

4. Publication List

1A

L. M. G. Chavas, Y. Yamada, M. Hiraki, N. Igarashi, N. Matsugaki and S. Wakatsuki
UV LED lighting for Automated Crystal Centring
J. Synchron Rad., **18** (2011) 11.

T. Osawa, S. Kimura, N. Terasaka, H. Inanaga, T. Suzuki and T. Numata
Structural Basis of tRNA Agmatinylation Essential for AUA Codon Decoding
Nature Structural Molecular Biology, **18** (2011) 1275.

T. Osawa, H. Inanaga, S. Kimura, N. Terasaka, T. Suzuki and T. Numata
Crystallization and Preliminary X-Ray Diffraction Analysis of an Archaeal tRNA-Modification Enzyme, TiaS, Complexed with tRNA^{Uuc} and ATP
Acta Cryst. F, **67** (2011) 1414.

J. Y. Yoon, J. Kim, S. J. Lee, H. S. Kim, H. N. Im, H.-J. Yoon, K. H. Kim, S.-J. Kim, B. W. Han and S. W. Suh
Structural and Functional Characterization of *Helicobacter pylori* DsbG
FEBS Lett., **585** (2011) 3862.

Former 1B

H. Ikemoto, A. Goyo and T. Miyanaga
Size Dependence of the Local Structure and Atomic Correlations in Tellurium Nanoparticles
J. Phys. Chem. C, **115** (2011) 2931.

Y. Yamanari, Y. Suzuki, K. Imai, E. Shikoh, A. Fujiwara, N. Kawasaki, N. Ikeda, Y. Kubozono and T. Kambe
Electronic Phase Transition of the Valence-Fluctuating Fulleride Eu_{2.75}C₆₀
Phys. Rev. B, **83** (2011) 245103.

H. Yamaoka, T. Kambe, T. Sato, Y. Ishida, M. Matsumami, R. Eguchi, Y. Senba and H. Ohashi
Electronic State of an Organic Molecular Magnet: Soft X-Ray Spectroscopy Study of α -TDAE-C₆₀ Single Crystal
Phys. Rev. B, **84** (2011) 161404(R).

Former 1C

T. Yamazaki, S. Hashimoto, T. Kakiuchi, K. Mase and M. Tanaka
Auger Electron Spectra of Hydrogenated Si(111)-1x1 Surface Obtained from Si-L_{2,3}VV Auger Electron Si-2p Photoelectron Coincidence Measurements
J. Phys.: Conf. Ser., **288** (2011) 012016.

T. Kakiuchi, M. Tahara, S. Hashimoto, N. Fujita, M. Tanaka, K. Mase and S. Nagaoka
Surface-Site-Selective Study of Valence Electronic States of a Clean Si(111)-7x7 Surface using Si-L_{2,3}VV Auger Electron and Si-2p Photoelectron Coincidence Measurements
Phys. Rev. B, **83** (2011) 035320.

2C

K. Iwaya, R. Shimizu, H. Aida, T. Hashizume and T. Hitosugi
Atomically Resolved Silicon Donor States of β -Ga₂O₃
Appl. Phys. Lett., **98** (2011) 142116.

Y. Komuro and Y. Matsumoto
Electron Beam Irradiation-Induced Reduction of SnO₂ Deposited on TiO₂(110) Surfaces
J. Phys. Chem. C, **115** (2011) 6618.

J. W. Liu, A. Kobayashi, S. Toyoda, H. Kamada, A. Kikuchi, J. Ohta, H. Fujioka, H. Kumigashira and M. Oshima
Band Offsets of Polar and Nonpolar GaN/ZnO Heterointerfaces Determined by Synchrotron Radiation Photoemission Spectroscopy
Phys. Status Solidi, **248** (2011) 956.

Y. Tezuka, N. Nakajima and O. Morimoto
Detailed Measurement of Ti 2p Resonant X-Ray Raman Scattering of TiO₂ and its Polarization Dependence Measurements
J. Elec. Spec. Relat. Phenom., **184** (2011) 216.

H. Nogawa, A. Chikamatsu, Y. Hirose, S. Nakao, H. Kumigashira, M. Oshima and T. Hasegawa
Carrier Compensation Mechanism in Heavily Nb-Doped Anatase Ti_{1-x}Nb_xO_{2+δ} Epitaxial Thin Films
J. Phys. D: Appl. Phys., **44** (2011) 365404.

T. Ohsawa, J. Okubo, T. Suzuki, H. Kumigashira, M. Oshima and T. Hitosugi
An n-Type Transparent Conducting Oxide: Nb₁₂O₂₉
J. Phys. Chem. C, **115** (2011) 16625.

K. Yoshimatsu, K. Horiba, H. Kumigashira, T. Yoshida, A. Fujimori and M. Oshima
Metallic Quantum Well States in Artificial Structures of Strongly Correlated Oxide
Science, **333** (2011) 319.

T. Yamamoto, R. Yasuhara, I. Ohkubo, H. Kumigashira and M. Oshima
Formation of Transition Layers at Metal/Perovskite Oxide Interfaces Showing Resistive Switching Behaviors
J. Appl. Phys., **110** (2011) 053707.

S. Chakraverty, K. Yoshimatsu, Y. Kozuka, H. Kumigashira, M. Oshima, T. Makino, A. Ohtomo and M. Kawasaki
Magnetic and Electronic Properties of La₂VMnO₆ Ordered Double Perovskite Thin Films
Phys. Rev. B, **84** (2011) 132411.

S. Toyoda, H. Kamada, H. Kumigashira and M. Oshima
Chemical-State Resolved Depth Profile and Band Discontinuity in TiN/HfSiON Gate Stack Structure with AlO_x Cap Layer
J. Appl. Phys., **110** (2011) 104107.

E. Sakai, K. Yoshimatsu, K. Shibuya, H. Kumigashira, E. Ikenaga, M. Kawasaki, Y. Tokura and M. Oshima
Competition between Instabilities of Peierls Transition and Mott Transition in W-Doped VO₂ Thin Films
Phys. Rev. B, **84** (2011) 195132.

M. Oshima, S. Toyoda, K. Horiba, R. Yasuhara and H. Kumigashira
Synchrotron Radiation Nano-Spectroscopy of Dielectrics for LSI and ReRAM
ECS Transactions, **41(3)** (2011) 453.

S. Kurosumi, N. Nagamura, S. Toyoda, K. Horiba, H. Kumigashira, M. Oshima, S. Furutsuki, S. Nishimura, A. Yamada and N. Mizuno
Resonant Photoemission Spectroscopy of the Cathode Material Li_xFePO₄ for Lithium Ion Battery
J. Phys. Chem. C, **115** (2011) 25519.

3A

H. Nakao, T. Murata, D. Bizen, Y. Murakami, K. Ohoyama, K. Yamada, S. Ishiwata, W. Kobayashi and I. Terasaki
Orbital Ordering of Intermediate-Spin State of Co³⁺ in Sr₃YCo₄O_{10.5}
J. Phys. Soc. Jpn., **80** (2011) 023711.

N. Abe, K. Taniguchi, H. Sagayama, H. Umetsu and T. Arima
Correlation between the Mobility of Domain Wall and Polarization Flop Direction in a Slanted Magnetic Field in the Helimagnetic Ferroelectrics Tb_{1-x}Dy_xMnO₃
Phys. Rev. B, **83** (2011) 060403.

T. Shirasawa, K. Sakamoto, T. Takahashi and H. Tochihara
Atomic and Valence-Band Electronic Structures of the Epitaxial SiON Layer on the SiC(0001): X-Ray Diffraction and Angle-Resolved Photoemission Spectroscopy Investigations
Surf. Sci., **605** (2011) 328.

T. Arima
Spin-Driven Ferroelectricity and Magneto-Electric Effects in Frustrated Magnetic Systems
J. Phys. Soc. Jpn., **80** (2011) 052001.

Y. Krockenberger, J. S. Lee, D. Okuyama, H. Nakao, Y. Murakami, M. Kawasaki and Y. Tokura
Garnet Superlattice as a Transparent Above-Room-Temperature Polar Magnet
Phys. Rev. B, **83** (2011) 214414.

R. Yamamoto, C. Bell, Y. Hikita, H. Y. Hwang, H. Nakamura, T. Kimura and Y. Wakabayashi
Structural Comparison of *n*-Type and *p*-Type LaAlO₃/SrTiO₃ Interfaces
Phys. Rev. Lett., **107** (2011) 036104.

Y. Tokunaga, D. Okuyama, T. Kurumaji, T. Arima, H. Nakao, Y. Murakami, Y. Taguchi and Y. Tokura
Multiferroicity in NiBr₂ with Long-Wavelength Cycloidal Spin Structure on a Triangular Lattice
Phys. Rev. B, **84** (2011) 060406.

S. Chakraverty, A. Ohtomo, D. Okuyama, M. Saito, M. Okude, R. Kumai, T. Arima, Y. Tokura, S. Tsukimoto, Y. Ikuhara and M. Kawasaki
Ferrimagnetism and Spontaneous Ordering of Transition Metals in Double Perovskite La₂CrFeO₆ Films
Phys. Rev. B, **84** (2011) 064436.

H. Sagayama, S. Ohtani, M. Saito, N. Abe, K. Taniguchi and T. Arima
Magnetic-Field Effects on Jahn-Teller Distortion in Ferroelastic Magnetic Insulator Fe_{1-x}Mn_xCr₂O₄
Appl. Phys. Lett., **99** (2011) 082506.

K. Shibuya, D. Okuyama, R. Kumai, Y. Yamasaki, H. Nakao, Y. Murakami, Y. Taguchi, T. Arima, M. Kawasaki and Y. Tokura
X-Ray Induced Insulator-Metal Transition in a Thin Film of Electron-Doped VO₂
Phys. Rev. B, **84** (2011) 165108.

T. Matsumura, D. Okuyama, T. Mouri and Y. Murakami
Successive Magnetic Phase Transitions of Component Orderings in DyB₄
J. Phys. Soc. Jpn., **80** (2011) 074701.

T. Matsumura, T. Yonemura, K. Kunimori, M. Sera and F. Iga
Behavior of the Antiferroquadrupolar Moments in the Antiferromagnetic Ordered Phase of CeB₆
J. Phys. Soc. Jpn., **80** (2011) SA054.

K. Ikeuchi, H. Nakao, Y. Murakami, S. Miyasaka and Y. Tokura
Er L₃-Edge Resonant Elastic X-Ray Scattering Study of Orbital Ordering in ErVO₃
Diamond Light Source Proc., **1** (2011) e123.

N. Ikeda, M. Kubota, H. Hayakawa, H. Akahama, D. Ohishi, A. Nakanishi, T. Funabiki, Y. Matsuo, N. Kimizuka, T. Kambe, S. Mori and J. Kano
Electric Field Response of Stoichiometric LuFe₂O₄
Ferroelectrics, **414** (2011) 41.

T. Noguchi, T. Nakamura, T. Ushikubo, N. T. Kita, J. W. Valley, R. Yamanaka, Y. Kimoto and Y. Kitazawa
A Chondrule-Like Object Captured by Space-Exposed Aerogel on the International Space Station
Earth and Planetary Sci. Lett., **309** (2011) 198.

T. Nakamura, T. Noguchi, M. Tanaka, M. E. Zolensky, M. Kimura, A. Tsuchiyama, A. Nakato, T. Ogami, H. Ishida, M. Uesugi, T. Yada, K. Shirai, A. Fujimura, R. Okazaki, S. A. Sandford, Y. Ishibashi, M. Abe, T. Okada, M. Ueno, T. Mukai, M. Yoshikawa and J. Kawaguchi
Itokawa Dust Particles: A Direct Link between S-Type Asteroids and Ordinary Chondrites
Science, **333** (2011) 1113.

T. Noguchi, T. Nakamura, M. Kimura, M. E. Zolensky, M. Tanaka, T. Hashimoto, M. Konno, A. Nakato, T. Ogami, A. Fujimura, M. Abe, T. Yada, T. Mukai, M. Ueno, T. Okada, K. Shirai, Y. Ishibashi and R. Okazaki
Incipient Space Weathering Observed on the Surface of Itokawa Dust Particles
Science, **333** (2011) 1121.

K. Bajo, T. Akaida, N. Ohashi, T. Noguchi, T. Nakamura, Y. Nakamura, H. Sumino and K. Nagao
Single Grain Noble Gas Analysis of Antarctic Micrometeorites by Stepwise Heating Method with a Newly Constructed Miniature Furnace
Earth Planet and Space, **63** (2011) 1097.

T. Onoue, T. Nakamura, T. Haranosono and C. Yasuda
Composition and Accretion Rate of Fossil Micrometeorites Recovered in Middle Triassic Deep-Sea Deposits
Geology, **39** (2011) 567.

3B

S. Obara, R. Kobayashi, S. Yagi, Y. Tohyama, G. Kutluk, T. Osawa, K. Ogura, T. Shibata, Y. Azuma and T. Nagata
A Crossed Photon-Atom Beam Method for Absolute Measurement of Total Photoionization Cross Sections on Isolated Metal Atoms: Measurements on Ba and Eu Atoms
Nucl. Instrum. Meth. Phys. Res. B, **269** (2011) 263.

M. Koide, E. Kayama, T. Osawa, S. Tsuge, Y. Tohyama, S. Obara, S. Hasegawa, Y. Azuma, F. Koike and T. Nagata
Photoabsorption Spectra of Double- and Triple-Excitations above the Calcium 3p Threshold
J. Phys. Soc. Jpn., **80** (2011) 034301.

3C

H. Fujimoto, A. Waseda and X. Zhang
Profile Measurement of Polished Surface with Respect to a Lattice Plane of a Silicon Crystal using a Self-Referenced Lattice Comparator
Int. J. of Automation Technology, **5** (2011) 179.

H. Fujimoto, A. Waseda and X. W. Zhang
Homogeneity Characterization of Lattice Spacing of Silicon Single Crystals by a Self-Referenced Lattice Comparator
Metrologia, **48** (2011) S55.

K. Kobayashi, T. Nagao and M. Ito
Radial Integrals for the Magnetic Form Factor of 5d Transition Elements
Acta Cryst. A, **67** (2011) 473.

M. Ito, A. Sato, R. Yamaki, M. Naito, K. Kobayashi, T. Nagao, K. Suzuki, H. Sakurai, H. Maruyama, M. Itou and Y. Sakurai
X-Ray Magnetic Diffraction and Magnetic Compton Scattering of Pd-Co and Pt-Fe
Acta Cryst. A, **67** (2011) C530.

K. Suzuki, M. Ito, N. Tsuji, T. Tadenuma, Y. Oba, A. Sato, R. Nagayasu, H. Adachi, H. Nakao, Y. Murakami, Y. Taguchi, Y. Tokura, Y. Sakurai and Y. Onuki
Application of Upgraded X-Ray Magnetic Diffraction Experimental System to 3d- and 4f-Electron Ferromagnets
e-J. Surf. Sci. Nanotech., **9** (2011) 134.

N. Watanabe, T. Sasaya, Y. Imai, S. Iwata, K. Zama and S. Aoki
Observation of Phase Objects by using an X-Ray Microscope with a Foucault Knife-Edge
AIP Conf. Proc., **1365** (2011) 313.

B. Andreas, Y. Azuma, G. Bartl, P. Becker, H. Bettin, M. Borys, I. Busch, M. Gray, P. Fuchs, K. Fujii, H. Fujimoto, E. Kessler, M. Krumrey, U. Kuettgens, N. Kuramoto, G. Mana, P. Manson, E. Massa, S. Mizushima, A. Nicolaus, A. Picard, A. Pramann, O. Rienitz, D. Schiel, S. Valkiers and A. Waseda
Determination of the Avogadro Constant by Counting the Atoms in a ^{28}Si Crystal
Phys. Rev. Lett., **106** (2011) 030801.

B. Andreas, Y. Azuma, G. Bartl, P. Becker, H. Bettin, M. Borys, I. Busch, P. Fuchs, K. Fujii, H. Fujimoto, E. Kessler, M. Krumrey, U. Kuettgens, N. Kuramoto, G. Mana, E. Massa, S. Mizushima, A. Nicolaus, A. Picard, A. Pramann, O. Rienitz, D. Schiel, S. Valkiers, A. Waseda and S. Zakel
Counting the Atoms in a ^{28}Si Crystal for a New Kilogram Definition
Metrologia, **48** (2011) S1.

E. Massa and A. Nicolaus
International Determination of the Avogadro Constant
Metrologia, **48** (2011) E01.

Former 3C2

N. Watanabe, M. Hoshino and S. Aoki
Elemental Mapping Using Full-Field Fluorescence Imaging Microscope
Oyo Butsuri, **80** (2011) 983, (in Japanese).

4A

T. Mukaide, M. Watanabe, K. Takada, A. Iida, K. Fukuda and T. Noma
 Quantitative Effective Atomic Number Imaging using Simultaneous X-Ray Absorption and Phase Shift Measurement
Appl. Phys. Lett., **98** (2011) 111902.

Y. Takanishi, I. Nishiyama, J. Yamamoto, Y. Ohtsuka and A. Iida
 Remarkable Effect of Lateral Substituent on the Molecular Ordering of Chiral Liquid Crystal Phases: A Novel Bromo-Containing Dichiral Compound Showing SmC* Variants
J. Mater. Chem., **21** (2011) 4465.

B. Mongkhonsin, W. Nakbanpote, I. Nakai, A. Hokura and N. Jearanaikoon
 Distribution and Speciation of Chromium Accumulated in *Gynura pseudochina* (L.) DC
Environmental and Experimental Botany, **74** (2011) 56.

K. Naemura, D. Ikuta, H. Kagi, S. Odake, S. Ohi, T. Uyeda, T. Kobayashi, M. Svojtkova and T. Hirajima
 Diamond and Other Possible Ultra-Deep Evidence Discovered in the Organic Pinel-Garnet Peridotite from the Moldanubian Zone of the Bohemian Massif, Czech Republic
 Ultrahigh-Pressure Metamorphism: 25 Years After the Discovery of Coesite and Diamond, (2011) 77.

L. Bayes-Garcia, T. Calvet, M. A. Cuevas-Diarthe, S. Ueno and K. Sato
 Heterogeneous Microstructures of Spherulites of Lipid Mixtures Characterized with Synchrotron Radiation Microbeam X-Ray Diffraction
Cryst. Eng. Comm., **13** (2011) 6694.

S. Mitsunobu, Y. Takahashi, S. Utsunomiya, A. M. Matthew, Y. Terada, T. Iwamura and M. Sakata
 Identification and Characterization of Nanosized Tripuhite in Soil Near Sb Mine Tailing
Am. Mineral., **96** (2011) 1171.

A. Iida
 Elemental Depth Profiling with a Wire in Microbeam X-Ray Fluorescence Analysis
X-Ray Spectrom., **40** (2011) 376.

W. Satake, T. Mikouchi and M. Miyamoto
 Redox States of Geochemically-Enriched Shergottites as Inferred from Fe Micro-XANES Analysis of Maskelynite and Plagioclase
Antarctic Meteorites, **XXXIV** (2011) 76.

T. Noguchi, T. Itai, M. Kawaguchi, S. Takahashi and S. Tanabe
 Applicability of Human Hair as a Bioindicator for Trace Elements Exposure
Interdisciplinary Studies on Environ. Chem., **6** (2011) 73.

4B1

D. Frank, M. Zolensky, J. Martinez, T. Mikouchi, K. Ohsumi, K. Hagiya, W. Satake, L. Le, D. Ross and A. Peslier
 A CAI in the Ivuna CI1 Chondrite
 42nd Lunar and Planetary Science Conf., **XLII** (2011) 2785.

4B2

K. Fujii, H. Uekusa, M. Fukano and H. Koshima
 Metastable Polymorphic Form of Isopropylbenzophenone Derivative Directly Obtained by the Solid-State Photoreaction Investigated by *ab initio* Powder X-Ray Diffraction Analysis
CrystEngComm, **13** (2011) 3197.

M. Yashima, S. Matsuyama, R. Sano, M. Itoh, K. Tsuda and D. Fu
 Structure of Ferroelectric Silver Niobate AgNbO₃
Chem. Mater., **23** (2011) 1643.

M. Yashima
 Ion Diffusion Mechanism in Ion-Conducting Materials through Neutron Diffractometry
HAMON, **21** (2011) 96, (*in Japanese*).

M. Yashima
 Crystal Structure and Electron-Density Distribution of Visible-Light Responsive Photocatalysts for Water Decomposition
J. Fuel Cell Tech., **10** (2011) 111, (*in Japanese*).

S. Ishihara, K. Kakimoto and I. Kagomiya
 Densification of (Na,K)NbO₃ Piezoelectric Ceramics by Two-Step Mixing Process
J. Mater. Sci., **46** (2011) 3822.

M. Suzuki, K. Imai, H. Wakabayashi, A. Arita, K. Johmoto, H. Uekusa and K. Kobayashi
 Photorearrangements in Spiro-Conjoined Cyclohexa-2,5-dien-1-one
Tetrahedron, **67** (2011) 5500.

K. Omoto, T. Hashimoto, K. Sasaki, T. Terai, T. Hoshino and M. Yashima
 Structural Analysis of Li₂TiO₃ by Synchrotron X-Ray Diffraction at High Temperature
J. Nucl. Mater., **417** (2011) 692.

K. Kasugai, S. Hashimoto, K. Imai, A. Sakon, K. Fujii, H. Uekusa, N. Hayashi and K. Kobayashi
 Supramolecular Networks in Crystalline Inclusion Complexes Formed from a New Family of Hosts, 2, 2-Bis(4-hydroxy-3-phenylphenyl)-1H-indene-1,3(2H)-dione
Cryst. Growth Design, **11** (2011) 4044.

M. Yashima, Y. Yonehara and H. Fujimori
 Experimental Visualization of Chemical Bonding and Structural Disorder in Hydroxyapatite through Charge and Nuclear-Density Analysis
J. Phys. Chem. C, **115** (2011) 25077.

T. Ida
Particle Statistics of Capillary Specimen in Synchrotron Powder Diffractometry
J. Appl. Cryst., **44** (2011) 911.

T. Ida, T. Goto and H. Hibino
Evaluation of Crystallite Size Distribution by a Capillary Spinner-Scan Method in Synchrotron Powder Diffractometry
IOP Conf. Ser.: Mater. Sci. Eng., **18** (2011) 022002.

H. Nakano, T. Ida, M. Takemoto and H. Ikawa
Crystal Structures of Solid Solution $(\text{Ba}_{1-x}\text{Ca}_x)(\text{Sc}_{1/2}\text{Nb}_{1/2})\text{O}_3$ System
IOP Conf. Ser.: Mater. Sci. Eng., **18** (2011) 082023.

T. Ida, T. Goto and H. Hibino
Particle Statistics in Synchrotron Powder Diffractometry
Z. Kristallogr. Proc., **1** (2011) 69.

4C

S. Ishiwata, T. Nakano, I. Terasaki, H. Nakao, Y. Murakami, Y. Uwatoko and M. Takano
Uniaxial Colossal Magnetoresistance in the Ising Magnet $\text{SrCo}_{12}\text{O}_{19}$
Phys. Rev. B, **83** (2011) 020401.

H. Nakao, T. Murata, D. Bizen, Y. Murakami, K. Ohoyama, K. Yamada, S. Ishiwata, W. Kobayashi and I. Terasaki
Orbital Ordering of Intermediate-Spin State of Co^{3+} in $\text{Sr}_3\text{YCo}_4\text{O}_{10.5}$
J. Phys. Soc. Jpn., **80** (2011) 023711.

K. Otsubo, Y. Wakabayashi, J. Ohara, S. Yamamoto, H. Matsuzaki, H. Okamoto, K. Nitta, T. Uruga and H. Kitagawa
Bottom-Up Realization of a Porous Metal-Organic Nanotubular Assembly
Nature Materials, **10** (2011) 291.

T. Arima
Spin-Driven Ferroelectricity and Magneto-Electric Effects in Frustrated Magnetic Systems
J. Phys. Soc. Jpn., **80** (2011) 052001.

H. Abe, H. Saitoh, H. Nakao and K. Yamamoto
Anisotropic Local Structure of Decagonal Quasicrystals by DAFS
Philosophical Magazine, **91** (2011) 2491.

Y. Yamasaki, D. Okuyama, M. Nakamura, T. Arima, M. Kawasaki, Y. Tokura, T. Kimura and Y. Wakabayashi
Interfacial Structure of Manganite Superlattice
J. Phys. Soc. Jpn., **80** (2011) 07360.

T. Takeuchi, K. Tatsumura, I. Ohdomari, T. Shimura and M. Nagase
X-Ray Diffraction Profiles of Si Nanowires with Trapezoidal Cross-Sections
Physica B, **406** (2011) 2559.

T. Sakurai, T. Ohashi, H. Kitazume, M. Kubota, T. Suemasu and K. Akimoto
Structural Control of Organic Solar Cells Based on Nonplanar Metallophthalocyanine/ C_{60} Heterojunctions using Organic Buffer Layers
Organic Electronics, **12** (2011) 966.

K. Uosaki, J. Morita, T. Katsuzaki, S. Takakusagi, K. Tamura, M. Takahasi, J. Mizuki and T. Kondo
In Situ Electrochemical, Electrochemical Quartz Crystal Microbalance, Scanning Tunneling Microscopy, and Surface X-Ray Scattering Studies on Ag/AgCl Reaction at the Underpotentially Deposited Ag Bilayer on the $\text{Au}(111)$ Electrode Surface
J. Phys. Chem. C, **115** (2011) 12471.

H. Sakuma, T. Kondo, H. Nakao, K. Shiraki and K. Kawamura
Structure of Hydrated Sodium Ions and Water Molecules Adsorbed on the Mica/Water Interface
J. Phys. Chem. C, **115** (2011) 15959.

T. Matsumura, D. Okuyama, T. Mouri and Y. Murakami
Successive Magnetic Phase Transitions of Component Orderings in DyB_4
J. Phys. Soc. Jpn., **80** (2011) 074701.

R. Fukuta, S. Miyasaka, K. Hemmi, S. Tajima, D. Kawana, K. Ikeuchi, Y. Yamasaki, A. Nakao, H. Nakao, Y. Murakami and K. Iwasa
Effects of Cation-Size Variance on Spin and Orbital Orders in $\text{Eu}_{1-x}(\text{La}_{0.254}\text{Y}_{0.746})_x\text{VO}_3$
Phys. Rev. B, **84** (2011) 140409(R).

K. Ishii, S. Ishihara, Y. Murakami, K. Ikeuchi, K. Kuzushita, T. Inami, K. Ohwada, M. Yoshida, I. Jarrige, N. Tatami, S. Niioka, D. Bizen, Y. Ando, J. Mizuki, S. Maekawa and Y. Endoh
Polarization-Analyzed Resonant Inelastic X-Ray Scattering of the Orbital Excitations in KCuF_3
Phys. Rev. B, **83** (2011) 241101.

Y. Wakabayashi, J. Takeya and T. Kimura
Interface Structure of the Rubrene Crystal Field Effect Transistor
J. Appl. Phys., **110** (2011) 102206.

K. Ikeuchi, H. Nakao, Y. Murakami, S. Miyasaka and Y. Tokura
Er L₃-Edge Resonant Elastic X-Ray Scattering Study of Orbital Ordering in ErVO_3
Diamond Light Source Proc., **1** (2011) e123.

N. Ikeda, M. Kubota, H. Hayakawa, H. Akahama, D. Ohishi, A. Nakanishi, T. Funabiki, Y. Matsuo, N. Kimizuka, T. Kambe, S. Mori and J. Kano
Electric Field Response of Stoichiometric LuFe_2O_4
Ferroelectrics, **414** (2011) 41.

M. M. Islam, A. Yamada, T. Sakurai, M. Kubota, S. Ishizuka, K. Matsubara, S. Niki and K. Akimoto
Cu-Dependent Phase Transition in Polycrystalline CuGaSe₂ Thin Films Grown by Three-Stage Process
J. Appl. Phys., **110** (2011) 014903.

5A

M. Kanagawa, T. Satoh, A. Ikeda, Y. Nakano, H. Yagi, K. Kato, K. Kojima-Aikawa and Y. Yamaguchi
Crystal Structures of Human Secretory Proteins ZG16p and ZG16b Reveal a Jacalin-Related β -Prism Fold
Biochem. Biophys. Res. Commun., **404** (2011) 201.

T. Hashiguchi, T. Ose, M. Kubota, N. Maita, J. Kamishikiryo, K. Maenaka and Y. Yanagi
Structure of the Measles Virus Hemagglutinin Bound to its Cellular Receptor SLAM
Nature Structural Molecular Biology, **18** (2011) 135.

L. M. G. Chavas, Y. Yamada, M. Hiraki, N. Igarashi, N. Matsugaki and S. Wakatsuki
UV LED lighting for Automated Crystal Centring
J. Synchron Rad., **18** (2011) 11.

J. Igarashi, K. Kobayashi and A. Matsuoka
A Hydrogen-Bonding Network Formed by the B10-E7-E11 Residues of a Truncated Hemoglobin from *Tetrahymena pyriformis* is Critical for Stability of Bound Oxygen and Nitric Oxide Detoxification
J. Biol. Inorg. Chem., **16** (2011) 599.

D. Sasaki, M. Fujihashi, N. Okuyama, Y. Kobayashi, M. Noike, T. Koyama and K. Miki
Crystal Structure of Heterodimeric Hexaprenyl Diphosphate Synthase from *Micrococcus leteus* B-P 26 Reveals that the Small Subunit is Directly Involved in the Product Chain Length Regulation
J. Biol. Chem., **286** (2011) 3729.

N. Okazaki, T. Arimori, M. Nakazawa, K. Miyatake, M. Ueda and T. Tamada
Crystallization and Preliminary X-Ray Diffraction Studies of the Catalytic Domain of a Novel Chitinase, a Member of GH Family 23, from the Moderately Thermophilic Bacterium *Ralstonia* sp. A-471
Acta Cryst. F, **67** (2011) 494.

X. Pan, M. Li, T. Wan, L. Wang, C. Jia, Z. Hou, X. Zhao, J. Zhang and W. Chang
Structural Insights into Energy Regulation of Light-Harvesting Complex CP29 from Spinach
Nature Structural Molecular Biology, **18** (2011) 309.

K. Nishi, T. Ono, T. Nakamura, N. Fukunaga, M. Izumi, H. Watanabe, A. Suenaga, T. Maruyama, Y. Yamagata, S. Curry and M. Otagiri
Structural Insights into Differences in Drug-Binding Selectivity between Two Forms of Human α_1 -Acid Glycoprotein Genetic Variants, the A and F1*S Forms
J. Biol. Chem., **286** (2011) 14427.

T. Yoshizawa, H. Hashimoto, T. Shimizu, M. Yamabe, N. Shichijo, K. Hanada, H. Hirano and M. Sato
Purification, Crystallization and X-Ray Diffraction Study of Basic 7S Globulin from Soybean
Acta Cryst. F, **67** (2011) 87.

Y. Tanaka, N. Hirano, J. Kaneko, Y. Kamio, M. Yao and I. Tanaka
2-Methyl-2,4-pentanediol Induces Spontaneous Assembly of Staphylococcal α -Hemolysin into Heptameric Pore Structure
Protein Science, **20** (2011) 448.

M. Hagiwara, K. Maegawa, M. Suzuki, R. Ushioda, K. Araki, Y. Matsumoto, J. Hoseki, K. Nagata and K. Inaba
Structural Basis of an ERAD Pathway Mediated by the ER-Resident Disulfide Reductasse ERdj5
Molecular Cell, **41** (2011) 432.

Y. Sato, R. Natsume, Z. Prokop, J. Brezovsky, R. Chaloupkova, J. Damborsky, Y. Nagata and T. Senda
Molecular Bases of Enantioselectivity of Haloalkane Dehalogenase DbjA
Kessyogakkaishi, **53** (2011) 124, (*in Japanese*).

M. Senda, H. Tanaka, T. Ishida, K. Horiike and T. Senda
Crystallization and Preliminary Crystallographic Analysis of D-Serine Dehydratase from Chicken Kidney
Acta Cryst. F, **67** (2011) 147.

S. J. Lee, H. S. Kim, D. J. Kim, H. J. Yoon, K. H. Kim, J. Y. Yoon and S. W. Suh
Crystal Structures of LacD from *Staphylococcus aureus* and LacD.1 from *Streptococcus pyogenes*: Insights into Substrate Specificity and Virulence Gene Regulation
FEBS Lett., **585** (2011) 307.

W.-Y. Jeng, N.-C. Wang, M.-H. Lin, C.-T. Lin, Y.-C. Liaw, W.-J. Chang, C.-I. Liu, P.-H. Liang and A. H.-J. Wang
Structural and Functional Analysis of Three β -Glucosidases from Bacterium *Clostridium cellulovorans*, Fungus *Trichoderma reesei* and Termite *Neotermes koshunensis*
J. Struct. Biol., **173** (2011) 46.

T. Ohnuma, T. Numata, T. Osawa, M. Mizuhara, K. M. Varum and T. Fukamizo
Crystal Structure and Mode of Action of a Class V Chitinase from *Nicotiana tabacum*
Plant Mol. Biol., **75** (2011) 291.

M. Unno, M. Shinohara, K. Takayama, H. Tanaka, K. Teruya, K. Doh-ura, R. Sakai, M. Sasaki and M. Ikeda-Saito
Binding and Selectivity of the Marine Toxin Neodysiherbaine A and its Synthetic Analogues to GluK1 and GluK2 Kainate Receptors
J. Mol. Biol., **413** (2011) 667.

T. Saitoh, M. Igura, Y. Miyazaki, T. Ose, N. Maita and D. Kohda
 Crystallographic Snapshots of Tom20-Mitochondrial Presequence Interactions with Disulfide-Stabilized Peptides
Biochemistry, **50** (2011) 5487.

H.-J. Kang, K. Kubota, K. Miyazono and M. Tanokura
 Expression, Purification, Crystallization and Preliminary X-Ray Analysis of the KaiC-Like Protein PH0187 from the Hyperthermophilic Archaeon *Pyrococcus horikoshii* OT3
Acta Cryst. F, **67** (2011) 144.

T. Mase, K. Kubota, K. Miyazono, Y. Kawarabayasi and M. Tanokura
 Crystal Structure of Flap Endonuclease 1 from Hyperthermophilic Archaeon *Desulfurococcus amylolyticus*
Acta Cryst. F, **67** (2011) 209.

K. Kubota, K. Nagata, M. Okai, K. Miyazono, W. Soemphol, J. Ohtsuka, A. Yamamura, H. Toyama, K. Matsushita and M. Tanokura
 The Crystal Structure of L-Sorbose Reductase from *Gluconobacter frateurii* Complexed with NADPH and L-Sorbose
J. Mol. Biol., **407** (2011) 543.

D. Sasaki, M. Fujihashi, Y. Iwata, M. Murakami, T. Yoshimura, H. Hemmi and K. Miki
 Structure and Mutation Analysis of Archaeal Geranylgeranyl Reductase
J. Mol. Biol., **409** (2011) 543.

H. Sakuraba, K. Koga, K. Yoneda, Y. Kashima and T. Ohshima
 Structure of a Multicopper Oxidase from the Hyperthermophilic Archaeon *Pyrobaculum Aerophilum*
Acta Cryst. F, **67** (2011) 753.

H. Sakuraba, T. Kawai, K. Yoneda and T. Ohshima
 Crystal Structure of UDP-Galactose 4-Epimerase from the Hyperthermophilic Archaeon *Pyrobaculum calidifontis*
Arch. Biochem. Biophys., **512** (2011) 126.

T. Tonozuka, T. Miyazaki and A. Nishikawa
 Structural Similarity between a Starch-Hydrolyzing Enzyme and an N-Glycan-Hydrolyzing Enzyme: Exohydrolases Cleaving α -1,X-Glucosidic Linkages to Produce β -Glucose
Trends in Glycoscience and Glycotechnology, **23** (2011) 93.

T. Nakamura, T. Tonozuka, S. Ito, Y. Takeda, R. Sato, I. Matsuo, Y. Ito, K. Oguma and A. Nishikawa
 Molecular Diversity of the Two Sugar-Binding Sites of the β -Trefoil Lectin HA33/C (HA1) from *Clostridium botulinum* Type C Neurotoxin
Arch. Biochem. Biophys., **512** (2011) 69.

K. Taoka, I. Ohki, H. Tsuji, K. Furuita, K. Hayashi, T. Yanase, M. Yamaguchi, C. Nakashima, Y. A. Purwestri, S. Tamaki, Y. Ogaki, C. Shimada, A. Nakagawa, C. Kojima and K. Shimamoto
 14-3-3 Proteins Act as Intracellular Receptors for Rice Hd3a Florigen
Nature, **476** (2011) 332.

S. Fushinobu, M. Hidaka, A. M. Hayashi, T. Wakagi, H. Shoun and M. Kitaoka
 Interactions between Glycoside Hydrolase Family 94 Cellobiose Phosphorylase and Glucosidase Inhibitors
J. Appl. Glycosci., **58** (2011) 91.

S. Fushinobu, T. Uno, M. Kitaoka, K. Hayashi, H. Matsuzawa and T. Wakagi
 Mutational Analysis of Fungal Family 11 Xylanases on pH Optimum Determination
J. Appl. Glycosci., **58** (2011) 107.

M. Okuda, T. Shiba, D-K. Inaoka, K. Kita, G. Kurisu, S. Mineki, S. Harada, Y. Watanabe and S. Yoshinari
 A Conserved Lysine Residue in the Crenarchaeal Splicing Endonuclease Activity
J. Mol. Biol., **405** (2011) 92.

Y. Uchida, J. Hasegawa, D. Chinnapan, T. Inoue, S. Okazaki, R. Kato, S. Wakatsuki, R. Misaki, M. Koike, Y. Uchiyama, S. Iemura, T. Natsume, R. Kuwahara, T. Nakagawa, K. Nishikawa, K. Mukai, E. Miyoshi, N. Taniguchi, D. Sheff, W. I. Lencer, T. Taguchi and H. Arai
 Intracellular Phosphatidylserine is Essential for Retrograde Membrane Traffic through Endosomes
Proc. Natl. Acad. Sci. USA, **108** (2011) 15846.

M. Kanagawa, T. Satoh, A. Ikeda, Y. Adachi, N. Ohno and Y. Yamaguchi
 Structural Insights into Recognition of Triple-Helical β -Glucans by an Insect Fungal Receptor
J. Biol. Chem., **286** (2011) 29158.

D.-F. Li, N. Zhang, Y.-J. Hou, Y. Huang, Y. Hu, Y. Zhang, S.-J. Liu and D.-C. Wang
 Crystal Structures of the Transcriptional Repressor RolR Reveals a Novel Recognition Mechanism between Inducer and Regulator
PLoS ONE, **6** (2011) e19529.

H. S. Kim, S. J. Lee, H. J. Yoon, D. R. An, D. J. Kim, S.-J. Kim and S. W. Suh
 Crystal Structures of YwqE from *Bacillus subtilis* and CpsB from *Streptococcus pneumoniae*, Unique Metal-Dependent Tyrosine Phosphatases
J. Struct. Biol., **175** (2011) 442.

Z. Fujimoto, H. Ichinose, P. Biely and S. Kaneko
 Crystallization and Preliminary Crystallographic Analysis of the Glycoside Hydrolase Family 115 α -Glucuronidase from *Streptomyces pristinaespiralis*
Acta Cryst. F, **67** (2011) 68.

A. Zheng, R. Yamamoto, M. Sokabe, I. Tanaka and M. Yao
 Crystallization and Preliminary X-Ray Crystallographic Analysis of eIF5B Δ N and the eIF5B Δ N-eIF1A Δ N Complex
Acta Cryst. F, **67** (2011) 730.

H. Hirano and Y. Matsuura
 Sensing Actin Dynamics: Structural Basis for G-actin-Sensitive Nuclear Import of MAL
Biochem. Biophys. Res. Commun., **414** (2011) 373.

Y. Yasutake, H. Ota, E. Hino, S. Sakasegawa and T. Tamura
 Structures of Burkholderia Thailandensis Nucleoside Kinase: Implications for the Catalytic Mechanism and Nucleoside Selectivity
Acta Cryst. D, **67** (2011) 945.

S. Isogai, D. Morimoto, K. Arita, S. Unzai, T. Tenno, J. Hasegawa, Y.-S. Sou, M. Komatsu, K. Tanaka, M. Shirakawa and H. Tochio
 Crystal Structure of the Ubiquitin-Associated (UBA) Domain of p62 and its Interaction with Ubiquitin
J. Biol. Chem., **286** (2011) 31864.

H. Narita, A. Nakagawa, Y. Yamamoto, T. Sakisaka, Y. Takai and M. Suzuki
 Refolding, Crystallization and Preliminary X-Ray Crystallographic Study of the Whole Extracellular Regions of Nectins
Acta Cryst. F, **67** (2011) 344.

H. Tanaka, M. Senda, N. Venugopalan, A. Yamamoto, T. Senda, T. Ishida and K. Horiike
 Crystal Structure of a Zinc-Dependent D-Serine Dehydratase from Chicken Kidney
J. Biol. Chem., **286** (2011) 27548.

A. Kitamura, T. Sengoku, M. Nishimoto, S. Yokoyama and Y. Bessho
 Crystal Structure of the Bifunctional tRNA Modification Enzyme MnM^C from *Escherichia coli*
Protein Sci., **20** (2011) 1105.

T. Shibahara, T. Satomura, R. Kawakami, T. Ohshima and H. Sakuraba
 Crystallization and Preliminary X-Ray Analysis of a Dye-Linked D-Lactate Dehydrogenase from the Aerobic Hyperthermophilic Archaeon *Aeropyrum pernix*
Acta Cryst. F, **67** (2011) 1425.

R. Suzuki, Z. Fujimoto, T. Shiotsuki, M. Momma, A. Tase, M. Miyazawa and T. Yamazaki
 Structural Mechanism of JH Delivery in Hemolymph by JHBP of silkworm, *Bombyx mori*
Sci. Rep., **1** (2011) 133.

S. Horita, Y. Yamanaka, A. Yamamura, A. Okada, J. Nakayama, K. Nagata and M. Tanokura
 Crystallization and Preliminary X-Ray Analysis of a Putative Sensor Histidine Kinase Domain, the C-Terminal Domain of HksP4 from *Aquifex aeolicus* VF5
Acta Cryst. F, **67** (2011) 803.

T. Arimori, H. Tamaoki, T. Nakamura, H. Kamiya, S. Ikemizu, Y. Takagi, T. Ishibashi, H. Harashima, M. Sekiguchi and Y. Yamagata
 Diverse Substrate Recognition and Hydrolysis Mechanisms of Human NUDT5
Nucleic Acids Res., **39** (2011) 8972.

T. Osawa, S. Kimura, N. Terasaka, H. Inanaga, T. Suzuki and T. Numata
 Structural Basis of tRNA Agmatinylation Essential for AUA Codon Decoding
Nature Structural Molecular Biology, **18** (2011) 1275.

N. N. Noda, K. Satoo, Y. Fujioka, H. Kumeta, K. Ogura, H. Nakatogawa, Y. Ohsumi and F. Inagaki
 Structural Basis of Atg8 Activation by a Homodimeric E1, Atg7
Molecular Cell, **44** (2011) 462.

T. Osawa, H. Inanaga, S. Kimura, N. Terasaka, T. Suzuki and T. Numata
 Crystallization and Preliminary X-Ray Diffraction Analysis of an Archaeal tRNA-Modification Enzyme, TiaS, Complexed with tRNA^{Leu} and ATP
Acta Cryst. F, **67** (2011) 1414.

M. Maki, H. Suzuki and H. Shibata
 Structure and Function of ALG-2, a Penta-EF-Hand Calcium-Dependent Adaptor Protein
Sci. China Life Sci., **54** (2011) 770.

N. Nuemket, Y. Tanaka, K. Tsukamoto, T. Tsuji, K. Nakamura, S. Kozaki, M. Yao and I. Tanaka
 Structural and Mutational Analyses of the Receptor Binding Domain of Botulinum D/C Mosaic Neurotoxin: Insight into the Ganglioside Binding Mechanism
Biochem. Biophys. Res. Commun., **411** (2011) 433.

K. Yamashita, Y. Kawai, Y. Tanaka, N. Hirano, J. Kaneko, N. Tomita, M. Ohta, Y. Kamio, M. Yao and I. Tanaka
 Crystal Structure of the Octameric Pore of Staphylococcal γ -Hemolysin Reveals the β -Barrel Pore Formation Mechanism by Two Components
Proc. Natl. Acad. Sci. USA, **108** (2011) 17314.

N. Suzuki, Y.-M. Kim, Z. Fujimoto, M. Momma, H.-K. Kang, K. Funane, M. Okuyama, H. Mori and A. Kimura
 Crystallization and Preliminary Crystallographic Analysis of Dextranase from *Streptococcus mutans*
Acta Cryst. F, **67** (2011) 1542.

S. Saito, S. Arai, K. M. M. Hossain, I. Yamato, K. Suzuki, Y. Kakinuma, Y. Ishizuka-Katsura, N. Ohsawa, T. Terada, M. Shirouzu, S. Yokoyama, S. Iwata and T. Murata.

Crystal Structure of the Central Axis DF Complex of the Prokaryotic V-ATPase

Proc. Natl. Acad. Sci. USA, **108** (2011) 19955.

B. Zheng, W. Yang, X. Zhao, Y. Wang, Z. Lou, Z. Rao and Y. Feng

Crystal Structure of Hyperthermophilic Endo- β -1,4-glucanase: Implications for Catalytic Mechanism and Thermostability

J. Biol. Chem., **287** (2011) 8336.

H. Tanaka, T. Nogi, N. Yasui, K. Iwasaki and J. Takagi Structural Basis for Variant-Specific Neuroligin-Binding by α -Neurexin

PLoS One, **6** (2011) e19411.

S. Fujita-Sato, S. Ito, T. Isobe, T. Ohyama, K. Wakabayashi, K. Morishita, O. Ando and F. Isono Structural Basis of Digoxin That Antagonizes ROR γ t Receptor Activity and Suppresses Th17 Cell Differentiation and Interleukin (IL)-17 Production

J. Biol. Chem., **286** (2011) 31409.

K. Akaji, H. Konno, H. Mitsui, K. Teruya, Y. Shimamoto, Y. Hattori, T. Ozaki, M. Kusunoki and A. Sanjoh

Structure-Based Design, Synthesis, and Evaluation of Peptide-Mimetic SARS 3CL Protease Inhibitors

J. Med. Chem., **54** (2011) 7962.

T. Nagai, H. Unno, M. W. Janczak, T. Yoshimura, CD. Poulter and H. Hemmi

Covalent Modification of Reduced Flavin Mononucleotide in Type-2 Isopentenyl Diphosphate Isomerase by Active-Site-Directed Inhibitors

Proc. Natl. Acad. Sci. USA, **108** (2011) 20461.

Z. Fujimoto and K. Kimura

Crystal Structure of Bacteriophage Φ N1T1 Zinc Peptidase PghP that Hydrolyzes γ -Glutamyl Linkage of Bacterial Poly- γ -Glutamate

Proteins, **80** (2011) 722.

X. Liu, H. Zhang, X.-J. Wang, L.-F. Li and X.-D. Su Get Phases from Arsenic Anomalous Scattering: De Novo SAD Phasing of Two Protein Structures Crystallized in Cacodylate Buffer

PLoS One, **6** (2011) e24227.

T. Imagawa, T. Tsurumura, Y. Sugimoto, K. Aki, K. Ishidoh, S. Kuramitsu and H. Tsuge

Structural Basis of Free Reduced Flavin Generation by Flavin Reductase from *Thermus Thermophilus* HB8

J. Biol. Chem., **286** (2011) 44078.

T. Tomita, T. Kuzuyama and M. Nishiyama

Structural Basis for Leucine-Induced Allosteric Activation of Glutamate Dehydrogenase

J. Biol. Chem., **286** (2011) 37406.

H. Xiang, M. Niyama, S. Sugiyama, H. Adachi, K. Takano, S. Murakami, T. Inoue, Y. Mori, M. Ishikawa, H. Matsumura and E. Katoh

Crystallization and Preliminary X-Ray Crystallographic Analysis of a Helicase-Like Domain from a Tomato Mosaic Virus Replication Protein

Acta Cryst. F, **67** (2011) 1649.

E. Matsuoka, Y. Tanaka, M. Kuroda, Y. Shouji, T. Ohta, I. Tanaka and M. Yao

Crystal Structure of the Functional Region of Uro-Adherence Factor A from *Staphylococcus saprophyticus* Reveals Participation of the B Domain in Ligand Binding Protein Science, **20** (2011) 406.

F. Yu, Y. Tanaka, K. Yamashita, T. Suzuki, A. Nakamura, N. Hirano, T. Suzuki, M. Yao and I. Tanaka

Molecular Basis of Dihydrouridine Formation on tRNA

Proc. Natl. Acad. Sci. USA, **108** (2011) 19593.

F. Yu, Y. Tanaka, S. Yamamoto, A. Nakamura, S. Kita, N. Hirano, I. Tanaka and M. Yao

Crystallization and Preliminary X-Ray Crystallographic Analysis of Dihydrouridine Synthase from *Thermus thermophilus* and its Complex with tRNA

Acta Cryst. F, **67** (2011) 685.

Y. Yasutake and T. Tamura

Efficient Production of Active Form of Vitamin D₃ by Microbial Conversion: Comprehensive Approach from the Molecular to the Cellular Level

Synthesiology, **4** (2011) 222, (in Japanese).

G. Ju, K. Ninomiya, H. Kamiya, S. Fuchi, M. Tabuchi and Y. Takeda

X-Ray Characterization at Growth Temperatures of In_xGa_{1-x}N Growth by MOVPE

Journal of Crystal Growth, **318** (2011) 1143.

K. Ninomiya, G. Ju, H. Kamiya, S. Fuchi, M. Tabuchi and Y. Takeda

Novel System for X-Ray CTR Scattering Measurement on in-situ Observation of OMVPE Growth of Nitride Semiconductor Heterostructures

J. Cryst. Growth, **318** (2011) 1139.

H. Tameoka, T. Kawase, M. Tabuchi and Y. Takeda

Development of X-Ray Diffractometer for in-situ Observation of Thin-Film Crystal Growth Equipped with Focusing Monochromator

Phys. Status Solidi C, **8** (2011) 294.

Y. Moriwaki, J. M. M. Caaveiro, Y. Tanaka, H. Tsutsumi, I. Hamachi and K. Tsumoto

Molecular Basis of Recognition of Antibacterial Porphyrins by Heme-Transporter IsdH-NEAT3 of *Staphylococcus aureus*

Biochemistry, **50** (2011) 7311.

Former 6A

M. Suea, C. Nakamura, T. Miyamoto and S. Yajima
 Active-Site Architecture of Benzoxazinone-Glucosidases in Triticeae
 D-Glucosidases in Triticeae
Plant Science, **180** (2011) 268.

J. Igarashi, K. Kobayashi and A. Matsuoka
 A Hydrogen-Bonding Network Formed by the B10-E7-E11 Residues of a Truncated Hemoglobin from *Tetrahymena pyriformis* is Critical for Stability of Bound Oxygen and Nitric Oxide Detoxification
J. Biol. Inorg. Chem., **16** (2011) 599.

T. Hatakeyama, T. Kamiya, M. Kusunoki, S. Nakamura-Tsuruta, J. Hirabayashi, S. Goda and H. Unno
 Galactose Recognition by A Tetrameric C-Type Lectin, CEL-IV, Containing the EPN Carbohydrate-Recognition Motif
J. Biol. Chem., **286** (2011) 10305.

T. Tonozuka, T. Miyazaki and A. Nishikawa
 Structural Similarity between a Starch-Hydrolyzing Enzyme and an N-Glycan-Hydrolyzing Enzyme: Exohydrolases Cleaving α -1,X-Glucosidic Linkages to Produce β -Glucose
Trends in Glycoscience and Glycotechnology, **23** (2011) 93.

S. Fushinobu, M. Hidaka, A. M. Hayashi, T. Wakagi, H. Shoun and M. Kitaoka
 Interactions between Glycoside Hydrolase Family 94 Cellobiose Phosphorylase and Glucosidase Inhibitors
J. Appl. Glycosci., **58** (2011) 91.

S. Fushinobu, T. Uno, M. Kitaoka, K. Hayashi, H. Matsuzawa and T. Wakagi
 Mutational Analysis of Fungal Family 11 Xylanases on pH Optimum Determination
J. Appl. Glycosci., **58** (2011) 107.

T. Kinoshita, Y. Sekiguchi, H. Fukada, T. Nakaniwa, T. Tada, S. Nakamura, K. Kitaura, H. Ohno, Y. Suzuki, A. Hirasawa, I. Nakanishi and G. Tsujimoto
 A Detailed Thermodynamic Profile of Cyclopentyl and Isopropyl Derivatives Binding to CK2 Kinase
Mol. Cell. Biochem., **356** (2011) 97.

N. Igarashi, Y. Watanabe, Y. Shinohara, Y. Inoko, G. Matsuba, H. Okuda, T. Mori and K. Ito
 Upgrade of the Small Angle X-Ray Scattering Beamlines at the Photon Factory
J. Phys.: Conf. Ser., **272** (2011) 012026.

M. Maki, H. Suzuki and H. Shibata
 Structure and Function of ALG-2, a Penta-EF-Hand Calcium-Dependent Adaptor Protein
Sci. China Life Sci., **54** (2011) 770.

K. Kawamura, T. Yamada, K. Kurihara, T. Tamada, R. Kuroki, I. Tanaka, H. Takahashi and N. Niimura
 X-Ray and Neutron Protein Crystallographic Analysis of the Trypsin-BPTI Complex
Acta Cryst. D, **67** (2011) 140.

G. Ju, K. Ninoi, H. Kamiya, S. Fuchi, M. Tabuchi and Y. Takeda
 X-Ray Characterization at Growth Temperatures of $In_xGa_{1-x}N$ Growth by MOVPE
Journal of Crystal Growth, **318** (2011) 1143.

K. Ninoi, G. Ju, H. Kamiya, S. Fuchi, M. Tabuchi and Y. Takeda
 Novel System for X-Ray CTR Scattering Measurement on in-situ Observation of OMVPE Growth of Nitride Semiconductor Heterostructures
J. Cryst. Growth, **318** (2011) 1139.

H. Tameoka, T. Kawase, M. Tabuchi and Y. Takeda
 Development of X-Ray Diffractometer for in-situ Observation of Thin-Film Crystal Growth Equipped with Focusing Monochromator
Phys. Status Solidi C, **8** (2011) 294.

6C

S. Hosokawa, N. Happo, K. Hayashi, K. Mimura, K. Wakita, W. Hu, H. Ishii, M. Yoshimura, J. Jeyakanthan and N. Mamedov
 Three-Dimensional Atomic Images of $TlInSe_2$ Thermoelectric Material Obtained by X-Ray Fluorescence Holography
Jpn. J. Appl. Phys., **50** (2011) 05FC06.

N. Happo, Y. Takehara, M. Fujiwara, K. Tanaka, S. Senba, S. Hosokawa, K. Hayashi, W. Hu, M. Suzuki and H. Asada
 Local Structure around Ge Atoms in IV-VI Ferromagnetic Semiconductor $Ge_{0.6}Mn_{0.4}Te$ by X-Ray Fluorescence Holography
e-J. Surf. Sci. Nanotech., **9** (2011) 247.

S. Hosokawa, T. Ozaki, N. Happo and K. Hayashi
 Applications of X-Ray Fluorescence Holography to Materials Sciences
e-J. Surf. Sci. Nanotech., **9** (2011) 265.

K. Hayashi
 Recent Advances in X-Ray Fluorescence Holography
e-J. Surf. Sci. Nanotech., **9** (2011) 363.

D. S. Kim, T. C. Ozawa, K. Fukuda, S. Ohshima, I. Nakai and T. Sasaki
 Soft-Chemical Exfoliation of $Na_{0.9}Mo_2O_4$: Preparation and Electrical Conductivity Characterization of a Molybdenum Oxide Nanosheet
Chemistry of Materials, **23** (2011) 2700.

T. C. Ozawa, K. Fukuda, Y. Ebina, K. Kosuda, A. Sato, Y. Michiue, K. Kurashima and T. Sasaki
 A Bona Fide Two-Dimensional Percolation Model: An Insight into the Optimum Photoactivator Concentration in $\text{La}_{2/3-x}\text{Eu}_x\text{Ta}_2\text{O}_7$ Nanosheets
Sci. Technol. Adv. Mater., **11** (2011) 044601.

T. Shibata, G. Takanashi, T. Nakamura, K. Fukuda, Y. Ebina and T. Sasaki
 Titanoniobate and Niobate Nanosheet Photocatalysts: Superior Photoinduced Hydrophilicity and Enhanced Thermal Stability of Unilamellar Nb_3O_8 Nanosheet
Energy Environ. Sci., **4** (2011) 535.

7A

K. Amemiya and M. Sakamaki
 NiO-Like Single Layer Formed on a Ni/Cu(001) Thin Film Revealed by the Depth-Resolved X-Ray Absorption Spectroscopy
Appl. Phys. Lett., **98** (2011) 012501.

K. Amemiya and M. Sakamaki
 Sub-nm Resolution Depth Profiling of the Magnetic Structure of Thin Films by the Depth-Resolved X-Ray Magnetic Circular Dichroism Technique
J. Phys. D, **44** (2011) 064018.

O. Endo, T. Horikoshi, N. Katsumata, K. Otani, T. Fujishima, H. Goto, K. Minami, K. Akaike, H. Ozaki, R. Sumii, K. Amemiya, M. Nakamura and N. Kosugi
 Incommensurate Crystalline Phase of *n*-Alkane Monolayers on Graphite (0001)
J. Phys. Chem. C, **115** (2011) 5720.

O. Endo, H. Ozaki, R. Sumii, K. Amemiya, M. Nakamura, and N. Kosugi
 Orientation of *n*-Alkane in Thin Films on Graphite (0001) Studied using C K-NEXAFS
J. Elec. Spec. Relat. Phenom., **184** (2011) 257.

M. Kiguchi, K. Takai, V. L. J. Joly, T. Enoki, R. Sumii and K. Amemiya
 Magnetic Edge State and Dangling Bond State of Nanographene in Activated Carbon Fibers
Phys. Rev. B, **84** (2011) 045421.

D. Asakura, M. Okubo, Y. Mizuno, T. Kudo, H. Zhou, K. Amemiya, F. M. F. de Groot, J.-L. Chen, W.-C. Wang, P.-A. Glans, C. L. Chang, J.-H. Guo and I. Honma
 Electron Delocalization in Cyanide-Bridged Coordination Polymer Electrodes for Li-Ion Batteries Studied by Soft X-Ray Absorption Spectroscopy
Phys. Rev. B, **84** (2011) 045117.

M. Sakamaki and K. Amemiya
 Element Specific Magnetic Anisotropy Energy of Alternately Layered FeNi Thin Films
Appl. Phys. Express, **4** (2011) 073002.

T. Maruyama, S. Sakakibara, S. Naritsuka and K. Amemiya
 Initial Stage of Carbon Nanotube Formation Process by Surface Decomposition of SiC: STM and NEXAFS Study Diamond and Related Materials, **20** (2011) 1325.

J. Okabayashi, S. Kono, Y. Yamada and K. Nomura
 Fabrication and Magnetic Properties of Fe and Co Co-Doped ZrO_2
AIP Advances, **1** (2011) 042138.

7C

N. Ahmed, Y. Shibata, T. Taniguchi and Y. Izumi
 Photocatalytic Conversion of Carbon Dioxide into Methanol using Zinc-Copper-M(III) (M = Aluminum, Gallium) Layered Double Hydroxides
J. Catal., **279** (2011) 123.

K. Mori and H. Yamashita
 Design of Colloidal and Supported Metal Nanoparticles: Their Synthesis, Characterization, and Catalytic Application
J. Jpn. Petrol. Inst., **54** (2011) 1.

Y. Horiuchi, Y. Shimizu, T. Kamegawa, K. Mori and H. Yamashita
 Design of Superhydrophobic Surfaces by Synthesis of Carbon Nanotubes over Co-Mo Nanocatalysts Deposited under Microwave Irradiation on Ti-Containing Mesoporous Silica Thin Films
Phys. Chem. Chem. Phys., **13** (2011) 6309.

K. Mori, K. Watanabe, M. Kawashima, M. Che and H. Yamashita
 Anchoring of Pt(II) Pyridyl Complex to Mesoporous Silica Materials: Enhanced Photoluminescence Emission at Room Temperature and Photooxidation Activity using Molecular Oxygen
J. Phys. Chem. C, **115** (2011) 1044.

T. Wada, K. K. Bando, K. Kawai and K. Asakura
 In-situ XAFS for Monitoring the Structure of Catalysts under More Realistic Reaction Conditions
Shokubai, **53** (2011) 150, (*in Japanese*).

T. Kamegawa, N. Suzuki, M. Che and H. Yamashita
 Synthesis and Catalytic Performance of Single-Site Ti-Containing Hierarchical Macroporous Silica with Mesoporous Frameworks
Langmuir, **27** (2011) 2873.

T. Kamegawa, N. Suzuki and H. Yamashita
 Design of Macroporous TiO_2 Thin Film Photocatalysts with Enhanced Photofunctional Properties
Energy Environ. Sci., **4** (2011) 1411.

K. R. Priolkar, D. N. Lobo, P. A. Bhobe, S. Emura and A. K. Nigam
 Role of Ni-Mn Hybridization in the Magnetism of the Martensitic State of Ni-Mn-In Shape Memory Alloys
EPL, **94** (2011) 38006.

F. Liu, K. Asakura, H. He, Y. Liu, W. Shan, X. Shi and C. Zhang
 Influence of Calcination Temperature on Iron Titanate Catalyst for the Selective Catalytic Reduction of NO_x with NH₃
Catal. Today, **164** (2011) 520.

F. Liu, K. Asakura, H. He, W. Shan, X. Shi and C. Zhang
 Influence of Sulfation on Iron Titanate Catalyst for the Selective Catalytic Reduction of NO_x with NH₃
Appl. Catal. B, **103** (2011) 369.

H. Sato, H. Maso, Y. Utsumi, H. Kurihara, Y. Mukaegawa, Y. Tezuka, T. Iwazumi, F. Iga, M. Tsubota, H. Namatame and M. Taniguchi
 Polarization-Dependent Ti K X-Ray Absorption and Emission Studies of Ti₂O₃ Single Crystal
J. Elec. Spec. Relat. Phenom., **184** (2011) 184.

J. Ding, T. Fan, D. Zhang, K. Saito and Q. Guo
 Structural and Optical Properties of Porous Iron Oxide Solid State Communications, **151** (2011) 802.

Y. Horiuchi, H. Ura, T. Kamegawa, K. Mori and H. Yamashita
 Low-Temperature Synthesis of Highly Hydrophilic Ti-Containing Mesoporous Silica Thin Films on Polymer Substrates by Photocatalytic Removal of Structure-Directing Agents
J. Mater. Chem., **21** (2011) 236.

Y. Horiuchi and H. Yamashita
 Design of Mesoporous Silica Thin Films Containing Single-Site Photocatalysts and their Applications to Superhydrophilic Materials
Appl. Catal. A, **400** (2011) 1.

S. Ishihara, K. Kakimoto and I. Kagomiya
 Densification of (Na,K)NbO₃ Piezoelectric Ceramics by Two-Step Mixing Process
J. Mater. Sci., **46** (2011) 3822.

J. Ohyama, A. Yamamoto, K. Teramura, T. Shishido and T. Tanaka
 Modification of Metal Nanoparticles with TiO₂ and Metal-Support Interaction in Photodeposition
ACS Catal., **1** (2011) 187.

Y. Cheng, H. Kajiro, H. Noguchi, A. Kondo, T. Ohba, Y. Hattori, K. Kaneko and H. Kanoh
 Tuning of Gate Opening of an Elastic Layered Structure MOF in CO₂ Sorption with a Trace of Alcohol Molecules
Langmuir, **27** (2011) 6905.

N. Kitamura, K. Uchino and Y. Idemoto
 Crystal and Electronic Structures of CePO₄-Based Proton-Electron Mixed Conductors by using Synchrotron X-Rays
ECS Transactions, **33** (2011) 59.

F. Liu, W. Shan, X. Shi, C. Zhang and H. He
 Research Progress in Vanadium-Free Catalysts for the Selective Catalytic Reduction of NO with NH₃
Chin. J. Catal., **32** (2011) 1113. (*in Chinese*).

T. Ohkubo, M. Nishi and Y. Kuroda
 Actual Structure of Dissolved Zinc Ion Restricted in Less than 1 Nanometer Micropores of Carbon
J. Phys. Chem. C, **115** (2011) 14954.

T. T. John, K. R. Priolkar, A. Bessiere, P. R. Sarode and B. Viana
 Effect of [OH⁻] Linkages on Luminescent Properties of ZnO Nanoparticles
J. Phys. Chem. C, **115** (2011) 18070.

S. Kageyama, S. Seino, T. Nakagawa, H. Nitani, K. Ueno, H. Daimon and T. A. Yamamoto
 Formation of PtRu Alloy Nanoparticle Catalyst by Radiolytic Process Assisted by Addition of DL-Tartaric Acid and its Enhanced Methanol Oxidation Activity
J. Nanoparticle. Res., **13** (2011) 5275.

J. Kugai, R. Kitagawa, S. Seino, T. Nakagawa, Y. Ohkubo, H. Nitani, H. Daimon and T. A. Yamamoto
 γ -Fe₂O₃-Supported Pt-Cu Nanoparticles Synthesized by Radiolytic Process for Catalytic CO Preferential Oxidation
Appl. Cat. A, **406** (2011) 43.

Y. Ohkubo, M. Shibata, S. Kageyama, S. Seino, T. Nakagawa, J. Kugai and T. A. Yamamoto
 Radiation Induced Synthesis of Au-Pd Nanoparticles of Random Alloy Structure Supported on Carbon Particles using the High Energy Electron Beam
Mater. Lett., **65** (2011) 2165.

T. A. Yamamoto, S. Kageyama, S. Seino, H. Nitani, T. Nakagawa, R. Horioka, Y. Honda, K. Ueno and H. Daimon
 Methanol Oxidation Catalysis and Substructure of PtRu/C Bimetallic Nanoparticles Synthesized by a Radiolytic Process
Appl. Cat. A, **396** (2011) 68.

M. Tada, N. Ishiguro, T. Uruga, H. Tanida, Y. Terada, S. Nagamatsu, Y. Iwasawae and S. Ohkoshi
 μ -XAFS of Single Particle of a Practical NiO_x/Ce₂Zr₂O_y Catalyst
Phys. Chem. Chem. Phys., **13** (2011) 14910.

H. Einaga, Y. Teraoka and A. Ogata
 Benzene Oxidation with Ozone over Manganese Oxide Supported on Zeolite Catalysts
Catal. Today, **164** (2011) 571.

S. Furukawa, Y. Hitomi, T. Shishido, K. Teramura and T. Tanaka
 π Back-Bonding of Iron(II) Complexes Supported by Tris(pyrid-2-ylmethyl)amine and its Nitro-Substituted Derivatives
J. Phys. Chem. A, **115** (2011) 13589.

A. Yamada, N. Iwane, S. Nishimura, Y. Koyama and I. Tanaka
 Synthesis and Electrochemistry of Monoclinic $\text{Li}(\text{Mn}_x\text{Fe}_{1-x})\text{BO}_3$: A Combined Experimental and Computational Study
J. Mater. Chem., **21** (2011) 10690.

A. Yamada, S. Matsumoto and Y. Nakamura
 Direct Solid-State Synthesis and Large-Capacity Anode Operation of $\text{Li}_{3-x}\text{Fe}_x\text{N}$
J. Mater. Chem., **21** (2011) 10021.

Former 8A

T. Kakiuchi, N. Fujita, K. Mase, M. Tanaka and S. Nagaoka
 Local Valence Electronic States of SiO_2 Ultrathin Films Grown on Si(100) Studied Using Auger Photoelectron Coincidence Spectroscopy: Observation of Upward Shift of Valence-Band Maximum as a Function of SiO_2 Thickness
J. Phys. Soc. Jpn., **80** (2011) 084703.

8A

K. Saito, Y. Yamamura, N. Kikuchi, A. Nakao, S. Yasuzuka, Y. Akishige and Y. Murakami
 Polarization Reversal by Intramolecular Disorder in Organic Ferroelectrics: Trichloroacetamide
Cryst. Eng. Comm., **13** (2011) 2693.

M. Nihei, Y. Sekine, H. Suganami, K. Nakazawa, A. Nakao, H. Nakao, Y. Murakami and H. Oshio
 Controlled Intramolecular Electron Transfers in Cyanide-Bridged Molecular Squares by Chemical Modifications and External Stimuli
J. Am. Chem. Soc., **133** (2011) 3592.

H. Sakai, J. Fujioka, T. Fukuda, D. Okuyama, D. Hashizume, F. Kagawa, H. Nakao, Y. Murakami, T. Arima, A. Q. R. Baron, Y. Taguchi and Y. Tokura
 Displacement-Type Ferroelectricity with Off-Center Magnetic Ions in Perovskite $\text{Sr}_{1-x}\text{Ba}_x\text{MnO}_3$
Phys. Rev. Lett., **107** (2011) 137601.

S. Horiuchi, R. Kumai and Y. Tokura
 Hydrogen-Bonding Molecular Chains for High-Temperature Ferroelectricity
Adv. Mater., **23** (2011) 2098.

K. Ishizaka, M. S. Bahramy, H. Murakawa, M. Sakano, T. Shimojima, T. Sonobe, K. Koizumi, S. Shin, H. Miyahara, A. Kimura, K. Miyamoto, T. Okuda, H. Namatame, M. Taniguchi, R. Arita, N. Nagaosa, K. Kobayashi, Y. Murakami, R. Kumai, Y. Kaneko, Y. Onose and Y. Tokura
 Giant Rashba-Type Spin Splitting in Bulk BiTeI
Nature Materials, **10** (2011) 521.

R. Fukuta, S. Miyasaka, K. Hemmi, S. Tajima, D. Kawana, K. Ikeuchi, Y. Yamasaki, A. Nakao, H. Nakao, Y. Murakami and K. Iwasa
 Effects of Cation-Size Variance on Spin and Orbital Orders in $\text{Eu}_{1-x}(\text{La}_{0.254}\text{Y}_{0.746})_x\text{VO}_3$
Phys. Rev. B, **84** (2011) 140409(R).

H. Minemawari, T. Yamada, H. Matsui, J. Tsutsumi, S. Haas, R. Chiba, R. Kumai and T. Hasegawa
 Inkjet Printing of Single-Crystal Films
Nature, **475** (2011) 364.

W. Kobayashi, Y. Hayashi, M. Matsushita, Y. Yamamoto, I. Terasaki, A. Nakao, H. Nakao, Y. Murakami, Y. Moritomo, H. Yamauchi and M. Karppinen
 Anisotropic Thermoelectric Properties Associated with Dimensional Crossover in Quasi-One-Dimensional $\text{SrNbO}_{3.4+d}$ ($d \sim 0.03$)
Phys. Rev. B, **84** (2011) 085118.

8B

H. Ikemoto, A. Goyo and T. Miyanaga
 Size Dependence of the Local Structure and Atomic Correlations in Tellurium Nanoparticles
J. Phys. Chem. C, **115** (2011) 2931.

A. Kobayashi, Y. Suzuki, T. Ohba, S. Noro, H.-C. Chang and M. Kato
 Ln-Co-Based Rock-Salt-Type Porous Coordination Polymers: Vapor Response Controlled by Changing the Lanthanide Ion
Inorg. Chem., **50** (2011) 2061.

A. Kobayashi, K. Ohbayashi, R. Aoki, H.-C. Chang and M. Kato
 Synthesis, Structure and Photophysical Properties of a Flavin-Based Platinum(II) Complex
Dalton Trans., **40** (2011) 3484.

K. Saito, Y. Yamamura, N. Kikuchi, A. Nakao, S. Yasuzuka, Y. Akishige and Y. Murakami
 Polarization Reversal by Intramolecular Disorder in Organic Ferroelectrics: Trichloroacetamide
Cryst. Eng. Comm., **13** (2011) 2693.

H. Miyasaka, N. Motokawa, T. Chiyo, M. Takemura, M. Yamashita, H. Sagayama and T. Arima
 Stepwise Neutral-Ionic Phase Transitions in a Covalently Bonded Donor/Acceptor Chain Compound
J. Am. Chem. Soc., **133** (2011) 5338.

T. Akitsu, Y. Endo, M. Okawara, Y. Kimoto and M. Ohwa
 Influence of Water Molecules on Properties of Binuclear or Bridged Structures for Chiral $\text{Cu}^{\text{II}}\text{-Ni}^{\text{II}}$, $\text{Cu}^{\text{II}}\text{-Pd}^{\text{II}}$, and $\text{Cu}^{\text{II}}\text{-Pt}^{\text{II}}$ Tetracyano-Bimetallic Assemblies
The Open Crystallogr. J., **4** (2011) 2.

T. Akitsu and S. Sonoki

Isotope Effects for Lattice Strain and Pseudo Jahn-Teller Distortion of Chiral Cyanide-Bridged Cu(II)-Co(III), Cr(III), and Fe(III) Bimetallic Assemblies
The Open Crystallogr. J., **4** (2011) 8.

T. Akitsu, M. Ohwa, Y. Endo, S. Sonoki, Y. Aritake and Y. Kimoto

Some Factors and Effects on Thermally Structural Changes of Lattice for Cyanide-Bridged Bimetallic Assemblies of Cu(II)
The Open Crystallogr. J., **4** (2011) 25.

T. Akitsu, Y. Endo, Y. Kimoto and M. Ohwa

Novel Thermally-Accessible Structural Distortion and Lattice Strain of a Chiral Cyanide-Bridged Cu (II)-Ni (II) Complex

The Open Crystallogr. J., **4** (2011) 21.

K. Marumoto, N. Arai, H. Goto, M. Kijima, K. Murakami, Y. Tominari, J. Takeya, Y. Shimoi, H. Tanaka, S. Kuroda, T. Kaji, T. Nishikawa, T. Takenobu and Y. Iwasa

Microscopic Mechanisms behind the High Mobility in Rubrene Single-Crystal Transistors as Revealed by Field-Induced Electron Spin Resonance

Phys. Rev. B, **83** (2011) 075302.

K. Nakayama, Y. Hirose, J. Soeda, M. Yoshizumi, T. Uemura, M. Uno, W. Li, M. J. Kang, M. Yamagishi, Y. Okada, E. Miyazaki, Y. Nakazawa, A. Nakao, K. Takimiya and J. Takeya

Patternable Solution-Crystallized Organic Transistors with High Charge Carrier Mobility

Adv. Mater., **23** (2011) 1626.

S. Tao, H. Matsuzaki, H. Uemura, H. Yada, T. Uemura, J. Takeya, T. Hasegawa and H. Okamoto

Optical Pump-Probe Spectroscopy of Photocarriers in Rubrene Single Crystals

Phys. Rev. B, **83** (2011) 075204.

S. Shinamura, I. Osaka, E. Miyazaki, A. Nakao, M. Yamagishi, J. Takeya and K. Takimiya

Linear- and Angular-Shaped Naphthodithiophenes: Selective Synthesis, Properties, and Application to Organic Field-Effect Transistors

J. Am. Chem. Soc., **133** (2011) 5024.

Y. Okada, M. Uno, Y. Nakazawa, K. Sasai, K. Matsukawa, M. Yoshimura, Y. Kitaoka, Y. Mori and J. Takeya

Low-Temperature Thermal Conductivity of Bulk and Film-Like Rubrene Single Crystals

Phys. Rev. B, **83** (2011) 113305.

M. Sadakiyo, T. Yamada and H. Kitagawa

Hydroxyl Group Recognition by Hydrogen-Bonding Donor and Acceptor Sites Embedded in a Layered Metal-Organic Framework

J. Am. Chem. Soc., **133** (2011) 11050.

T. Tajiri, S. Saisho, Y. Komorida, M. Mito, H. Deguchi and A. Kohno

Effects of Anisotropic Strain on Perovskite LaMnO_{3+δ} Nanoparticles Embedded in Mesoporous Silica
J. Appl. Phys., **110** (2011) 044307.

J. Soeda, Y. Hirose, M. Yamagishi, A. Nakao, T. Uemura, K. Nakayama, M. Uno, Y. Nakazawa, K. Takimiya and J. Takeya

Solution-Crystallized Organic Field-Effect Transistors with Charge-Acceptor Layers: High-Mobility and Low-Threshold-Voltage Operation in Air
Adv. Mater., **23** (2011) 3309.

M. Uno, K. Nakayama, J. Soeda, Y. Hirose, K. Miwa, T. Uemura, A. Nakao, K. Takimiya and S. Takeya
High-Speed Flexible Organic Field-Effect Transistors with a Three-Dimensional Structure
Adv. Mater., **23** (2011) 3047.

T. Ito, T. Ushiyama, Y. Yanagisawa, R. Kumai and Y. Tomioka

Growth of Highly Insulating Bulk Single Crystals of Multiferroic BiFeO₃ and their Inherent Internal Strains in the Domain-Switching Process
Cryst. Growth Design, **11** (2011) 5139.

W. Kobayashi, Y. Hayashi, M. Matsushita, Y. Yamamoto, I. Terasaki, A. Nakao, H. Nakao, Y. Murakami, Y. Moritomo, H. Yamauchi and M. Karppinen

Anisotropic Thermoelectric Properties Associated with Dimensional Crossover in Quasi-One-Dimensional SrNbO_{3.4+d} ($d \sim 0.03$)
Phys. Rev. B, **84** (2011) 085118.

H. Kyakuno, K. Matsuda, H. Yahiro, Y. Inami, T. Fukuoka, Y. Miyata, K. Yanagi, Y. Maniwa, H. Kataura, T. Saito, M. Yumura and S. Iijima
Confined Water Inside Single-Walled Carbon Nanotubes: Global Phase Diagram and Effect of Finite Length
J. Chem. Phys., **134** (2011) 244501.

9A

N. Ahmed, Y. Shibata, T. Taniguchi and Y. Izumi

Photocatalytic Conversion of Carbon Dioxide into Methanol using Zinc-Copper-M(III) (M = Aluminum, Gallium) Layered Double Hydroxides
J. Catal., **279** (2011) 123.

T. Wada, K. K. Bando, K. Kawai and K. Asakura

In-situ XAFS for Monitoring the Structure of Catalysts under More Realistic Reaction Conditions
Shokubai, **53** (2011) 150, (in Japanese).

Y. Idemoto, T. Hasegawa, N. Kitamura and Y. Uchimoto
Dependence of Thermodynamic Stability, Crystal and Electronic Structures and Battery Characteristic on Synthetic Condition and Li Content for Li_xMn_{0.5}Ni_{0.5}O₂ as a Cathode Active Material of Li-Ion Battery
Electrochemistry, **79** (2011) 15, (in Japanese).

C. Tokoro, H. Koga, Y. Oda, S. Owada and Y. Takahashi
 XAFS Investigation for As(V) Co-Precipitation Mechanism with Ferrihydrite
J. Mining and Materials Processing Institute of Jpn., **127** (2011) 213, (*in Japanese*).

M. Hatakeyama, H. Kishi, Y. Kita, K. Imai, K. Nishio, S. Karasawa, Y. Masaike, S. Sakamoto, A. Sandhu, A. Tanimoto, T. Gomi, E. Kohda, M. Abe and H. Handa
 A Two-Step Ligand Exchange Reaction Generates Highly Water-Dispersed Magnetic Nanoparticles for Biomedical Applications
J. Mater. Chem., **21** (2011) 5959.

F. Liu, K. Asakura, H. He, W. Shan, X. Shi and C. Zhang
 Influence of Sulfation on Iron Titanate Catalyst for the Selective Catalytic Reduction of NO_x with NH₃
Appl. Catal. B, **103** (2011) 369.

M. Hori, K. Shozugawa and M. Matsuo
 Improvement of Speciation Analysis for Chromium by X-Ray Absorption Fine Structure and Estimation of the Reduction of Hexavalent Chromium in Soil
Bunseki Kagaku, **60** (2011) 379, (*in Japanese*).

Y. Horiuchi, K. Fujiwara, T. Kamegawa, K. Mori and H. Yamashita
 An Efficient Method for the Creation of a Superhydrophobic Surface: Ethylene Polymerization over Self-Assembled Colloidal Silica Nanoparticles Incorporating Single-Site Cr-Oxide Catalysts
J. Mater. Chem., **21** (2011) 8543.

H. Yamaguchi, H. Shibata, K. Maejima, H. Tambo, K. Matsubara, A. Yamada and S. Niki
 Local Structure around Dopant Site in Ga-Doped ZnO from Extended X-Ray Absorption Fine Structure Measurements
J. Phys. Soc. Jpn., **80** (2011) 074602.

Y. Suzuki, M. Yamamoto, T. Saito, T. Miyanaga, S. Ohwada, A. Iwakoshi, T. Nanke and T. Kobayashi
 Anomalous Infrared and Visible Light Absorption and Local Structure of Ag-Au Core/Shell Nanoparticles
Appl. Phys. A, **103** (2011) 81.

Y. Cheng, H. Kajiro, H. Noguchi, A. Kondo, T. Ohba, Y. Hattori, K. Kaneko and H. Kanoh
 Tuning of Gate Opening of an Elastic Layered Structure MOF in CO₂ Sorption with a Trace of Alcohol Molecules
Langmuir, **27** (2011) 6905.

F. Liu, W. Shan, X. Shi, C. Zhang and H. He
 Research Progress in Vanadium-Free Catalysts for the Selective Catalytic Reduction of NO with NH₃
Chin. J. Catal., **32** (2011) 1113, (*in Chinese*).

T. Kashiwabara, Y. Takahashi, M. Tanimizu and A. Usui
 Molecular-Scale Mechanisms of Distribution and Isotopic Fractionation of Molybdenum between Seawater and Ferromanganese Oxides
Geochim. Cosmochim. Acta, **75** (2011) 5762.

T. Fujimori, Y. Tanino and M. Takaoka
 Role of Zinc in MSW Fly Ash during Formation of Chlorinated Aromatics
Environ. Sci. Technol., **45** (2011) 7678.

L. Cao, H. Park, G. Dodbiba, K. Ono, C. Tokoro and T. Fujita
 Keeping Gallium Metal to Liquid State under the Freezing Point by using Silica Nanoparticles
Appl. Phys. Lett., **99** (2011) 143120.

M. Tada, N. Ishiguro, T. Uruga, H. Tanida, Y. Terada, S. Nagamatsu, Y. Iwasawae and S. Ohkoshi
 μ -XAFS of Single Particle of a Practical NiO_x/Ce₂Zr₂O_y Catalyst
Phys. Chem. Chem. Phys., **13** (2011) 14910.

Y. Onodera, K. Mori, T. Otomo, A. C. Hannon, M. Sugiyama and T. Fukunaga
 Reverse Monte Carlo Modeling of Atomic Configuration for Li₂S-P₂S₅ Superionic Glasses
IOP Conf. Ser.: Mater. Sci. Eng., **18** (2011) 022012.

S. Takenaka, T. Iguchi, E. Tanabe, H. Matsune and M. Kishida
 Catalytic Performance of Pt Metal Particles at the Tips of Carbon Nanotubes
Catal. Lett., **141** (2011) 821.

L. Wang, A. Yoshiasa, M. Okube and T. Takeda
 Titanium Local Structure in Tektite Probed by X-Ray Absorption Fine Structure Spectroscopy
J. Synchrotron Rad., **18** (2011) 885.

W. J. Chun, K. Miyazaki, N. Watanabe, Y. Koike, S. Takakusagi, K. Fujikawa, M. Nomura and K. Asakura
 Angle Resolved Total Reflection Fluorescence XAFS and its Application to Au Clusters on TiO₂ (110) (1 × 1)
J. Ceram. Soc. Jpn., **119** (2011) 890.

Y. S. Shimamoto, Y. Takahashi and Y. Terada
 Formation of Organic Iodine Supplied as Iodide in a Soil-Water System in Chiba, Japan
Environ. Sci. Technol., **45** (2011) 2086.

T. Furukawa and Y. Takahashi
 Oxalate Metal Complexes in Aerosol Particles: Implications for the Hygroscopicity of Oxalate-Containing Particles
Atom. Chem. Phys., **11** (2011) 4289.

A. G. Gault, S. Langely, A. Ibrahim, R. Renaud, Y. Takahashi, C. Boothman, J. R. Lloyd, I. D. Clark, F. G. Ferris and D. Fortin
 Microbial and Geochemical Features Suggest Iron Redox Cycling within Bacteriogenic Iron Oxide-Rich Sediments
Chem. Geol., **281** (2011) 41.

S. Emura, S. Kimura, K. Tokuda, H. Tambo, S. Hasegawa, and H. Asahi
 Co-ordination Alignments at the Vicinity of the Dopant Cr Ions in AlN
Physica Status Solidi c, **8** (2011) 473.

S. N. Mohd Tawil, D. Krishnamurthy, R. Kakimi, M. Ishimaru, S. Emura, S. Hasegawa and H. Asahi, Influence of Si-Doping on the Characteristics of InGaGaN/GaN MQWs Grown by MBE Physical Status Solidi C, **8** (2011) 491.

H. Tambo, S. Hasegawa, K. Higashi, R. Kakimi, S. N. M. Tawil, Y. K. Zhou, S. Emura and H. Asahi Structural and Magnetic Properties of Diluted Magnetic Semiconductor GaGdN Nanorods Physics Status Solidi C, **8** (2011) 494.

D. Krishnamurthy, S. N. Mohd Tawil, R. Kakimi, M. Ishimaru, S. Emura, S. Hasegawa and H. Asahi Investigations on the Properties of Intermittently Gd-Doped InGaN Structures Grown by Molecular-Beam Epitaxy Phys. Status Solidi C, **8** (2011) 497.

S. N. M. Tawil, D. Krishnamurthy, R. Kakimi, S. Emura, S. Hasegawa and H. Asahi Studies on the InGaGaN/GaN Magnetic Semiconductor Heterostructures Grown by Plasma-Assisted Molecular-Beam Epitaxy J. Cryst. Growth, **323** (2011) 351.

D. Krishnamurthy, S. N. M. Tawil, R. Kakimi, M. Ishimaru, S. Emura, Y.-K. Zhou, S. Hasegawa and H. Asahi Structural Characterization of MBE Grown InGaGaN/GaN and InGaN/GaGdN Structures Phys. Status Solidi C, **8** (2011) 2245.

S. Emura, K. Higashi, A. Itadani, H. Torigoe, Y. Kuroda, A. Nishikawa, Y. Fujiwara and H. Asahi Photoluminescence X-Ray Excitation Spectra in Eu-doped GaN Grown by Organometallic Vapor Phase Epitaxy Mater. Res. Soc. Symp. Proc., **1342** (2011) 1241.

P. Blanes, L. Sala, S. Garcia, J. Gonzalez, M. Frascaroli, M. Harada, C. Cong, Y. Niwa, C. Matulewicz, H. Prado, A. Cortadi and M. Gattuso Biosorption of Trivalent Chromium from Aqueous Solution by Red Seaweed *Polysiphonia nigrescens* J. Water Resource and Protection, **3** (2011) 832.

T. Fujimori and M. Takaoka Thermochemical Chlorination of Carbon Indirectly Driven by an Unexpected Sulfide of Copper with Inorganic Chloride J. Hazard. Mater., **197** (2011) 345.

K. Ikeue, N. Miyoshi, T. Tanaka and M. Machida Ca-Containing Mesoporous Silica as a Solid Base Catalyst for the Knoevenagel Condensation Reaction Catal. Lett., **141** (2011) 877.

S. Takenaka, H. Matsumori, H. Matsune and M. Kishida Highly Durable Pt Cathode Catalysts for Polymer Electrolyte Fuel Cells; Coverage of Carbon Black-Supported Pt Catalysts with Silica Layers Appl. Catal. A, **409** (2011) 248.

Y. Hyobu, T. Itai, D. Hayase, M. Kumagai and S. Tanabe Mobilization of Manganese and Arsenic under Hypoxia in the Bottom of Lake Biwa Interdisciplinary Studies on Environ. Chem., **6** (2011) 133.

A. Era, M. Tabuchi, T. Nishitani and Y. Takeda A Study on EXAFS Analysis of Cs/GaAs NEA Surface J. Phys. :Conf. Ser., **298** (2011) 012012.

9C

K. Yamamoto, T. Kondo and E. Ito Aggregation Structure and Surface Properties of Poly(Ethylene Maleimide) Copolymer Thin Film Modified with Fluoroalkyl and Alkyl Side Chains J. Soc. Mater. Sci. Jpn., **60** (2011) 14, (in Japanese).

N. Ahmed, Y. Shibata, T. Taniguchi and Y. Izumi Photocatalytic Conversion of Carbon Dioxide into Methanol using Zinc-Copper-M(III) (M = Aluminum, Gallium) Layered Double Hydroxides J. Catal., **279** (2011) 123.

Y. Nakamura, M. Adachi, K. Ito, Y. Kato, S. Fujii, M. Sasaki, Y. Urahama and S. Sakurai Effects of Compatibility between Tackifier and Polymer on Adhesion Property and Phase Structure: Tackifier-Added Polystyrene-Based Triblock/Diblock Copolymer Blend System J. Appl. Polym. Sci., **120** (2011) 2251.

Y. Idemoto, T. Hasegawa, N. Kitamura and Y. Uchimoto Dependence of Thermodynamic Stability, Crystal and Electronic Structures and Battery Characteristic on Synthetic Condition and Li Content for $\text{Li}_x\text{Mn}_{0.5}\text{Ni}_{0.5}\text{O}_2$ as a Cathode Active Material of Li-Ion Battery Electrochemistry, **79** (2011) 15, (in Japanese).

S. Sakurai X-Ray Scattering Analyses on Deformation Behaviors of Thermoplastic Elastomers NIPPON GOMU KYOKAISHI, **84** (2011) 21, (in Japanese).

T. Matsutani and K. Yamamoto Solvent Annealing Induced Perpendicular Orientation of Cylindrical Microdomains in Polystyrene-*b*-poly(4-hydroxyl styrene)/PEG Oligomer Blend Thin Film Made by Spin-Coating from Selective Solvent J. Phys.: Conf. Ser., **272** (2011) 012015.

I. Bilecka, L. Luo, I. Djerdj, M. D. Rossell, M. Jagodic, Z. Jaglicic, Y. Masubuchi, S. Kikkawa and M. Niederberger Microwave-Assisted Nonaqueous Sol-Gel Chemistry for Highly Concentrated ZnO-Based Magnetic Semiconductor Nanocrystals J. Phys. Chem. C, **115** (2011) 1484.

M. Hori, K. Shozugawa and M. Matsuo
Improvement of Speciation Analysis for Chromium by X-Ray Absorption Fine Structure and Estimation of the Reduction of Hexavalent Chromium in Soil
Bunseki Kagaku, **60** (2011) 379, (*in Japanese*).

Y. Masubuchi, T. Hata, T. Motohashi and S. Kikkawa
Crystal Structure of Eu-Doped Magnetoplumbite-Type Lanthanum Aluminum Oxynitride with Emission Site Splitting
J. Solid State Chem., **184** (2011) 2533.

Y. Horiuchi and H. Yamashita
Design of Mesoporous Silica Thin Films Containing Single-Site Photocatalysts and their Applications to Superhydrophilic Materials
Appl. Catal. A, **400** (2011) 1.

N. D. Tien, T. P. Hoa, G. Kimura, Y. Yamashiro, H. Fujiwara, M. Mochizuki, S. Sasaki and S. Sakurai
Effects of Blending Poly(D,L-Lactide) with Poly(Ethylene Glycol) on the Higher-Order Crystalline Structures of Poly(Ethylene Glycol) as Revealed by Small-Angle X-Ray Scattering
J. Phys.: Conf. Ser., **272** (2011) 012007.

L. Wang, D. Li, M. Koike, S. Koso, Y. Nakagawa, Y. Xu and K. Tomishige
Catalytic Performance and Characterization of Ni-Fe Catalysts for the Steam Reforming of Tar from Biomass Pyrolysis to Synthesis Gas
Appl. Catal. A, **392** (2011) 248.

T. Ohkubo, M. Nishi and Y. Kuroda
Actual Structure of Dissolved Zinc Ion Restricted in Less than 1 Nanometer Micropores of Carbon
J. Phys. Chem. C, **115** (2011) 14954.

T. Yokoyama and K. Eguchi
Anharmonicity and Quantum Effects in Thermal Expansion of an Invar Alloy
Phys. Rev. Lett., **107** (2011) 065901.

S. Kageyama, S. Seino, T. Nakagawa, H. Nitani, K. Ueno, H. Daimon and T. A. Yamamoto
Formation of PtRu Alloy Nanoparticle Catalyst by Radiolytic Process Assisted by Addition of DL-Tartaric Acid and its Enhanced Methanol Oxidation Activity
J. Nanoparticle Res., **13** (2011) 5275.

J. Kugai, R. Kitagawa, S. Seino, T. Nakagawa, Y. Ohkubo, H. Nitani, H. Daimon and T. A. Yamamoto
 γ -Fe₂O₃-Supported Pt-Cu Nanoparticles Synthesized by Radiolytic Process for Catalytic CO Preferential Oxidation
Appl. Cat. A, **406** (2011) 43.

Y. Ohkubo, M. Shibata, S. Kageyama, S. Seino, T. Nakagawa, J. Kugai and T. A. Yamamoto
Radiation Induced Synthesis of Au-Pd Nanoparticles of Random Alloy Structure Supported on Carbon Particles using the High Energy Electron Beam
Mater. Lett., **65** (2011) 2165.

T. A. Yamamoto, S. Kageyama, S. Seino, H. Nitani, T. Nakagawa, R. Horioka, Y. Honda, K. Ueno and H. Daimon
Methanol Oxidation Catalysis and Substructure of PtRu/C Bimetallic Nanoparticles Synthesized by a Radiolytic Process
Appl. Cat. A, **396** (2011) 68.

Y. Zhang, T. Motohashi, Y. Masubuchi and S. Kikkawa
Local Anionic Ordering and Anisotropic Displacement in Dielectric Perovskite SrTaO₂N
J. Cerm. Soc. Jpn., **119** (2011) 581.

Y. Ohashi, T. Motohashi, Y. Masubuchi, T. Moriga, K. Murai and S. Kikkawa
Preparation, Crystal Structure and Superconductive Characteristics of New Oxynitrides (Nb_{1-x}M_x)(N_{1-y}O_y) where M=Mg, Si and x≈y
J. Solid State Chem., **184** (2011) 2061.

L. Bayes-Garcia, T. Calvet, M. A. Cuevas-Diarte, S. Ueno and K. Sato
In situ Synchrotron Radiation X-Ray Diffraction Study of Crystallization Kinetics of Polymorphs of 1,3-Dioleoyl-2-Palmitoyl Glycerol (OPO)
Cryst. Eng. Comm., **13** (2011) 3592.

L. Chen, T. Mashimo, E. Omurzak, H. Okudera, C. Iwamoto and A. Yoshiisa
Pure Tetragonal ZrO₂ Nanoparticles Synthesized by Pulsed Plasma in Liquid
J. Phys. Chem. C, **115** (2011) 9370.

E. Omurzak, T. Mashimo, S. Sulaimankulova, S. Takebe, L. Chen, Z. Abdullaeva, C. Iwamoto, Y. Oishi, H. Ihara, H. Okudera and A. Yoshiisa
Wurtzite-Type ZnS Nanoparticles by Pulsed Electric Discharge
Nanotechnology, **22** (2011) 365602.

Y. Hyobu, T. Itai, D. Hayase, M. Kumagai and S. Tanabe
Mobilization of Manganese and Arsenic under Hypoxia in the Bottom of Lake Biwa
Interdisciplinary Studies on Environ. Chem., **6** (2011) 133.

M. Otsuka, T. Itai, K. A. Asante, M. Muto and S. Tanabe
Trace Element Contamination around the E-Waste Recycling Site at Agbogbloshie, Accra City, Ghana
Interdisciplinary Studies on Environ. Chem., **6** (2011) 161.

Y. Uemura, Y. Inada, K. K. Bando, T. Sasaki, N. Kamiuchi, K. Eguchi, A. Yagishita, M. Nomura, M. Tada and Y. Iwasawa
In situ Time-Resolved XAFS Study on the Structural Transformation and Phase Separation of Pt₃Sn and PtSn Alloy Nanoparticles on Carbon in the Oxidation Process
Phys. Chem. Chem. Phys., **13** (2011) 15833.

Y. Uemura, Y. Inada, K. K. Bando, T. Sasaki, N. Kamiuchi, K. Eguchi, A. Yagishita, M. Nomura, M. Tada and Y. Iwasawa
 Core-Shell Phase Separation and Structural Transformation of Pt₃Sn Alloy Nanoparticles Supported on γ -Al₂O₃ in the Reduction and Oxidation Processes Characterized by In Situ Time-Resolved XAFS
J. Phys. Chem. C, **115** (2011) 5823.

K. Maeda, T. Ohno and K. Domen
 A Copper and Chromium Based Nanoparticulate Oxide as a Noble-Metal-Free Cocatalyst for Photocatalytic Water Splitting
Chem. Sci., **2** (2011) 1362.

K. Gotoh, T. Kinumoto, E. Fujii, A. Yamamoto, H. Hashimoto, T. Ohkubo, A. Itadani, Y. Kuroda and H. Ishida
 Exfoliated Graphene Sheets Decorated with Metal/Metal Oxide Nanoparticles: Simple Preparation from Cation Exchanged Graphite Oxide
Carbon, **49** (2011) 1118.

10A

T. Kuribayashi
 Behavior of Hydrogen in Crystal Structures of Slab and Mantle Minerals
J. Cryst. Soc. Jpn., **53** (2011) 19, (*in Japanese*).

A. Yoshiasa, H. Maekawa and K. Sugiyama
 Crystal Chemistry of MgAl₂O₄ Spinel Solid Solution: Peculiar Site Preference of Cation Observed under Substitution and Pressure
J. Cryst. Soc. Jpn., **53** (2011) 13, (*in Japanese*).

K. Komatsu
 The Role of Hydrogen Bond in the Pressure Induced Phase Transition of a Layered Hydrous Mineral-Gibbsite
J. Cryst. Soc. Jpn., **53** (2011) 25, (*in Japanese*).

N. Togashi, K. Sugiyama, J. Yu, S. Qiu and O. Terasaki
 Single Crystal Structure Analysis of the Se-Incorporated Mordenite, Coupled with the Anomalous X-Ray Scattering
Solid State Sciences, **13** (2011) 684.

A. Sano-Furukawa, T. Kuribayashi, K. Komatsu, T. Yagi and E. Ohtani
 Investigation of Hydrogen Sites of Wadsleyite: A Neutron Diffraction Study
Physics of the Earth and Planetary Interiors, **189** (2011) 56.

L. Chen, T. Mashimo, E. Omurzak, H. Okudera, C. Iwamoto and A. Yoshiasa
 Pure Tetragonal ZrO₂ Nanoparticles Synthesized by Pulsed Plasma in Liquid
J. Phys. Chem. C, **115** (2011) 9370.

E. Omurzak, T. Mashimo, S. Sulaimankulova, S. Takebe, L. Chen, Z. Abdullaeva, C. Iwamoto, Y. Oishi, H. Ihara, H. Okudera and A. Yoshiasa
 Wurtzite-Type ZnS Nanoparticles by Pulsed Electric Discharge
Nanotechnology, **22** (2011) 365602.

Former 10B

Y. Suzuki, M. Yamamoto, T. Saito, T. Miyanaga, S. Ohwada, A. Iwakoshi, T. Nanke and T. Kobayashi
 Anomalous Infrared and Visible Light Absorption and Local Structure of Ag-Au Core/Shell Nanoparticles
Appl. Phys. A, **103** (2011) 81.

M. Katayama, K. Sugimoto, E. Kato, K. Ozutsumi, S. Funahashi and Y. Inada
 Novel Structural Variation of Silver(I)-Pyridine Complexes in Nitromethane as Studied by X-Ray Absorption Spectroscopy
Inorg. Chim. Acta, **378** (2011) 66.

10C

T. Sakurai and S. Nojima
 Significant Increase in the Melting Temperature of Poly(ϵ -caprolactone) Blocks Confined in the Crystallized Lamellar Morphology of Poly(ϵ -caprolactone)-*Block*-Polyethylene Copolymers
Polymer J., **43** (2011) 370.

G. Matsuba, H. Inoue and R. Yamaki
 Precise Structure Analysis and Properties for New Adhesive "Intelimer"
Sen'i Gakkaishi, **67** (2011) 112, (*in Japanese*).

S. Sakurai
 X-Ray Scattering Analyses on Deformation Behaviors of Thermoplastic Elastomers
NIPPON GOMU KYOKAISHI, **84** (2011) 21, (*in Japanese*).

Y. Zhao, G. Matsuba, K. Nishida, T. Fujiwara, R. Inoue, I. Polec, C. Deng and T. Kanaya
 Relaxation of Shish-Kebab Precursor in Isotactic Polystyrene after Short-Term Shear Flow
J. Polym. Sci. Part B: Polym. Phys., **49** (2011) 214.

M. Md. Alam, T. Oka, N. Ohta and M. Yamazaki
 Kinetics of Low pH-Induced Lamellar to Bicontinuous Cubic Phase Transition in Dioleoylphosphatidylserine/Monoolein
J. Chem. Phys., **134** (2011) 145102.

T. Higashihara, K. Ohshimizu, Y. Ryo, T. Sakurai, A. Takahashi, S. Nojima, M. Ree and M. Ueda
 Synthesis and Characterization of Block Copolythiophene with Hexyl and Triethylene Glycol Side Chains
Polymer, **52** (2011) 3687.

N. D. Tien, T. P. Hoa, G. Kimura, Y. Yamashiro, H. Fujiwara, M. Mochizuki, S. Sasaki and S. Sakurai
Effects of Blending Poly(D,L-Lactide) with Poly(Ethylene Glycol) on the Higher-Order Crystalline Structures of Poly(Ethylene Glycol) as Revealed by Small-Angle X-Ray Scattering
J. Phys.: Conf. Ser., **272** (2011) 012007.

T. Kota, K. Imaizumi, S. Sasaki and S. Sakurai
Spontaneous Enhancement of Packing Regularity of Spherical Microdomains in the Body-Centered Cubic Lattice upon Uniaxial Stretching of Elastomeric Triblock Copolymers
Polymers, **3** (2011) 36.

R. Zhu, T. Hoshi, Y. Chishima, Y. Muroga, T. Hagiwara, S. Yano and T. Sawaguchi
Microstructure and Mechanical Properties of Polypropylene/poly(methyl methacrylate) Nanocomposite Prepared using Supercritical Carbon Dioxide
Macromolecules, **44** (2011) 6103.

N. Igarashi, Y. Watanabe, Y. Shinohara, Y. Inoko, G. Matsuba, H. Okuda, T. Mori and K. Ito
Upgrade of the Small Angle X-Ray Scattering Beamlines at the Photon Factory
J. Phys.: Conf. Ser., **272** (2011) 012026.

J. Katakawa, H. Minami, T. Fujita and Y. Sano
Concentric Nano-Sized Vesicle Formation by Immunosuppressant FTY720 Revealed with Small-Angle X-Ray Scattering using Synchrotron Radiation Source
J. Biol. Macromol., **11** (2011) 15.

C. Zwieb, Y. Nakao, T. Nakashima, H. Takagi, S. Goda, E. S. Andersen, Y. Kakuta and M. Kimura
Structural Modeling of RNase P RNA of the Hyperthermophilic Archaeon *Pyrococcus horikoshii* OT3
Biochem. Biophys. Res. Commun., **414** (2011) 517.

J. Kawabata, G. Matsuba, K. Nishida, R. Inoue and T. Kanaya
Melt Memory Effects on Recrystallization of Polyamide 6 Revealed by Depolarized Light Scattering and Small-Angle X-Ray Scattering
J. Appl. Polym. Sci., **122** (2011) 1913.

11A

K. Amemiya and M. Sakamaki
NiO-Like Single Layer Formed on a Ni/Cu(001) Thin Film Revealed by the Depth-Resolved X-Ray Absorption Spectroscopy
Appl. Phys. Lett., **98** (2011) 012501.

K. Amemiya and M. Sakamaki
Sub-nm Resolution Depth Profiling of the Magnetic Structure of Thin Films by the Depth-Resolved X-Ray Magnetic Circular Dichroism Technique
J. Phys. D, **44** (2011) 064018.

M. A. Mannan, Y. Baba, T. Kida, M. Nagano, I. Shimoyama, N. Hirao and H. Noguchi
Orientation of B-C-N Hybrid Films Deposited on Ni(111) and Polycrystalline Ti Substrates Explored by X-Ray Absorption Spectroscopy
Thin Solid Films, **519** (2011) 1780.

M. Sakamaki, N. Kawai, T. Miki, T. Kaneko, T. Konishi, T. Fujikawa, K. Amemiya, Y. Kitajima, Y. Kato, T. Muro, H. Yamauchi and M. Sakai
Observation of Disorder-Driven Carrier Localization by Auger Resonant Raman Scattering in *n*-Type Doped ZnO
Phys. Rev. B, **83** (2011) 155210.

K. R. Koswattage, I. Shimoyama, Y. Baba, T. Sekiguchi and K. Nakagawa
Selective Adsorption of Atomic Hydrogen on a *h*-BN Thin Film
J. Chem. Phys., **135** (2011) 014706.

K. R. Koswattage, I. Shimoyama, Y. Baba, T. Sekiguchi and K. Nakagawa
Study on Selective Adsorption of Deuterium on Boron Nitride using Photon-Stimulated Ion-Desorption
Appl. Surf. Sci., **258** (2011) 1561.

T. Miyanaga, T. Kanno, Y. Fujine, J. Araaki and M. Yoshizawa
Polarized XAFS Study of Mg *K*-Edge for MgB₂ on ZnO
J. Elec. Spec. Relat. Phenom., **184** (2011) 254.

S. Ueda, K. Hayashida, H. Nakajima, N. Anabuki, H. Uchida, H. Tsunemi, M. Fujikawa, H. Mori, T. Kohmura, T. Watanabe, K. Kawai, S. Ikeda, K. Kaneko, K. Sakata, S. Todoroki, H. Mizuno, N. Yagihashi, T. Dotani, M. Ozaki, T. Go-Tsuru, M. Muramatsu, H. Suzuki and S. Takagi
Development of the X-Ray CCD for SXI on Board ASTRO-H
Proc. SPIE, **8145** (2011) 814504.

11B

O. Endo and M. Nakamura
Cyclic Voltammetry and Near Edge X-Ray Absorption Fine Structure Spectroscopy at the Ag L3-Edge on Electrochemical Halogenation of Ag Layers on Au(111)
Surf. Sci., **605** (2011) 958.

A. Ito, T. Inoue, K. Takehara, N. Shimizu, Y. Kitajima and K. Shinohara
Application of XANES Profiles to X-Ray Spectromicroscopy for Biomedical Specimens: Part I. Discrimination of Macromolecules with Sulfur Atoms
J. X-ray Sci. Tech., **19** (2011) 249.

T. Inoue, K. Takehara, N. Shimizu, Y. Kitajima, K. Shinohara and A. Ito
Application of XANES Profiles to X-Ray Spectromicroscopy for Biomedical Specimens: Part II. Mapping Oxidation State of Cystein in Human Hair
J. X-ray Sci. Tech., **19** (2011) 313.

T. Fujimori, Y. Tanino and M. Takaoka
Role of Zinc in MSW Fly Ash during Formation of Chlorinated Aromatics
Environ. Sci. Technol., **45** (2011) 7678.

H. Okuda, K. Takeshita, S. Ochiai, S. Sakurai and Y. Kitajima
Near-Surface Relaxation Structure of Annealed Block Copolymer Film on Si Substrates Examined by Grazing-Incidence Small-Angle Scattering Utilizing Soft X-Rays
J. Appl. Cryst., **44** (2011) 380.

T. Fujimori and M. Takaoka
Thermochemical Chlorination of Carbon Indirectly Driven by an Unexpected Sulfide of Copper with Inorganic Chloride
J. Hazard. Mater., **197** (2011) 345.

11D

K. Ozawa and K. Mase
Comparison of the Surface Electronic Structure of H-Adsorbed ZnO Surfaces: An Angle-Resolved Photoelectron Spectroscopy Study
Phys. Rev. B, **83** (2011) 125406.

12C

M. Hatayama, T. Sato, K. Shinoda and C. Inoue
Effects of Cultivation Conditions on the Uptake of Arsenite and Arsenic Chemical Species Accumulated by *Pteris vittata* in Hydroponics
J. Biosci. Bioeng., **111** (2011) 326.

S. L. L. M. Ramos, M. Oguni, Y. Masuda and Y. Inada
Crossover from Low-Temperature Itinerant to High-Temperature Localized Electron Behavior in the Electron-Doped Rare-Earth Metal Cobaltate Perovskites
Phys. Rev. B, **83** (2011) 085109.

N. Ahmed, Y. Shibata, T. Taniguchi and Y. Izumi
Photocatalytic Conversion of Carbon Dioxide into Methanol using Zinc-Copper-M(III) (M = Aluminum, Gallium) Layered Double Hydroxides
J. Catal., **279** (2011) 123.

H. Wang, S. Hamanaka, T. Yokoyama, H. Yoshikawa and K. Awaga
In-situ XAFS Studies of Mn₁₂ Molecular-Cluster Batteries: Super-Reduced Mn₁₂ Clusters in Solid-State Electrochemistry
Chem. Asian J., **6** (2011) 1074.

T. Wada, K. K. Bando, K. Kawai and K. Asakura
In-situ XAFS for Monitoring the Structure of Catalysts under More Realistic Reaction Conditions
Shokubai, **53** (2011) 150, (in Japanese).

C. Yogi, K. Kojima, T. Hashishin, N. Wada, Y. Inada, E. D. Gaspera, M. Bersani, A. Martucci, L. Liu and T.-K. Sham
Size Effect of Au Nanoparticles on TiO₂ Crystalline Phase of Nanocomposite Thin Films and their Photocatalytic Properties
J. Phys. Chem. C, **115** (2011) 6554.

K. R. Priolkar, D. N. Lobo, P. A. Bhobe, S. Emura and A. K. Nigam
Role of Ni-Mn Hybridization in the Magnetism of the Martensitic State of Ni-Mn-In Shape Memory Alloys
EPL, **94** (2011) 38006.

C. Tokoro, H. Koga, Y. Oda, S. Owada and Y. Takahashi
XAFS Investigation for As(V) Co-Precipitation Mechanism with Ferrihydrite
J. Mining and Materials Processing Institute of Jpn., **127** (2011) 213, (in Japanese).

N. Yabuuchi, M. Sugano, Y. Yamakawa, I. Nakai, K. Sakamoto, H. Muramatsu and S. Komaba
Effect of Heat-Treatment Process on FeF₃ Nanocomposite Electrodes for Rechargeable Li Batteries
J. Mater. Chem., **21** (2011) 10035.

N. Yamaguchi, T. Nakamura, D. Dong, Y. Takahashi, S. Amachi and T. Makino
Arsenic Release from Flooded Paddy Soils is Influenced by Speciation, Eh, pH, and Iron Dissolution
Chemosphere, **83** (2011) 925.

M. Hori, K. Shozugawa and M. Matsuo
Improvement of Speciation Analysis for Chromium by X-Ray Absorption Fine Structure and Estimation of the Reduction of Hexavalent Chromium in Soil
Bunseki Kagaku, **60** (2011) 379, (in Japanese).

N. Yabuuchi, K. Yoshii, S. Myung, I. Nakai and S. Komaba
Detailed Studies of a High-Capacity Electrode Material for Rechargeable Batteries, Li₂MnO₃-LiCo_{1/3}Ni_{1/3}Mn_{1/3}O₂
J. Am. Chem. Soc., **133** (2011) 4404.

H. Yamaguchi, H. Shibata, K. Maejima, H. Tampo, K. Matsubara, A. Yamada and S. Niki
Local Structure around Dopant Site in Ga-Doped ZnO from Extended X-Ray Absorption Fine Structure Measurements
J. Phys. Soc. Jpn., **80** (2011) 074602.

B. Mongkhonsin, W. Nakbanpote, I. Nakai, A. Hokura and N. Jearanaikoon
Distribution and Speciation of Chromium Accumulated in *Gynura pseudochina* (L.) DC
Environmental and Experimental Botany, **74** (2011) 56.

T. Kashiwabara, Y. Takahashi, M. Tanimizu and A. Usui
Molecular-Scale Mechanisms of Distribution and Isotopic Fractionation of Molybdenum between Seawater and Ferromanganese Oxides
Geochim. Cosmochim. Acta, **75** (2011) 5762.

L. Cao, H. Park, G. Dodbiba, K. Ono, C. Tokoro and T. Fujita
 Keeping Gallium Metal to Liquid State under the Freezing Point by using Silica Nanoparticles
Appl. Phys. Lett., **99** (2011) 143120.

S. Kageyama, S. Seino, T. Nakagawa, H. Nitani, K. Ueno, H. Daimon and T. A. Yamamoto
 Formation of PtRu Alloy Nanoparticle Catalyst by Radiolytic Process Assisted by Addition of DL-Tartaric Acid and its Enhanced Methanol Oxidation Activity
J. Nanoparticle Res., **13** (2011) 5275.

J. Kugai, R. Kitagawa, S. Seino, T. Nakagawa, Y. Ohkubo, H. Nitani, H. Daimon and T. A. Yamamoto
 γ -Fe₂O₃-Supported Pt-Cu Nanoparticles Synthesized by Radiolytic Process for Catalytic CO Preferential Oxidation
Appl. Cat. A, **406** (2011) 43.

Y. Ohkubo, M. Shibata, S. Kageyama, S. Seino, T. Nakagawa, J. Kugai and T. A. Yamamoto
 Radiation Induced Synthesis of Au-Pd Nanoparticles of Random Alloy Structure Supported on Carbon Particles using the High Energy Electron Beam
Mater. Lett., **65** (2011) 2165.

T. A. Yamamoto, S. Kageyama, S. Seino, H. Nitani, T. Nakagawa, R. Horioka, Y. Honda, K. Ueno and H. Daimon
 Methanol Oxidation Catalysis and Substructure of PtRu/C Bimetallic Nanoparticles Synthesized by a Radiolytic Process
Appl. Cat. A, **396** (2011) 68.

L. Wang, A. Yoshiasa, M. Okube and T. Takeda
 Titanium Local Structure in Tektite Probed by X-Ray Absorption Fine Structure Spectroscopy
J. Synchrotron Rad., **18** (2011) 885.

T. Furukawa and Y. Takahashi
 Oxalate Metal Complexes in Aerosol Particles: Implications for the Hygroscopicity of Oxalate-Containing Particles
Atom. Chem. Phys., **11** (2011) 4289.

A. G. Gault, S. Langely, A. Ibrahim, R. Renaud, Y. Takahashi, C. Boothman, J. R. Lloyd, I. D. Clark, F. G. Ferris and D. Fortin
 Microbial and Geochemical Features Suggest Iron Redox Cycling within Bacteriogenic Iron Oxide-Rich Sediments
Chem. Geol., **281** (2011) 41.

K. Sasaki, K. Takatsugi and T. Hirajima
 Effects of initial Fe²⁺ concentration and pulp density on the bioleaching of Cu from enargite by *Acidianus brierleyi*
Hydrometallurgy, **109** (2011) 153.

A. Ohta, H. Kagi, H. Tsuno, M. Nomura, T. Okai and N. Yanagisawa
 IR and XANES Spectroscopic Studies of Humic Acids Reacting with Cr(III) and Cr(VI)
Bulletin of the Geological Survey of Japan, **62** (2011) 347.

S. Mitsunobu, Y. Takahashi, S. Utsunomiya, A. M. Matthew, Y. Terada, T. Iwamura and M. Sakata
 Identification and Characterization of Nanosized Tripuhite in Soil Near Sb Mine Tailing
Am. Mineral., **96** (2011) 1171.

S. Takenaka, H. Miyamoto, N. Susuki, H. Matsune and M. Kishida
 Highly Durable Carbon Nanotube-Supported Pd Cathode Catalysts Covered with Silica Layers for Polymer Electrolyte Fuel Cells: Effect of Silica Layer Thickness on the Catalytic Performance
ECS Trans., **41** (2011) 2305.

A. Era, M. Tabuchi, T. Nishitani and Y. Takeda
 A Study on EXAFS Analysis of Cs/GaAs NEA Surface
J. Phys. :Conf. Ser., **298** (2011) 012012.

Former 13A

T. Nagai, D. Hamane and K. Fujino
 Mechanism of Solid Solution and Crystal Chemistry in MgSiO₃-FeAlO₃ Perovskite
J. Cryst. Soc. Jpn., **53** (2011) 8, (*in Japanese*).

K. Takemura and H. Fujihisa
 Na-Au Intermetallic Compounds Formed under High Pressure at Room Temperature
Phys. Rev. B, **84** (2011) 014117.

R. Iizuka, H. Kagi, K. Komatsu, D. Ushijima, S. Nakano, A. Sano-Furukawa, T. Nagai and T. Yagi
 Pressure Responses of Portlandite and H-D Isotope Effects on Pressure-Induced Phase Transitions
Phys. Chem. Minerals, **38** (2011) 777.

K. Niwa, D. Nomichi, M. Hasegawa, T. Okada, T. Yagi and T. Kikegawa
 Compression Behaviors of Binary Skutterudite CoP₃ in Noble Gases up to 40 GPa at Room Temperature
Inorg. Chem., **50** (2011) 3281.

13A

K. Ozawa, S. Munakata, K. Edamoto and K. Mase
 Electron Donor Molecule on Oxide Surface: Influence of Surface Termination of ZnO on Adsorption of Tetrathiafulvalene
J. Phys. Chem. C, **115** (2011) 21843.

H. Tanaka, T. Kikuchi, A. Toyoshima, Y. Nagatani, T. Kosuge, K. Mase, F. Watanabe and H. Nishiguchi
 Report on Water-Cooled Movable Masks Made of Forged 0.2% Beryllium Copper Alloy
J. Vac. Soc. Jpn., **54** (2011) 481.

Former 13B

H. Oyanagi and C. J. Xhang

Lattice Anomalies and HTSC in Pnictides and Cuprates Studied by XAS: Polaron Resonance as a Common Clue
J. Supercond. Nov. Magn., **24** (2011) 89.

Former 13C

F. Esaka, H. Yamamoto, H. Udon, N. Matsubayashi, K. Yamaguchi, S. Shamoto, M. Magara and T. Kimura Spectroscopic Characterization of β -FeSi₂ Single Crystals and Homoepitaxial β -FeSi₂ Films by XPS and XAS
Appl. Surf. Sci., **257** (2011) 2950.

F. Esaka, H. Yamamoto, H. Udon, N. Matsubayashi, K. Yamaguchi, S. Shamoto, M. Magara and T. Kimura Surface Characterization of Homoepitaxial β -FeSi₂ Film on β -FeSi₂ (111) Substrate by X-Ray Photoelectron and X-Ray Absorption Spectroscopy
Phys. Proc., **11** (2011) 150.

M. Imamura, N. Matsubayashi, J. Fan, I. Kojima and M. Sasaki
The Determination of the Thickness of the Silicon Oxide Film by Synchrotron Radiation X-Ray Photoelectron Spectroscopy (SR-XPS) Analysis
Meas. Sci. Technol., **22** (2011) 024007.

K. R. Koswattage, I. Shimoyama, Y. Baba, T. Sekiguchi and K. Nakagawa
Selective Adsorption of Atomic Hydrogen on a *h*-BN Thin Film
J. Chem. Phys., **135** (2011) 014706.

K. R. Koswattage, I. Shimoyama, Y. Baba, T. Sekiguchi and K. Nakagawa
Study on Selective Adsorption of Deuterium on Boron Nitride using Photon-Stimulated Ion-Desorption
Appl. Surf. Sci., **258** (2011) 1561.

14A

S. Gunji, N. Toukairin, Y. Tanaka, F. Tokanai, H. Sakurai, Y. Kishimoto, T. Mihara, K. Hayashida, N. Anabuki, H. Tsunemi, T. Narita, Y. Saito and S. Kishimoto
Basic Performance of a Polarimeter for Gamma-Ray Bursts Using Segmented Scintillators
IEEE Trans. Nucl. Sci., **58** (2011) 426.

T. Sakakura, K. Tanaka, Y. Takenaka, M. Watanabe, Y. Noda, S. Kishimoto, S. Matsuishi and H. Hosono
Accurate Analysis of the Deformed Structures of Inorganic Electrides, Ca₁₂Al₁₄O_{32+x} by Synchrotron X-Ray and Neutron Diffraction
Radioisotopes, **60** (2011) 131, (*in Japanese*).

T. Sakakura, K. Tanaka, Y. Takenaka, S. Matsuishi, H. Hosono and S. Kishimoto
Determination of the Local Structure of a Cage with an Oxygen Ion in C₁₂Al₁₄O₃₃
Appl. Catal. B, **B67** (2011) 193.

D. Yonetoku, T. Murakami, S. Gunji, T. Mihara, T. Sakashita, Y. Morihara, Y. Kikuchi, T. Takahashi, H. Fujimoto, N. Toukairin, Y. Kodama, S. Kubo and IKAROS Demonstration Team
Gamma-Ray Burst Polarimeter (GAP) Aboard the Small Solar Power Sail Demonstrator IKAROS
Publ. Astron. Soc. Japan, **63** (2011) 625.

S. Kishimoto, S. Adachi, T. Taniguchi, M. Ikeno, S. Shimazaki, M. Tanaka and T. Mitsui
Si-APD Array Detectors with 2 ns Pulse-Pair Resolving Time and Sub-ns Resolution for Synchrotron X-Ray Measurements
Nucl. Instrum. Meth. Phys. Res. A, **A650** (2011) 98.

S. Kishimoto, T. Taniguchi, F. Nishikido and R. Haruki
Timing Measurements with a MSM Photodetector Sensitive to a Single X-Ray Photon
KEK Proc., **2011-8** (2011) 173.

14B

K. Hirano
Application of X-Ray Image Magnifier and Demagnifier to Parallel Beam X-Ray Computed Tomography
J. Phys. D: Appl. Phys., **44** (2011) 055501.

K. Hirano
X-Ray Angle-Resolved Computed Tomography using an Asymmetric Analyzer Crystal
Jpn. J. Appl. Phys., **50** (2011) 026402.

H. Sato, M. Ando and D. Shimao
Investigation of Absorbed Radiation Dose in Refraction-Enhanced Breast Tomosynthesis by a Laue Case Analyser
Radiat. Prot. Dosimetry, **146** (2011) 231.

14C

N. Sunaguchi, T. Yuasa, Q. Huo and M. Ando
Convolution Reconstruction Algorithm for Refraction-Contrast Computed Tomography using a Laue-Case Analyzer for Dark-Field Imaging
Optics Letters, **36** (2011) 391.

A. Momose, W. Yashiro, S. Harasse and H. Kuwabara
Four-Dimensional X-Ray Phase Tomography with Talbot Interferometry and White Synchrotron Radiation: Dynamic Observation of a Living Worm
Optics Express, **19** (2011) 8423.

W. Yashiro, S. Harasse, K. Kawabata, H. Kuwabara, T. Yamazaki and A. Momose
Distribution of Unresolvable Anisotropic Microstructures Revealed in Visibility-Contrast Images using X-Ray Talbot Interferometry
Phys. Rev. B, **84** (2011) 094106.

S. Takeya, A. Yoneyama, K. Ueda, K. Hyodo, T. Takeda, H. Mimachi, M. Takahashi, T. Iwasaki, K. Sano, H. Yamawaki and Y. Gotoh
Nondestructive Imaging of Anomalously Preserved Methane Clathrate Hydrate by Phase Contrast X-Ray Imaging
J. Phys. Chem. C, **115** (2011) 16193.

N. Sunaguchi, T. Yuasa, Q. Huo and M. Ando
Refraction-Contrast Tomosynthesis Imaging using Dark-Field Imaging Optics
Appl. Phys. Lett., **99** (2011) 103704.

C. Suzuki, T. Abe, T. Iimoto and T. Kosako
Energy Response of an Imaging Plate to Low-Energy Photons for Use in Dosimetry
Jpn. J. Health Phys., **46** (2011) 158.

Y. Suzuki, Y. Chikaura and M. Ando
Computer Simulation on Spatial Resolution of X-Ray Bright-Field Imaging by Dynamical Diffraction Theory for a Laue-Case Crystal Analyzer
J. Appl. Phys., **110** (2011) 084902-1.

E. Takada, A. Takada, A. Inoue, H. Imai, H. Okada, S. Naka, J. Kawarabayashi, T. Nakamura and Y. Namito
Application of Organic Photodiodes to X-Ray Measurements - A Feasibility Study
J. Nucl. Sci. Tech., **48** (2011) 1140.

N. Sunaguchi, T. Yuasa, M. Ando, S. Ichihara, D. Shimao, Q. Huo, M. Sakai, Y. Wu, A. Omi and H. Awane
Refraction-Contrast Computed Tomography using X-Ray Dark Field Imaging
International Forum on Medical Imaging in Asia (IFMIA) 2011, (2011) 360.

T. Yuasa, N. Sunaguchi, Q. Huo and M. Ando
Reconstruction Algorithm of Refraction-Based Computed Tomography: From Viewpoint of X-Ray Optics
International Forum on Medical Imaging in Asia (IFMIA) 2011, (2011) 1.

M. Ando, T. Endo, S. Ichihara, T. Yuasa, K. Mori, D. Shimao, H. Sato, Q. Huo, N. Sunaguchi, M. Sakai, A. Omi and H. Awane
2-Dimensional and 3-Dimensional View of Breast Cancer using Dark-Field Imaging
International Forum on Medical Imaging in Asia (IFMIA) 2011, (2011) 45.

Q. Huo, N. Sunaguchi, M. Sakai, H. Awane, A. Omi, T. Yuasa, K. Hyodo, S. Ichihara and M. Ando
Application of X-Ray Dark Field Imaging to Liver Tissue Specimen
International Forum on Medical Imaging in Asia (IFMIA) 2011, (2011) 363.

H. Sato, M. Ando and D. Shimao
Investigation of Absorbed Radiation Dose in Refraction-Enhanced Breast Tomosynthesis by a Laue Case Analyser
Radiat. Prot. Dosimetry, **146** (2011) 231.

Former 14C2

R. Tateyama, E. Ohtani, H. Terasaki, K. Nishida, Y. Shibasaki, A. Suzuki and T. Kikegawa
Density Measurements of Liquid Fe-Si Alloys at High Pressure using the Sink-Float Method
Phys. Chem. Minerals, **38** (2011) 801.

15A

Y. Takenaka, H. Kitahata, N. L. Yamada, H. Seto and M. Hara
Growth of Gold Nanorods in Gelled Surfactant Solutions
J. Colloid Interface Sci., **356** (2011) 111.

K. Oshima, Y. Sugimoto and K. Wakabayashi
Deduction of the Single-Myosin-Filament Transforms from Partially Sampled Layer Lines in the X-Ray Diffraction Pattern from Vertebrate Striated Muscle
J. Appl. Cryst., **44** (2011) 398.

M. Hishida and K. Tanaka
Long-Range Hydration Effect of Lipid Membrane Studied by Terahertz Time-Domain Spectroscopy
Phys. Rev. Lett., **106** (2011) 158102.

M. Hishida and H. Seto
Lamellar-Lamellar Phase Separation of Phospholipid Bilayers Induced by Salting-in/-out Effects
J. Phys.: Conf. Ser., **272** (2011) 012008.

G. Matsuba, H. Inoue and R. Yamaki
Precise Structure Analysis and Properties for New Adhesive "Intelimer"
Sen'i Gakkaishi, **67** (2011) 112, (*in Japanese*).

S. Sakurai
X-Ray Scattering Analyses on Deformation Behaviors of Thermoplastic Elastomers
NIPPON GOMU KYOKAISHI, **84** (2011) 21, (*in Japanese*).

S. S. A. Rahman, D. Kawaguchi and Y. Matsushita
Microphase-Separated Structures of Poly(*4-tert-butylstyrene-block-4-tert-butoxystyrene*) upon Gradual Changes in Segregation Strength through Hydrolysis Reaction
Macromolecules, **44** (2011) 2799.

Y. Zhao, G. Matsuba, K. Nishida, T. Fujiwara, R. Inoue, I. Polec, C. Deng and T. Kanaya
Relaxation of Shish-Kebab Precursor in Isotactic Polystyrene after Short-Term Shear Flow
J. Polym. Sci. Part B: Polym. Phys., **49** (2011) 214.

- T. Matsutani and K. Yamamoto
Solvent Annealing Induced Perpendicular Orientation of Cylindrical Microdomains in Polystyrene-*b*-poly(4-hydroxyl styrene)/PEG Oligomer Blend Thin Film Made by Spin-Coating from Selective Solvent
J. Phys.: Conf. Ser., **272** (2011) 012015.
- H. Takeno, K. Obuchi, Y. Maki, S. Kondo and T. Dobashi
A Structural Study of Polyelectrolyte Gels in a Unidirectionally Swollen State
Polymer, **52** (2011) 2685.
- M. Md. Alam, T. Oka, N. Ohta and M. Yamazaki
Kinetics of Low pH-Induced Lamellar to Bicontinuous Cubic Phase Transition in Doleoylphosphatidylserine/Monoolein
J. Chem. Phys., **134** (2011) 145102.
- Y. Nozue, Y. Kawashima, S. Seno, T. Nagamatsu, S. Hosoda, E. B. Berda, G. Rojas, T. W. Baughman and K. B. Wagener
Unusual Crystallization Behavior of Polyethylene Having Precisely Spaced Branches
Macromolecules, **44** (2011) 4030.
- R. Zhang, C. Dutriez, K. Sugiyama, T. Ishizone and H. Yokoyama
Thermally Robust Nanocellular Thin Films of High- T_g Semifluorinated Block Copolymers Foamed with Supercritical Carbon Dioxide
Soft Matter, **7** (2011) 4032.
- A. Noro, K. Ishihara and Y. Matsushita
Nanophase-Separated Supramolecular Assemblies of Two Functionalized Polymers via Acid-Base Complexation
Macromolecules, **44** (2011) 6241.
- T. Kota, K. Imaizumi, S. Sasaki and S. Sakurai
Spontaneous Enhancement of Packing Regularity of Spherical Microdomains in the Body-Centered Cubic Lattice upon Uniaxial Stretching of Elastomeric Triblock Copolymers
Polymers, **3** (2011) 36.
- Y. Maki, K. Ito, N. Hosoya, C. Yoneyama, K. Furusawa, T. Yamamoto, T. Dobashi, Y. Sugimoto and K. Wakabayashi
Anisotropic Structure of Calcium-Induced Alginate Gels by Optical and Small-Angle X-Ray Scattering Measurements
Biomacromolecules, **12** (2011) 2145.
- Y. Sakai, K. Ueda, N. Katsuyama, K. Shimizu, S. Sato, J. Kuroiwa, J. Araki, A. Teramoto, K. Abe, H. Yokoyama and K. Ito
Fabrication and Structural Analysis of Polyrotaxane Fibers and Films
J. Phys.: Condens. Matter, **23** (2011) 284108.
- H. Okuda, K. Takeshita, S. Ochiai, S. Sakurai and Y. Kitajima
Near-Surface Relaxation Structure of Annealed Block Copolymer Film on Si Substrates Examined by Grazing-Incidence Small-Angle Scattering Utilizing Soft X-Rays
J. Appl. Cryst., **44** (2011) 380.
- N. Igarashi, Y. Watanabe, Y. Shinohara, Y. Inoko, G. Matsuba, H. Okuda, T. Mori and K. Ito
Upgrade of the Small Angle X-Ray Scattering Beamlines at the Photon Factory
J. Phys.: Conf. Ser., **272** (2011) 012026.
- Y. Kawabata, T. Shinoda and T. Kato
Vesicle Growth and Deformation in a Surfactant Solution below the Krafft Temperature
Phys. Chem. Chem. Phys., **13** (2011) 3484.
- L. Bayes-Garcia, T. Calvet, M. A. Cuevas-Diarte, S. Ueno and K. Sato
In situ Synchrotron Radiation X-Ray Diffraction Study of Crystallization Kinetics of Polymorphs of 1,3-Doleoyl-2-Palmitoyl Glycerol (OPO)
Cryst. Eng. Comm., **13** (2011) 3592.
- Y. Morimoto, T. Nakagawa and M. Kojima
Computational Analyses of Protein Structures by Solution X-Ray Scattering
Seibutsu Butsuri, **51** (2011) 88, (*in Japanese*).
- J. Kawabata, G. Matsuba, K. Nishida, R. Inoue and T. Kanaya
Melt Memory Effects on Recrystallization of Polyamide 6 Revealed by Depolarized Light Scattering and Small-Angle X-Ray Scattering
J. Appl. Polym. Sci., **122** (2011) 1913.
- R. Homma, S. Sato and S. Ichikawa
Molecular Aggregation of Aqueous Carboxybetaines with Bulky Alkyl Chains: Formation of Vesicles and Lamellar Liquid Crystalline Aggregates
Membrane, **36** (2011) 326.
- 15B1**
- H. Sato, H. Maso, Y. Utsumi, H. Kurihara, Y. Mukaegawa, Y. Tezuka, T. Iwazumi, F. Iga, M. Tsubota, H. Namatame and M. Taniguchi
Polarization-Dependent Ti K X-Ray Absorption and Emission Studies of Ti_2O_3 Single Crystal
J. Elec. Spec. Relat. Phenom., **184** (2011) 184.
- Y. Isohama, N. Nakajima, H. Maruyama, Y. Tezuka and T. Iwazumi
Tetragonal-Cubic Phase Transition in $BaTiO_3$ Probed by Resonant X-Ray Emission Spectroscopy
J. Elec. Spec. Relat. Phenom., **184** (2011) 207.
- 15B2**
- T. Shirasawa, M. Ohyama, W. Voegeli and T. Takahashi
Interface of a Bi(001) Film on Si(111)-7 × 7 Imaged by Surface X-Ray Diffraction
Phys. Rev. B, **84** (2011) 075411.

15C

K. Hirano

Application of X-Ray Image Magnifier and Demagnifier to Parallel Beam X-Ray Computed Tomography
J. Phys. D: Appl. Phys., **44** (2011) 055501.

K. Hirano

X-Ray Angle-Resolved Computed Tomography using an Asymmetric Analyzer Crystal
Jpn. J. Appl. Phys., **50** (2011) 026402.

H. Yamaguchi, H. Shibata, K. Maejima, H. Tampo, K. Matsubara, A. Yamada and S. Niki
 Local Structure around Dopant Site in Ga-Doped ZnO from Extended X-Ray Absorption Fine Structure Measurements
J. Phys. Soc. Jpn., **80** (2011) 074602.

Y. Kato, H. Umezawa, H. Yamaguchi, T. Teraji and S. Shikata
 CVD Diamond Dislocations Observed by X-Ray Topography, Birefringence Image and Cathodoluminescence Mapping
Mater. Res. Soc. Symp. Proc., **1282** (2011) 73.

T. Fukamachi, K. Hirano, R. Negishi, Y. Kanematsu, S. Jongsukswat, K. Hirano and T. Kawamura
 Interference Fringes in Multiple Bragg-Laue Mode
Acta Cryst. A, **67** (2011) 154.

T. Fukamachi, S. Jongsukswat, Y. Kanematsu, K. Hirano, R. Negishi, M. Shimojo, D. Ju, K. Hirano and T. Kawamura
 X-Ray Interference Fringes from Weakly Bent Crystal
J. Phys. Soc. Jpn., **80** (2011) 083002.

T. Fukamachi, S. Jongsukswat, Y. Kanematsu, K. Hirano, R. Negishi, M. Shimojo, D. Ju, K. Hirano and T. Kawamura
 Two-Beam X-Ray Interferometer using Diffraction in Multiple Bragg-Laue Mode
J. Phys. Soc. Jpn., **80** (2011) 083001.

H. Umezawa, Y. Kato, H. Watanabe, A. M. M. Omer, H. Yamaguchi and S. Shikata
 Characterization of Crystallographic Defects in Homoepitaxial Diamond Films by Synchrotron X-Ray Topography and Cathodoluminescence
Diamond and Related Materials, **20** (2011) 523.

T. Matsushita, T. Takahashi, T. Shirasawa, E. Arakawa, H. Toyokawa and H. Tajiri
 Quick Measurement of Crystal Truncation Rod Profiles in the Simultaneous Multi-Wavelength Dispersive Mode
J. Appl. Phys., **110** (2011) 102209.

R. Negishi, T. Fukamachi, M. Yoshizawa, Kenji. Hirano, Keiichi. Hirano and T. Kawamura
 Phase Determination of Crystal Structure Factor using Measured Rocking-Curves
Phys. Status Solidi A, **208** (2011) 2567.

K. Seki, Alexander, S. Kozawa, T. Ujihara, P. Chaudouët, D. Chaussende and Y. Takeda
 Formation Process of 3C-SiC on 6H-SiC (0001) by Low-Temperature Solution Growth in Si-Sc-C System
J. Cryst. Growth, **335** (2011) 94.

S. Kozawa, K. Seki, Alexander, Y. Yamamoto, T. Ujihara and Y. Takeda
 Defect Evaluation of SiC Crystal Grown by Solution Method: The Study by Synchrotron X-Ray Topography and Etching Method
Materials Science Forum, **679-680** (2011) 28.

16A

K. Amemiya and M. Sakamaki

NiO-Like Single Layer Formed on a Ni/Cu(001) Thin Film Revealed by the Depth-Resolved X-Ray Absorption Spectroscopy
Appl. Phys. Lett., **98** (2011) 012501.

K. Amemiya and M. Sakamaki

Sub-nm Resolution Depth Profiling of the Magnetic Structure of Thin Films by the Depth-Resolved X-Ray Magnetic Circular Dichroism Technique
J. Phys. D, **44** (2011) 064018.

P. Lablanquie, F. Penent, J. Palaudoux, L. Andric, P. Selles, S. Carniato, K. Bucar, M. Zitnik, M. Huttula, J. H. D. Eland, E. Shigemasa, K. Soejima, Y. Hikosaka, I. H. Suzuki, M. Nakano and K. Ito
 Properties of Hollow Molecules Probed by Single-Photon Double Ionization
Phys. Rev. Lett., **106** (2011) 063003.

I. H. Suzuki, Y. Hikosaka, E. Shigemasa, P. Lablanquie, F. Penent, K. Soejima, M. Nakano, N. Kouchi and K. Ito
 Decay Pathways after Xe 3d Inner Shell Ionization using a Multi-Electron Coincidence Technique
J. Phys. B, **44** (2011) 075003.

M. Sakamaki and K. Amemiya

Element Specific Magnetic Anisotropy Energy of Alternately Layered FeNi Thin Films
Appl. Phys. Express, **4** (2011) 073002.

M. Sakamaki and K. Amemiya

Effect of Surface Roughness on Magnetism of Ultrathin Co Films
J. Phys.: Conf. Ser., **266** (2011) 012020.

K. Amemiya, Y. Kousa, S. Nakamoto, T. Harada, S. Kozai, M. Yoshida, H. Abe, R. Sumii, M. Sakamaki and H. Kondoh

Real-Time Observation of CO Oxidation Reaction on Ir(111) Surface at 33 ms Resolution by Means of Wavelength-Dispersive Near-Edge X-Ray Absorption Fine Structure Spectroscopy
Appl. Phys. Lett., **99** (2011) 074104.

Y. Hikosaka, P. Lablanquie, F. Penet, J. Palaudoux, L. Andric, K. Soejima, E. Shigemasa, I. H. Suzuki, M. Nakano and K. Ito
 Energy Correlation among Three Phoelectrons Emitted in Core-Valence-Valence Triple Photoionization of Ne
 Phys. Rev. Lett., **107** (2011) 113005.

J. Okamoto, K. Horigane, H. Nakao, K. Amemiya, M. Kubota, Y. Murakami and K. Yamada
 Resonant Soft X-Ray Magnetic Scattering Study of Magnetic Structures in La_{1.5}Ca_{0.5}CoO₄
 J. Elec. Spec. Relat. Phenom., **184** (2011) 224.

S. Toyoda, Y. Nakamura, K. Horiba, H. Kumigashira, M. Oshima and K. Amemiya
 Nano-Scale Characterization of Poly-Si Gate on High-k Gate Stack Structures by Scanning Photoemission Microscopy
 e-J. Surf. Sci. Nanotechnology, **9** (2011) 224.

P. Lablanquie, T. P. Grozdanov, M. Zitnik, S. Carniato, P. Selles, L. Andric, J. Palaudoux, F. Penent, H. Iwayama, E. Shigemasa, Y. Hikosaka, K. Soejima, M. Nakano, I. H. Suzuki and K. Ito
 Evidence of Single-Photon Two-Site Core Double Ionization of C₂H₂ Molecules
 Phys. Rev. Lett., **107** (2011) 193004.

J. Ishikawa, T. Miyahara, Y. Hirato, H. Ishii, T. Kodama, K. Kikuchi, T. Nakamura, K. Kodama, D. Asakura and T. Koide
 MCD Study on Ce@C₈₂ and Ce₂@C₈₀ in the Soft-X-Ray Region
 J. Elec. Spec. Relat. Phenom., **184** (2011) 284.

K. Horiba, Y. Nakamura, N. Nagamura, S. Toyoda, H. Kumigashira, M. Oshima, K. Amemiya, Y. Senba and H. Ohashi
 Scanning Photoelectron Microscope for Nanoscale Three-Dimensional Spatial-Resolved Electron Spectroscopy for Chemical Analysis
 Rev. Sci. Instrum., **82** (2011) 113701.

17A

Y. Toh, D. Takeshita, T. Nagaike, T. Numata and K. Tomita
 Mechanism for the Alteration of the Substrate Specificities of Template-Independent RNA Polymerases
 Structure, **19** (2011) 232.

Z. Nakata, M. Nagae, N. Yasui, H. Bujo, T. Nogi and J. Takagi
 Crystallization and Preliminary Crystallographic Analysis of Human LR11 Vps10p Domain
 Acta Cryst. F, **67** (2011) 129.

L. M. G. Chavas, Y. Yamada, M. Hiraki, N. Igarashi, N. Matsugaki and S. Wakatsuki
 UV LED lighting for Automated Crystal Centring
 J. Synchron Rad., **18** (2011) 11.

D. Sasaki, M. Fujihashi, N. Okuyama, Y. Kobayashi, M. Noike, T. Koyama and K. Miki
 Crystal Structure of Heterodimeric Hexaprenyl Diphosphate Synthase from *Micrococcus leteus* B-P 26 Reveals that the Small Subunit is Directly Involved in the Product Chain Length Regulation
 J. Biol. Chem., **286** (2011) 3729.

X. Pan, M. Li, T. Wan, L. Wang, C. Jia, Z. Hou, X. Zhao, J. Zhang and W. Chang
 Structural Insights into Energy Regulation of Light-Harvesting Complex CP29 from Spinach
 Nature Structural Molecular Biology, **18** (2011) 309.

K. Nishi, T. Ono, T. Nakamura, N. Fukunaga, M. Izumi, H. Watanabe, A. Suenaga, T. Maruyama, Y. Yamagata, S. Curry and M. Otagiri
 Structural Insights into Differences in Drug-Binding Selectivity between Two Forms of Human α_1 -Acid Glycoprotein Genetic Variants, the A and F1*S Forms
 J. Biol. Chem., **286** (2011) 14427.

T. Yoshizawa, H. Hashimoto, T. Shimizu, M. Yamabe, N. Shichijo, K. Hanada, H. Hirano and M. Sato
 Purification, Crystallization and X-Ray Diffraction Study of Basic 7S Globulin from Soybean
 Acta Cryst. F, **67** (2011) 87.

Y. Sato, R. Natsume, Z. Prokop, J. Brezovsky, R. Chaloupkova, J. Damborsky, Y. Nagata and T. Senda
 Molecular Bases of Enantioselectivity of Haloalkane Dehalogenase DbjA
 Kessyogakkaishi, **53** (2011) 124, (in Japanese).

M. Senda, H. Tanaka, T. Ishida, K. Horiike and T. Senda
 Crystallization and Preliminary Crystallographic Analysis of D-Serine Dehydratase from Chicken Kidney
 Acta Cryst. F, **67** (2011) 147.

J.-H. Shin, H. J. Jung, Y. J. An, Y.-B. Cho, S.-S. Cha and J.-H. Roe
 Graded Expression of Zinc-Responsive Genes through Two Regulatory Zinc-Binding Sites in Zur
 Proc. Natl. Acad. Sci. USA, **108** (2011) 5045.

T. Hatakeyama, T. Kamiya, M. Kusunoki, S. Nakamura-Tsuruta, J. Hirabayashi, S. Goda and H. Unno
 Galactose Recognition by A Tetrameric C-Type Lectin, CEL-IV, Containing the EPN Carbohydrate-Recognition Motif
 J. Biol. Chem., **286** (2011) 10305.

S. J. Lee, H. S. Kim, D. J. Kim, H. J. Yoon, K. H. Kim, J. Y. Yoon and S. W. Suh
 Crystal Structures of LacD from *Staphylococcus aureus* and LacD. 1 from *Streptococcus pyogenes*: Insights into Substrate Specificity and Virulence Gene Regulation
 FEBS Lett., **585** (2011) 307.

T. Ohnuma, T. Numata, T. Osawa, M. Mizuhara, K. M. Varum and T. Fukamizo
 Crystal Structure and Mode of Action of a Class V Chitinase from *Nicotiana tabacum*
Plant Mol. Biol., **75** (2011) 291.

M. Unno, M. Shinohara, K. Takayama, H. Tanaka, K. Teruya, K. Doh-ura, R. Sakai, M. Sasaki and M. Ikeda-Saito
 Binding and Selectivity of the Marine Toxin Neodysiherbaine A and its Synthetic Analogues to GluK1 and GluK2 Kainate Receptors
J. Mol. Biol., **413** (2011) 667.

Y. Y. Chen, T. P. Ko, C. H. Lin, W. H. Chen and A. H. J. Wang
 Conformational Change upon Product Binding to *Klebsiella pneumoniae* UDP-Glucose Dehydrogenase: A Possible Inhibition Mechanism for the Key Enzyme in Polymyxin Resistance
J. Structural Biol., **175** (2011) 300.

T. Saitoh, M. Igura, Y. Miyazaki, T. Ose, N. Maita and D. Kohda
 Crystallographic Snapshots of Tom20-Mitochondrial Presequence Interactions with Disulfide-Stabilized Peptides
Biochemistry, **50** (2011) 5487.

Q. Chen, Q. Wang, L. Xiong and Z. Lou
 A Structural View of the Conserved Domain of Rice Stress-Responsive NAC1
Proteins, **2** (2011) 55.

M. Unno, T. Matsui and M. Ikeda-Saito
 X-Ray Crystallography of a Metalloprotein: a Reaction Intermediate of Heme Oxygenase
J. Cryst. Soc. Jpn., **53** (2011) 213, (in Japanese).

J. Jung, J.-K. Kim, S.-J. Yeom, Y.-J. Ahn, D.-K. Oh and L.-W. Kang
 Crystal Structure of *Clostridium thermocellum* Ribose-5-Phosphate Isomerase B Reveals Properties Critical for Fast Enzyme Kinetics
Applied Microbiology and Biotechnology, **90** (2011) 517.

S. Fushinobu, M. Hidaka, A. M. Hayashi, T. Wakagi, H. Shoun and M. Kitaoka
 Interactions between Glycoside Hydrolase Family 94 Cellobiose Phosphorylase and Glucosidase Inhibitors
J. Appl. Glycosci., **58** (2011) 91.

M. Okuda, T. Shiba, D-K. Inaoka, K. Kita, G. Kurisu, S. Mineki, S. Harada, Y. Watanabe and S. Yoshinari
 A Conserved Lysine Residue in the Crenarchaeal Splicing Endonuclease Activity
J. Mol. Biol., **405** (2011) 92.

Y. Uchida, J. Hasegawa, D. Chinnapan, T. Inoue, S. Okazaki, R. Kato, S. Wakatsuki, R. Misaki, M. Koike, Y. Uchiyama, S. Iemura, T. Natsume, R. Kuwahara, T. Nakagawa, K. Nishikawa, K. Mukai, E. Miyoshi, N. Taniguchi, D. Sheff, W. I. Lencer, T. Taguchi and H. Arai

Intracellular Phosphatidylserine is Essential for Retrograde Membrane Traffic through Endosomes
Proc. Natl. Acad. Sci. USA, **108** (2011) 15846.

D.-F. Li, N. Zhang, Y.-J. Hou, Y. Huang, Y. Hu, Y. Zhang, S.-J. Liu and D.-C. Wang
 Crystal Structures of the Transcriptional Repressor RolR Reveals a Novel Recognition Mechanism between Inducer and Regulator
PLoS ONE, **6** (2011) e19529.

H. S. Kim, S. J. Lee, H. J. Yoon, D. R. An, D. J. Kim, S.-J. Kim and S. W. Suh
 Crystal Structures of YwqE from *Bacillus subtilis* and CpsB from *Streptococcus pneumoniae*, Unique Metal-Dependent Tyrosine Phosphatases
J. Struct. Biol., **175** (2011) 442.

Q. Zhou, Y. Zhai, J. Lou, M. Liu, X. Pang and F. Sun
 Thiabendazole Inhibits Ubiquinone Reduction Activity of Mitochondrial Respiratory Complex II via a Water Molecule Mediated Binding Feature
Protein and Cell, **2** (2011) 531.

A. Zheng, R. Yamamoto, M. Sokabe, I. Tanaka and M. Yao
 Crystallization and Preliminary X-Ray Crystallographic Analysis of eIF5B Δ N and the eIF5B Δ N-eIF1A Δ N Complex
Acta Cryst. F, **67** (2011) 730.

T. Kinoshita, Y. Sekiguchi, H. Fukada, T. Nakaniwa, T. Tada, S. Nakamura, K. Kitaura, H. Ohno, Y. Suzuki, A. Hirasawa, I. Nakanishi and G. Tsujimoto
 A Detailed Thermodynamic Profile of Cyclopentyl and Isopropyl Derivatives Binding to CK2 Kinase
Mol. Cell. Biochem., **356** (2011) 97.

H. Tanaka, M. Senda, N. Venugopalan, A. Yamamoto, T. Senda, T. Ishida and K. Horiike
 Crystal Structure of a Zinc-Dependent D-Serine Dehydratase from Chicken Kidney
J. Biol. Chem., **286** (2011) 27548.

X. Zheng, J. Guo, L. Xu, H. Li, D. Zhang, K. Zhang, F. Sun, T. Wen, S. Liu and H. Pang
 Crystal Structure of a Novel Esterase Rv0045c from *Mycobacterium tuberculosis*
PLoS One, **6** (2011)

K.-J. Lee, C.-S. Jeong, Y. J. An, H.-J. Lee, S.-J. Park, Y.-J. Seok, P. Kim, J.-H. Lee, K.-H. Lee and S.-S. Cha
 FrsA Functions as a Cofactor-Independent Decarboxylase to Control Metabolic Flux
Nature Chemical Biology, **7** (2011) 434.

R. Suzuki, Z. Fujimoto, T. Shiotsuki, M. Momma, A. Tase, M. Miyazawa and T. Yamazaki
Structural Mechanism of JH Delivery in Hemolymph by JHBP of silkworm, *Bombyx mori*
Sci. Rep., **1** (2011) 133.

T. Arimori, H. Tamaoki, T. Nakamura, H. Kamiya, S. Ikemizu, Y. Takagi, T. Ishibashi, H. Harashima, M. Sekiguchi and Y. Yamagata
Diverse Substrate Recognition and Hydrolysis Mechanisms of Human NUDT5
Nucleic Acids Res., **39** (2011) 8972.

T. Osawa, S. Kimura, N. Terasaka, H. Inanaga, T. Suzuki and T. Numata
Structural Basis of tRNA Agmatinylation Essential for AUA Codon Decoding
Nature Structural Molecular Biology, **18** (2011) 1275.

T. Osawa, H. Inanaga, S. Kimura, N. Terasaka, T. Suzuki and T. Numata
Crystallization and Preliminary X-Ray Diffraction Analysis of an Archaeal tRNA-Modification Enzyme, TiaS, Complexed with tRNA^{Ile2} and ATP
Acta Cryst. F, **67** (2011) 1414.

K. Miyazono, N. Tabei, K. Marushima, Y. Ohnishi, S. Horinouchi and M. Tanokura
Purification, Crystallization and Preliminary X-Ray Analysis of Qlucokinase from *Streptomyces griseus* in Complex with Glucose
Acta Cryst. F, **67** (2011) 914.

M. Maki, H. Suzuki and H. Shibata
Structure and Function of ALG-2, a Penta-EF-Hand Calcium-Dependent Adaptor Protein
Sci. China Life Sci., **54** (2011) 770.

N. Suzuki, Y.-M. Kim, Z. Fujimoto, M. Momma, H.-K. Kang, K. Funane, M. Okuyama, H. Mori and A. Kimura
Crystallization and Preliminary Crystallographic Analysis of Dextranase from *Streptococcus mutans*
Acta Cryst. F, **67** (2011) 1542.

T. Umeda, N. Tanaka, Y. Kusakabe, M. Nakanishi, Y. Kitade and K. T. Nakamura
Molecular Basis of Fosmidomycin's Action on the Human Malaria Parasite *Plasmodium falciparum*
Sci. Rep., **1** (2011) 9.

H. Yoshida, M. Teraoka, A. Yoshihara, K. Izumori and S. Kamitori
Overexpression, Crystallization, and Preliminary X-Ray Diffraction Analysis of L-Ribose Isomerase from *Acinetobacter* sp. Strain DL-28
Acta Cryst. F, **67** (2011) 1281.

T. T. N. Doan, J.-K. Kim, Q.-K. Mac, C. Chung, N. Sampath, J.-G. Kim, Y.-J. Ahn and L.-W. Kang
Crystallization and Preliminary X-Ray Crystallographic Analysis of β -ketoacyl-ACP Synthase I (XoFabB) from *Xanthomonas oryzae* pv. *Oryzae*
Acta Cryst. F, **67** (2011) 1548.

M. Wang, J. Qi, Y. Liu, C. Vavricka, Y. Wu, Q. Li and G. Gao
Influenza A Virus N5 Neuraminidase Has an Extended 150 Cavity
J. Virology, **85** (2011) 8431.

G. Lu, J. Qi, Z. Chen, X. Xu, F. Gao, D. Lin, W. Qian, H. Liu, H. Jiang, J. Yan and G. Gao
Enterovirus 71 and Coxsackievirus A16 3C Proteases: Binding to Rupintrivir and their Substrate, and Anti-HFMD Drug Design
J. Virology, **85** (2011) 10319.

C. Vavricka, Q. Li, Y. Wu, J. Qi, M. Wang, Y. Liu, F. Gao, J. Liu, E. Feng, J. He, J. Wang, H. Liu, H. Jiang and G. Gao
Structural and Functional Analysis of Laninamivir and its Octanoate Prodrug Reveals Group Specific Mechanisms for Influenza NA Inhibition
PLoS Pathogens, **7** (2011) e1002249.

H. Tanaka, T. Nogi, N. Yasui, K. Iwasaki and J. Takagi
Structural Basis for Variant-Specific Neuroligin-Binding by α -Neurexin
PLOS One, **6** (2011) e19411.

S. Yuzawa, S. Kamakura, Y. Iwakiri, J. Hayase and H. Sumimoto
Structural Basis for Interaction between the Conserved Cell Polarity Proteins Inscuteable and Leu-Gly-Asn Repeat-Enriched Protein (LGN)
Proc. Natl. Acad. Sci. USA, **108** (2011) 19210.

J. Y. Yoon, J. Kim, S. J. Lee, H. S. Kim, H. N. Im, H.-J. Yoon, K. H. Kim, S.-J. Kim, B. W. Han and S. W. Suh
Structural and Functional Characterization of *Helicobacter pylori* DsbG
FEBS Lett., **585** (2011) 3862.

C. Cai, Y. Zhao, X. Tong, S. Fu, Y. Li, Y. Wu, X. Li and Z. Lou
Crystallization and Preliminary X-Ray Analysis of the vWA Domain of Human Anthrax Toxin Receptor 1
Acta Cryst., **67** (2011) 64.

H. Xiang, M. Niyama, S. Sugiyama, H. Adachi, K. Takano, S. Murakami, T. Inoue, Y. Mori, M. Ishikawa, H. Matsumura and E. Katoh
Crystallization and Preliminary X-Ray Crystallographic Analysis of a Helicase-Like Domain from a Tomato Mosaic Virus Replication Protein
Acta Cryst. F, **67** (2011) 1649.

E. Matsuoka, Y. Tanaka, M. Kuroda, Y. Shouji, T. Ohta, I. Tanaka and M. Yao
 Crystal Structure of the Functional Region of Uro-Adherence Factor A from *Staphylococcus saprophyticus* Reveals Participation of the B Domain in Ligand Binding
Protein Science, **20** (2011) 406.

F. Yu, Y. Tanaka, K. Yamashita, T. Suzuki, A. Nakamura, N. Hirano, T. Suzuki, M. Yao and I. Tanaka
 Molecular Basis of Dihydrouridine Formation on tRNA
Proc. Natl. Acad. Sci. USA, **108** (2011) 19593.

F. Yu, Y. Tanaka, S. Yamamoto, A. Nakamura, S. Kita, N. Hirano, I. Tanaka and M. Yao
 Crystallization and Preliminary X-Ray Crystallographic Analysis of Dihydrouridine Synthase from *Thermus thermophilus* and its Complex with tRNA
Acta Cryst. F, **67** (2011) 685.

Y. Yasutake and T. Tamura
 Efficient Production of Active Form of Vitamin D₃ by Microbial Conversion: Comprehensive Approach from the Molecular to the Cellular Level
Synthesiology, **4** (2011) 222, (in Japanese).

Y. Hu, F. Jiang, Y. Guo, Xi. Shen, Y. Zhang, R. Zhang, G. Guo, X. Mao, Q. Zou and D.-C. Wang
 Crystal Structure of HugZ, a Novel Heme Oxygenase from *Helicobacter pylori*
J. Biol. Chem., **286** (2011) 1537.

18A

R. Niikura, K. Nakatsuji and F. Komori
 Local Atomic and Electronic Structure of Au-Adsorbed Ge(001) Surfaces: Scanning Tunneling Microscopy and X-Ray Photoemission Spectroscopy
Phys. Rev. B, **83** (2011) 035311.

F. Y. Ran, Y. Tsunemaru, T. Hasegawa, Y. Takeichi, A. Harasawa, K. Yaji, S. Kim and A. Kakizaki
 Valence Band Structure and Magnetic Properties of Co-Doped Fe₃O₄(100) Films
J. Appl. Phys., **109** (2011) 123919.

S. Ohno, K. Shudo, F. Nakayama, Y. Ichikawa, M. Tanaka, T. Okuda, A. Harasawa, I. Matsuda and A. Kakizaki
 Enhanced Silicon Oxidation on Titanium-Covered Si(001)
J. Phys.: Condens. Matter, **23** (2011) 305001.

Former 18B

K. Ninoi, G. Ju, H. Kamiya, S. Fuchi, M. Tabuchi and Y. Takeda
 Novel System for X-Ray CTR Scattering Measurement on in-situ Observation of OMVPE Growth of Nitride Semiconductor Heterostructures
J. Cryst. Growth, **318** (2011) 1139.

S. Fushinobu, T. Uno, M. Kitaoka, K. Hayashi, H. Matsuzawa and T. Wakagi
 Mutational Analysis of Fungal Family 11 Xylanases on pH Optimum Determination
J. Appl. Glycosci., **58** (2011) 107.

G. Ju, K. Ninoi, H. Kamiya, S. Fuchi, M. Tabuchi and Y. Takeda
 X-Ray Characterization at Growth Temperatures of In_xGa_{1-x}N Growth by MOVPE
Journal of Crystal Growth, **318** (2011) 1143.

18B

M. Sharma, M. K. Sanyal, M. K. Mukhopadhyay, M. K. Bera, B. Saha and P. Chakraborty
 Structural and Morphological Characterization of Molecular Beam Epitaxy Grown Si/Ge Multilayer using X-Ray Scattering Techniques
J. Appl. Phys., **110** (2011) 102204.

18C

T. Nagai, D. Hamane and K. Fujino
 Mechanism of Solid Solution and Crystal Chemistry in MgSiO₃-FeAlO₃ Perovskite
J. Cryst. Soc. Jpn., **53** (2011) 8, (in Japanese).

M. Einaga, A. Ohmura, A. Nakayama, F. Ishikawa, Y. Yamada and S. Nakano
 Pressure-Induced Phase Transition of Bi₂Te₃ to a bcc Structure
Phys. Rev. B, **83** (2011) 092102.

T. Watanabe, A. Suzuki, S. Minobe, T. Kawashima, K. Kameo, K. Minoshima, Y. M. Aguilar, R. Wani, H. Kawahata, K. Sowa, T. Nagai and T. Kase
 Permanent El Nino during the Pliocene Warm Period not Supported by Coral Evidence
Nature, **471** (2011) 209.

T. Sato, N. Funamori and T. Yagi
 Helium Penetrates into Silica Glass and Reduces its Compressibility
Nature Communications, **2** (2011) 345.

S. Nakano, H. Fujihisa, H. Yamawaki, Y. Gotoh and T. Kikegawa
 High-Pressure Transformations and Ionic Conductivity in Low-Z Complex Hydride LiBH₄
The Review of High Pressure Science & Technology, **21** (2011) 213, (in Japanese).

R. Iizuka, H. Kagi, K. Komatsu, D. Ushijima, S. Nakano, A. Sano-Furukawa, T. Nagai and T. Yagi
 Pressure Responses of Portlandite and H-D Isotope Effects on Pressure-Induced Phase Transitions
Phys. Chem. Minerals, **38** (2011) 777.

K. Matsui, J. Hayashi, S. Mitsuka, H. Nakamura, K. Takeda and C. Sekine
 High-Pressure X-Ray Diffraction Study of Unfilled Skutterudite Compound RhAs₃
J. Phys. Soc. Jpn., **80** (2011) SA031.

K. Takeda, K. Ito, J. Hayashi, C. Sekine and T. Yagi
 Structural and Electrical Properties of New Filled Skutterudite Compound BaFe₄As₁₂ Prepared at High Pressure
J. Phys. Soc. Jpn., **80** (2011) SA029.

K. Matsui, J. Hayashi, K. Akahira, K. Ito, Y. Fukushi, K. Takeda and C. Sekine
 Structural Instability of Unfilled Skutterudite Compounds TSb₃ (*T*=Co, Rh and Ir) under High Pressure
J. Phys.: Conf. Ser., **273** (2011) 012043.

M. Matsushita, S. Nakano, H. Ohfuchi, I. Yamada and T. Kikegawa
 Volume and Structural Study of Fe₆₄Mn₃₆ Anti-Ferromagnetic Invar Alloy under High Pressure
J. Magnetism and Magnetic Materials, **323** (2011) 838.

D. Wakabayashi, N. Funamori, T. Sato and T. Taniguchi
 Compression Behavior of Densified SiO₂ Glass
Phys. Rev. B, **84** (2011) 144103.

K. Shirai, H. Dekura, Y. Mori, Y. Fujii, H. Hyodo and K. Kimura
 Structural Study of α -Rhombohedral Boron at High Pressures
J. Phys. Soc. Jpn., **80** (2011) 084601.

S. Machida, H. Hirai, T. Kawamura, Y. Yamamoto and T. Yagi
 Isotopic Effect and Amorphization of Deuterated Hydrogen Hydrate under High Pressure
Phys. Rev. B, **83** (2011) 144101.

19A

F. Y. Ran, Y. Tsunemaru, T. Hasegawa, Y. Takeichi, A. Harasawa, K. Yaji, S. Kim and A. Kakizaki
 Valence Band Structure and Magnetic Properties of Co-Doped Fe₃O₄(100) Films
J. Appl. Phys., **109** (2011) 123919.

19B

Y. Kimoto, T. Matsui and T. Akitsu
 Isotope Effect and Lanthanide Contraction for 3d-4f Cyanide-Bridged Complexes Exhibiting Negative Thermal Expansion
The Open Crystallogr. J., **4** (2011) 16.

20A

T. Tanabe, T. Odagiri, M. Nakano, Y. Kumagai, I. H. Suzuki, M. Kitajima and N. Kouchi
 Reply to "Comment on 'Effect of Entanglement on the Decay Dynamics of a Pair of H(2p) Atoms Due to Spontaneous Emission'"
Phys. Rev. A, **83** (2011) 066102.

T. Odagiri, Y. Kumagai, M. Nakano, T. Tanabe, I. H. Suzuki, M. Kitajima and N. Kouchi
 Formation of Metastable Atomic Hydrogen in the 2s State from Symmetry-Resolved Doubly Excited States of Molecular Hydrogen
Phys. Rev. A, **84** (2011) 053401.

M. Kurokawa, M. Kitajima, K. Toyoshima, T. Kishino, T. Odagiri, H. Kato, M. Hoshino, H. Tanaka and K. Ito
 High-Resolution Total-Cross-Section Measurements for Electron Scattering from Ar, Kr, and Xe Employing a Threshold-Photoelectron Source
Phys. Rev. A, **84** (2011) 062717.

T. Kohmura, K. Kawai, T. Watanabe, T. Ogawa, S. Ikeda, K. Ushiyama, K. Kaneko, S. Kitamoto, H. Murakami, E. Takenaka, K. Nagasaki, K. Higashi, M. Yoshida, H. Tsunemi, K. Hayasida and N. Anabuki
 Measuring the EUV and Optical Transmission of Optical Blocking Layer for X-Ray CCD Camera
Proc. SPIE, **7732** (2011) 77323.

20B

A. S. Kinsela, R. N. Collins and T. D. Waite
 Speciation and Transport of Arsenic in an Acid Sulfate Soil-Dominated Catchment, Eastern Australia
Chemosphere, **82** (2011) 879.

S. G. Johnston, A. F. Keene, E. D. Burton, R. T. Bush and L. A. Sullivan
 Iron and Arsenic Cycling in Intertidal Surface Sediments during Wetland Remediation
Environ. Sci. Technol., **45** (2011) 2179.

E. Donner, D. L. Howard, M. D. deJonge, D. Paterson, M. H. Cheah, R. Naidu and E. Lombi
 X-Ray Absorption and Micro X-Ray Fluorescence Spectroscopy Investigation of Copper and Zinc Speciation in Biosolids
Environ. Sci. Technol., **45** (2011) 7249.

E. Smith, I. M. Kempson, A. L. Juhasz, J. Weber, A. Rofe, D. Gancarz, R. Naidu, R. G. McLaren and M. Grafe
 In vivo-in vitro and XANES Spectroscopy Assessments of Lead Bioavailability in Contaminated Periurban Soils
Environ. Sci. Technol., **45** (2011) 6145.

L. J. Parker, L. C. Italiano, C. J. Morton, N. C. Hancock, D. B. Ascher, J. B. Aitken, H. H. Harris, P. Campomanes, U. Rothlisberger, A. D. Luca, M. L. Bello, W. H. Ang, P. J. Dyson and M. W. Parker
 Studies of Glutathione Transferase P1-1 Bound to a Platinum(IV)-Based Anticancer Compound Reveal the Molecular Basis of its Activation
Chem. Eur. J., **17** (2011) 7806.

R. Julian, L. L. Araujo, P. Kluth, D. J. Sprouster, C. S. Schnohr, A. P. Byrne and M. C. Ridgway
 Swift Heavy Ion Irradiation of Pt Nanocrystals: II. Structural Changes and H Desorption
J. Phys. D : Appl. Phys., **44** (2011) 155402.

Z. Barnea, C. T. Chantler, J. L. Glover, M. W. Grigg, M. T. Islam, M. D. de Jonge, N. A. Rae and C. Q. Tran
Measuring the Linearity of X-Ray Detectors: Consequences for Absolute Attenuation, Scattering and Absolute Bragg Intensities
J. Appl. Cryst., **44** (2011) 281.

E. D. Burton, S. G. Johnston and R. T. Bush
Microbial Sulfidogenesis in Ferrihydrite-Rich Environments: Effects on Iron Mineralogy and Arsenic Mobility
Geochim. Cosmochim. Acta, **75** (2011) 3072.

M. H. Cheah and S. P. Best
XAFS and DFT Characterisation of Protonated Reduced Fe Hydrogenase Analogues and their Implications for Electrocatalytic Proton Reduction
Eur. J. Inorg. Chem., **2011** (2011) 1128.

N. A. S. Webster, K. J. Hartlieb, P. J. Saines, C. D. Ling and F. J. Lincoln
New Quenched-In Fluorite-Type Materials in the Bi_2O_3 - La_2O_3 - PbO System: Synthesis and Complex Phase Behaviour up to 750 °C
Mater. Res. Bull., **46** (2011) 538.

W. Liu, S. J. Borg, D. Testemale, B. Etschmann, J.-L. Hazemann and J. Brugger
Speciation and Thermodynamic Properties for Cobalt Chloride Complexes in Hydrothermal Fluids at 35-440°C and 600 Bar: an in-situ XAS Study
Geochim. Cosmochim. Acta, **75** (2011) 1227.

D. D. Boland, R. N. Collins, T. E. Payne and T. D. Waite
Effect of Amorphous Fe(III) Oxide Transformation on the Fe(II)-Mediated Reduction of U(VI)
Environ. Sci. Technol., **45** (2011) 1327.

I. M. Low, W. K. Pang, S. J. Kennedy and R. I. Smith
High-Temperature Thermal Stability of Ti_2AlN and Ti_4AlN_3 : A Comparative Diffraction Study
J. Eur. Ceram. Soc., **31** (2011) 159.

S. J. Mills, P. M. Kartashov, C. Ma, G. R. Rossman, M. I. Novgorodova, A. R. Kampf and M. Raudsepp
Yttriaite-(Y): The Natural Occurrence of Y_2O_3 from the Bol'shaya Pol'ya River, Subpolar Urals, Russia
Am. Mineral., **96** (2011) 1166.

Q. Zhou, B. J. Kennedy and M. Avdeev
Thermal Expansion Behaviour in the Oxygen Deficient Perovskites $\text{Sr}_2\text{BSbO}_{5.5}$ ($B=\text{Ca}, \text{Sr}, \text{Ba}$). Competing Effects of Water and Oxygen Ordering
J. Solid State Chem., **184** (2011) 2559.

A. C. Monsant, P. Kappen, Y. Wang, P. J. Pigram, A. J. M. Baker and C. Tang
In vivo Speciation of Zinc in *Noccaea caerulescens* in Response to Nitrogen Form and Zinc Exposure
Plant Soil, **348** (2011) 167.

W. K. Pang, I. M. Low, B. H. O'Connor, V. K. Peterson, A. J. Studer and J. P. Palmquist
In situ Diffraction Study of Thermal Decomposition in Maxthal Ti_2AlC
J. Alloys. and Compounds, **509** (2011) 172.

P. Kluth, S. M. Kluth, B. Johannessen, C. J. Glover, G. J. Foran and M. C. Ridgway
Extended X-Ray Absorption Fine Structure Study of Porous GaSb Formed by Ion Implantation
J. Appl. Phys., **110** (2011) 113528.

D. J. Sprouster, R. Giulian, L. L. Araujo, P. Kluth, B. Johannessen, D. J. Cookson and M. C. Ridgway
Swift Heavy-Ion Irradiation-Induced Shape and Structural Transformation in Cobalt Nanoparticles
J. Appl. Phys., **109** (2011) 113504.

F. Jiao, N. Wijaya, L. Zhang, Y. Ninomiya and R. Hocking
Synchrotron-Based XANES Speciation of Chromium in the Oxy-Fuel Fly Ash Collected from Lab-Scale Drop-Tube Furnace
Environ. Sci. Technol., **45** (2011) 6640.

D. J. Sprouster, R. Giulian, L. L. Araujo, P. Kluth, B. Johannessen, N. Kirby and M. C. Ridgway
Formation and Structural Characterization of Ni Nanoparticles Embedded in SiO_2
J. Appl. Phys., **109** (2011) 113517.

R. K. Hocking, R. Brimblecombe, L.-Y. Chang, A. Singh, M. H. Cheah, C. Glover, W. H. Casey and L. Spiccia
Water-Oxidation Catalysis by Manganese in a Geochemical-Like Cycle
Nature Chem., **3** (2011) 461.

H. L. Daly, M. D. Hall, T. W. Failes, M. Zhang, G. J. Foran and T. W. Hambley
Stabilization of Triam(m)inechloridoplatinum Complexes by Oxidation to Pt(IV)
Aust. J. Chem., **64** (2011) 273.

27A

F. Esaka, H. Yamamoto, H. Udon, N. Matsubayashi, K. Yamaguchi, S. Shamoto, M. Magara and T. Kimura
Spectroscopic Characterization of $\beta\text{-FeSi}_2$ Single Crystals and Homoepitaxial $\beta\text{-FeSi}_2$ Films by XPS and XAS
Appl. Surf. Sci., **257** (2011) 2950.

F. Esaka, H. Yamamoto, H. Udon, N. Matsubayashi, K. Yamaguchi, S. Shamoto, M. Magara and T. Kimura
Surface Characterization of Homoepitaxial $\beta\text{-FeSi}_2$ Film on $\beta\text{-FeSi}_2$ (111) Substrate by X-Ray Photoelectron and X-Ray Absorption Spectroscopy
Phys. Proc., **11** (2011) 150.

M. A. Mannan, Y. Baba, T. Kida, M. Nagano, I. Shimoyama, N. Hirao and H. Noguchi
Orientation of B-C-N Hybrid Films Deposited on Ni(111) and Polycrystalline Ti Substrates Explored by X-Ray Absorption Spectroscopy
Thin Solid Films, **519** (2011) 1780.

Y. Baba, T. Sekiguchi, I. Shimoyama and N. Hirao
Surface Micro-XAFS and its Application to Real-Time Observation of Organic Thin Films
J. Surf. Anal., **17** (2011) 333.

Y. Baba
Nanostructure Analyses of Organic Thin Films by Photoelectron Emission Microscopy Combined with Synchrotron Soft X-Rays
Catalysts and Catalysis, **53** (2011) 160, (*in Japanese*).

N. Hirao, Y. Baba, T. Sekiguchi and I. Shimoyama
Quick Observation of Photoelectron Emission Microscopy with Focused Soft X-Rays using Poly-Capillary Lens
J. Surf. Anal., **17** (2011) 227.

N. Hirao, Y. Baba, T. Sekiguchi, I. Shimoyama and M. Honda
Microscopic Observation of Lateral Diffusion at Si-SiO₂ Interface by Photoelectron Emission Microscopy Using Synchrotron Radiation
Appl. Surf. Sci., **258** (2011) 987.

27B

M. Nagoshi, T. Kawano, I. Kage and S. Hayakawa
Micro-Beam XRF and Fe-K Edge XAFS on the Cross Section of the Rust Layer Formed on a Weathering Steel
ISIJ International, **1** (2011) 93.

Y. Okamoto, H. Shiwaku, S. Suzuki and T. Yaita
Position Sensitive XAFS Analysis by using Gray Scale Signals of CCD Image
Adv. X-Ray. Chem. Anal., Japan, **42** (2011) 183, (*in Japanese*).

M. Numakura, N. Sato, C. Bessada, Y. Okamoto, H. Akatsuka, A. Nezu, Y. Shimohara, K. Tajima, H. Kawano, T. Nakahagi and H. Matsuura
Structural Investigation of Thorium in Molten Lithium - Calcium Fluoride Mixtures for Salt Treatment Process in Molten Salt Reactor
Prog. Nucl. Energy, **53** (2011) 994.

S. Kosugi, N. Fujita, T. Matsui, F. Hori, Y. Saitoh, N. Ishikawa, Y. Okamoto and A. Iwase
Effect of High Temperature Annealing on Ferromagnetism Induced by Energetic Ion Irradiation in FeRh Alloy
Nucl. Instr. Meth. B, **269** (2011) 869.

Y. Tahara, B. Zhu, S. Kosugi, N. Ishikawa, Y. Okamoto, F. Hori, T. Matsui and A. Iwase
Study on Effects of Swift Heavy Ion Irradiation on the Crystal Structure in CeO₂ Doped with Gd₂O₃
Nucl. Instr. Meth. B, **269** (2011) 886.

T. Nishi, M. Nakada, C. Suzuki, H. Shibata, Y. Okamoto, M. Akabori and M. Hirata
Valence State of Am in (U_{0.95}Am_{0.05})O_{2.0}
J. Nucl. Mat., **418** (2011) 311.

C. N. Sprung, M. Cholewa, N. Usami, K. Kobayashi and J. C. Crosbie
DNA Damage and Repair Kinetics after Microbeam Radiation Therapy Emulation in Living Cells using Monoenergetic Synchrotron X-Ray Microbeams
J. Synchrotron Rad., **18** (2011) 630.

N. Ishikawa, T. Sonoda, Y. Okamoto, Y. Sawabe, K. Takegahara, S. Kosugi and A. Iwase
X-Ray Study of Irradiation Damage in UO₂ Irradiated with High Energy Heavy Ions
J. Nucl. Mater., **419** (2011) 392.

A. Uehara, T. Fujii, H. Matsuura, N. Sato, T. Nagai, K. Minato, H. Yamana and Y. Okamoto
EXAFS Analysis of Uranium(IV) and Thorium(IV) Complexes in Concentrated CaCl₂ Solutions
Proc. Radiochim. Acta, **1** (2011) 161.

O. Pauvert, M. Salanne, D. Zanghi, C. Simon, S. Reguer, D. Thiaudiere, Y. Okamoto, H. Matsuura and C. Bessada
Ion Specific Effects on the Structure of Molten AF-ZrF₄ Systems (A⁺ = Li⁺, and K⁺)
J. Phys. Chem. B, **115** (2011) 9160.

28A

T. Yoshida, I. Nishi, S. Ideta, A. Fujimori, M. Kubota, K. Ono, S. Kasahara, T. Shibauchi, T. Terashima, Y. Matsuda, H. Ikeda and R. Arita
Two-Dimensional and Three-Dimensional Fermi Surfaces of Superconducting BaFe₂(As_{1-x}P_x)₂ and their Nesting Properties Revealed by Angle-Resolved Photoemission Spectroscopy
Phys. Rev. Lett., **106** (2011) 117001.

T. Arakane, T. Sato, T. Takahashi, T. Fujii and A. Asamitsu
Angle-Resolved Photoemission Study of the Doping Evolution of a Three-Dimensional Fermi Surface in Na_xCoO₂
New Journal of Physics, **13** (2011) 043021.

T. Qian, N. Xu, Y.-B. Shi, K. Nakayama, P. Richard, T. Kawahara, T. Sato, T. Takahashi, M. Neupane, Y.-M. Xu, X.-P. Wang, G. Xu, X. Dai, Z. Fang, P. Cheng, H.-H. Wen, and H. Ding
Quasineasted Fe Orbitals Versus Mott-Insulating V Orbitals in Superconducting Sr₂VFeAsO₃ as Seen from Angle-Resolved Photoemission
Phys. Rev. B, **83** (2011) 140513.

H. Ding, K. Nakayama, P. Richard, S. Souma, T. Sato, T. Takahashi, M. Neupane, Y.-M. Xu, Z.-H. Pan, A. V. Fedorov, Z. Wang, X. Dai, Z. Fang, G. F. Chen, J. L. Luo and N. L. Wang
 Electronic Structure of Optimally Doped Pnictide $Ba_{0.6}K_{0.4}Fe_2As_2$: A Comprehensive Angle-Resolved Photoemission Spectroscopy Investigation
J. Phys.: Condens. Matter, **23** (2011) 135701.

M. Neupane, P. Richard, Y.-M. Xu, K. Nakayama, T. Sato, T. Takahashi, A. V. Federov, G. Xu, X. Dai, Z. Fang, Z. Wang, G.-F. Chen, N.-L. Wang, H.-H. Wen, and H. Ding
 Electron-Hole Asymmetry in the Superconductivity of Doped $BaFe_2As_2$ Seen via the Rigid Chemical-Potential Shift in Photoemission
Phys. Rev. B, **83** (2011) 094522.

T. Saitoh, H. Iwasawa, K. Kurahashi, Y. Nakano, T. Katsufuji, I. Hase, K. Shimada, H. Namatame and M. Taniguchi
 Spin-Doping Effect on the Electronic Structure of $Sr_{1-(x+y)}La_{x+y}Ti_{1-x}Cr_xO_3$
J. Elec. Spec. Relat. Phenom., **184** (2011) 232.

K. Yoshimatsu, K. Horiba, H. Kumigashira, T. Yoshida, A. Fujimori and M. Oshima
 Metallic Quantum Well States in Artificial Structures of Strongly Correlated Oxide
Science, **333** (2011) 319.

T. Yamamoto, R. Yasuhara, I. Ohkubo, H. Kumigashira and M. Oshima
 Formation of Transition Layers at Metal/Perovskite Oxide Interfaces Showing Resistive Switching Behaviors
J. Appl. Phys., **110** (2011) 053707.

K. Nakayama, T. Sato, P. Richard, Y.-M. Xu, T. Kawahara, K. Umezawa, T. Qian, M. Neupane, G. F. Chen, H. Ding and T. Takahashi
 Universality of Superconducting Gaps in Overdoped $Ba_{0.3}K_{0.7}Fe_2As_2$ Observed by Angle-Resolved Photoemission Spectroscopy
Phys. Rev. B, **83** (2011) 020501(R).

T. Arakane, T. Sato, T. Takahashi, T. Fujii and A. Asamitsu
 Three-Dimensional Electronic Structure in Highly Doped Na_xCoO_2 Studied by Angle-Resolved Photoemission Spectroscopy
J. Phys. Chem. Solids, **72** (2011) 552.

Y.-M. Xu, P. Richard, K. Nakayama, T. Kawahara, Y. Sekiba, T. Qian, M. Neupane, S. Souma, T. Sato, T. Takahashi, H.-Q. Luo, H.-H. Wen, G.-F. Chen, N.-L. Wang, Z. Wang, Z. Fang, X. Dai and H. Ding
 Fermi Surface Dichotomy of the Superconducting Gap and Pseudogap in Underdoped Pnictides
Nature Commun., **2** (2011) 392.

I. Nishi, M. Ishikado, S. Ideta, W. Malaeb, T. Yoshida, A. Fujimori, Y. Kotani, M. Kubota, K. Ono, M. Yi, D. H. Lu, R. Moore, Z.-X. Shen, A. Iyo, K. Kihou, H. Kito, H. Eisaki, S. Shamoto and R. Arita
 Angle-Resolved Photoemission Spectroscopy Study of $PrFeAsO_{0.7}$: Comparison with $LaFePO$
Phys. Rev. B, **84** (2011) 014504.

K. Sugawara, T. Sato, K. Kanetani and T. Takahashi
 Semiconductor-Metal Transition and Band-Gap Tuning in Quasi-Free-Standing Epitaxial Bilayer Graphene on SiC
J. Phys. Soc. Jpn., **80** (2011) 024705.

K. Sugawara, K. Kanetani, T. Sato and T. Takahashi
 Fabrication of Li-Intercalated Bilayer Graphene
AIP Advances, **1** (2011) 022103.

H. Guo, K. Sugawara, A. Takayama, S. Souma, T. Sato, N. Satoh, A. Ohnishi, M. Kitaura, M. Sasaki, Q.-K. Xue and T. Takahashi
 Evolution of Surface States in $Bi_{1-x}Sb_x$ Alloys Across the Topological Phase Transition
Phys. Rev. B, **83** (2011) 201104(R).

S. Souma, K. Kosaka, T. Sato, M. Komatsu, A. Takayama, T. Takahashi, M. Kriener, K. Segawa and Y. Ando
 Direct Measurement of the Out-of-Plane Spin Texture in the Dirac Cone Surface State of a Topological Insulator
Phys. Rev. Lett., **106** (2011) 216803.

T. Sato, K. Segawa, K. Kosaka, S. Souma, K. Nakayama, K. Eto, T. Minami, Y. Ando and T. Takahashi
 Unexpected Mass Acquisition of Dirac Fermions at the Quantum Phase Transition of a Topological Insulator
Nature Physics, **7** (2011)

28B

T. Odagiri, Y. Kumagai, M. Nakano, T. Tanabe, I. H. Suzuki, M. Kitajima and N. Kouchi
 Formation of Metastable Atomic Hydrogen in the 2s State from Symmetry-Resolved Doubly Excited States of Molecular Hydrogen
Phys. Rev. A, **84** (2011) 053401.

NE1A

T. Nagai, D. Hamane and K. Fujino
 Mechanism of Solid Solution and Crystal Chemistry in $MgSiO_3$ - $FeAlO_3$ Perovskite
J. Cryst. Soc. Jpn., **53** (2011) 8, (*in Japanese*).

T. Okada, T. Yagi and D. Nishio-Hamane
 High-Pressure Phase Behavior of $MnTiO_3$: Decomposition of Perovskite into MnO and $MnTi_2O_5$
Phys. Chem. Minerals, **38** (2011) 251.

T. Yamamoto, C. Tassel, Y. Kobayashi, T. Kawakami, T. Okada, T. Yagi, H. Yoshida, T. Kamatani, Y. Watanabe, T. Kikegawa, M. Takano, K. Yoshimura and H. Kageyama
 Pressure-Induced Structural, Magnetic, and Transport Transitions in the Two-Legged Ladder $\text{Sr}_3\text{Fe}_2\text{O}_5$
J. Am. Chem. Soc., **133** (2011) 6036.

K. Takemura and H. Fujihisa
 Na-Au Intermetallic Compounds Formed under High Pressure at Room Temperature
Phys. Rev. B, **84** (2011) 014117.

T. Kawauchi, K. Fukutani, M. Matsumoto, K. Oda, T. Okano, X. W. Zhang and Y. Yoda
 Surface Magnetic Canting of Iron Films
Phys. Rev. B, **84** (2011) 020415.

S. Nakano, H. Fujihisa, H. Yamawaki, Y. Gotoh and T. Kikegawa
 High-Pressure Transformations and Ionic Conductivity in Low-Z Complex Hydride LiBH_4
The Review of High Pressure Science & Technology, **21** (2011) 213, (*in Japanese*).

T. Yamamoto, Y. Kobayashi, T. Okada, T. Yagi, T. Kawakami, C. Tassel, S. Kawasaki, N. Abe, K. Niwa, T. Kikegawa, N. Hirao, M. Takano and H. Kageyama
 B1-to-B2 Structural Transitions in Rock Salt Intergrowth Structures
Inorg. Chem., **50** (2011) 11787.

R. Iizuka, H. Kagi, K. Komatsu, D. Ushijima, S. Nakano, A. Sano-Furukawa, T. Nagai and T. Yagi
 Pressure Responses of Portlandite and H-D Isotope Effects on Pressure-Induced Phase Transitions
Phys. Chem. Minerals, **38** (2011) 777.

K. Shirai, H. Dekura, Y. Mori, Y. Fujii, H. Hyodo and K. Kimura
 Structural Study of α -Rhombohedral Boron at High Pressures
J. Phys. Soc. Jpn., **80** (2011) 084601.

K. Niwa, T. Yagi and K. Ohgushi
 Elasticity of CaIrO_3 with Perovskite and Post-Perovskite Structure
Phys. Chem. Minerals, **38** (2011) 21.

A. K. Arora, T. Sato and T. Yagi
 Quenchable High-Density Amorphous Polymorphs of Zirconium Tungstate
J. Phys.: Condens. Matter, **23** (2011) 112207.

M. Sougawa, T. Sumiya, K. Takarabe, Y. Mori, T. Okada, H. Gotou, T. Yagi, D. Yamazaki, N. Tomioka, T. Katsura, H. Kariyazaki, K. Sueoka and S. Kunitsugu
 Crystal Structure of New Carbon-Nitride-Related Material $\text{C}_2\text{N}_2(\text{CH}_2)$
Jpn. J. Appl. Phys., **50** (2011) 095503.

Former NE3A

H. Kobayashi, J. Umemura, X. Zhan, Y. Ohishi, Y. Uwatoko, H. Fujii and N. Sakai
 Structural and Magnetic Properties of Fe_2P under Pressure at Low Temperature
J. Phys. Soc. Jpn., **80** (2011) 084719.

K. Okitsu, Y. Yoda, Y. Imai and Y. Ueji
 Polarization-Dependent X-Ray Six-Beam Pinhole Topographs for a Channel-Cut Silicon Crystal
Acta Cryst. A, **67** (2011) 550.

K. Okitsu
 On the Polarization State of X-Rays Generated using a Rotating Four-Quadrant X-Ray Phase Retarder System
Acta Cryst. A, **67** (2011) 557.

K. Okitsu
 Computer-Simulated X-Ray Three-Beam Pinhole Topographs for Spherical Silicon Crystals
Acta Cryst. A, **67** (2011) 559.

NE3A

M. Kanagawa, T. Satoh, A. Ikeda, Y. Nakano, H. Yagi, K. Kato, K. Kojima-Aikawa and Y. Yamaguchi
 Crystal Structures of Human Secretory Proteins ZG16p and ZG16b Reveal a Jacalin-Related β -Prism Fold
Biochem. Biophys. Res. Commun., **404** (2011) 201.

Y. J. Jeong, B.-C. Jeong and H. K. Song
 Crystal Structure of Ubiquitin-Like Small Archaeal Modifier Protein 1 (SAMP1) from *Haloferax volcanii*
Biochem. Biophys. Res. Commun., **405** (2011) 112.

L. M. G. Chavas, Y. Yamada, M. Hiraki, N. Igarashi, N. Matsugaki and S. Wakatsuki
 UV LED lighting for Automated Crystal Centring
J. Synchron Rad., **18** (2011) 11.

M. Unno, T. Kawasaki, H. Takahara, C. W. Heizmann and K. Kizawa
 Refined Crystal Structures of Human $\text{Ca}^{2+}/\text{Zn}^{2+}$ -Binding S100A3 Protein Characterized by Two Disulfide Bridges
J. Mol. Biol., **408** (2011) 477.

K. Ito, S. Ito, T. Shimamura, T. Kobayashi, K. Abe, A. D. Cameron and S. Iwata
 Crystal Structure of Glucansucrase from the Dental Caries Pathogen *Streptococcus mutans*
J. Mol. Biol., **408** (2011) 177.

M. Senda, H. Tanaka, T. Ishida, K. Horiike and T. Senda
 Crystallization and Preliminary Crystallographic Analysis of D-Serine Dehydratase from Chicken Kidney
Acta Cryst. F, **67** (2011) 147.

T. Ohnuma, T. Numata, T. Osawa, M. Mizuhara, K. M. Varum and T. Fukamizo
 Crystal Structure and Mode of Action of a Class V Chitinase from *Nicotiana tabacum*
Plant Mol. Biol., **75** (2011) 291.

M. Unno, M. Shinohara, K. Takayama, H. Tanaka, K. Teruya, K. Doh-ura, R. Sakai, M. Sasaki and M. Ikeda-Saito
 Binding and Selectivity of the Marine Toxin Neodysiherbine A and its Synthetic Analogues to GluK1 and GluK2 Kainate Receptors
J. Mol. Biol., **413** (2011) 667.

T. Yoshida, H. Tsuge, H. Konno, T. Hisabori and Y. Sugano
 The Catalytic Mechanism of Dye-Decolorizing Peroxidase DyP May Require the Swinging Movement of an Aspartic Acid Residue
FEBS J., **278** (2011) 2387.

K. Kubota, K. Nagata, M. Okai, K. Miyazono, W. Soemphol, J. Ohtsuka, A. Yamamura, H. Toyama, K. Matsushita and M. Tanokura
 The Crystal Structure of L-Sorbose Reductase from *Gluconobacter frateurii* Complexed with NADPH and L-Sorbose
J. Mol. Biol., **407** (2011) 543.

D. Fujita, A. Takahashi, S. Sato and M. Fujita
 Self-Assembly of Pt(II) Spherical Complexes via Temporary Labilization of the Metal-Ligand Association in 2,2,2-Trifluoroethanol
J. Am. Chem. Soc., **133** (2011) 13317.

T. Tonozuka, T. Miyazaki and A. Nishikawa
 Structural Similarity between a Starch-Hydrolyzing Enzyme and an N-Glycan-Hydrolyzing Enzyme: Exohydrolases Cleaving α -1,X-Glucosidic Linkages to Produce β -Glucose
Trends in Glycoscience and Glycotechnology, **23** (2011) 93.

Y. Uchida, J. Hasegawa, D. Chinnapen, T. Inoue, S. Okazaki, R. Kato, S. Wakatsuki, R. Misaki, M. Koike, Y. Uchiyama, S. Iemura, T. Natsume, R. Kuwahara, T. Nakagawa, K. Nishikawa, K. Mukai, E. Miyoshi, N. Taniguchi, D. Sheff, W. I. Lencer, T. Taguchi and H. Arai
 Intracellular Phosphatidylserine is Essential for Retrograde Membrane Traffic through Endosomes
Proc. Natl. Acad. Sci. USA, **108** (2011) 15846.

M. Kanagawa, T. Satoh, A. Ikeda, Y. Adachi, N. Ohno and Y. Yamaguchi
 Structural Insights into Recognition of Triple-Helical β -Glucans by an Insect Fungal Receptor
J. Biol. Chem., **286** (2011) 29158.

Z. Fujimoto, H. Ichinose, P. Biely and S. Kaneko
 Crystallization and Preliminary Crystallographic Analysis of the Glycoside Hydrolase Family 115 α -Glucuronidase from *Streptomyces pristinaespiralis*
Acta Cryst. F, **67** (2011) 68.

Y. Yasutake, H. Ota, E. Hino, S. Sakasegawa and T. Tamura
 Structures of *Burkholderia Thailandensis* Nucleoside Kinase: Implications for the Catalytic Mechanism and Nucleoside Selectivity
Acta Cryst. D, **67** (2011) 945.

H. Tanaka, M. Senda, N. Venugopalan, A. Yamamoto, T. Senda, T. Ishida and K. Horiike
 Crystal Structure of a Zinc-Dependent D-Serine Dehydratase from Chicken Kidney
J. Biol. Chem., **286** (2011) 27548.

R. Suzuki, Z. Fujimoto, T. Shiotsuki, M. Momma, A. Tase, M. Miyazawa and T. Yamazaki
 Structural Mechanism of JH Delivery in Hemolymph by JHBP of silkworm, *Bombyx mori*
Sci. Rep., **1** (2011) 133.

K. Okitsu, Y. Yoda, Y. Imai and Y. Ueji
 Polarization-Dependent X-Ray Six-Beam Pinhole Topographs for a Channel-Cut Silicon Crystal
Acta Cryst. A, **67** (2011) 550.

T. Osawa, S. Kimura, N. Terasaka, H. Inanaga, T. Suzuki and T. Numata
 Structural Basis of tRNA Agmatinylation Essential for AUA Codon Decoding
Nature Structural Molecular Biology, **18** (2011) 1275.

T. Osawa, H. Inanaga, S. Kimura, N. Terasaka, T. Suzuki and T. Numata
 Crystallization and Preliminary X-Ray Diffraction Analysis of an Archaeal tRNA-Modification Enzyme, TiaS, Complexed with tRNA^{Ile2} and ATP
Acta Cryst. F, **67** (2011) 1414.

N. Suzuki, Y.-M. Kim, Z. Fujimoto, M. Momma, H.-K. Kang, K. Funane, M. Okuyama, H. Mori and A. Kimura
 Crystallization and Preliminary Crystallographic Analysis of Dextranase from *Streptococcus mutans*
Acta Cryst. F, **67** (2011) 1542.

S. Saijo, S. Arai, K. M. M. Hossain, I. Yamato, K. Suzuki, Y. Kakinuma, Y. Ishizuka-Katsura, N. Ohsawa, T. Terada, M. Shirouzu, S. Yokoyama, S. Iwata and T. Murata
 Crystal Structure of the Central Axis DF Complex of the Prokaryotic V-ATPase
Proc. Natl. Acad. Sci. USA, **108** (2011) 19955.

Y. Guo, J. Wang, G. Niu, W. Shui, Y. Sun, H. Zhou, Y. Zhang, C. Yang, Z. Lou and Z. Rao
 A Structural View of the Antibiotic Degradation Enzyme NDM-1 from a Superbug
Protein Cell, **2** (2011) 384.

H. Yoshida, M. Teraoka, A. Yoshihara, K. Izumori and S. Kamitori
Overexpression, Crystallization, and Preliminary X-Ray Diffraction Analysis of L-Ribose Isomerase from Acinetobacter sp. Strain DL-28
Acta Cryst. F, **67** (2011) 1281.

U. Ohto, K. Miyake and T. Shimizu
Crystal Structures of Mouse and Human RP105/MD-1 Complexes Reveal Unique Dimer Organization of the Toll-Like Receptor Family
J. Mol. Biol., **413** (2011) 815.

Y. Shi, J. Qi, A. Iwamoto and G. Gao
Plasticity of Human CD8 $\alpha\alpha$ Binding to Peptide-HLA-A 2402
Molecular Immunology, **48** (2011) 2198.

M. Wang, J. Qi, Y. Liu, C. Vavricka, Y. Wu, Q. Li and G. Gao
Influenza A Virus N5 Neuraminidase Has an Extended 150 Cavity
J. Virology, **85** (2011) 8431.

G. Lu, J. Qi, Z. Chen, X. Xu, F. Gao, D. Lin, W. Qian, H. Liu, H. Jiang, J. Yan and G. Gao
Enterovirus 71 and Coxsackievirus A16 3C Proteases: Binding to Rupintrivir and their Substrate, and Anti-HFMD Drug Design
J. Virology, **85** (2011) 10319.

C. Vavricka, Q. Li, Y. Wu, J. Qi, M. Wang, Y. Liu, F. Gao, J. Liu, E. Feng, J. He, J. Wang, H. Liu, H. Jiang and G. Gao
Structural and Functional Analysis of Laninamivir and its Octanoate Prodrug Reveals Group Specific Mechanisms for Influenza NA Inhibition
PLoS Pathogens, **7** (2011) e1002249.

S. B. Hong, B.-W. Kim, K.-E. Lee, S. W. Kim, H. Jeon, J. Kim and H. K. Song
Insights into Noncanonical E1 Enzyme Activation from the Structure of Autophagic E1 Atg7 with Atg8
Nature Structural Molecular Biology, **18** (2011) 1323.

T. Nagai, H. Unno, M. W. Janczak, T. Yoshimura, CD. Poulter and H. Hemmi
Covalent Modification of Reduced Flavin Mononucleotide in Type-2 Isopentenyl Diphosphate Isomerase by Active-Site-Directed Inhibitors
Proc. Natl. Acad. Sci. USA, **108** (2011) 20461.

Q.-F. Sun, T. Murase, S. Sato and M. Fujita
A Sphere-in-Sphere Complex by Orthogonal Self-Assembly
Angew. Chem. Int. Ed., **50** (2011) 10318.

T. Tomita, T. Kuzuyama and M. Nishiyama
Structural Basis for Leucine-Induced Allosteric Activation of Glutamate Dehydrogenase
J. Biol. Chem., **286** (2011) 37406.

Y. Yasutake and T. Tamura
Efficient Production of Active Form of Vitamin D₃ by Microbial Conversion: Comprehensive Approach from the Molecular to the Cellular Level
Synthesiology, **4** (2011) 222, (in Japanese).

Y. Moriwaki, J. M. M. Caaveiro, Y. Tanaka, H. Tsutsumi, I. Hamachi and K. Tsumoto
Molecular Basis of Recognition of Antibacterial Porphyrins by Heme-Transporter IsdH-NEAT3 of *Staphylococcus aureus*
Biochemistry, **50** (2011) 7311.

NE5C

S. Urakawa, R. Matsubara, T. Katsura, T. Watanabe and T. Kikegawa
Stability and Bulk Modulus of Ni₃S, a New Nickel Sulfur Compound, and the Melting Relations of the System Ni-NiS up to 10 GPa
Am. Mineral., **96** (2011) 558.

A. Yamada, T. Inoue, S. Urakawa, K. Funakoshi, N. Funamori, T. Kikegawa and T. Irfune
In situ X-Ray Diffraction Study on Pressure-Induced Structural Changes in Hydrousforsterite and Enstatite Melts
Earth and Planetary Science Letters, **308** (2011) 115.

K. Fuchizaki and N. Hamaya
Equation of State for the Low-Pressure Crystalline Phase of SnI₄
Phys. Rev. B, **84** (2011) 144105.

K. Matsui, J. Hayashi, S. Mitsuka, H. Nakamura, K. Takeda and C. Sekine
High-Pressure X-Ray Diffraction Study of Unfilled Skutterudite Compound RhAs₃
J. Phys. Soc. Jpn., **80** (2011) SA031.

K. Takeda, K. Ito, J. Hayashi, C. Sekine and T. Yagi
Structural and Electrical Properties of New Filled Skutterudite Compound BaFe₄As₁₂ Prepared at High Pressure
J. Phys. Soc. Jpn., **80** (2011) SA029.

K. Matsui, J. Hayashi, K. Akahira, K. Ito, Y. Fukushi, K. Takeda and C. Sekine
Structural Instability of Unfilled Skutterudite Compounds TSb₃ (T=Co, Rh and Ir) under High Pressure
J. Phys.: Conf. Ser., **273** (2011) 012043.

A. Ohumura, K. Fujimaki, F. Ishikawa, Y. Yamada, N. Tsujii and M. Imai
Pressure Effect on Critical Temperature for Superconductivity and Lattice Parameters of AlB₂-Type Ternary Silicide YbGa_{1.1}Si_{0.9}
Phys. Rev. B, **84** (2011) 104520.

NE7A

R. Tateyama, E. Ohtani, H. Terasaki, K. Nishida, Y. Shibasaki, A. Suzuki and T. Kikegawa
 Density Measurements of Liquid Fe-Si Alloys at High Pressure using the Sink-Float Method
Phys. Chem. Minerals, **38** (2011) 801.

S. Ono, T. Kikegawa and Y. Higo
 In situ Observation of a Garnet/Perovskite Transition in CaGeO₃
Physics and Chemistry of Minerals, **38** (2011) 735.

H. Gotou, T. Yagi, T. Okada, R. Iizuka and T. Kikegawa
 A Simple Opposed-Anvil Apparatus for High Pressure and Temperature Experiments above 10 GPa
High Pressure Research, **31** (2011) 592.

R. Shiraishi, E. Ohtani, T. Kubo, N. Doi, A. Suzuki, A. Shimojuku, T. Kato and T. Kikegawa
 Deformation Cubic Anvil Press and Stress and Strain Measurements using Monochromatic X-Rays at High Pressure and High Temperature
High Pressure Research, **31** (2011) 399.

NW2A

A. Kobayashi, Y. Suzuki, T. Ohba, S. Noro, H.-C. Chang and M. Kato
 Ln-Co-Based Rock-Salt-Type Porous Coordination Polymers: Vapor Response Controlled by Changing the Lanthanide Ion
Inorg. Chem., **50** (2011) 2061.

A. Kobayashi, K. Ohbayashi, R. Aoki, H.-C. Chang and M. Kato
 Synthesis, Structure and Photophysical Properties of a Flavin-Based Platinum(II) Complex
Dalton Trans., **40** (2011) 3484.

K. Komori-Orisaku, K. Nakabayashi and S. Ohkoshi
 Synthesis of a Chiral-Structured Molecular Magnet Based on a Cyano-Bridged Co-W Bimetal Assembly
Chem. Lett., **40** (2011) 586.

T. Matsushita, T. Takahashi, T. Shirasawa, E. Arakawa, H. Toyokawa and H. Tajiri
 Quick Measurement of Crystal Truncation Rod Profiles in the Simultaneous Multi-Wavelength Dispersive Mode
J. Appl. Phys., **110** (2011) 102209.

H. Oyanagi, Z. H. Sun, Y. Jiang, M. Uehara, H. Nakamura, K. Yamashita, L. Zhang, C. Lee, A. Fukano and H. Maeda
In situ XAFS Experiments using a Microfluidic Cell: Application to Initial Growth of CdSe Nanocrystals
J. Synchrotron Rad., **18** (2011) 272.

Y. Uemura, Y. Inada, Y. Niwa, M. Kimura, K. K. Bando, A. Yagishita, Y. Iwasawa and M. Nomura
 Formation and Oxidation Mechanism of Pd-Zn Nanoparticles in ZnO Supported Pd Catalyst Studied by *in situ* Time-Resolved QXAFS and DXAFS
Phys. Chem. Chem. Phys., **14** (2011) 2152.

Y. Uemura, Y. Inada, K. K. Bando, T. Sasaki, N. Kamiuchi, K. Eguchi, A. Yagishita, M. Nomura, M. Tada and Y. Iwasawa
 In situ Time-Resolved XAFS Study on the Structural Transformation and Phase Separation of Pt₃Sn and PtSn Alloy Nanoparticles on Carbon in the Oxidation Process
Phys. Chem. Chem. Phys., **13** (2011) 15833.

Y. Uemura, Y. Inada, K. K. Bando, T. Sasaki, N. Kamiuchi, K. Eguchi, A. Yagishita, M. Nomura, M. Tada and Y. Iwasawa
 Core-Shell Phase Separation and Structural Transformation of Pt₃Sn Alloy Nanoparticles Supported on γ-Al₂O₃ in the Reduction and Oxidation Processes Characterized by In Situ Time-Resolved XAFS
J. Phys. Chem. C, **115** (2011) 5823.

NW10A

H. Takahashi, N. Konishi, H. Ohno, K. Takahashi, Y. Koike, K. Asakura and A. Muramatsu
 Preparation of Well-Crystallized Pd₂₀Te₇ Alloy Nanoparticulate Catalysts with Uniform Structure and Composition in Liquid-Phase
Appl. Catal. A, **392** (2011) 80.

N. Ahmed, Y. Shibata, T. Taniguchi and Y. Izumi
 Photocatalytic Conversion of Carbon Dioxide into Methanol using Zinc-Copper-M(III) (M = Aluminum, Gallium) Layered Double Hydroxides
J. Catal., **279** (2011) 123.

N. Kawasaki, H. Wang, R. Nakanishi, S. Hamanaka, R. Kitaura, H. Shinohara, T. Yokoyama, H. Yoshikawa and K. Awaga
 Nanohybridization of Polyoxometalate Clusters and Single-Wall Carbon Nanotubes: Applications in Molecular Cluster Batteries
Angew. Chem. Int. Ed., **50** (2011) 3471.

H. Ikemoto, A. Goyo and T. Miyanaga
 Size Dependence of the Local Structure and Atomic Correlations in Tellurium Nanoparticles
J. Phys. Chem. C, **115** (2011) 2931.

T. Wada, K. K. Bando, K. Kawai and K. Asakura
 In-situ XAFS for Monitoring the Structure of Catalysts under More Realistic Reaction Conditions
Shokubai, **53** (2011) 150, (*in Japanese*).

S. Takenaka, N. Susuki, H. Miyamoto, E. Tanabe, H. Matsune and M. Kishida
 Highly Durable Carbon Nanotube-Supported Pd Catalysts Covered with Silica Layers for the Oxygen Reduction Reaction
J. Catal., **279** (2011) 381.

Z. Weng, S. Muratsugu, N. Ishiguro, S. Ohkoshi and M. Tada
 Preparation of Surface Molecularly Imprinted Ru-Complex Catalysts for Asymmetric Transfer Hydrogenation in Water Media
Dalton Trans., **40** (2011) 2338.

K. Shimura, K. Maeda and H. Yoshida
 Thermal Acceleration of Electron Migration in Gallium Oxide Photocatalysts
J. Phys. Chem. C, **115** (2011) 9041.

J. Gaudet, K. K. Bando, Z. Song, T. Fujitani, W. Zhang, D. S. Sue and S. T. Oyama
 Effect of Gold Oxidation State on the Epoxidation and Hydrogenation of Propylene on Au/TS-1
J. Catal., **280** (2011) 40.

K. K. Bando, Y. Koike, T. Kawai, G. Tateno, S. T. Oyama, Y. Inada, M. Nomura and K. Asakura
 Quick X-Ray Absorption Fine Structure Studies on the Activation Process of Ni₂P Supported on K-USY
J. Phys. Chem. C, **115** (2011) 7466.

J. Ohyama, A. Yamamoto, K. Teramura, T. Shishido and T. Tanaka
 Modification of Metal Nanoparticles with TiO₂ and Metal-Support Interaction in Photodeposition
ACS Catal., **1** (2011) 187.

Y. Cheng, H. Kajiro, H. Noguchi, A. Kondo, T. Ohba, Y. Hattori, K. Kaneko and H. Kanoh
 Tuning of Gate Opening of an Elastic Layered Structure MOF in CO₂ Sorption with a Trace of Alcohol Molecules
Langmuir, **27** (2011) 6905.

T. Ohkubo, M. Nishi and Y. Kuroda
 Actual Structure of Dissolved Zinc Ion Restricted in Less than 1 Nanometer Micropores of Carbon
J. Phys. Chem. C, **115** (2011) 14954.

N. Fukaya, M. Ueda, S. Onozawa, K. K. Bando, T. Miyaji, Y. Takagi, T. Sakakura and H. Yasuda
 Palladium Complex Catalysts Immobilized on Silica via a Tripodal Linker Unit with Amino Groups: Preparation, Characterization, and Application to the Suzuki-Miyaura Coupling
J. Mol. Catal. A: Chemical, **342-343** (2011) 58.

M. Katayama, K. Sugimoto, E. Kato, K. Ozutsumi, S. Funahashi and Y. Inada
 Novel Structural Variation of Silver(I)-Pyridine Complexes in Nitromethane as Studied by X-Ray Absorption Spectroscopy
Inorg. Chim. Acta, **378** (2011) 66.

R. Murao, K. Sugiyama, Y. Kashiwagi, S. Kameoka and A. P. Tsai
 Atomic Pair Distribution Function (PDF) Analysis of Raney Pd and Rh Fine Particles
Philosophical Magazine, **91** (2011) 2954.

T. Komanoya, H. Kobayashi, K. Hara, W.-J. Chun and A. Fukuoka
 Catalysis and Characterization of Carbon-Supported Ruthenium for Cellulose Hydrolysis
Appl. Catal. A, **407** (2011) 188.

H. Kobayashi and A. Fukuoka
 Saccharification of Cellulose by Solid Catalysts
J. Jpn. Inst. Energy, **90** (2011) 512, (*in Japanese*).

S. Kageyama, S. Seino, T. Nakagawa, H. Nitani, K. Ueno, H. Daimon and T. A. Yamamoto
 Formation of PtRu Alloy Nanoparticle Catalyst by Radiolytic Process Assisted by Addition of DL-Tartaric Acid and its Enhanced Methanol Oxidation Activity
J. Nanoparticle. Res., **13** (2011) 5275.

J. Kugai, R. Kitagawa, S. Seino, T. Nakagawa, Y. Ohkubo, H. Nitani, H. Daimon and T. A. Yamamoto
 γ -Fe₂O₃-Supported Pt-Cu Nanoparticles Synthesized by Radiolytic Process for Catalytic CO Preferential Oxidation
Appl. Cat. A, **406** (2011) 43.

Y. Ohkubo, M. Shibata, S. Kageyama, S. Seino, T. Nakagawa, J. Kugai and T. A. Yamamoto
 Radiation Induced Synthesis of Au-Pd Nanoparticles of Random Alloy Structure Supported on Carbon Particles using the High Energy Electron Beam
Mater. Lett., **65** (2011) 2165.

T. A. Yamamoto, S. Kageyama, S. Seino, H. Nitani, T. Nakagawa, R. Horioka, Y. Honda, K. Ueno and H. Daimon
 Methanol Oxidation Catalysis and Substructure of PtRu/C Bimetallic Nanoparticles Synthesized by a Radiolytic Process
Appl. Cat. A, **396** (2011) 68.

S. Muratsugu, K. Sodeyama, F. Kitamura, S. Tsukada, M. Tada, S. Tsuneyuki and H. Nishihara
 Normal and Inverted Redox Potentials and Structural Changes Tuned by Medium Effects in [M₂Mo(η^5 -C₅Me₅)₂(S₂C₆H₄)₂(CO)₂] (M: Co, Rh)
Chemical Science, **2** (2011) 1960.

S. Sugiyama, T. Bando, H. Tanaka, K. Nakagawa, K-I. Sotowa, Y. Katou, T. Mori, T. Yasukawa and W. Ninomiya
 Direct Oxidative Esterification of Propionaldehyde to Methyl Propionate using Heavy-Metal-Free Palladium Catalysts under Pressurized Oxygen
J. Jpn. Petrol. Inst., **54** (2011) 380.

H. Einaga, Y. Teraoka and A. Ogata
 Benzene Oxidation with Ozone over Manganese Oxide Supported on Zeolite Catalysts
Catal. Today, **164** (2011) 571.

K. Shimura, H. Kawai, T. Yoshida and H. Yoshida
 Simultaneously Photodeposited Rhodium Metal and Oxide Nanoparticles Promoting Photocatalytic Hydrogen Production
Chem. Comm., **47** (2011) 8958.

S. Hinokuma, M. Okamoto, E. Ando, K. Ikeue and M. Machida
 Structure and Catalytic Property of Supported Rhodium Catalysts Prepared using Arc-Plasma
Catal. Today, **175** (2011) 593.

Y. Masubuchi, C. Yamakami, T. Motohashi and S. Kikkawa
 Ammonolysis of HTiNbO₅-*n*-Propylamine Intercalation Compound
Chem. Lett., **40** (2011) 1238.

Y. Uemura, Y. Inada, Y. Niwa, M. Kimura, K. K. Bando, A. Yagishita, Y. Iwasawa and M. Nomura
 Formation and Oxidation Mechanism of Pd-Zn Nanoparticles in ZnO Supported Pd Catalyst Studied by *in situ* Time-Resolved QXAFS and DXAFS
Phys. Chem. Chem. Phys., **14** (2011) 2152.

K. Motokura, N. Hashimoto, T. Hara, T. Mitsudome, T. Mizugaki, K. Jitsukawa and K. Kaneda
 Rhodium-Grafted Hydrotalcite Catalyst for Heterogeneous 1,4-Addition Reaction of Organoboron Reagents to Electron Deficient Olefins
Green Chem., **13** (2011) 2416.

D. Tsukamoto, M. Ikeda, Y. Shiraishi, T. Hara, N. Ichikuni, S. Tanaka and T. Hirai
 Selective Photocatalytic Oxidation of Alcohols to Aldehydes in Water by TiO₂ Partially Coated with WO₃
Chem. Eur. J., **17** (2011) 9816.

S. Takenaka, H. Miyamoto, N. Susuki, H. Matsune and M. Kishida
 Highly Durable Carbon Nanotube-Supported Pd Cathode Catalysts Covered with Silica Layers for Polymer Electrolyte Fuel Cells: Effect of Silica Layer Thickness on the Catalytic Performance
ECS Trans., **41** (2011) 2305.

T. Hara, J. Sawada, Y. Nakamura, N. Ichikuni and S. Shimazu
 An Anionic D-Valine-Palladium (II) Complex Supported on a Hydroxy Double Salt with a Bronsted Basic Phosphate Anion: Application for a Heterogeneous Catalyst toward Aerobic Alcohol Oxidation
Catalysis Science & Technology, **1** (2011) 1376.

Y. Uemura, Y. Inada, K. K. Bando, T. Sasaki, N. Kamiuchi, K. Eguchi, A. Yagishita, M. Nomura, M. Tada and Y. Iwasawa
 In *situ* Time-Resolved XAFS Study on the Structural Transformation and Phase Separation of Pt₃Sn and PtSn Alloy Nanoparticles on Carbon in the Oxidation Process
Phys. Chem. Chem. Phys., **13** (2011) 15833.

Y. Uemura, Y. Inada, K. K. Bando, T. Sasaki, N. Kamiuchi, K. Eguchi, A. Yagishita, M. Nomura, M. Tada and Y. Iwasawa
 Core-Shell Phase Separation and Structural Transformation of Pt₃Sn Alloy Nanoparticles Supported on γ-Al₂O₃ in the Reduction and Oxidation Processes Characterized by In Situ Time-Resolved XAFS
J. Phys. Chem. C, **115** (2011) 5823.

K. Maeda, R. Abe and K. Domen
 Role and Function of Ruthenium Species as Promoters with TaON-Based Photocatalysts for Oxygen Evolution in Two-Step Water Splitting under Visible Light
J. Phys. Chem. C, **115** (2011) 3057.

K. Gotoh, T. Kinumoto, E. Fujii, A. Yamamoto, H. Hashimoto, T. Ohkubo, A. Itadani, Y. Kuroda and H. Ishida
 Exfoliated Graphene Sheets Decorated with Metal/Metal Oxide Nanoparticles: Simple Preparation from Cation Exchanged Graphite Oxide Carbon, **49** (2011) 1118.

NW12A

M. Kanagawa, T. Satoh, A. Ikeda, Y. Nakano, H. Yagi, K. Kato, K. Kojima-Aikawa and Y. Yamaguchi
 Crystal Structures of Human Secretory Proteins ZG16p and ZG16b Reveal a Jacalin-Related β-Prism Fold
Biochem. Biophys. Res. Commun., **404** (2011) 201.

K. Matsumoto, K. Okamoto, N. Ashizawa and T. Nishino
 FYX-051: A Novel and Potent Hybrid-Type Inhibitor of Xanthine Oxidoreductase
J. Pharmacology and Experimental Therapeutics, **336** (2011) 95.

J. Ohwada, H. Ebiike, H. Kawada, M. Tsukazaki, M. Nakamura, T. Miyazaki, K. Morikami, K. Yoshinari, M. Yoshida, O. Kondoh, S. Kuramoto, K. Ogawa, Y. Aoki and N. Shimma
 Discovery and Biological Activity of a Novel Class I PI3K Inhibitor, CH5132799
Bioorg. Med. Chem. Lett., **21** (2011) 1767.

L. Deng, K. Endo, M. Kato, G. Cheng, S. Yajima and Y. Song
 Structures of 1-Deoxy-D-Xylulose-5-Phosphate Reductoisomerase/Lipophilic Phosphonate Complexes
ACS Med. Chem. Lett., **2** (2011) 165.

T. Hashiguchi, T. Ose, M. Kubota, N. Maita, J. Kamishikiryō, K. Maenaka and Y. Yanagi
 Structure of the Measles Virus Hemagglutinin Bound to its Cellular Receptor SLAM
Nature Structural Molecular Biology, **18** (2011) 135.

L. M. G. Chavas, Y. Yamada, M. Hiraki, N. Igarashi, N. Matsugaki and S. Wakatsuki
 UV LED lighting for Automated Crystal Centring
J. Synchron Rad., **18** (2011) 11.

D. Sasaki, M. Fujihashi, N. Okuyama, Y. Kobayashi, M. Noike, T. Koyama and K. Miki
 Crystal Structure of Heterodimeric Hexaprenyl Diphosphate Synthase from *Micrococcus leteus* B-P 26 Reveals that the Small Subunit is Directly Involved in the Product Chain Length Regulation
J. Biol. Chem., **286** (2011) 3729.

M. Unno, T. Kawasaki, H. Takahara, C. W. Heizmann and K. Kizawa
 Refined Crystal Structures of Human $\text{Ca}^{2+}/\text{Zn}^{2+}$ -Binding S100A3 Protein Characterized by Two Disulfide Bridges
J. Mol. Biol., **408** (2011) 477.

N. Okazaki, T. Arimori, M. Nakazawa, K. Miyatake, M. Ueda and T. Tamada
 Crystallization and Preliminary X-Ray Diffraction Studies of the Catalytic Domain of a Novel Chitinase, a Member of GH Family 23, from the Moderately Thermophilic Bacterium *Ralstonia* sp. A-471
Acta Cryst. F, **67** (2011) 494.

S. Mori, K. Shibayama, J. Wachino and Y. Arakawa
 Structural Insights into the Novel Diadenosine 5',5"- P^1,P^4 -Tetraphosphate Phosphorylase from *Mycobacterium tuberculosis* H37Rv
J. Mol. Biol., **410** (2011) 93.

K. Nishi, T. Ono, T. Nakamura, N. Fukunaga, M. Izumi, H. Watanabe, A. Suenaga, T. Maruyama, Y. Yamagata, S. Curry and M. Otagiri
 Structural Insights into Differences in Drug-Binding Selectivity between Two Forms of Human α_1 -Acid Glycoprotein Genetic Variants, the A and F1*S Forms
J. Biol. Chem., **286** (2011) 14427.

T. Yoshizawa, H. Hashimoto, T. Shimizu, M. Yamabe, N. Shichijo, K. Hanada, H. Hirano and M. Sato
 Purification, Crystallization and X-Ray Diffraction Study of Basic 7S Globulin from Soybean
Acta Cryst. F, **67** (2011) 87.

Y. Sato, R. Natsume, Z. Prokop, J. Brezovsky, R. Chaloupkova, J. Damborsky, Y. Nagata and T. Senda
 Molecular Bases of Enantioselectivity of Haloalkane Dehalogenase DbjA
Kessyogakkaishi, **53** (2011) 124, (in Japanese).

M. Senda, H. Tanaka, T. Ishida, K. Horiike and T. Senda
 Crystallization and Preliminary Crystallographic Analysis of D-Serine Dehydratase from Chicken Kidney
Acta Cryst. F, **67** (2011) 147.

T. Hatakeyama, T. Kamiya, M. Kusunoki, S. Nakamura-Tsuruta, J. Hirabayashi, S. Goda and H. Unno
 Galactose Recognition by A Tetrameric C-Type Lectin, CEL-IV, Containing the EPN Carbohydrate-Recognition Motif
J. Biol. Chem., **286** (2011) 10305.

S. J. Lee, H. S. Kim, D. J. Kim, H. J. Yoon, K. H. Kim, J. Y. Yoon and S. W. Suh
 Crystal Structures of LacD from *Staphylococcus aureus* and LacD. 1 from *Streptococcus pyogenes*: Insights into Substrate Specificity and Virulence Gene Regulation
FEBS Lett., **585** (2011) 307.

J. H. Lee, H. Park, S. J. Park, H. J. Kim and S. H. Eom
 The Structural Flexibility of the Shank1 PDZ Domain is Important for Its Binding to Different Ligands
Biochem. Biophys. Res. Commun., **407** (2011) 207.

T. Ohnuma, T. Numata, T. Osawa, M. Mizuhara, K. M. Varum and T. Fukamizo
 Crystal Structure and Mode of Action of a Class V Chitinase from *Nicotiana tabacum*
Plant Mol. Biol., **75** (2011) 291.

M. Unno, M. Shinohara, K. Takayama, H. Tanaka, K. Teruya, K. Doh-ura, R. Sakai, M. Sasaki and M. Ikeda-Saito
 Binding and Selectivity of the Marine Toxin Neodysiherbine A and its Synthetic Analogues to GluK1 and GluK2 Kainate Receptors
J. Mol. Biol., **413** (2011) 667.

T. Yoshida, H. Tsuge, H. Konno, T. Hisabori and Y. Sugano
 The Catalytic Mechanism of Dye-Decolorizing Peroxidase DyP May Require the Swinging Movement of an Aspartic Acid Residue
FEBS J., **278** (2011) 2387.

Y. Y. Chen, T. P. Ko, C. H. Lin, W. H. Chen and A. H. J. Wang
 Conformational Change upon Product Binding to *Klebsiella pneumoniae* UDP-Glucose Dehydrogenase: A Possible Inhibition Mechanism for the Key Enzyme in Polymyxin Resistance
J. Structural Biol., **175** (2011) 300.

T. Saitoh, M. Igura, Y. Miyazaki, T. Ose, N. Maita and D. Kohda
 Crystallographic Snapshots of Tom20-Mitochondrial Presequence Interactions with Disulfide-Stabilized Peptides
Biochemistry, **50** (2011) 5487.

T. Tsukazaki, H. Mori, Y. Echizen, R. Ishitani, S. Fukai, T. Tanaka, A. Perederina, D. G. Vassylyev, T. Kohno, A. D. Maturana, K. Ito and O. Nureki
 Structure and Function of a Membrane Component SecDF That Enhances Protein Export
Nature, **474** (2011) 235.

K. Miyazono, J. Um, F. L. Imai, Y. Katsuyama, Y. Ohnishi, S. Horinouchi and M. Tanokura
 Crystal Structure of Curcuminoid Synthase CUS from *Oryza sativa*
Proteins, **79** (2011) 669.

Y. Katsuyama, K. Miyazono, M. Tanokura, Y. Ohnishi and S. Horinouchi
 Structural and Biochemical Elucidation of Mechanism for Decarboxylative Condensation of β -Keto Acid by Curcumin Synthase
J. Biol. Chem., **286** (2011) 6659.

H. Sakuraba, K. Koga, K. Yoneda, Y. Kashima and T. Ohshima
 Structure of a Multicopper Oxidase from the Hyperthermophilic Archaeon *Pyrobaculum Aerophilum*
Acta Cryst. F, **67** (2011) 753.

H. Sakuraba, T. Kawai, K. Yoneda and T. Ohshima
 Crystal Structure of UDP-Galactose 4-Epimerase from the Hyperthermophilic Archaeon *Pyrobaculum calidifontis*
Arch. Biochem. Biophys., **512** (2011) 126.

T. Tonozuka, T. Miyazaki and A. Nishikawa
 Structural Similarity between a Starch-Hydrolyzing Enzyme and an N-Glycan-Hydrolyzing Enzyme: Exohydrolases Cleaving α -1,X-Glucosidic Linkages to Produce β -Glucose
Trends in Glycoscience and Glycotechnology, **23** (2011) 93.

T. Nakamura, T. Tonozuka, S. Ito, Y. Takeda, R. Sato, I. Matsuo, Y. Ito, K. Oguma and A. Nishikawa
 Molecular Diversity of the Two Sugar-Binding Sites of the β -Trefoil Lectin HA33/C (HA1) from *Clostridium botulinum* Type C Neurotoxin
Arch. Biochem. Biophys., **512** (2011) 69.

K. Taoka, I. Ohki, H. Tsuji, K. Furuita, K. Hayashi, T. Yanase, M. Yamaguchi, C. Nakashima, Y. A. Purwestri, S. Tamaki, Y. Ogaki, C. Shimada, A. Nakagawa, C. Kojima and K. Shimamoto
 14-3-3 Proteins Act as Intracellular Receptors for Rice Hd3a Florigen
Nature, **476** (2011) 332.

S. Fushinobu, M. Hidaka, A. M. Hayashi, T. Wakagi, H. Shoun and M. Kitaoka
 Interactions between Glycoside Hydrolase Family 94 Cellobiose Phosphorylase and Glucosidase Inhibitors
J. Appl. Glycosci., **58** (2011) 91.

S. Fushinobu, T. Uno, M. Kitaoka, K. Hayashi, H. Matsuzawa and T. Wakagi
 Mutational Analysis of Fungal Family 11 Xylanases on pH Optimum Determination
J. Appl. Glycosci., **58** (2011) 107.

M. Okuda, T. Shiba, D-K. Inaoka, K. Kita, G. Kurisu, S. Mineki, S. Harada, Y. Watanabe and S. Yoshinari
 A Conserved Lysine Residue in the Crenarchaeal Splicing Endonuclease Activity
J. Mol. Biol., **405** (2011) 92.

Y. Uchida, J. Hasegawa, D. Chinnapen, T. Inoue, S. Okazaki, R. Kato, S. Wakatsuki, R. Misaki, M. Koike, Y. Uchiyama, S. Iemura, T. Natsume, R. Kuwahara, T. Nakagawa, K. Nishikawa, K. Mukai, E. Miyoshi, N. Taniguchi, D. Sheff, W. I. Lencer, T. Taguchi and H. Arai

Intracellular Phosphatidylserine is Essential for Retrograde Membrane Traffic through Endosomes
Proc. Natl. Acad. Sci. USA, **108** (2011) 15846.

M. Kanagawa, T. Satoh, A. Ikeda, Y. Adachi, N. Ohno and Y. Yamaguchi
 Structural Insights into Recognition of Triple-Helical β -Glucans by an Insect Fungal Receptor
J. Biol. Chem., **286** (2011) 29158.

H. S. Kim, S. J. Lee, H. J. Yoon, D. R. An, D. J. Kim, S.-J. Kim and S. W. Suh
 Crystal Structures of YwqE from *Bacillus subtilis* and CpsB from *Streptococcus pneumoniae*, Unique Metal-Dependent Tyrosine Phosphatases
J. Struct. Biol., **175** (2011) 442.

Y. Echizen, T. Tsukazaki, N. Dohmae, R. Ishitani and O. Nureki
 Crystallization and Preliminary X-Ray Diffraction of the First Periplasmic Domain of SecDF, a Translocon-Associated Membrane Protein, from *Thermus thermophilus*
Acta Cryst. F, **67** (2011) 1367.

A. Zheng, R. Yamamoto, M. Sokabe, I. Tanaka and M. Yao
 Crystallization and Preliminary X-Ray Crystallographic Analysis of eIF5B Δ N and the eIF5B Δ N-eIF1A Δ N Complex
Acta Cryst. F, **67** (2011) 730.

Y. J. An, J. H. Lee, H. I. Jung, S. G. Sohn, J. J. Lee, K. S. Park, X. Wu, B. C. Jeong, C. M. Kang, S. S. Cha and S. H. Lee
 Crystallization and Preliminary X-Ray Crystallographic Analysis of CTX-M-15, an Extended-Spectrum β -Lactamase Conferring Worldwide Emerging Antibiotic Resistance
Protein and Peptide Letters, **18** (2011) 858.

Y. Yasutake, H. Ota, E. Hino, S. Sakasegawa and T. Tamura
 Structures of *Burkholderia Thailandensis* Nucleoside Kinase: Implications for the Catalytic Mechanism and Nucleoside Selectivity
Acta Cryst. D, **67** (2011) 945.

T. Shibahara, T. Satomura, R. Kawakami, T. Ohshima and H. Sakuraba
 Crystallization and Preliminary X-Ray Analysis of a Dye-Linked D-Lactate Dehydrogenase from the Aerobic Hyperthermophilic Archaeon *Aeropyrum pernix*
Acta Cryst. F, **67** (2011) 1425.

Y. Katsuyama, K. Miyazono, M. Tanokura, Y. Ohnishi and S. Horinouchi
 Structural and Biochemical Elucidation of Mechanism for Decarboxylative Condensation of β -Keto Acid by Curcumin Synthase
J. Biol. Chem., **286** (2011) 6659.

H. Sakuraba, K. Koga, K. Yoneda, Y. Kashima and T. Ohshima
 Structure of a Multicopper Oxidase from the Hyperthermophilic Archaeon *Pyrobaculum Aerophilum*
Acta Cryst. F, **67** (2011) 753.

H. Sakuraba, T. Kawai, K. Yoneda and T. Ohshima
 Crystal Structure of UDP-Galactose 4-Epimerase from the Hyperthermophilic Archaeon *Pyrobaculum calidifontis*
Arch. Biochem. Biophys., **512** (2011) 126.

T. Tonozuka, T. Miyazaki and A. Nishikawa
 Structural Similarity between a Starch-Hydrolyzing Enzyme and an N-Glycan-Hydrolyzing Enzyme: Exohydrolases Cleaving α -1,X-Glucosidic Linkages to Produce β -Glucose
Trends in Glycoscience and Glycotechnology, **23** (2011) 93.

T. Nakamura, T. Tonozuka, S. Ito, Y. Takeda, R. Sato, I. Matsuo, Y. Ito, K. Oguma and A. Nishikawa
 Molecular Diversity of the Two Sugar-Binding Sites of the β -Trefoil Lectin HA33/C (HA1) from *Clostridium botulinum* Type C Neurotoxin
Arch. Biochem. Biophys., **512** (2011) 69.

K. Taoka, I. Ohki, H. Tsuji, K. Furuita, K. Hayashi, T. Yanase, M. Yamaguchi, C. Nakashima, Y. A. Purwestri, S. Tamaki, Y. Ogaki, C. Shimada, A. Nakagawa, C. Kojima and K. Shimamoto
 14-3-3 Proteins Act as Intracellular Receptors for Rice Hd3a Florigen
Nature, **476** (2011) 332.

S. Fushinobu, M. Hidaka, A. M. Hayashi, T. Wakagi, H. Shoun and M. Kitaoka
 Interactions between Glycoside Hydrolase Family 94 Cellobiose Phosphorylase and Glucosidase Inhibitors
J. Appl. Glycosci., **58** (2011) 91.

S. Fushinobu, T. Uno, M. Kitaoka, K. Hayashi, H. Matsuzawa and T. Wakagi
 Mutational Analysis of Fungal Family 11 Xylanases on pH Optimum Determination
J. Appl. Glycosci., **58** (2011) 107.

M. Okuda, T. Shiba, D-K. Inaoka, K. Kita, G. Kurisu, S. Mineki, S. Harada, Y. Watanabe and S. Yoshinari
 A Conserved Lysine Residue in the Crenarchaeal Splicing Endonuclease Activity
J. Mol. Biol., **405** (2011) 92.

Y. Uchida, J. Hasegawa, D. Chinnapen, T. Inoue, S. Okazaki, R. Kato, S. Wakatsuki, R. Misaki, M. Koike, Y. Uchiyama, S. Iemura, T. Natsume, R. Kuwahara, T. Nakagawa, K. Nishikawa, K. Mukai, E. Miyoshi, N. Taniguchi, D. Sheff, W. I. Lencer, T. Taguchi and H. Arai

Intracellular Phosphatidylserine is Essential for Retrograde Membrane Traffic through Endosomes
Proc. Natl. Acad. Sci. USA, **108** (2011) 15846.

M. Kanagawa, T. Satoh, A. Ikeda, Y. Adachi, N. Ohno and Y. Yamaguchi
 Structural Insights into Recognition of Triple-Helical β -Glucans by an Insect Fungal Receptor
J. Biol. Chem., **286** (2011) 29158.

H. S. Kim, S. J. Lee, H. J. Yoon, D. R. An, D. J. Kim, S.-J. Kim and S. W. Suh
 Crystal Structures of YwqE from *Bacillus subtilis* and CpsB from *Streptococcus pneumoniae*, Unique Metal-Dependent Tyrosine Phosphatases
J. Struct. Biol., **175** (2011) 442.

Y. Echizen, T. Tsukazaki, N. Dohmae, R. Ishitani and O. Nureki
 Crystallization and Preliminary X-Ray Diffraction of the First Periplasmic Domain of SecDF, a Translocon-Associated Membrane Protein, from *Thermus thermophilus*
Acta Cryst. F, **67** (2011) 1367.

A. Zheng, R. Yamamoto, M. Sokabe, I. Tanaka and M. Yao
 Crystallization and Preliminary X-Ray Crystallographic Analysis of eIF5B Δ N and the eIF5B Δ N-eIF1A Δ N Complex
Acta Cryst. F, **67** (2011) 730.

Y. J. An, J. H. Lee, H. I. Jung, S. G. Sohn, J. J. Lee, K. S. Park, X. Wu, B. C. Jeong, C. M. Kang, S. S. Cha and S. H. Lee
 Crystallization and Preliminary X-Ray Crystallographic Analysis of CTX-M-15, an Extended-Spectrum β -Lactamase Conferring Worldwide Emerging Antibiotic Resistance
Protein and Peptide Letters, **18** (2011) 858.

Y. Yasutake, H. Ota, E. Hino, S. Sakasegawa and T. Tamura
 Structures of *Burkholderia Thailandensis* Nucleoside Kinase: Implications for the Catalytic Mechanism and Nucleoside Selectivity
Acta Cryst. D, **67** (2011) 945.

T. Shibahara, T. Satomura, R. Kawakami, T. Ohshima and H. Sakuraba
 Crystallization and Preliminary X-Ray Analysis of a Dye-Linked D-Lactate Dehydrogenase from the Aerobic Hyperthermophilic Archaeon *Aeropyrum pernix*
Acta Cryst. F, **67** (2011) 1425.

Z. Fujimoto and K. Kimura
 Crystal Structure of Bacteriophage Φ NIT1 Zinc Peptidase PghP that Hydrolyzes γ -Glutamyl Linkage of Bacterial Poly- γ -Glutamate Proteins, **80** (2011) 722.

T. Tomita, T. Kuzuyama and M. Nishiyama
 Structural Basis for Leucine-Induced Allosteric Activation of Glutamate Dehydrogenase
J. Biol. Chem., **286** (2011) 37406.

A. Kawaguchi, T. Ose, M. Yao and I. Tanaka
 Crystallization and Preliminary X-Ray Structure Analysis of Human Ribosomal Protein L30e
Acta Cryst. F, **67** (2011) 1516.

E. Matsuoka, Y. Tanaka, M. Kuroda, Y. Shouji, T. Ohta, I. Tanaka and M. Yao
 Crystal Structure of the Functional Region of Uro-Adherence Factor A from *Staphylococcus saprophyticus* Reveals Participation of the B Domain in Ligand Binding
Protein Science, **20** (2011) 406.

Y. Yasutake and T. Tamura
 Efficient Production of Active Form of Vitamin D₃ by Microbial Conversion: Comprehensive Approach from the Molecular to the Cellular Level
Synthesiology, **4** (2011) 222, (in Japanese).

Y. Moriwaki, J. M. M. Caaveiro, Y. Tanaka, H. Tsutsumi, I. Hamachi and K. Tsumoto
 Molecular Basis of Recognition of Antibacterial Porphyrins by Heme-Transporter IsdH-NEAT3 of *Staphylococcus aureus*
Biochemistry, **50** (2011) 7311.

NW14A

H. Ichikawa, S. Nozawa, T. Sato, A. Tomita, K. Ichiyanagi, M. Chollet, L. Guerin, N. Dean, A. Cavalleri, S. Adachi, T. Arima, H. Sawa, Y. Ogimoto, M. Nakamura, R. Tamaki, K. Miyano and S. Koshihara
 Transient Photoinduced 'Hidden' Phase in a Manganite Nature Materials, **10** (2011) 101.

S. Nozawa and S. Koshihara
 Dynamical Analysis of Transient Molecular Magnetism and Structural Change by Time-Resolved X-Ray Absorption Fine Structure
Kogaku, **40** (2011) 222, (in Japanese).

K. Ichiyanagi, H. Sekiguchi, S. Nozawa, T. Sato, S. Adachi and Y. C. Sasaki
 Laser-Induced Picosecond Lattice Oscillations in Submicron Gold Crystals
Phys. Rev. B, **84** (2011) 024110.

M. Hoshino, T. Sato, A. Tomita, S. Nozawa, S. Adachi and S. Koshihara
 Time-Resolved Structure Analysis of Photo-Induced Molecular Dynamics in TTF-CA
Acta Cryst. A, **67** (2011) C520.

S. Nozawa, T. Sato, A. Tomita, M. Hoshino, H. Tokoro, S. Ohkoshi, S. Adachi and S. Koshihara
 Dynamic Investigation of Photoinduced Phase Transition in Prussian Blue Analogs by Picosecond Time-Resolved XAFS
Acta Cryst. A, **67** (2011) C109.

T. Sato, S. Nozawa, A. Tomita, M. Hoshino, S. Koshihara, M. Iwamura and S. Adachi
 Observation of the Photo-Excited State of [Co^{III}(en)₃]³⁺ by Picosecond Time-Resolved XAFS
Acta Cryst. A, **67** (2011) C521.

L. Guerin, E. Collet, J. Hebert, M. B.-L. Cointe, S. Adachi, S. Koshihara and H. Cailleau
 Evidence of One-Dimensional Precursors in the Photoinduced Transformation in TTF-CA
Acta Cryst. A, **67** (2011) C522.

M. Murakami and T. Kouyama
 Crystallographic Analysis of the Primary Photochemical Reaction of Squid Rhodopsin
J. Mol. Biol., **413** (2011) 615.

SPF

K. Michishio, T. Tachibana, H. Terabe, A. Igarashi, K. Wada, T. Kuga, A. Yagishita, T. Hyodo and Y. Nagashima
 Photodetachment of Positronium Negative Ions
Phys. Rev. Lett., **106** (2011) 153401.

Y. Nagashima, K. Michishio, T. Tachibana and H. Terabe
 Towards the Production of an Energy-Tunable Positronium Beam using Ps⁻ Photodetachment Technique
J. Phys.: Conf. Ser., **262** (2011) 012041.

T. Hyodo, K. Wada, A. Yagishita, T. Kosuge, Y. Saito, T. Kurihara, T. Kikuchi, A. Shirakawa, T. Sanami, M. Ikeda, S. Ohsawa, K. Kakihara and T. Shidara
 KEK-IMSS Slow Positron Facility
J. Phys.: Conf. Ser., **262** (2011) 012026.

T. Hyodo and K. Wada
 The Slow Positron Facility at KEK
J. Particle Accel. Soc. Jpn., **8** (2011) 3, (in Japanese).

Synchrotron Radiation Science Division

K. Ohwada, J. Mizuki, K. Namikawa, M. Matsushita, S. Shimomura, H. Nakao and K. Hirota
 Contribution of Intermediate Submicrometer Structures to Physical Properties Near T_c in Pb(Zn_{1/3}Nb_{2/3})O₃-9%PbTiO₃
Phys. Rev. B, **83** (2011) 224115.

K. Iwasa, R. Igarashi, K. Saito, C. Laulhe, T. Orihara, S. Kunii, K. Kuwahara, H. Nakao, Y. Murakami, F. Iga, M. Sera, S. Tsutsui, H. Uchiyama and A. Q. Baron
 Motion of the Guest Ion as Precursor to the First-Order Phase Transition in the Cage System GdB₆
Phys. Rev. B, **84** (2011) 214308.

H. Yamaoka, I. Jarrige, N. Tsujii, A. Kotani, J.-F. Lin, F. Honda, R. Settai, Y. Onuki, N. Hiraoka, H. Ishii and K.-D. Tsue
 Pressure and Temperature Dependences of the Electronic Structure of CeIrSi₃ Probed by Resonant X-ray Emission Spectroscopy
J. Phys. Soc. Jpn., **80** (2011) 124701.

A. Kotani
 Crystal Field Effect on X-Ray Magnetic Circular Dichroism Spectra at the L_{2,3} Absorption Edges of Mixed-Vалence Ce and Yb Compounds in High Magnetic Fields
Eur. Phys. J. B, **81** (2011) 49.

A. Kotani
 Theory of Low Energy Excitations in Resonant Inelastic X-Ray Scattering for Rare-Earth Systems: Yb Compounds as Typical Examples
Phys. Rev. B, **83** (2011) 165126.

A. Kotani, K. O. Kvashnina, S. M. Butorin and P. Glatzel
 A New Method of Directly Determining the Core-Hole Effect in the Ce L₃ XAS of Mixed Valence Ce Compounds — An Application of Resonant X-Ray Emission Spectroscopy
J. Elec. Spec. Relat. Phenom., **184** (2011) 210.

K. Ohwada, S. Shimomura, H. Nakao, M. Matsushita, K. Namikawa and J. Mizuki
 X-Ray Photon Correlation Spectroscopy of Structural Fluctuations in Relaxor Ferroelectrics PZN-9%PT
J. Phys.: Conf. Series, **320** (2011) 012086.

H. Yamaoka, A. Kotani, Y. Kubozono, A. M. Vlaicu, H. Oohashi, T. Tochio, Y. Ito and H. Yoshikawa
 Charge-Transfer Satellite in Ce@C₈₂ Probed by Resonant X-Ray Emission Spectroscopy
J. Phys. Soc. Jpn., **80** (2011) 014702.

S. Kishimoto and Y. Tanaka
 Detector Guide for Synchrotron Radiation Users
 Kodansha, (2011) (*in Japanese*).

M. Yamamoto, H. Yoshida, H. Kurisu, T. Honda, Y. Tanimoto, T. Uchiyama, T. Nogami and M. Kobayashi
 Development of Extreme High Vacuum System for High Brightness Electron Source of ERL
Proc. 8th Annual Meeting of Particle Accelerator Society of Japan, (2011) 1374, (*in Japanese*).

H. Takaki, A. Ueda, T. Obina, Y. Kobayashi, M. Shimada, R. Takai, S. Nagahashi, N. Nakamura, K. Harada, T. Honda and T. Miyajima
 Beam Injection with a Pulsed Multi-Pole Magnet in an Electron Storage Ring
J. Particle Accelerator Society of Japan, **8** (2011) 218, (*in Japanese*).

T. Honda, T. Aoto, S. Asaoka, K. Endo, K. Haga, K. Harada, Y. Honda, M. Izawa, Y. Kobayashi, A. Mishina, T. Miyajima, H. Miyauchi, S. Nagahashi, N. Nakamura, T. Nogami, T. Obina, T. Ozaki, C. O. Pak, H. Sakai, S. Sakanaka, H. Sasaki, Y. Sato, K. Satoh, M. Shimada, T. Shioya, M. Tadano, T. Tahara, T. Takahashi, R. Takai, Y. Yamamoto, K. Tsuchiya, T. Uchiyama, A. Ueda, K. Umemori and M. Yamamoto
 Post-Earthquake Recovery of PF Ring and PF-AR
Proc. IPAC2011, San Sebastian, Spain, (2011) 2984.

R. Takai, T. Obina, A. Ueda, S. Nagahashi, K. Harada, T. Honda, N. Nakamura and Y. Kobayashi
 Beam Profile Measurement during Top-up Injection with a Pulsed Sextupole Magnet
Proc. DIPAC2011, Hamburg, Germany, (2011) 305.

M. Shimada, T. Miyajima, N. Nakamura, Y. Kobayashi, K. Harada and S. Sakanaka
 Approach to a Start-to-End Simulation of 2-Loop Compact Energy Recovery Linac
Proc. IPAC2011, San Sebastian, Spain, (2011) 1909.

The articles of the experiments utilizing multiple beamlines are simultaneously printed here in each section.

Light Source Division

T. Ozaki, S. Nagahashi, K. Harada, T. Obina, T. Honda and Y. Kobayashi
 Status of Magnets and Power Supplies at PF-AR
Proc. 8th Annual Meeting of Particle Accelerator Society of Japan, (2011) 396, (*in Japanese*).

H. Takaki, K. Harada, T. Honda, Y. Kobayashi, T. Miyajima, S. Nagahashi, N. Nakamura, T. Obina, K. Onoue, T. Shibuya, M. Shimada, R. Takai and A. Ueda
 Status of Pulsed Sextupole Injection at the PF Ring
Proc. 8th Meeting of Particle Accelerator Society of Japan, (2011) 994, (*in Japanese*).