattori,
K.Kurishima, N.Kihou and K.Yuita
Arsenic Behavior in Paddy Fields during the
Cycle of Flooded and Non-Flooded Periods
Environ. Sci. Technol., **38** (2004) 1038.
- Y.Takahashi, N.Sakakibara and M.Nomura
Direct Determination of the
Anal. Chem., **76** (2004) 4307.
- M.Fukukawa, Y.Takahashi, Y.Hayasaka,
Y.Sakai and H.Shimizu
Geochemical Study of ODP Leg 191 Site
1179 Sediments: Direct Observation of Mn
and Ce Oxidation States
Proc. of the Ocean Drilling Program,
Scientific Results, **191** (2004) 191SR-007.
- 13A**
- T.Mukaide, T.Yagi, N.Miyajima, T.Kondo,
N.Sata and T.Kikegawa
High Pressure and High Temperature Phase
Transformations in $LiNbO_3$
J. Appl. Phys., **93** (2003) 3852.
- K.Takemura, K.Sato, H.Fujihisa and
M.Onoda
Modulated Structure of Solid Iodine during
its Molecular Dissociation under High
Pressure
Nature, **423** (2003) 971.
- Y.Mori, T.Ikai and K.Takarabe
High-Pressure Phase in the Chalcopyrites
 $CuGaTe_2$ and $CuInTe_2$
Phys. Stat. Sol. (b), **235** (2003) 317.
- Y.Mori, T.Ikai, R.Teranishi and K.Takarabe,
Electronic and Structural Study of β - $FeSi_2$
under High Pressure
Phys. Stat. Sol. (b), **235** (2003) 302.
- H.Hirai, T.Tanaka, Y.Yamamoto,
Y.Kawamura and T.Yagi
Retention of Filled Ice Structure of Methane
Phys. Rev. B, **68** (2003) 172102.
- K.Takemura
Structural Change of Solid Iodine from
Molecular to Atomic States under
High Pressure - Investigation by X-Ray
Diffraction
Isotope News, **598** (2004) 8. (*in Japanese*).
- S.Ono, Y.Tange, I.Katayama and
T.Kikegawa
Equations of State of $ZrSiO_4$ Phases in the
Upper Mantle
American Mineralogist, **89** (2004) 185.
- H.Hirai, K.Wanme, T.Yagi, A.Ikeda and
T.Abe
High-Pressure Synthesis of a Novel Form of
Endohedral Li Diamond from Li Graphite
Intercalation Compound.
J. Phys. Chem. Solid, **65** (2004) 933.
- S.Ono, T.Kikegawa and Y.Ohishi
High-Pressure Phase Transition of Hematite,
 Fe_2O_3
J. Phys. Chem. Solids, **65** (2004) 1527.
- S.Ono, T.Kikegawa and T.Iizuka
The Equation of State of Orthorhombic
Perovskite in a Peridotite Mantle
Composition to 80 GPa: Implications
for Chemical Composition of the Lower
Mantle
Phys. Earth Planet. Inter., **145** (2004) 9.
- 13B1**
- H.Oyanagi, T.Tayagaki and K.Tanaka
Non-Equilibrium-State X-Ray Absorption
Spectroscopy: a Local Structure Study of
Photo-Induced Phase Transition
AIP Conf. Proc., **652** (2003) 438.
- N.L.Saini, H.Oyanagi and A.Bianconi
Probing Physics in Local Lattice
Displacements: the Case of Inhomogeneous
State and Superconductivity in the Copper
Oxides
AIP Conf. Proc., **652** (2003) 462.
- N.L.Saini, H.Oyanagi, V.Scagnoli, T.Ito,
K.Oka and A.Bianconi
Study of Temperature Dependent Local
Structure by Polarized Cu K-Edge EXAFS
Measurements on $La_{2-x}Sr_xCuO_4$ ($x=0.105,$
 $0.13, 0.20$)
J. Phys. Soc. Jpn., **72** (2003) 829.
- N.L.Saini, H.Oyanagi, V.Scagnoli, T.Ito,
K.Oka, and A.Bianconi
Different Temperature-Dependent Local
Displacements in the Underdoped and
Overdoped $La_{2-x}Sr_xCuO_4$ System
Europhys. Lett., **63(1)** (2003) 125.
- N.L.Saini, M.Filippi, H.Oyanagi, H.Ihara,
A.Iyo and A.Bianconi
Temperature-Dependent Local Structure
in the Nb_3Ge Superconductor Studied
by High-Resolution Ge K-Edge EXAFS
Measurements
Phys. Rev. B, **68** (2003) 104507.
- N.L.Saini, H.Oyanagi, T.Ito, V.Scagnoli,
M.Filippi, S.Agrestini, G.Campi, K.Oka and
A.Bianconi
Temperature Dependent Local Cu-O
Displacements from Underdoped to
Overdoped La-Sr-Cu-O Superconductor
Eur. Phys. J. B, **36** (2003) 75.
- H.Oyanagi, C.Fonne, D.Gutknecht,
P.Dressler, R.Henck, M.-O.Lampert,
S.Ogawa, K.Kasai and S.B.Mohamed
Ge Pixel Array Detector for High
Throughput X-Ray Spectroscopy
Nucl. Instrum. Meth. Phys. Res. A, **513**
(2003) 340.

N.L.Saini, H.Oyanagi and A.Bianconi
Temperature-Dependent Local Distortions
and the Inhomogeneous CuO₂ Plane of La-
Based Superconducting Oxides
J. Superconductivity: Incorporating Novel
Magnetism, **17** (2004) 103.

13B2

T.Mukaide, T.Yagi, N.Miyajima, T.Kondo,
N.Sata and T.Kikegawa
High Pressure and High Temperature Phase
Transformations in LiNbO₃
J. Appl. Phys., **93** (2003) 3852.

M.Ohkubo, H.Pressler, D.Fukuda, T.Inou,
H.Takahashi and M.Nakazawa
Imaging Analysis of Superconducting
Transition Edge Sensors for Calorimeters
IEEE Trans. Appl. Super., **13** (2003) 634.

M.Ohkubo
Current Status and Applications of
Superconducting Energy-Dispersive
Spectroscopy
Oyo Butsuri, **72** (2003) 1057. (*in Japanese*).

M.Ohkubo, M.Ukibe, T.Zama, T.Ikeuchi,
M.Katagiri and S.Ichimura
Photon Energy Dependence of Spatial Non-
Uniformity in Super-Conducting Tunnel
Junction Detectors between 200 eV and 10
keV
Nucl. Instrum. Meth. Phys. Res. A, **520**
(2004) 260.

M.Ukibe, T.Ikeuchi, T.Zama and M.Ohkubo
Aluminum Thickness Dependence of Spatial
Profile in Niobium-Based Superconducting
Tunnel Junctions
Nucl. Instrum. Meth. Phys. Res. A, **520**
(2004) 260.

M.Ohkubo and M.Ukibe
Superconducting Detectors for Energy-
Dispersive Spectroscopy
Genshiryokugakkaishi, **46** (2004) 121. (*in
Japanese*).

13C

H.Setoyama, S.Kera, T.Murase, M.Imamura,
K.Mase, K.K.Okudaira, M.Hara and N.Ueno
Partial Ion Yield and NEXAFS of 2-
(Perfluorooctyl)Ethanethiol Self-Assembled
Monolayer: Comparison with PTFE Results
Nucl. Instrum. Meth. Phys. Res. B, **199**
(2003) 275.

T.Sekiguchi, H.Ikeura-Sekiguchi and
Y.Baba
Orientation Effect on Photo-Fragmentation
and Ion-Desorption from the Top Most
Layers of Molecular Solids
Surf. Sci., **532** (2003) 1079.

T.Saito, H.Yamamoto, K.Yamaguchi,
T.Nakanoya, K.Hojou, M.Haraguchi,
M.Imamura, N.Matsubayashi, T.Tanaka and
H.Shimada
Characterization of Air-Exposed Surface of
 β -FeSi₂ Fabricated by Ion Beam Sputter
Deposition Method
Nucl. Instrum. Meth. Phys. Res. B, **206**
(2003) 321.

K.K.Okudaira, K.Ohara, H.Setoyama,
T.Suzuki, Y.Sakamoto, M.Imamura,
S.Hasegawa, K.Mase and N.Ueno
Excited States of Perfluorinated Oligo(*p*-
phenylene) by Inner-Shell Excitation
Nucl. Instrum. Meth. Phys. Res. B, **199**
(2003) 265.

14A

S.Kishimoto and T.Yamamoto
Properties of a YAP: Ce Detector for High
Energy X-Ray Counting Experiments
Nucl. Instrum. Meth. Phys. Res. A, **508**
(2003) 425.

N.Ishizawa, D.du Boulay, M.Hayatsu,
S.Kuze, Y.Matsushima, H.Ikuta,
M.Wakihara, Y.Tabira and J.R.Hester
Structural Disorder along the Lithium
Diffusion Pathway in Cubically Stabilized
Lithium Manganese Spinel I. Synchrotron
X-Ray Studies
J. Solid State Chem., **174** (2003) 167.

S.Kishimoto, Y.Yoda, M.Seto, S.Kitao,
Y.Kobayashi, R.Haruki and T.Harami
Array of Avalanche Photodiodes as a
Position-Sensitive X-Ray Detector
Nucl. Instrum. Meth. Phys. Res. A, **513**
(2003) 193.

M.Mizusawa and K.Sakurai
X-Ray Reflectivity Studies on Buried
GaAs Quantum Dots: Non-Destructive
Determination of Depth and Density
Trans. Mater. Res. Soc. Jpn., **28** (2003) 51.

M.Mizusawa, K.Stoev and K.Sakurai
Density Gradient of a Mirror-Polished
Rutile (110) Surface: X-Ray Reflectivity
Evaluation
Jpn. J. Appl. Phys., **42** (2003) 3709.

M.Harada and K.Sakurai
Factors Causing Intensity Changes in K
Emission Spectra of Lanthanide Compounds
-Feasibility for Chemical Speciation
Adv. X-Ray Chem. Anal. Jpn., **34** (2003)
195. (*in Japanese*).

M.Mizusawa and K.Sakurai
Specular and Non-Specular X-Ray
Reflection from a Single-Crystal
Molybdenum Mirror Surface
Nucl. Instrum. Meth. Phys. Res. B, **199**
(2003) 139.

K.Sakurai
X-Ray Reflectometry
Kinzoku, **74** (2004) 305. (*in Japanese*).

S.Kishimoto
An Avalanche Diode Electron Detector for
Observing NEET
AIP Conf. Proc., **705** (2004) 881.

14B

A.Saito, K.Matoba, T.Kurata, J.Maruyama,
Y.Kuwahara, K.Miki and M.Aono
Structural Analysis of Bismuth Nanowire by
X-Ray Standing Wave Method
Jpn. J. Appl. Phys., **42** (2003) 2408.

S.Kusano, S.Nakatani, T.Takahashi,
K.Hirano, S.Koh, M.Ebihara, T.Kondo
and R.Ito
Study on Sublattice Reversal in a
GaAs/Ge/GaAs(001) Crystal by X-Ray
Standing Waves
Jpn. J. Appl. Phys., **42** (2003) 2582.

K.Hirano
Angle-Resolved X-Ray Imaging Using
a Resolution-Tunable Double-Crystal
Analyser
J. Phys. D: Appl. Phys., **36** (2003) 1469.

K.Hirano
Next-Generation Synchrotron Light Sources
and Applications Using their Coherent
Properties
Trans. MRS-J, **28** (2003) 43.

T.Mitsui, Y.Imai and S.Kikuta
Stroboscopic Topographs on Iron Borate
Crystal in 9.6MHz rf Magnetic Field
Nucl. Instrum. Meth. Phys. Res. B, **199**
(2003) 75.

S.Nakatani, K.Sumitani, A.Nojima,
T.Takahashi, K.Hirano, S.Koh, T.Irisawa
and Y.Shiraki
Characterization of Amorphous-Si/1ML-
Ge/Si(001) Interface Structure by X-Ray
Standing Waves
Jpn. J. Appl. Phys., **42** (2003) 7050.

X.Zhang, H.Sugiyama, M.Ando, Y.Imai and
Y.Yoda
A Novel Lattice-Spacing Comparator with
Resolution of 10⁻⁸
J. Appl. Cryst, **36** (2003) 188.

A.Maksimenko, H.Sugiyama,
W.Pattanasiriwisawa, K.Hyodo and M.Ando
A Test of an X-Ray Quatrochrome
Interferometer for Simultaneous
Observation of Images due to Dark-
and Bright-Field, Phase-Interference and
Absorption Contrasts
Jpn. J. Appl. Phys., **42** (2003) L1096.

K.Hirano
Resolution-Tunable Angle-Resolved X-Ray
Imaging
AIP Conf. Proc., **705** (2004) 1267.

14C1

A.Yoneyama, T.Takeda, Y.Tsuchiya, J.Wu, T.T.Lwin, A.Koizumi, K.Hyodo and Y.Itai
A Phase-Contrast X-Ray Imaging System—
with a 60×30 mm Field of View—Based
on a Skew-Symmetric Two-Crystal X-Ray
Interferometer
Nucl. Instrum. Meth. Phys. Res. A, **523**
(2004) 217.

A.Yoneyama, T.Takeda, Y.Tsuchiya, J.Wu,
T.T.Lwin and K.Hyodo
Large-Area Phase-Contrast X-Ray Imaging
System Using a Two-Crystal X-Ray
Interferometer
AIP Conf. Proc. 705, (2004) 1299.

T.Takeda, J.Wu, Y.Tsuchiya, A.Yoneyama,
T.T.Lwin, K.Hyodo and Y.Itai
Interferometric Phase-Contrast X-Ray CT
Image of VX2 Rabbit Cancer at 35keV X-
Ray Energy
AIP Conf. Proc. 705, (2004) 1328.

14C2

Y.Katayama and K.Tsuji
X-Ray Structural Studies on Elemental
Liquids under High Pressure
J. Phys.: Condens. Matter, **15** (2003) 6085.

E.Ohtani, M.Toma, T.Kubo, T.Kondo and
T.Kikegawa
In Situ X-Ray Observation of
Decomposition of Superhydrous Phase
B at High Pressure and Temperature
Geophys. Res. Lett., **30** (2003) 1029.

15A

T.Inobe, M.Arai, M.Nakao, K.Ito,
K.Kamagata, T.Makio, Y.Amemiya,
H.Kihara and K.Kuwajima
Equilibrium and Kinetics of the Allosteric
Transition of GroEL Studied by Solution
X-Ray Scattering and Fluorescence
Spectroscopy.
J. Mol. Biol., **327** (2003) 183.

M.Maeda, K.Takeuchi, M.Kojima,
M.Tanokura, K.Kimura, Y.Amemiya,
H.Kihara and K.Takahashi
Kinetic Studies of Unfolding Process of
Aspergillopepsin II by pH-Jump Methods
Biochem. Biophys. Res. Commun., **301**
(2003) 745.

H.Takahashi, S.Ueno and C.Katagiri
Direct Observation of the Crystallization of
Fat in a *Drosophila* Fly Body by Small- and
Wide-Angle X-Ray Scattering
J. Appl. Cryst., **36** (2003) 545.

S.Abe and H.Takahashi
Simultaneous Small-Angle/Wide-Angle X-
Ray Scattering and Differential Scanning
Calorimetry Study of the Effects of Glycerol
on Hydrated Monoolein
J. Appl. Cryst., **36** (2003) 515.

R.Kawai-Hirai and M.Hirai.
Essential Role of w/o Microemulsion
Structure on Catalytic Activity of Entrapped
Proteins Studied by SAXS and Circular
Dichroism.
J. Appl. Cryst., **36** (2003) 530.

M.Hirai, M.Koizumi, R.Han, T.Hayakawa
and Y.Sano.
Right-/Left-Circular Orientation of
Biological Macromolecules under Magnetic
Field Gradient
J. Appl. Cryst., **36** (2003) 520.

S.Sakurai, S.Aida, S.Okamoto, K.Sakurai
and S.Nomura
Mechanism of Thermally Induced
Morphological Reorganization and
Lamellar Orientation from the Herringbone
Structure in Cross-Linked Polystyrene-
block-Polybutadiene-*block*-Polystyrene
Triblock Copolymers
Macromolecules, **36** (2003) 1930.

N.Ohta, S.Ban, H.Tanaka, S.Nakata and
I.Hatta
Swelling of Intercellular Lipid Lamellar
Structure with Short Repeat Distance in
Hairless Mouse Stratum Corneum as Studied
by X-Ray Diffraction
Chem. Phys. Lipids, **123** (2003) 1.

H.Hama and K.Tashiro
Structural Changes in Non-Isothermal
Crystallization Process of Melt-Cooled
Polyoxymethylene[II] Evolution of Lamellar
Stacking Structure Derived from SAXS and
WAXS Data Analysis
Polymer, **44** (2003) 2159.

S.Matuoka, M.Akiyama, H.Yamada,
K.Tsuchihashi and S.Gasa
Phase Behavior in Multilamellar Vesicles of
DPPC Containing Ganglioside GM3 with
a C18:1 Sphingoid Base and a 24:0 Acyl
Chain (GM3(18,24)) Observed by X-Ray
Diffraction.
Chem. Phys. Lipids, **123** (2003) 19.

T.Yamada, Y.Takezawa, H.Iwamoto,
S.Suzuki and K.Wakabayashi
Rigor Force Producing Cross-Bridges in
Skeletal Muscle Fibers Activated by a
Substoichiometric Amount of ATP
Biophys. J., **85** (2003) 1741.

M.Takeuchi, S.Ueno and K.Sato
Synchrotron Radiation SAXS/WAXS Study
of Polymorph-Dependent Phase Behavior
of Binary Mixtures of Saturated Monoacid
Triacylglycerols
Crystal Growth & Design, **3** (2003) 369.

M.Higami, S.Ueno, T.Segawa, K.Iwanami
and K.Sato
Simultaneous Synchrotron Radiation
X-Ray Diffraction-DSC Analysis of
Melting and Crystallization Behavior of
Trilauroylglycerol in Nanoparticles of
Oil-in-Water Emulsion
J. Am. Oil Chem. Soc., **80** (2003) 731.

S.Ueno, Y.Hamada and K.Sato
Controlling Polymorphic Crystallization
of *n*-Alkane Crystals in Emulsion
Droplets through Interfacial Heterogeneous
Nucleation
Crystal Growth & Design, **3** (2003) 935.

K.Nishikawa, K.Kusano, A.A.Arai and
T.Morita
Density Fluctuation of a van der Waals Fluid
in Supercritical State
J. Chem. Phys., **118** (2003) 1341.

K.Nishikawa, H.Ochiai, K.Saitow and
T.Morita
Static Inhomogeneity of Supercritical
Ethylene Studied by Small-Angle X-Ray
Scattering
Chem. Phys., **286** (2003) 421.

A.A.Arai, T.Morita and K.Nishikawa
Investigation of Structural Fluctuation of
Supercritical Benzene by Small-Angle X-
Ray Scattering
J. Chem. Phys., **119** (2003) 1502.

H.Hama and K.Tashiro
Structural Changes in Isothermal
Crystallization Process of
Polyoxymethylene Investigated by
Time-Resolved FTIR, SAXS and WAXS
Measurements
Polymer, **44** (2003) 6973.

H.Hama and K.Tashiro
Structural Changes in Non-Isothermal
Crystallization Process of Melt-Cooled
Polyoxymethylene [I] Detection of
Infrared Bands Characteristic of Folded
and Extended Chain Crystal Morphologies
and Extraction of a Lamellar Stacking
Model
Polymer, **44** (2003) 3107.

J.Zhao, A.Kanno, M.Ikezawa and
Y.Masumoto
Longitudinal Optical Phonons in the Excited
State of CuBr Quantum Dots
Phys. Rev. B, **68** (2003) 113305.

T.Inobe, K.Kikushima, T.Makio, M.Arai and
K.Kuwajima
The Allosteric Transition of GroEL Induced
by Metal Fluoride-ADP Complexes
J. Mol. Biol., **329** (2003) 121.

M.Arai, T.Inobe, K.Maki, T.Ikura, H.Kihara,
Y.Amemiya and K.Kuwajima
Denaturation and Reassembly of Chaperonin
GroEL Studied by Solution X-Ray
Scattering
Protein Science, **12** (2003) 672.

M.Kojima, A.A.Timchenko, J.Higo, K.Ito,
H.Kihara and K.Takahashi
Structural Refinement by Restrained
Molecular-dynamics Algorithm with Small-
Angle X-Ray Scattering Constraints for a
Biomolecule
J. Appl. Cryst., **37** (2004) 103.

Y.Miwa, K.Yamamoto, M.Sakaguchi, M.Sakai, K.Tanida, S.Hara, S.Okamoto and S.Shimada
A Site-Specific ESR Spin-Labeling Study of Molecular Motion in Microphase-Separated Polystyrene-*block*-poly(methyl acrylate) with Lamellar Morphology
Macromolecules, **37** (2004) 831.

H.Adachi, K.Osamura and J.Kusui
Relationship between Stress Corrosion Resistance and Microstructure of Rapidly Solidified Al-Zn-Mg Alloys
J. JILM, **54** (2004) 69. (*in Japanese*).

H.Adachi, J.Isogai and K.Osamura
Investigation of Phase Decomposition Process in Mg-Y-Nd Alloys by Small Angle Scattering
Trans. Mater. Res. Soc. J., **29** (2004) 97.

Y.Miwa, K.Tanida, K.Yamamoto, S.Okamoto, M.Sakaguchi, M.Sakai, S.Makita, S.Sakurai and S.Shimada
Dynamic Heterogeneity in Interfacial Region of Microphase-Separated Polystyrene-*block*-poly(methyl acrylate) Studied by the ESR Spin-Label Technique
Macromolecules, **37** (2004) 3707.

S.Shimada, Y.Takahashi, Y.Sugino, S.Hara and K.Yamamoto
Autonomic Healing of a Pinhole in Polyethylene and Photografted Polyethylene-*g*-Poly(hexyl methacrylate) Films
J. Polymer Sci., B, Polymer Physics, **42** (2004) 1705.

T.Morita and K.Nishikawa
Fluctuations in Density and Concentration of Methanol-Water Mixtures at 7 MPa and 373, 423 K Studied by Small-Angle X-Ray Scattering
Chem. Phys. Lett., **389** (2004) 29.

15B1

M.Tachibana, H.Koizumi, K.Izumi, K.Kajiwara and K.Kojima
Identification of Dislocations in Large Tetragonal Hen Egg-White Lysozyme Crystals by Synchrotron White-Beam Topography
J. Synchrotron Rad., **10** (2003) 416.

K.Okitsu, Y.Ueji, K.Sato and Y.Amemiya
X-Ray Four-Quadrant Phase Retarder System Compensating for Off-Axis and Chromatic Aberrations
J. Jpn. Soc. Synchrotron Rad. Res., **16** (2003) 236. (*in Japanese*).

K.Mizuno, K.Morikawa, S.Yamamoto, M.Kuga, H.Okamoto and E.Hashimoto
New Vacancy Source in Ultrahigh-Purity Aluminum Single Crystals with a Low Dislocation Density
J. Phys. Soc. Jpn., **73** (2004) 1101.

15B2

T.Aoyama, K.Akimoto, A.Ichimiya, Y.Hisada, S.Mukainakano, T.Emoto, H.Tajiri, T.Takahashi, H.Sugiyama, X.Zhang and H.Kawata
Structural Study of SiC(0001)3×3 by Surface X-Ray Diffraction
Appl. Surf. Sci., **216** (2003) 356.

A.Hata, K.Akimoto, S.Horii, T.Emoto, A.Ichimiya, H.Tajiri, T.Takahashi, H.Sugiyama, X.Zhang and H.Kawata
Crystal Orientation of Silver Films on Silicon Surfaces Revealed by Surface X-Ray Diffraction
Surf. Rev. Lett., **10** (2003) 431.

T.Takahashi, H.Tajiri, K.Sumitani, K.Akimoto, H.Sugiyama, X.Zhang and H.Kawata
X-Ray Diffraction Study of the Phase Transition of the Si(111)($\sqrt{3} \times \sqrt{3}$)-Ag Surface
Surf. Rev. Lett., **10** (2003) 519.

H.Tajiri, K.Sumitani, S.Nakatani, A.Nojima, T.Takahashi, K.Akimoto, H.Sugiyama, X.Zhang and H.Kawata
X-Ray Diffraction Study of the Si(111) $\sqrt{3} \times \sqrt{3}$ -Ag Surface Structure
Phys. Rev. B, **68** (2003) 035330.

K.Nagata, C.Yamada, T.Takahashi and Y.Murata
Electronic Properties of Single-Crystal α -Al₂O₃ Films on Ru(001)
J. Phys.: Condens. Matter, **15** (2003) 8165.

15C

T.Emoto, Y.Yoshida, K.Akimoto, A.Ichimiya, S.Kikuchi, K.Itagaki and H.Namita
Lattice Distortion near InGaP Compound Semiconductor Surface due to Surface Treatment of Bias Sputtering
Appl. Surf. Sci., **216** (2003) 83.

T.Aoyama, K.Akimoto, A.Ichimiya, Y.Hisada, S.Mukainakano, T.Emoto, H.Tajiri, T.Takahashi, H.Sugiyama, X.Zhang and H.Kawata
Structural Study of SiC(0001)3×3 by Surface X-Ray Diffraction
Appl. Surf. Sci., **216** (2003) 356.

S.Kusano, S.Nakatani, T.Takahashi, K.Hirano, S.Koh, M.Ebihara, T.Kondo and R.Ito
Study on Sublattice Reversal in a GaAs/Ge/GaAs(001) Crystal by X-Ray Standing Waves
Jpn. J. Appl. Phys., **42** (2003) 2582.

K.Hirano
Angle-Resolved X-Ray Imaging Using a Resolution-Tunable Double-Crystal Analyser
J. Phys. D: Appl. Phys., **36** (2003) 1469.

K.Hirano
Next-Generation Synchrotron Light Sources and Applications Using their Coherent Properties
Trans. MRS-J, **28** (2003) 43.

T.Yamada, K.Mizuno, N.Harada, K.Kitahara and A.Moritan
Lattice Deformation in Si Surface Exposed to Ar Plasma Revealed by Spectroscopic Ellipsometry and Grazing X-Ray Diffraction
Proc. of Internal. Symp. on Dry Process, (2003) 203.

S.Nakatani, K.Sumitani, A.Nojima, T.Takahashi, K.Hirano, S.Koh, T.Irisawa and Y.Shiraki
Characterization of Amorphous-Si/1ML-Ge/Si(001) Interface Structure by X-Ray Standing Waves
Jpn. J. Appl. Phys., **42** (2003) 7050.

K.Okitsu, Y.Ueji, K.Sato and Y.Amemiya
X-Ray Four-Quadrant Phase Retarder System Compensating for Off-Axis and Chromatic Aberrations
J. Jpn. Soc. Synchrotron Rad. Res., **16** (2003) 236. (*in Japanese*).

T.Ohno, H.Yamaguchi, S.Kuroda, K.Kojima, T.Suzuki and K.Arai
Direct Observation of Dislocations Propagated from 4H-SiC Substrate to Epitaxial Layer by X-Ray Topography
J. Cryst. Growth, **260** (2004) 209.

K.Fukuda, T.Yoshida, T.Shimura, K.Yasutake and M.Umeno
Synchrotron X-Ray Topography of Lattice Undulation of Bonded Silicon-On-Insulator Wafers
Jpn. J. Appl. Phys., **43** (2004) 1081.

K.Mizuno, F.Fujiki, H.Okamoto, P.Prete and N.Lovergine
Grazing Incident X-Ray Topographs of Heteroepitaxial ZnSe Films on GaAs Substrate
Jpn. J. Appl. Phys., **43** (2004) L321.

K.Hirano
Resolution-Tunable Angle-Resolved X-Ray Imaging
AIP Conf. Proc., **705** (2004) 1267.

16A1

K.Sakurai, H.Eba and M.Mizusawa
X-Ray Fluorescence Microscope - Recent Trends of New Element Mapping Technique without Scans
Bunseki, **11** (2003) 644. (*in Japanese*).

M.Mizusawa and K.Sakurai
XAFS Imaging of Tsukuba Gabbroic Rocks: Area Analysis of Chemical Composition and Local Structure
J. Synchrotron Rad., **11** (2004) 209.

K.Sakurai and M.Mizusawa

Quick Atomic-Scale Structure Imaging by Synchrotron X-Rays: A New Tool for Probing Realistic Inhomogeneous Systems Nanotechnology, **15** (2004) S428.

16A2

Y.Wakabayashi, Y.Murakami, I.Koyama, T.Kimura, Y.Tokura, Y.Moritomo, Y.Endoh and K.Hirota

Resonant X-Ray Study on the Bi-Layered Perovskite Mn Oxide $\text{LaSr}_2\text{Mn}_2\text{O}_7$ J. Phys. Soc. Jpn., **72** (2003) 618.

T.Kiyama, Y.Wakabayashi, H.Nakao, H.Ohsumi, Y.Murakami, M.Izumi, M.Kawasaki and Y.Tokura

Resonant X-Ray Scattering in Perovskite Manganite Superlattice – Observation of “Orbital Superlattice” – J. Phys. Soc. Jpn., **72** (2003) 785.

K.Ishii, T.Inami, Y.Murakami, L.Hao, K.Iwasa, M.Kohgi, Y.Aoki, H.Sugawara, H.Sato, S.Imada, H.Nakao, H.Sawa and Y.Wakabayashi

Resonant X-Ray Scattering Study on the Filled Skutterudite $\text{PrFe}_4\text{P}_{12}$ Physica B, **329-333** (2003) 467.

H.Sato, Y.Kawamura, T.Ogawa, Y.Murakami, H.Ohsumi, M.Mizumaki and N.Ikeda

Critical Phenomena in Helical Magnet $\beta\text{-MnO}_2$: X-Ray Magnetic Scattering Study Physica B, **329-333** (2003) 757.

T.Masuda, D.Yano, R.Kuroda, K.Uchinokura, H.Kuroe, T.Sekine, Y.Katsuki, K.Ohwada, Y.Fujii, H.Nakao and Y.Murakami

Appearance of the Spin-Peierls Phase under Pressure in $\text{Cu}_{1-x}\text{Mg}_x\text{GeO}_3$ Phys. Rev. B, **67** (2003) 024423.

K.Ishizuka, T.Arima, Y.Murakami, R.Kajimoto, H.Yoshizawa, N.Nagaosa and Y.Tokura

Commensurate-Incommensurate Crossover of Charge Stripe in $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$ ($x=1/3$) Phys. Rev. Lett., **92** (2004) 196404.

16B

J.R.Harries, J.P.Sullivan, S.Obara, T.Suzuki, P.Hammond, J.Bozek, N.Berrah, M.Halka and Y.Azuma

Double Photoexcitation of Helium in a Strong dc Electric Field Phys. Rev. Lett., **90** (2003) 133002.

S.Ishikawa, S.Ichikura, T.Imazono, S.Otani, T.Oguchi and M.Yanagihara

Polarization Performance of a New Spectrometer Based on a Multilayer-Coated Lamellar Grating in the 150 - 190-eV Region Opt. Rev., **10** (2003) 58.

K.Ueda, Y.Shimizu, H.Chiba, M.Kitajima, M.Okamoto, M.Hoshino, H.Tanaka, T.Hayaishi, S.Fritzsche, I.P.Sazhina and N.M.Kabachnik

Angular Correlation between Auger Electrons Successively Emitted from Photoexcited Resonances in Kr and Xe J. Phys. B, **36** (2003) 319.

N.Miyata, T.Imazono, M.Yanagihara, M.Watanabe, T.Muranaka and J.Akimitsu

B K Emission Spectra for MgB_2 and Al-doped MgB_2 J. Phys. Soc. Jpn., **72** (2003) 1810.

J.R.Harries, J.P.Sullivan, S.Obara, P.Hammond and Y.Azuma

Doubly Excited States of Helium Observed in *N*- and *I*-Specific Partial Photoionisation Cross-Sections Using Lifetime-Resolved Fluorescence Spectroscopy J. Phys. B, **36** (2003) L319.

Y.Takayama, H.Shiozawa, T.Yoshida, C.Lee, K.Obu, H.Otsubo, T.Miyahara, S.Yamamoto and M.Ando

Measurement of the Two-Photon Correlation of Synchrotron Radiation in the VUV Region by a Delay-Time Modulation Technique J. Synchrotron Rad., **10** (2003) 303.

Y.Yamashita, M.Z.Hossain, K.Mukai and J.Yoshinobu

Microscopic Adsorption Process of CO on $\text{Si}(100)c(4\times 2)$ by Means of Low Temperature Scanning Tunneling Microscopy Phys. Rev. B, **68** (2003) 033314.

Y.Yamashita, S.Machida, M.Nagao, S.Yamamoto, K.Mukai and J.Yoshinobu

Vibrational Structure in C 1s Photoelectron Spectra of Ethylene on the $\text{Si}(100)(2\times 1)$ Surface Chem. Phys. Lett., **374** (2003) 476.

S.Machida, M.Nagao, S.Yamamoto, Y.Kakefuda, K.Mukai, Y.Yamashita and J.Yoshinobu

Electronic States and Chemical Reactivity of $\text{Si}(100)c(4\times 2)$ Surface at Low Temperature Studied by High Resolution Si 2p Core Level Photoelectron Spectroscopy Surf. Sci., **532/535** (2003) 716.

T.Imazono, N.Miyata and M.Yanagihara

Soft-X-Ray Emission Studies of Buried Interfaces in Multilayers Trans. Mater. Res. Soc. Jpn., **28** (2003) 107.

Y.Yamashita and J.Yoshinobu

Vibrational Structure of Adsorbates as Revealed by High Resolution Core Level Photoelectron Spectra J. Surf. Sci. Soc. Jpn., **24** (2003) 301. (*in Japanese*).

S.Sheinerman, P.Lablanquie, F.Penent, R.I.Hall, M.Ahmad, Y.Hikosaka and K.Ito

PCI Effects on Coincidence Spectra Associated with the Emission of Two Auger Electrons AIP Conf. Proc., **652** (2003) 301.

M.Z.Hossain, S.Machida, M.Nagao, Y.Yamashita, K.Mukai and J.Yoshinobu

Highly Selective Surface Lewis Acid-Base Reaction: Trimethylamine on $\text{Si}(100)c(4\times 2)$ J. Phys. Chem. B, **108** (2004) 4737.

J.R.Harries, J.P.Sullivan and Y.Azuma

Experimental Determination of the Lifetimes of the $2(-1,0)_n^0$ ‘ $2pnd$ ’ ($1P^o$) Doubly Excited States of Helium by Detection of VUV Fluorescence. J. Phys. B, **37** (2004) L169.

Y.Hikosaka, P.Lablanquie, F.Penent, J.G.Lambourne, R.I.Hall, T.Aoto and K.Ito

Sub-Natural Linewidth Auger Electron Spectroscopy of the 2s Hole Decay in H_2S J. Elec. Spec. Relat. Phenom., **137-140** (2004) 287.

S.Ozawa, M.Wakasugi, M.Okamura, T.Katayama, T.Koizumi and M.Serata

X-Ray-Induced Fluorescence Spectroscopy with Highly Charged Ion Beam Produced by a Laser Ion Source Rev. Sci. Instrum., **75** (2004) 1579.

S.Ozawa, M.Wakasugi, M.Okamura, M.Serata, T.Koizumi and T.Katayama

Experimental Apparatus for X-Ray Spectroscopy with Highly Charged ion Beam Produced by Laser Ion Source RIKEN Accelerator Progress Report, **37** (2004) 107.

T.Imazono, Y.Hirayama, S.Ichikura, O.Kitakami, M.Yanagihara and M.Watanabe

Interdiffused Layers in Antiferromagnetically Coupled Fe/Si Multilayers Studied by Soft-X-Ray Fluorescence Spectroscopy Jpn. J. Appl. Phys., **43** (2004) 4327.

17A

I.Takahashi, T.Kada, K.Inoue, A.Kitahara, H.Shimazu, N.Tanaka, H.Terauchi, S.Doi, K.Nomura, N.Awaji and S.Komiya

Novel Interface Structures between Ultrathin Oxynitride and $\text{Si}(001)$ Studied by X-Ray Diffraction Jpn. J. Appl. Phys., **42** (2003) 7493.

18A

D.Sekiba, D.Ogarane, S.Tawara and K.Yagi-Watanabe

Electronic Structure of the $\text{Cu-O}/\text{Ag}(110)(2\times 2)p2mg$ Surface Phys. Rev. B, **67** (2003) 035411.

M.Sawada, K.Hayashi and A.Kakizaki
Perpendicular Magnetic Anisotropy of
Co/Pd(111) Studied by Spin-Resolved
Photoelectron Spectroscopy
J. Phys. Soc. Jpn., **72** (2003) 1161.

Y.Ishida, D.D.Sarma, K.Okazaki,
J.Okabayashi, J.I.Hwang, H.Ott,
A.Fujimori, G.A.Medvedkin, T.Ishibashi
and K.Sato
In situ Photoemission Study of the Room
Temperature Ferromagnet ZnGe₂Mn
Phys. Rev. Lett., **91** (2003) 107202.

18B

H.Tsuge, M.Nagahama, H.Nishimura,
J.Hisatsune, Y.Sakaguchi, Y.Itogawa,
N.Katunuma and J.Sakurai
Crystal Structure and Site-Directed
Mutagenesis of Enzymatic Components
from *Clostridium perfringens* Lota-Toxin
J. Mol. Biol., **325** (2003) 471.

N.Tanaka, Y.Kusakabe, K.Ito, T.Yoshimoto
and K.T.Nakamura
Crystal Structure of Glutathione-
Independent Formaldehyde Dehydrogenase.
Chem. Biol. Interact., **143-144** (2003) 211.

M.Fujihashi, D.H.Peapus, E.Nakajima,
T.Yamada, J.Saito, A.Kita, Y.Higuchi,
Y.Sugawara, A.Ando, N.Kamiya, Y.Nagata
and K.Miki
X-Ray Crystallographic Characterization
and Phasing of a Fucose-Specific Lectin
from *Aleuria aurantia*
Acta Cryst. D, **59** (2003) 378.

T.Inoue, D.Irikura, N.Okazaki, S.Kinugasa,
H.Matsumura, N.Uodome, M.Yamamoto,
T.Kumasaka, M.Miyano, Y.Kai and Y.Urade
Mechanism of Metal Activation of Human
Hematopoietic Prostaglandin D Synthase
Nature Structural Biology, **10** (2003) 291.

K.Shiba, T.Shirai, T.Homma and T.Noda
Translated Products of Tandem Microgene
Repeats Exhibit Diverse Properties Also
Seen in Natural Proteins.
Protein Engineering, **16** (2003) 57.

H.Imamura, S.Fushinobu, M.Yamamoto,
T.Kumasaka, B.-S.Jeon, T.Wakagi and
H.Matsuzawa
Crystal Structures of 4-
 α -Glucanotransferase from
Thermococcus litoralis and its Complex
with an Inhibitor
J. Biol. Chem., **278** (2003) 19378.

J.-J.Jeong, S.Fushinobu, S.Ito, H.Shoun and
T.Wakagi
Archaeal ADP-Dependent
Phosphofructokinase: Expression,
Purification, Crystallization and Preliminary
Crystallographic Analysis
Acta Cryst. D, **59** (2003) 1327.

A.Satoh, O.Adachi, K.Tanizawa and
K.Hirotsu
The Active Site Structure of
Quinohemoprotein Amine Dehydrogenase
Inhibited by *p*-nitrophenylhydrazine
Biochem. Biophys. Acta, **1647** (2003) 272.

H.Nakano, T.Yoshida, S.Uchiyama,
M.Kawachi, H.Matsuo, T.Kato, A.Ohshima,
Y.Yamaichi, T.Honda, H.Kato, Y.Yamagata,
T.Ohkubo and Y.Kobayashi
Structure and Binding Mode of a Ribosome
Recycling Factor (RRF) from Mesophilic
Bacterium
J. Biol. Chem., **278** (2003) 3427.

T.Ose, K.Watanabe, T.Mei, M.Honma,
H.Watanabe, M.Yao, H.Oikawa and
I.Tanaka
Insight into a Natural Diels-Alder Reaction
from the Structure of Macrophomate
Synthase
Nature, **422** (2003) 185.

S.Fushinobu, H.Shoun and T.Wakagi
Crystal Structure of Sulerythrin, a
Rubrerythrin-Like Protein from a Strictly
Aerobic Archaeon, *Sulfolobus tokodaii*
Strain 7, Shows Unexpected Domain
Swapping
Biochemistry, **42** (2003) 11707.

S.Ito, S.Fushinobu, J.-J.Jeong, I.Yoshioka,
S.Koga, H.Shoun and T.Wakagi
Crystal Structure of an ADP-Dependent
Glucokinase from *Pyrococcus furiosus*:
Implications for a Sugar-Induced
Conformational Change in ADP-Dependent
Kinase
J. Mol. Biol., **331** (2003) 871.

K.Wada, T.Tada, Y.Nakamura, T.Ishikawa,
Y.Yabuta, K.Yoshimura, S.Shigeoka and
K.Nishimura
Crystal Structure of Chloroplastic Ascorbate
Peroxidase from Tobacco Plants and
Structural Insights into its Instability
J. Biochem., **134** (2003) 239.

T.Shiba, M.Kawasaki, H.Takatsu, T.Nogi,
N.Matsugaki, N.Igarashi, M.Suzuki, R.Kato,
K.Nakayama and S.Wakatsuki
Molecular Mechanism of Membrane
Recruitment of GGA by ARF in Lysosomal
Protein Transport
Nature Structural Biology, **10** (2003) 386.

A.Ohtaki, A.Iguchi, M.Mizuno, T.Tonozuka,
Y.Sakano and S.Kamitori
Mutual Conversion of Substrate Specificities
of *Thermoactinomyces vulgaris* R-47 α -
Amylases TVA1 and TVA2 by Site-Directed
Mutagenesis
Carbohydrate Res., **338** (2003) 1553.

R.Natsume, Y.Ohnishi, T.Senda and
S.Horinouchi
Crystal Structure of a γ -Butyrolactone
Autoregulator Receptor Protein in
Streptomyces coelicolor A3(2).
J. Mol. Biol., **336** (2003) 409.

V.Nagarajan, N.Sakurai, M.Kubota,
T.Nonaka, H.Nagumo, H.Takeda,
T.Nishizaki, E.Masai, M.Fukuda and
T.Senda
Crystallization of the Terminal Oxygenase
Component of Biphenyl Dioxygenase
Derived from *Rhodococcus* sp. Strain
RHA1.
Protein and Peptide Lett., **10** (2003) 412.

S.-H.Liaw, S.-J.Chen, T.-P.Ko, C.-S.Hsu, C.-
J.Chen, A.H.-J.Wang and Y.-C.Tsai
Crystal Structure of D-Aminoacylase from
Alcaligenes faecalis DA1.
J. Biol. Chem., **278** (2003) 4957.

T.-P.Ko, J.-J.Lin, C.-Y.Hu, Y.-H.Hsu, A.H.-
J.Wang and S.-H.Liaw
Crystal Structure of Yeast Cytosine
Deaminase
J. Biol. Chem., **278** (2003) 19111.

Y.-H.Hsu, C.-Y.Hu, J.-J.Lin and S.-H.Liaw
Crystallization and Preliminary
Crystallographic Analysis of Yeast Cytosine
Deaminase
Acta Cryst. D, **59** (2003) 950.

M.Kobayashi, M.Kubota and Y.Matsuura
Refined Structure and Functional
Implications of Trehalose Synthase from
Sulfolobus acidocaldarius
J. Appl. Glycosci., **50** (2003) 1.

M.Fujihashi, D.H.Peapus, N.Kamiya,
Y.Nagata and K.Miki
Crystal Structure of Fucose Specific Lectin
from *Aleuria aurantia* Binding Ligands at
Three of its Five Sugar Recognition Sites
Biochemistry, **38** (2003) 11093.

K.Tatsumura, T.Watanabe, D.Yamasaki,
T.Shimura, M.Umeno and I.Ohdomari
Effects of Thermal History on Residual
Order of Thermally Grown Silicon Dioxide
Jpn. J. Appl. Phys., **42** (2003) 7250.

S.Liaw, S.Chen, T.Ko, C.Hsu, C.Chen,
A.Wang and Y.Tsai
Crystal Structure of D-Aminoacylase from
Alcaligenes faecalis DA1. A Novel Subset
of Amidohydrolases and Insights into the
Enzyme Mechanism.
J. Biol. Chem., **278** (2003) 4957.

Y.Hsu, C.Hu, J.Lin and S.Liaw
Crystallization and Preliminary
Crystallographic Analysis of Yeast Cytosine
Deaminase.
Acta Cryst. D, **59** (2003) 950.

M.Momma, Z.Fujimoto, N.Maita,
K.Haraguchi and H.Mizuno
Expression, Crystallization and Preliminary
X-Ray Crystallographic Studies
of *Arthrobacter globiformis* Inulin
Fructotransferase
Acta Cryst. D, **59** (2003) 2286.

- H.J.Ahn, S.J.Eom, H.J.Yoon, B.I.Lee, H.Cho and S.W.Suh
Crystal Structure of Class I Acetoxyhydroxy Acid Isomerase from *Pseudomonas aeruginosa*
J. Mol. Biol., **328** (2003) 505.
- H.J.Ahn, H.-W.Kim, H.-J.Yoon, B.I.Lee, S.W.Suh and J.K.Yang
Crystal Structure of tRNA(m¹G37)methyltransferase: Insights into tRNA Recognition
EMBO J., **22** (2003) 2593.
- B.I.Lee and S.W.Suh
Crystal Structure of UDP-N-Acetylglucosamine Acyltransferase from *Helicobacter pylori*
Proteins, **53** (2003) 772.
- B.I.Lee, J.E.Kwak and S.W.Suh
Crystal Structure of the Type II 3-Dehydroquinase from *Helicobacter pylori*
Proteins, **51** (2003) 616.
- A.Abe, T.Tonozuka, Y.Sakano and S.Kamitori
Complex Structures of *Thermoactinomyces vulgaris* R-47 α -Amylase 1 with Malto-oligosaccharides Demonstrate the Role of Domain N Acting as a Starch Binding Domain
J. Mol. Biol., **335** (2004) 811.
- K.Tatsumura, T.Watanabe, D.Yamasaki, T.Shimura, M.Umeno and I.Ohdomari
Residual Order within Thermally Grown Amorphous SiO₂ on Crystalline Silicon
Phys. Rev. B, **69** (2004) 085212.
- T.S.Kumarevel, Z.Fujimoto, P.Karthe, M.Oda, H.Mizuno and P.K.R.Kumar
Crystal Structure of Activated HutP: an RNA Binding Protein that Regulates the Transcription of the *hut* Operon in *Bacillus subtilis*
Structure, **12** (2004) 1269.
- B.I.Lee and S.W.Suh
Crystal Structure of the Schiff Base Intermediate Prior to Decarboxylation in the Catalytic Cycle of Aspartate α -Decarboxylase
J. Mol. Biol., **340** (2004) 1.
- H.J.Ahn, H.-J.Yoon, B.I.Lee and S.W.Suh
Crystal Structure of Chorismate Synthase: A Novel FMN-Binding Protein Fold and Functional Insights
J. Mol. Biol., **336** (2004) 903.
- S.Wakatsuki, M.Hiraki, Y.Gaponov, N.Matsugaki, N.Igarashi and M.Suzuki
Automation for Protein Crystallographic Diffraction Experiments
Genomics and Proteomics, (2004) 618. (*in Japanese*).
- J.K.Yang, H.J.Yoon, H.J.Ahn, B.I.Lee, J.-D.Pedelacq, E.C.Liong, J.Berendzen, M.Laivenieks, C.Vieille, G.J.Zeikus, D.J.Vocadlo, S.G.Withers and S.W.Suh
Crystal Structure of β -D-Xylosidase from *Thermoanaerobacterium saccharolyticum*, a Family 39 Glycoside Hydrolase
J. Mol. Biol., **335** (2004) 155.
- B.I.Lee, K.H.Kim, S.J.Park, S.H.Eom, H.K.Song, and S.W.Suh
Ring-Shaped Architecture of RecR: Implications for its Role in Homologous Recombinational DNA Repair
EMBO J., **23** (2004) 2029.
- M.Suzuki, N.Igarashi, N.Matsugaki and S.Wakatsuki
Protein Crystallographic Beam Lines (Photon Factory)
Genomics and Proteomics, (2004) 612. (*in Japanese*).
- B.Padmanabhan, T.Kuzuhara, N.Adachi and M.Horikoshi
The Crystal Structure of CCG1/TAF_{II}250-Interacting Factor B (CIB)
J. Biol. Chem., **279** (2004) 9615.
- B.I.Byung, K.H.Kim, S.M.Shim, K.S.Ha, J.K.Yang, H.J.Yoon, J.Y.Ha and S.W.Suh
Crystallization and Preliminary X-Ray Crystallographic Analysis of the RecR Protein from *Deinococcus radiodurans*, a Member of the RecFOR DNA-Repair Pathway
Acta Cryst. D, **60** (2004) 379.
- J.Y.Lee, H.J.Ahn, K.S.Ha and S.W.Suh
Crystal Structure of the TM1442 Protein from *Thermotoga maritima*, a Homolog of the *Bacillus subtilis* General Stress Response Anti-Anti-Sigma Factor RsbV
Proteins, **56** (2004) 176.
- B.Padmanabhan, N.Adachi, K.Kataoka and M.Horikoshi
Crystal Structure of the Homolog of the Oncoprotein Gankyrin, an Interactor of Rb and CDK4/6.
J. Biol. Chem., **279** (2004) 1546.
- K.Takemura and S.Nakano
Performance of a Synthetic Diamond Backing-Plate for the Diamond-Anvil Cell at Ultrahigh Pressures
Rev. Sci. Instrum., **74** (2003) 3017.
- I.Shirovani, K.Yamanashi, J.Hayashi, N.Ishimatsu, O.Shimomura and T.Kikegawa
Pressure-Induced Phase Transitions of Lanthanide Mooltasenides LaAs and LuAs with NaCl-Type Structure
Solid State Commun., **127** (2003) 573.
- I.Shirovani, J.Hayashi, K.Yamanashi, K.Hirano, T.Adachi, N.Ishimatsu, O.Shimomura and T.Kikegawa
X-Ray Study with Synchrotron Radiation of Cerium and Praseodymium Monopnictides with the NaCl-Type Structure at High Pressures
Physica B, **334** (2003) 167.
- Y.Mori, T.Ikai and K.Takarabe
High-Pressure Phase in the Chalcopyrites CuGaTe₂ and CuInTe₂
Phys. Stat. Sol. (b), **235** (2003) 317.
- Y.Mori, T.Ikai, R.Teranishi and K.Takarabe
Electronic and Structural Study of β -FeSi₂ under High Pressure
Phys. Stat. Sol. (b), **235** (2003) 302.
- H.Hirai, T.Tanaka, Y.Yamamoto, Y.Kawamura and T.Yagi
Retention of Filled Ice Structure of Methane
Phys. Rev. B, **68** (2003) 172102.
- R.Resel, M.Oehzelt, K.Shimizu, A.Nakayama and K.Takemura
On the Phase-Transition in Anthracene Induced by High Pressure
Solid State Commun., **129** (2004) 103.
- H.Yamawaki, H.Fujihisa, M.Sakashita, A.Nakayama and K.Aoki
Powder X-Ray Diffraction Study of the Volume Change of Ice VIII under High Pressure
Physica B, **344** (2004) 260.
- H.Hirai, K.Wanme, T.Yagi, A.Ikeda and T.Abe
High-Pressure Synthesis of a Novel Form of Endohedral Li Diamond from Li Graphite Intercalation Compound.
J. Phys. Chem. Solid, **65** (2004) 933.
- N.Murase, S.Abe, H.Takahashi, C.Katagiri and T.Kikegawa
Two-Dimensional Diffraction Study of Ice Crystallisation in Polymer Gels
CryoLetters, **25** (2004) 227.

19A

18C

M.Sawada, K.Hayashi and A.Kakizaki
Perpendicular Magnetic Anisotropy of Co/Pd(111) Studied by Spin-Resolved Photoelectron Spectroscopy
J. Phys. Soc. Jpn., **72** (2003) 1161.

T.Matsushima, T.Okuda, T.Eguchi, M.Ono, A.Harasawa, T.Wakita, A.Kataoka, M.Hamada, A.Kamoshida, Y.Hasegawa and T.Kinoshita
Development and Trial Measurement of Synchrotron-Radiation-Light-Illuminated Scanning Tunneling Microscope
Rev. Sci. Instrum., **75** (2004) 2149.

19B

K.Kaibuchi, J.Kawai, M.Nagasano, A.Fukushima and S.Shin
X-Ray Absorption Spectra of Rare Earth Fluorides
Adv. X-Ray Chem. Anal. Jpn., **34** (2003) 253. (*in Japanese*).

K.Kitamoto, Y.Taguchi, K.Mimura, K.Ichikawa, O.Aita and H.Ishibashi
Ir 5d State of CuIr₂S₄: A Cluster-Model Approach
Phys. Rev. B, **68** (2003) 195124.

J.Labis, A.Ohi, M.Hirai, M.Kusaka and M.Iwami
Surface Morphology and Interface Structural Analyses of Ti(film)/SiC(substrate) by PEEM, SXES, AES and XRD
Surf. Interface Anal., **35** (2003) 89.

M.Hirai, J.P.Labis, A.Ohi, C.Kamezawa, Y.Morikawa, K.Yoshida, M.Kusaka and M.Iwami
Nano-Structure of Transition-Metal(Ti, Ni)/SiC System: Photo-Emission Electron Microscopy and Soft X-Ray Fluorescence Spectroscopy
Appl. Surf. Sci., **216** (2003) 187.

M.Hirai, C.Kamezawa, S.Zatyan, Z.An, T.Shinagawa, T.Fujisawa, M.Kusaka and M.Iwami
Interface Electronic Structures of Transition Metal(Cr, Fe) on 6H(4H)-SiC(0001)Si Face by Soft X-Ray Fluorescence Spectroscopy
Materials Science Forum, **457-460** (2004) 427.

20A

T.Aoto, H.Tokunaga, H.Morioka, H.Yoshii and T.Hayaishi
The Stark Quantum Beat of Ne Fluorescence in the Vacuum Ultra Violet Region
Physica Scripta, **67** (2003) 282.

Y.Hikosaka, T.Aoto, R.I.Hall and K.Ito
Fragment Emission Anisotropy in the Dissociative Photoionization of O₂ Investigated by Two-Dimensional Photoion Spectroscopy
J. Phys. B, **36** (2003) 1423.

M.Kato, T.Odagiri, K.Kameta, N.Kouchi and Y.Hatano
Doubly Excited States of Ammonia in the Vacuum Ultraviolet Range
J. Phys. B, **36** (2003) 3541.

Y.Hatano
Spectroscopy and Dynamics of Molecular Superexcited States. Aspects of Primary Processes of Radiation Chemistry
Radiat. Phys. Chem., **67** (2003) 187.

Y.Hatano
Formation and Dissociation Dynamics of Molecular Superexcited States
Bull. Chem. Soc. Jpn., **76** (2003) 853.

K.Kobayashi
Photon-Induced Biological Consequences. Charged Particle and Photon Interactions with Matter, eds, A. Mozumder and Y. Hatano, (2003) 471.

M.Kato, T.Odagiri, K.Kodama, M.Murata, K.Kameta and N.Kouchi
Doubly Excited States of Water in the Inner Valence Range
J. Phys. B, **37** (2004) 3127.

20B

N.Ishizawa, D.du Boulay, M.Hayatsu, S.Kuze, Y.Matsushima, H.Ikuta, M.Wakihara, Y.Tabira and J.R.Hester
Structural Disorder along the Lithium Diffusion Pathway in Cubically Stabilized Lithium Manganese Spinel I. Synchrotron X-Ray Studies
J. Solid State Chem., **174** (2003) 167.

27A

N.Miyoshi, J.Sostaric and P.Riesz
Correlation between Sonochemistry of Surfactant Solutions and Human Leukemia Cell Killing by Ultrasound and Porphyrins.
Free Radical Biol. & Med., **34** (2003) 710.

K.Kobayashi, N.Usami, I.Sasaki, H.Frohlich and C.Le Sech
Study of Auger Effect in DNA when Bound to Molecules Containing Platinum. A Possible Application to Hadrontherapy
Nucl. Instrum. Meth. Phys. Res. A, **B188** (2003) 348.

K.Kobayashi
Photon-Induced Biological Consequences. Charged Particle and Photon Interactions with Matter, eds, A. Mozumder and Y. Hatano, (2003) 471.

K.G.Nath, I.Shimoyama, T.Sekiguchi and Y.Baba
Chemical-State Analysis for Low-Dimensional Si and Ge Films on Graphite
J. Appl. Phys., **94** (2003) 4583.

Y.Baba
Element-Specific and Site-Specific Ion Desorption from Adsorbed Molecules by Deep Core-Level Photoexcitation at the K-Edges
Low Temperature Physics, **29** (2003) 228.

Y.Baba, T.Sekiguchi, I.Shimoyama and K.G.Nath
Electronic Structures of Ultra-Thin Silicon Carbides Deposited on Graphite
Appl. Surf. Sci., **234** (2004) 246.

Y.Baba
Photon-Stimulated Desorption
Hyoumen Kagaku no Kiso to Ouyou (ed. The Surface Science Society of Japan, NTS), (2004) 751. (*in Japanese*).

K.G.Nath, I.Shimoyama, T.Sekiguchi and Y.Baba
Study of the Oxidation for Si Nanostructures using Synchrotron Radiation Photoemission Spectroscopy
Appl. Surf. Sci., **234** (2004) 234.

27B

M.Yamashita, T.Shimizu, H.Konishi, J.Mizuki and H.Uchida
Structure and Protective Performance of Atmospheric Corrosion Product of Fe-Cr Alloy Film Analyzed by Mössbauer Spectroscopy and with Synchrotron Radiation X-Rays
Corrosion Science, **45** (2003) 381.

N.Miyoshi, J.Sostaric and P.Riesz
Correlation between Sonochemistry of Surfactant Solutions and Human Leukemia Cell Killing by Ultrasound and Porphyrins.
Free Radical Biol. & Med., **34** (2003) 710.

K.Kobayashi, N.Usami, I.Sasaki, H.Frohlich and C.Le Sech
Study of Auger Effect in DNA when Bound to Molecules Containing Platinum. A Possible Application to Hadrontherapy
Nucl. Instrum. Meth. Phys. Res. A, **B188** (2003) 348.

K.Kobayashi, N.Usami, H.Maezawa, T.Hayashi, K.Hieda and K.Takakura
Development of Photon Microbeam Irradiation System for Radiobiology
International Congress Series, **1258** (2003) 207.

K.Kobayashi
Photon-Induced Biological Consequences. Charged Particle and Photon Interactions with Matter, eds, A. Mozumder and Y. Hatano, (2003) 471.

Y.Okamoto, T.Yaita and K.Minato
High-Temperature XAFS Study of Solid and Molten SrCl₂
J. Non-Cryst. Solids, **333** (2004) 182.

Y.Nagame, H.Haba, K.Tsukada, M.Asai, A.Toyoshima, S.Goto, K.Akiyama, T.Kaneko, M.Sakama, H.Hirata, T.Yaita, I.Nishinaka, S.Ichikawa and H.Nakahara
Chemical Studies of the Heaviest Elements
Nucl. Phys. A, **734** (2004) 124.

Y.Okamoto
XAFS Simulation of Highly-Disordered Materials
Nucl. Instrum. Meth. Phys. Res. A, **526** (2004) 572.

T.Nakamura, H.Shoji, E.Hirai, S.Nanao, K.Fukui, H.Ogasawara, A.Kotani, T.Iwazumi, I.Harada, R.Katano and Y.Isozumi

Magnetic Circular Dichroism of Resonant X-Ray Emission Spectroscopy for Sm $L_{3,4,5}$ and $L_{2,3}$ in Sm₂₁Co₇₉ Amorphous Alloy

Phys. Rev. B, **67** (2003) 94439.

NE1A1

N.Shiotani, I.Matsumoto, H.Kawata, J.Katsuyama, M.Mizuno, H.Araki and Y.Shirai

Fermi Surface of a Shape Memory Alloy of TiNi

J. Phys. Soc. Jpn., **73** (2004) 1627.

H.Kawata, H.Adachi and I.Matsumoto

A Real-Time Circular-Polarization Monitor for Magnetic Compton-Scattering Beamline AIP Conf. Proc. 705, (2004) 549.

H.Uchiyama, H.Adachi, S.Kishimoto, M.Itou, H.Sakurai, F.Itoh and H.Kawata

An Improvement of (X, eX) Spectrometer for Coincident Measurement of Compton Scattered Photon and Recoiled Electron AIP Conf. Proc. 705, (2004) 1001.

NE3A

K.Nomura, A.Rykov, T.Mitsui, Y.Yoda, Y.Kobayashi, M.Seto and Ts.Sawada
Characterization of Perovskite Related Oxides by Nuclear Resonance Inelastic Scattering of Synchrotron Radiation
J. Radioanal. Nucl. Chem., **255**(1) (2003) 187.

A.I.Rykov, K.Nomura, T.Mitsui and M.Seto
Nuclear Resonance Inelastic Scattering of Synchrotron Radiation in Oxides with Colossal Magnetoresistance
Material Research in Atomic Scale by Mossbauer Spectroscopy, (2003) 239.

K.Nomura, A.I.Rykov and X.Zhang
The Nanostructured Materials Studied by Nuclear Forward Scattering of Synchrotron Radiation
10th APAM Topical Seminar and Conference, (2003) 82.

A.I.Rykov, K.Nomura, T.Mitsui and M.Seto
Evolution of Lattice Rigidities in ABO_x (A=Ca, Sr; B=Fe, Co) (x=2.5 to 3) from Brownmillerite to Perovskite: an Inelastic Scattering Study
10th APAM Topical Seminar and Conference, (2003) 374.

K.Nomura
Mossbauer Spectrometry Using Synchrotron Radiation-[1] Nuclear Resonant Inelastic Scattering-
Radioisotopes, **52** (2003) 242. (*in Japanese*).

K.Nomura

Mossbauer Spectrometry Using Synchrotron Radiation-[2] Nuclear Resonant Forward Scattering-
Radioisotopes, **52** (2003) 293. (*in Japanese*).

NE5A

H.Kasahara, E.Tanaka, N.Fukuyama, E.Sato, H.Sakamoto, Y.Tabata, K.Ando, H.Iseki, Y.Shinozaki, K.Kimura, E.Kuwabara, S.Koide, H.Nakazawa and H.Mori

Biodegradable Gelatin Hydrogel Potentiates the Angiogenic Effect of Fibroblast Growth Factor 4 Plasmid in Rabbit Hindlimb Ischemia

J. Am. Coll. Cardiol., **41**(6) (2003) 1056.

T.Takeda, Y.Tsuchiya, T.Kuroe, T.Zeniya, J.Wu, T.T.Lwin, T.Yashiro, T.Yuasa, K.Hyodo, F.A.Dilmanian, Y.Itai and T.Akatsuka

Development of High-Speed Fluorescent X-Ray Micro-Computed Tomography.

AIP Proc., (2004) 1320.

NE5C

M.Imai and T.Kikegawa

Phase Transitions of Alkaline-Earth-Metal Disilicides M_{AE}Si₂ (M_{AE}=Ca, Sr, and Ba) at High Pressures and High Temperatures
Chem. Mater., **15** (2003) 2543.

Y.Katayama and K.Tsuji

X-Ray Structural Studies on Elemental Liquids under High Pressure

J. Phys.: Condens. Matter, **15** (2003) 6085.

T.Hattori, K.Tsuji, N.Taga, Y.Takasugi and T.Mori

Structural Investigation on Liquid GaSb at Pressures up to 20 GPa
Phys. Rev. B, **68** (2003) 224106.

S.Kawasaki, Y.Matsuoka, A.Yao, F.Okino and H.Touhara

High Pressure Behavior of Single-Walled Carbon Nanotubes and Polymerized Fullerenes

J. Phys. Chem. Solids, **65** (2003) 327.

S.Kawasaki, Y.Matsuoka, A.Yao, I.Yamada, S.Komiyama, F.Okino, H.Touhara and K.Suito

Elastic Properties of Pressure-Polymerized Fullerenes

Solid State Commun., **125** (2003) 637.

NW2

Y.Iwasawa, M.Nomura and J.Mizuki
Energy Dispersive XAFS (DXAFS) Kagaku (Chemistry), **59** (7) (2004) 32. (*in Japanese*).

T.Mori, M.Nomura, M.Sato, H.Adachi, Y.Uchida, A.Toyoshima, S.Yamamoto, K.Tsuchiya, T.Shioya and H.Kawata
Design and Performance of An X-Ray Undulator Beamline PF-AR-NW2
AIP Conf. Proc. 705, (2004) 255.

M.W.Bhuiya, H.Sakuraba, K.Yoneda, T.Ohshima, T. Imagawa, N.Katunuma and H.Tsuge

Crystallization and Preliminary X-Ray Diffraction Analysis of the Hyperthermostable NAD-Dependent Glutamate Dehydrogenase from *Pyrobaculum islandicum*
Acta Cryst. D, **60** (2004) 715.

A.Nakamura, H.Komori, G.Kobayashi, A.Kita, C.Wada and K.Miki
The N-Terminal Domain of the Replication Initiator Protein RepE is a Dimerization Domain Forming a Stable Dimer
Biochem. Biophys. Res. Commun., **315** (2004) 10.

T.Shiba, S.Kametaka, M.Kawasaki, M.Shibata, S.Waguri, Y.Uchiyama and S.Wakatsuki
Insights into the Phosphoregulation of β -Secretase Sorting Signal by the VHS Domain of GGA1
Traffic, **5** (2004) 437.

S.Wakatsuki, M.Hiraki, Y.Gaponov, N.Matsugaki, N.Igarashi and M.Suzuki
Automation for Protein Crystallographic Diffraction Experiments
Genomics and Proteomics, (2004) 618. (*in Japanese*).

M.Suzuki, N.Igarashi, N.Matsugaki and S.Wakatsuki
Protein Crystallographic Beam Lines (Photon Factory)
Genomics and Proteomics, (2004) 612. (*in Japanese*).

Y.Gaponov, N.Igarashi, M.Hiraki, K.Sasajima, N.Matsugaki, M.Suzuki, T.Kosuge and S.Wakatsuki
Integrated Controlling System and Unified Database for High Throughput Protein Crystallography Experiments
AIP Conf. Proc., **705** (2004) 1213.

Y.Gaponov, N.Igarashi, M.Hiraki, K.Sasajima, N.Matsugaki, M.Suzuki, T.Kosuge and S.Wakatsuki
Secure UNIX Socket Based Controlling System for High Throughput Protein Crystallography Experiments
J. Synchrotron Rad., **11** (2004) 17.

M.Mizuno, T.Tonozuka, S.Suzuki, R.Uotsu-Tomita, S.Kamitori, A.Nishikawa and Y.Sakano
Structural Insights into Substrate Specificity and Function of Glucodextranase
J. Biol. Chem., **279** (2004) 10575.

M.Hidaka, Y.Honda, M.Kitaoka, S.Nirasawa, K.Hayashi, T.Wakagi, H.Shoun and S.Fushinobu
Chitobiose Phosphorylase from *Vibrio proteolyticus*, a Member of Glycosyl Transferase Family 36, Has a Clan GH-L-like (α/α)₆ Barrel Fold Structure, **12** (2004) 937.

T.Ogawa, R.Nitta, Y.Okada and N.Hirokawa
A Common Mechanism for Microtubule
Xestabilizers-M Type Kinesins Stabilize
Curling of the Protofilament Using the
Class-Specific Neck and Loops.
Cell, **116** (2004) 591.

A.Miyanaga, T.Koseki, H.Matsuzawa,
T.Wakagi, H.Shoun and S.Fushinobu
Expression, Purification, Crystallization
and Preliminary X-Ray Analysis of α -L-
arabinofuranosidase B from *Aspergillus*
kawachii
Acta Cryst. D, **60** (2004) 1286.

K.Arita, H.Hashimoto, T.Shimizu,
K.Nakashima, M.Yamada and M.Sato
Structural Basis for Ca^{2+} -Induced
Activation of Human PAD4
Nature Structural and Molecular Biology, **11**
(2004) 777.

W.Lai, L.Chou, C.Ting, R.Kirby, Y.Tsai,
A.Wang and S.Liaw
The Functional Role of the Binuclear Metal
Center in D-Aminoacylase. One-Metal
Activation and Second-Metal Inhibition.
J. Biol. Chem., **279** (2004) 13692.

Y.-J.Chang, C.-H.Huang, C.-Y.Hu and S.-
H.Liaw
Crystallization and Preliminary
Crystallographic Analysis of *Bacillus*
subtilis Guanine Deaminase.
Acta Cryst. D, **60** (2004) 1152.

Others

K.Mase, M.Nagasono, S.Tanaka, T.Sekitani
and S.Nagaoka
Ion Desorption from Molecules Condensed
at Low Temperature: A Study with Electron-
Ion Coincidence Spectroscopy Combined
with Synchrotron Radiation
Fizika Nizkikh Temperatur, **29** (2003) 321.

T.Imakubo, N.Tajima, T.Shirahata,
A.Miyake, H.Sawa, T.Nakamura, H.Ohnuki,
M.Tamura, R.Kato, M.Izumi, Y.Nishio and
K.Kajita
Crystal Design of Organic Conductors Using
the Iodine Bond
Synthetic Metals, **135-136** (2003) 601.

M.Tamura, Y.Hosokoshi, D.Shiomi,
M.Kinoshita, Y.Nakasawa, M.Ishikawa,
H.Sawa, T.Kitazawa, A.Eguchi, Y.Nishio
and K.Kajita
Magnetic Properties and Structures of the α -
and δ -Phases of *p*-NPNN
J. Phys. Soc. Jpn., **72** (2003) 1735.

K.Isari, H.Yoshida, T.Gejo, E.Kobayashi,
K.Mase, S.Nagaoka and K.Tanaka
Construction and Evaluation of Coaxially
Symmetric Mirror Electron Energy Analyzer
with High Sensitivity, and Its Application to
Coincidence Spectroscopy
J. Vac. Soc. Jpn., **46** (2003) 377. (*in*
Japanese).

K.Nakayama and S.Wakatsuki
The Structure and Function of GGAs, the
Traffic Controllers at the TGN Sorting
Crossroads
Cell Structure and Function, **28** (2003) 431.

A.W.Stevenson, T.E.Gureyev, D.Paganin,
S.W.Wilkins, T.Weitkamp, A.Snigirev,
C.Rau, I.Snigireva, H.S.Young, I.P.Dolbnya,
W.Yun, B.Lai, R.F.Garrett, D.J.Cookson,
K.Hyodo and M.Ando
Phase-Contrast X-Ray Imaging with
Synchrotron Radiation for Materials Science
Application
Nucl. Instrum. Meth. Phys. Res. B, **199**
(2003) 427.

M.Ando and H.Sugiyama
X-Ray Dark-Field Imaging and its
Application -Laue Case Analyzer-
J. Cryst. Soc. Jpn., **45** (2003) 196. (*in*
Japanese).

Y.Shiba, Y.Katoh, T.Shiba, K.Yoshino,
H.Takatsu, H.Kobayashi, H.-W.Shin,
S.Wakatsuki and K.Nakayama
GAT (GGA and Tom1) Domain Responsible
for Ubiquitin Binding and Ubiquitination
J. Biol. Chem., **279** (2004) 7105.

E.Kobayashi, K.Isari, M.Mori, K.Mase,
K.Tanaka, K.Okudaira and N.Ueno
Construction and Evaluation of Polar-
Angle-Resolved Miniature Time-of-Flight
Ion Mass Spectrometer, and its Application
for Electron-Ion Coincidence Spectroscopy
J. Vac. Soc. Jpn., **47** (2004) 14. (*in*
Japanese).

Y.Harada, T.Tokushima, Y.Takata,
T.Takeuchi, Y.Kitajima, S.Tanaka,
Y.Kayanuma and S.Shin
Dynamical Symmetry Breaking under
Core Excitation in Graphite: Polarization
Correlation in Soft X-Ray Recombination
Emission
Phys. Rev. Lett., **93** (2004) 017401.

Y.Takata, T.Tokushima, Y.Harada,
N.Kamakura, Y.Kitajima, M.Nagasono,
Y.Tamenori, H.Ohashi, A.Hiraya, E.Ishiguro
and S.Shin
A UHV Apparatus for Soft X-Ray
Spectroscopy with Symmetry Selection
for Solids and Surfaces
AIP Conf. Proc., **705** (2004) 1186.

H.Kawata, T.Mori, H.Adachi, N.Matsugaki,
A.Koyama and M.Nomura
Double Crystal Monochromator for X-Ray
Undulator Beamline at the PF-AR
AIP Conf. Proc. **705**, (2004) 663.

Slow Positron

T.Kurihara, Y.Nagashima, T.Shidara,
H.Nakajima, S.Osawa, M.Ikeda, T.Oogoe,
K.Kakihara, Y.Ogawa, A.Shirakawa,
K.Furukawa, T.Sanami and A.Enomoto
Present Status of the Slow Positron Facility
at KEK
Materials Science Forum, **445-446** (2004)
486.

Light Source Devision

S.Sakanaka, Y.Kobayashi, T.Mitsuhashi and
T.Obina
Excitation and Detection of a Transverse
Quadrupole-Mode Bunch Oscillation in the
KEK Photon Factory Storage Ring
Jpn. J. Appl. Phys., **42** (2003) 1757.

S.Sakanaka, K.Ebihara, E.Ezura, S.Isagawa,
T.Kasuga, H.Nakanishi, M.Ono, M.Suetake,
T.Takahashi, K.Umemori and S.Yoshimoto
Improvements in the RF System for the
Photon Factory Advanced Ring (PF-AR)
Proc. 2003 Particle Accelerator Conference,
(2003) 1228.

Y.Minagawa, T.Ieiri, T.Kasuga, T.Obina and
T.Fujita
Transverse Sawtooth Instability Observed in
Photon Factory Advanced Ring
Proc. 2003 Particle Accelerator Conference,
(2003) 3080.

T.Fujita, T.Kasuga, Y.Minagawa and
T.Obina
Detection of a Wake Field using the Test-
Bunch Method at Photon Factory Advanced
Ring
Proc. 2003 Particle Accelerator Conference,
(2003) 3261.

T.Miyajima, K.Ebihara, E.Ezura,
H.Fukuma, K.Haga, K.Harada, Y.Hori,
T.Ieiri, S.Isagawa, T.Kasuga, T.Katoh,
H.Kawata, M.Kikuchi, M.Kobayashi,
Y.Kobayashi, K.Kudo, Y.Minagawa,
T.Mitsuhashi, S.Nagahashi, T.T.Nakamura,
H.Nakanishi, T.Nogami, T.Obina,
Y.Ohsawa, Y.Onishi, M.Ono, T.Ozaki,
Y.Sakamoto, S.Sakanaka, M.Sato, M.Satoh,
T.Shioya, M.Suetake, R.Sugahara,
M.Tadano, T.Takahashi, S.Takasaki,
Y.Takeuchi, Y.Tanimoto, M.Teijima,
K.Tsuchiya, T.Uchiyama, A.Ueda,
K.Umemori, N.Yamamoto, S.Yamamoto,
S.Yoshimoto, M.Yoshioka and T.Fujita
Present Status of Photon Factory Advanced
Ring
Proc. 2003 Particle Accelerator Conference,
(2003) 860.

T.Ieiri, T.Kasuga, Y.Minagawa, T.Obina and
T.Fujita
Bunch Lengthening Recently Observed at
PF-AR
Proc. 2003 Particle Accelerator Conference,
(2003) 3077.

Y.Tanimoto, T.Uchiyama, T.Nogami and
Y.Hori
Vacuum Systems Renewal for the PF-AR
Upgrade
Proc. 2003 Particle Accelerator Conference,
(2003) 809.

S.Sakanaka, T.Mitsuhashi and T.Obina
Measurement of the Transverse Quadrupole-
Mode Frequencies of an Electron Bunch in
the KEK Photon Factory Storage Ring
Proc. 2003 Particle Accelerator Conference,
(2003) 3207.

- S.Sakanaka and T.Obina
Analysis of the Feedback System Used to Damp Longitudinal Quadrupole-Mode Bunch Oscillations
Proc. 2003 Particle Accelerator Conference, (2003) 3365.
- K.Harada, Y.Kobayashi, T.Obina, A.Ueda and M.Izawa
Low Emittance Optics at the Photon Factory
Proc. 2003 Particle Accelerator Conference, (2003) 3201.
- K.Harada, Y.Kobayashi, H.Takaki, H.R.Sakai, N.Nakamura and T.Koseki
The Lattice Design of the Super SOR Light Source
Proc. 14th Symp. on Accelerator Conference, (2003) 857.
- K.Harada, Y.Kobayashi and T.Miyajima
PF-AR Injection System with Pulsed Quadrupole Magnet
Proc. 14th Symp. on Accelerator Science and Technology, (2003) 217. (*in Japanese*).
- K.Harada, Y.Kobayashi and S.Nagahashi
Magnetic Field Measurement of the Quadrupole Magnets
Proc. 14th. Symp. on Accelerator Science and Technology, (2003) 220. (*in Japanese*).
- K.Harada and T.Miyajima
Introduction to the Beam Optics
J. Jpn. Soc. Synchrotron Rad. Res., **16** (2003) 245. (*in Japanese*).
- M.Kobayashi, S.Asaoka, K.Haga, K.Harada, T.Honda, Y.Hori, M.Izawa, T.Kasuga, Y.Kobayashi, H.Maezawa, Y.Minagawa, A.Mishina, T.Mitsuhashi, T.Miyajima, H.Miyauchi, S.Nagahashi, T.Nogami, T.Obina, C.O.Pak, S.Sakanaka, Y.Sato, T.Shioya, M.Tadano, T.Takahashi, Y.Tanimoto, K.Tsuchiya, T.Uchiyama, A.Ueda, K.Umemori and S.Yamamoto
Status of the PF Ring and its New Upgrade Project
Proc. 14th Symp. on Accelerator Science and Technology, (2003) 690.
- T.Honda, A.Ueda and T.Mitsuhashi
Nonlinear Behavior of Betatron Oscillation Measured with a Wideband Magnetic Beam Shaker
Proc. 14th Symp. on Accelerator Science and Technology, (2003) 485.
- S.Nagahashi, T.Suwada, K.Furukawa, T.Obina and T.Kasuga
Beam Charge Limit System for PF-AR
Proc. 14th Symp. on Accelerator Science and Technology, (2003) 488. (*in Japanese*).
- T.Miyajima, Y.Kobayashi and S.Nagahashi
Pulse Octupole Magnet System at the Photon Factory Storage Ring
Proc. 2003 Particle Accelerator Conference, (2003) 2171.
- T.Abe, K.Ebihara, E.Ezura, K.Haga, K.Harada, Y.Hori, T.Ieiri, S.Isagawa, T.Kageyama, T.Kasuga, T.Katoh, H.Kawata, M.Kikuchi, M.Kobayashi, Y.Kobayashi, K.Kubo, Y.Minagawa, T.Mitsuhashi, T.Miyajima, S.Nagahashi, T.T.Nakamura, H.Nakanishi, T.Nogami, T.Obina, Y.Ohsawa, Y.Ohnishi, M.Ono, T.Ozaki, H.Sakai, Y.Sakamoto, S.Sakanaka, M.Sato, M.Satoh, T.Shioya, M.Suetake, R.Sugahara, M.Tadano, T.Takahashi, S.Takasaka, Y.Takeuchi, Y.Tanimoto, M.Teijima, K.Tsuchiya, T.Uchiyama, A.Ueda, K.Umemori, N.Yamamoto, S.Yamamoto, S.Yoshimoto, M.Yoshioka and T.Fujita
Status of PF-AR
AIP Conf. Proc. 705, (2004) 33.
- K.Harada, Y.Kobayashi, T.Miyajima and S.Nagahashi
PF-AR Injection System with Pulsed Quadrupole Magnet
APAC 2004, (2004) CD-ROM.
- Y.Tanimoto, T.Uchiyama and Y.Hori
Current Status of the PF and the PF-AR Vacuum Systems
Proc. The 10th Ultra High Vacuum Technology for Accelerator Science and Storage Rings, (2004) 14.
- S.Asaoka, K.Haga, K.Harada, T.Honda, Y.Hori, M.Izawa, T.Kasuga, M.Kobayashi, Y.Kobayashi, H.Maezawa, Y.Minagawa, A.Mishina, T.Mitsuhashi, T.Miyajima, H.Miyauchi, S.Nagahashi, T.Nogami, T.Obina, C.O.Pak, S.Sakanaka, Y.Sato, T.Shioya, M.Tadano, T.Takahashi, Y.Tanimoto, K.Tsuchiya, T.Uchiyama, A.Ueda, K.Umemori, S.Yamamoto
New Upgrade Project for the Photon Factory Storage Ring
AIP Conf. Proc. 705, (2004) 161.