4. Publication List

1A

S.Arai, S.Saijo, K.Suzuki, K.Mizutani, Y.Kakinuma, Y.Ishizuka-Katsura, N.Ohsawa, T.Terada, M.Shirouzu, S.Yokoyama, S.Iwata, I.Yamato and T.Murata
Rotation Mechanism of *Enterococcus hirae* V_1-ATPase Based on Asymmetric Crystal Structures
Nature, **493** (2013) 703.

D.Kim, J.Park, S.J.Kim, Y.-M.Soh, H.M.Kim, B.-H.Oh and J.-J.Song
Brucella Immunogenic BP26 Forms a Channel-Like Structure.
J. Mol. Biol., **425** (2013) 1119.

J.Y.Yoon, J.Kim, D.R.An, S.J.Lee, H.S.Kim,H.N.Im H.J.Yoon, J.Y.Kim, S.J.Kim, B.W.Han and S.W.Suh
Structural and Functional Characterization of HP0377, a Thioredoxin-Fold Protein from *Helicobacter pylori*
Acta Cryst. D, **69** (2013) 735.

N.Numoto, K.Shimizu, K.Matsumoto, K.Miki and A.Kita
Observation of the Orientation of Membrane Protein Crystals Grown in High Magnetic Force Fields
J. Cryst. Growth, **367** (2013) 53.

T.Arimori, N.Kawamoto, S.Shinya, N.Okazaki, M.Nakazawa, K.Miyatake, T.Fukamizo, M.Ueda and T.Tamada
Crystal Structures of the Catalytic Domain of a Novel Glycohydrolase Family 23 Chitinase from *Ralstonia* sp. A-471 Reveals a Unique Arrangement of the Catalytic Residues for Inverting Chitin Hydrolysis
J. Biol. Chem., **288** (2013) 18696.

K.J.Cho, J.-H.Lee, K.W.Hong, S.-H.Kim, Y.Park, J.Y.Lee, S.Kang, S.Kim, J.H.Yang, E.-K.Kim, J.H.Seok, S.Unzai, S.Y.Park, X.Saelens, C.-J.Kim, J.-Y.Lee, C.Kang, H.-B.Oh, M.S.Chung and K.H.Kim
Insight into Structural Diversity of Influenza Virus Haemagglutinin
J. General Virology, **94** (2013) 1712.

S.Okazaki, S.Nakano, D.Matsui, S.Akaji, K.Inagaki and Y.Asano
X-Ray Crystallographic Evidence for the Presence of the Cysteine Tryptophylquinone Cofactor in L-Lysine ε-Oxidase from *Marinomonas mediterranea*
J. Biochem., **154** (2013) 233.

Y.Yagita, N.Kuse, K.Kuroki, H.Gatanaga, J.M.Carlson, T.Chikata, Z.L.Brumme, H.Murakoshi, T.Akahoshi, N.Pfeifer, S.Mallal, M.John, T.Ose, H.Matsubara, R.Kanda, Y.Fukunaga, K.Honda, Y.Kawashima, Y.Ariumi, S.Oka, K.Maenaka and M.Takiguchi
Distinct HIV-1 Escape Patterns Selected by Cytotoxic T Cells with Identical Epitope Specificity
J. Virol., **87** (2013) 2253.

S.Matsumoto, A.Shimada, J.Nyirenda, M.Igura, Y.Kawano and D.Kohda
Crystal Structures of an Archaeal Oligosaccharyltransferase Provide Insights into the Catalytic Cycle of N-Linked Protein Glycosylation
Proc. Natl. Acad. Sci. USA, **110** (2013) 17868.

A.Nakamura, T.Ishida, S.Fushinobu, K.Kusaka, I.Tanaka, K.Inaka, Y.Higuchi, M.Masaki, K.Ohta, S.Kaneko, N.Niimura, K.Igarashi and M.Samajima
Phase-Diagram-Guided Method for Growth of a Large Crystal of Glycoside Hydrolase Family 45 Inverting Cellulase Suitable for Neutron Structural Analysis
J. Synchrotron Rad., **20** (2013) 859.

S.Fushinobu, V.D.Alves and P.M.Coutinho
Multiple Rewards from a Treasure Trove of Novel Glycoside Hydrolase and Polysaccharide Lyase Structures: New Folds, Mechanistic Details, and Evolutionary Relationships
Curr. Opin. Struct. Biol., **23** (2013) 652.

K.Matsumoto, Y.Tanaka, T.Watanabe, R.Motohashi, K.Ikeda, K.Tobitani, M.Yao, I.Tanaka and S.Taguchi
Directed Evolution and Structural Analysis of NADPH-Dependent Acetoacetyl Coenzyme A(Acetoacetyl-CoA) Reductase from *Ralstonia eutropha* Reveals Two Mutations Responsible for Enhanced Kinetics
Appl. Environ. Microbiol., **79** (2013) 6134.

M.Momma and Z.Fujimoto
Expression, Crystallization and Preliminary X-Ray Analysis of Rice L-Galactose Dehydrogenase
Acta Cryst. F, **69** (2013) 809.

T.Arimori, A.Ito, M.Nakazawa, M.Ueda and T.Tamada
Crystal Structure of Endo-1,4-β-Glucanase from *Eisenia fetida*
J. Synchrotron Rad., **20** (2013) 884.

J.-K.Li, J.-H.Liao, H.Li, C.-I.Kuo, K.-F.Huang, L.-W.Yang, S.-H.Wu and C.-I.Chang
The N-Terminal Substrate-Recognition Domain of a LonC Protease Exhibits Structural and Functional Similarity to Cytosolic Chaperones
Acta Cryst. D, **69** (2013) 1789.

J.-H.Ha, Y.Eo, A.Grishaev, M.Guo, J.A.I.Smith, H.O.Sintim, E.-H.Kim, H.-K.Cheong, W.E.Bentley and K.-S.Ryu
Crystal Structures of the LsrR Proteins Complexed with Phospho-AI-2 and Two Signal-Interrupting Analogues Reveal Distinct Mechanisms for Ligand Recognition
J. Am. Chem. Soc., **135** (2013) 15526.

Y.Saito, H.Yuki, M.Kuratani, Y.Hashizume, S.Takagi, T.Honma, A.Tanaka, M.Shirouzu, J.Mikuni, N.Handa, I.Ogahara, A.Sone, Y.Najima, Y.Tomabechi, M.Wakiyama, N.Uchida, M.Tomizawa-Murasawa, A.Kaneko, S.Tanaka, N.Suzuki, H.Kajita, Y.Aoki, O.Ohara, L.D.Shultz, T.Fukami, T.Goto, S.Taniguchi, S.Yokoyama and F.Ishikawa
A Pyrrolo-Pyrimidine Derivative Targets Human Primary AML Stem Cells in Vivo
Science Translational Medicine, **5** (2013) 181ra52.

J.Fujita, Y.Miyazaki, M.Hirose, C.Nagao, E.Mizohata, Y.Matsumoto, K.Mizuguchi, T.Inoue and H.Matsumura
Expression, Purification, Crystallization and Preliminary Crystallographic Study of FtsA from Methicillin-Resistant *Staphylococcus aureus*
Acta Cryst. F, **69** (2013) 895.

K.Komoda, M.Narita, I.Tanaka and M.Yao
Expression, Purification, Crystallization and Preliminary X-Ray Crystallographic Study of the Nucleocapsid Protein of *Tomato spotted wilt virus*
Acta Cryst. F, **69** (2013) 700.

A.Shimizu, A.Kawana-Tachikawa, A.Yamagata, C.Han, D.Zhu, Y.Sato, H.Nakamura, T.Koibuchi, J.Carlson, E.Martin, C.J.Brumme, Y.Shi, G.F.Gao, Z.L.Brumme, S.Fukai and A.Iwamoto
Structure of TCR and Antigen Complexes at an Immunodominant CTL Epitope in HIV-1 Infection
Sci. Rep., **3** (2013) 3097.

A.Nakamura, T.Nemoto, I.U.Heinemann, K.Yamashita, T.Sonoda, K.Komoda, I.Tanaka, D.Söll and M.Yao
Structural Basis of Reverse Nucleotide Polymerization
Proc. Natl. Acad. Sci. USA, **110** (2013) 20970.

J.Y.Yoon, D.R.An, H.-J.Yoon, H.S.Kim, S.J.Lee, H.N.Im, J.Y.Jang and S.W.Suh
High-Resolution Crystal Structure of *Streptococcus pyogenes* β-NAD^+ Glycohydrolase in Complex with its Endogenous Inhibitor IFS Reveals a Highly Water-Rich Interface
J. Synchrotron Rad., **20** (2013) 962.

K.Murayama, K.Kano, Y.Matsumoto and D.Sugimori
Crystal Structure of Phospholipase A_1 from *Streptomyces albidoflavus* NA297
Journal of Structural Biology, **182** (2013) 192.

T.Tominaga, S.Watanabe, R.Matsumi, H.Atomi, T.Imanaka and K.Miki
Crystal Structures of the Carbamoylated and Cyanated Forms of HypE for [NiFe] Hydrogenase Maturation
Proc. Natl. Acad. Sci. USA, **110** (2013) 20485.

J.S.Park, W.C.Lee, J.H.Song, S.I.Kim, J.C.Lee, C.Cheong and H.-Y.Kim
Purification, Crystallization and Preliminary X-Ray Crystallographic Analysis of Diaminopimelate Epimerase from *Acinetobacter baumannii*
Acta Cryst. F, **69** (2013) 42.

Y.Sun, X.Wang, S.Yuan, M.Dang, X.Li, X.C.Zhang and Z.Rao
An Open Conformation Determined by a Structural Switch for 2A Protease from Coxsackievirus A16
Protein Cell, **4** (2013) 782.

D.Liu, K.-S.Ryu, J.Ko, D.Sun, K.Lim, J.-O.Lee, J.Hwang, Z.-W.Lee and B.-S.Choi
Insights into the Regulation of Human Rev1 for Translesion Synthesis Polymerases Revealed by the Structural Studies on its Polymerase-Interacting Domain
J. Molecular Cell Biology, **5** (2013) 204.

1B

N.J.O.Silva, S.Saisho, M.Mito, A.Millan, F.Palacio, A.Cabot, O.Iglesias and A.Labarta
Pressure Effects in Hollow and Solid Iron Oxide Nanoparticles
J. Magn. Magn. Mater., **335** (2013) 1.

1C

K.Mase, E.Kobayashi, A.Nambu, T.Kakiuchi, O.Takahashi, K.Tabayashi, J.Ohshita, S.Hashimoto, M.Tanaka and S.Nagaoka
Site-Specific Ion Desorption from Condensed $F_3SiCD_2CH_2Si(CH_3)_3$ Induced by Si-2p Core-Level Ionizations Studied with Photoelectron Photoion Coincidence (PEPICO) Spectroscopy, Auger Photoelectron Coincidence Spectroscopy (APECS) and Auger Electron Photoion Coincidence (AEPICO) Spectroscopy
Surf. Sci., **607** (2013) 174.

K.Edamoto
The Electronic Properties of Nickel Phosphide Surfaces: Angle-Resolved and Resonant Photoemission Studies
Appl. Surf. Sci., **269** (2013) 7.

2C

T.Kinoshita, K.Arai, K.Fukumoto, T.Ohkochi, M.Kotsugi, F.Guo, T.Muro, T.Nakamura, H.Osawa, T.Matsushita and T.Okuda
Observation of Micro-Magnetic Structures by Synchrotron Radiation Photoelectron Emission Microscopy
J. Phys. Soc. Jpn., **82** (2013) 021005.

S.Kurosumi, K.Horiba, N.Nagamura, S.Toyoda, H.Kumigashira, M.Oshima, S.Furutsuki, S.Nishimura, A.Yamada and N.Mizuno
Resonant Photoemission Spectroscopy of the Cathode Material $Li_xMn_{0.5}Fe_{0.5}PO_4$ for Lithium-Ion Battery
J. Power Sources, **226** (2013) 42.

T.Mizuno, J.Adachi, M.Kazama, M.Stener, P.Decleva and A.Yagishita
Angular Correlation between B K-VV Auger Electrons of BF_3 Molecules and Coincident Fragment Ions: Manifestation of Difference between the Angular Correlation and Molecular Frame Auger Electron Angular Distribution
Phys. Rev. Lett., **110** (2013) 043001.

E.Sakai, M.Tamamitsu, K.Yoshimatsu, S.Okamoto, K.Horiba, M.Oshima and H.Kumigashira
Gradual Localization of Ni 3*d* States in $LaNiO_3$ Ultrathin Films Induced by Dimensional Crossover
Phys. Rev. B, **87** (2013) 075132.

T.Okuda, R.Kajimoto, M.Okawa and T.Saitoh
Effects of Hole-Doping and Disorder on the Magnetic States of Delafossite $CuCrO_2$ Having a Spin-3/2 Antiferromagnetic Triangular Sublattice
Int. J. Mod. Phys. B, **27** (2013) 1330002.

S.Kawakami, N.Nakajima, T.Takigawa, M.Nakatake, H.Maruyama, Y.Tezuka and T.Iwazumi
UV-Induced Change in the Electronic Structure of $SrTiO_3$ at Low Temperature Probed by Resonant X-Ray Emission Spectroscopy
J. Phys. Soc. Jpn., **82** (2013) 053701.

T.Yokobori, M.Okawa, K.Konishi, R.Takei, K.Katayama, S.Oozono, T.Shinmura, T.Okuda, H.Wadati, E.Sakai, K.Ono, H.Kumigashira, M.Oshima, T.Sugiyama, E.Ikenaga, N.Hamada and T.Saitoh
Electronic Structure of Hole-Doped Delafossite Oxides $CuCr_{1-x}Mg_xO_2$
Phys. Rev. B, **87** (2013) 195124.

K.Tsubota, T.Wakita, H.Nagao, C.Hiramatsu, T.Ishiga, M.Sunagawa, K.Ono, H.Kumigashira, M.Danura, K.Kudo, M.Nohara, Y.Muraoka and T.Yokoya
Collapsed Tetragonal Phase Transition of $Ca(Fe_{1-x}Rh_x)_2As_2$ Studied by Photoemission Spectroscopy
J. Phys. Soc. Jpn., **82** (2013) 073705.

A.Chikamatsu, T.Matsuyama, T.Katayama, Y.Hirose, H.Kumigashira, M.Oshima, T.Fukumura and T.Hasegawa
Electronic and Transport Properties of Eu-Substituted Infinite-Layer Strontium Ferrite Thin Films
J. Cryst. Growth, **378** (2013) 165.

K.Nogami, K.Yoshimatsu, H.Mashiko, E.Sakai, H.Kumigashira, O.Sakata, T.Oshima and A.Ohtomo
Epitaxial Synthesis and Electronic Properties of Double-Perovskite Sr_2TiRuO_6 Films
Appl. Phys. Express, **6** (2013) 105502.

K.Yoshimatsu, E.Sakai, M.Kobayashi, K.Horiba, T.Yoshida, A.Fujimori, M.Oshima and H.Kumigashira
Determination of the Surface and Interface Phase Shifts in Metallic Quantum Well Structures of Perovskite Oxides
Phys. Rev. B, **88** (2013) 115308.

H.Suzuki, T.Yoshida, S.Ideta, G.Shibata, K.Ishigami, T.Kadono, A.Fujimori, M.Hashimoto, D.H.Lu, Z.-X.Shen, K.Ono, E.Sakai, H.Kumigashira, M.Matsuo and T.Sasagawa
Absence of Superconductivity in the Hole-Doped Fe Pnictide $Ba(Fe_{1-x}Mn_x)_2As_2$: Photoemission and X-Ray Absorption Spectroscopy Studies
Phys. Rev. B, **88** (2013) 100501.

K.Yoshimatsu, H.Wadati, E.Sakai, T.Harada, Y.Takahashi, T.Harano, G.Shibata, K.Ishigami, T.Kadono, T.Koide, T.Sugiyama, E.Ikenaga, H.Kumigashira, M.Lippmaa, M.Oshima and A.Fujimori
Spectroscopic Studies on the Electronic and Magnetic States of Co-Doped Perovskite Manganite $Pr_{0.8}Ca_{0.2}Mn_{1-y}Co_yO_3$ Thin Films
Phys. Rev. B, **88** (2013) 174423.

S.Toyoda, T.Namiki, E.Sakai, K.Nakata, M.Oshima and H.Kumigashira
Chemical-State-Resolved Depth Profiles of $Al/Pr_{0.7}Ca_{0.3}MnO_3$ Stacked Structures for Application in Resistive Switching Devices
J. Appl. Phys., **114** (2013) 243711.

M.Sakaki, N.Nakajima, F.Nakamura, Y.Tezuka and T.Suzuki
Electric-Field-Induced Insulator-Metal Transition in Ca_2RuO_4 Probed by X-Ray Absorption and Emission Spectroscopy
J. Phys. Soc. Jpn., **82** (2013) 093707.

M.Yamazaki, J.Adachi, T.Teramoto and A.Yagishita
Interatomic Resonant Auger Effects in Core-Level Photoemission from NO and CS_2 Molecules
J. Phys. B, **46** (2013) 115101.

M.Kazama, T.Fujikawa, N.Kishimoto, T.Mizuno, J.Adachi and A.Yagishita
Photoelectron Diffraction from Single Oriented Molecules: Towards Ultrafast Structure Determination of Molecules using X-Ray Free-Electron Lasers
Phys. Rev. A, **87** (2013) 063417.

3A

H.Wadati
Report on JSSRR Scientific Awards Resonant Soft X-Ray Scattering Studies of Transition-Metal-Oxide Thin Films
J. Jpn. Soc. Synchrotron Rad. Res., **26** (2013) 118. (*in Japanese*).

H.Maeda, Y.Ishiguro, T.Honda, J-S.Jung, S.Michimura, T.Inami, T.Kimura and Y.Wakabayashi
Structural Investigation of Magnetocapacitive $SmMnO_3$
J. Ceram. Soc. Jpn., **121** (2013) 265.

H.Sagayama, D.Uematsu, T.Arima, K.Sugimoto, J.J.Ishikawa, E.O'Farrell and S.Nakatsuji
Determination of Long-Range All-In-All-Out Ordering of Ir^{4+} Moments in a Pyrochlore Iridate $Eu_2Ir_2O_7$ by Resonant X-Ray Diffraction
Phys. Rev. B, **87** (2013) 100403.

Y.Yamaki, Y.Yamasaki, H.Nakao, Y.Murakami, Y.Kaneko, and Y.Tokura
X-Ray Photoinduced Persistent and Bidirectional Phase Transition Enabled by Impurity Doping in Layered Manganite
Phys. Rev. B, **87** (2013) 081107.

Y.Nii, H.Sagayama, H.Umetsu, N.Abe, K.Taniguchi and T.Arima
Interplay among Spin, Orbital, and Lattice Degrees of Freedom in a Frustrated Spinel Mn_3O_4
Phys. Rev. B, **87** (2013) 195115.

K.Tomiyasu, Y.Kubota, S.Shimomura, M.Onodera, S.Koyama, T.Nojima, S.Ishihara, H.Nakao and Y.Murakami
Spin-State Responses to Light Impurity Substitution in Low-Spin Perovskite $LaCoO_3$
Phys. Rev. B, **87** (2013) 224409.

Y.Ishiguro, K.Kimura, S.Nakatsuji, S.Tsutsui, A.Q.R.Baron T.Kimura and Y.Wakabayashi
Dynamical Spin-Orbital Correlation in the Frustrated Magnet $Ba_3CuSb_2O_9$
Nature Communications, **4** (2013) 3022.

J.Fujioka, Y.Yamasaki, H.Nakao, R.Kumai, Y.Murakami, M.Nakamura, M.Kawasaki and Y.Tokura
Spin-Orbital Superstructure in Strained Ferrimagnetic Perovskite Cobalt Oxide
Phys. Rev. Lett., **111** (2013) 027206.

N.S.Sokolov, S.M.Suturin, B.B.Krichevtsov, V.G.Dubrovskii, S.V.Gastev, N.V.Sibirev, D.A.Baranov, V.V.Fedorov, A.A.Sitnikova, A.V.Nashchekin, V.I.Sakharov, I.T.Serenkov, T.Shimada, T.Yanase and M.Tabuchi
Cobalt Epitaxial Nanoparticles on CaF_2/Si(111): Growth Process, Morphology, Crystal Structure, and Magnetic Properties
Phys. Rev. B, **87** (2013) 125407.

S.M.Suturin, V.V.Fedorov, A.M.Korovin, G.A.Valkovskiy, S.G.Konnikov, M.Tabuchi and N.S.Sokolov
A Look Inside Epitaxial Cobalt-on-Fluorite Nanoparticles with Three-Dimensional Reciprocal Space Mapping using GIXD, RHEED and GISAXS
J. Appl. Cryst., **46** (2013) 874.

T.Nakajima, Y.Iguchi, H.Tamatsukuri, S.Mitsuda, Y.Yamasaki, H.Nakao and N.Terada
Uniaxial-Pressure Effects on Spin-Driven Lattice Distortions in Geometrically Frustrated Magnets $CuFe_{1-x}Ga_xO_2$ ($x = 0, 0.035$)
J. Phys. Soc. Jpn., **82** (2013) 114711.

K.M.Papp-Wallace, M.A.Taracila, J.A.Gatta, N.Ohuchi, R.A.Bonomo and M.Nukaga
Insights into β-Lactamases from *Burkholderia* Species, Two Phylogenetically Related Yet Distinct Resistance Determinants
J. Biol. Chem., **288** (2013) 19090.

K.Jogo, K.Nagashima, I.D.Hutcheon, A.N.Krot and T.Nakamura
Heavily Metamorphosed Clasts from the CV Chondrite Breccias Mokoia and Yamato-86009
Meteoritics and Planetary Science, **47** (2013) 2251.

A.Tsuchiyama, T.Nakano, K.Uesugi, M.Uesugi, A.Takeuchi, Y.Suzuki, R.Noguchi, T.Matsumoto, J.Matsuno, T.Nagano, Y.Imai, T.Nakamura, T.Ogami, T.Noguchi, M.Abe, T.Yada and A.Fujimura
Analytical Dual-Energy Microtomography: A New Method for Obtaining Three-Dimensional Mineral Phase Images and its Application to Hayabusa Samples
Geochim. Cosmochim. Acta, **116** (2013) 5.

A.Ruammaitree, H.Nakahara, K.Akimoto, K.Soda and Y.Saito
Determination of Non-Uniform Graphene Thickness on SiC(0001) by X-Ray Diffraction
Appl. Surf. Sci., **282** (2013) 297.

3B

K.Ozawa, T.Kakubo, K.Shimizu, N.Amino, K.Mase and T.Komatsu
High-Resolution Photoelectron Spectroscopy Analysis of Sulfidation of Brass at the Rubber/Brass Interface
Appl. Surf. Sci., **264** (2013) 297.

K.Edamoto
The Electronic Properties of Nickel Phosphide Surfaces: Angle-Resolved and Resonant Photoemission Studies
Appl. Surf. Sci., **269** (2013) 7.

S.Wang, T.Sakurai, X.Hao, W.Fu, S.Masuda and K.Akimoto
Favorable Electronic Structure for Organic Solar Cells Induced by Strong Interaction at Interface
J. Appl. Phys., **114** (2013) 183707.

S.Wang, T.Sakurai, K.Komatsu and K.Akimoto
Effect of Ag-Doped Bathocuproine on the Recombination Properties of Exciton in Fullerene
J. Cryst. Growth, **378** (2013) 415.

T.Sakurai, S.Wang, S.Toyoshima and K.Akimoto
Role of Electrode Buffer Layers in Organic Solar Cells
Renewable and Sustainable Energy Conference (IRSEC), 2013 International, (2013) 46.

3C

T.Yamamoto, K.Hayashi, I.Seki, K.Suzuki and M.Ito
Pd-Based Metallic Glass with a Low Glass Transition Temperature
J. Non-Crystalline Solids, **359** (2013) 46.

M.Ito
Spin and Orbital Form Factor of $CeRh_3B_2$ Observed by X-Ray Magnetic Diffraction
Extended Abstract of FLIPPER 2013 (Single-Crystal Diffraction with Polarised Neutrons), (2013) 78.

K.Hirano, and Y.Takahashi
Applications of X-Ray Magnifier and Demagnifier to Angle-Resolved X-Ray Computed Tomography
J. Phys.: Conf. Ser., **425** (2013) 192004.

K.Hirano, Y.Ito, Y.Shinohara and Y.Amemiya
Characterization of an X-Ray Diamond Phase Plate by a Polarization Analyzer using Multiple Diffraction
J. Phys.: Conf. Ser., **425** (2013) 052030.

M.Naito, K.Hiiragi, A.Sato, H.Maruyama and M.Ito
X-Ray Magnetic Diffraction Experiment of Fe_3Pt Alloy in Order Phase
Key Engineering Materials, **534** (2013) 3.

K.Hirano Y.Takahashi and S.Nagamachi
Application of X-Ray Phase Plate to Grazing Incidence X-Ray Topography for the Control of Penetration Depth
Nucl. Instrum. Meth. Phys. Res. A, **729** (2013) 537.

N.Watanabe, J.Hashizume, M.Goto, M.Yamaguchi, T.Tsujimura and S.Aoki
Differential Phase Microscope and Micro-Tomography with a Foucault Knife-Edge Scanning Filter
J. Phys.: Conf. Series, **463** (2013) 012011.

4A

Y.Takanishi, I.Nishiyama, J.Yamamoto, Y.Ohtsuka and A.Iida
Smectic-*C** Liquid Crystals with Six-Layer Periodicity Appearing between the Ferroelectric and Antiferroelectric Chiral Smectic Phases
Phys. Rev. E, **87** (2013) 050503.

A.Iida
Synchrotron Radiation X-Ray Fluorescence Spectrometry
Encyclopedia of Analytical Chemistry, (2013)

Y.Kageyama, N.Tanigake, Y.Kurokome, S.Iwaki, S.Takeda, K.Suzuki and T.Sugawara
Macroscopic Motion of Supramolecular Assemblies Actuated by Photoisomerization of Azobenzene Derivatives
Chem. Comm., **49** (2013) 9386.

R.Nakada, Y.Takahashi and M.Tanimizu
Isotopic and Speciation Study on Cerium during its Solid-Water Distribution with Implication for Ce Stable Isotope as a Paleo-Redox Proxy
Geochim. Cosmochim. Acta, **103** (2013) 49.

Y.Takahashi, T.Furukawa, Y.Kanai, M.Uematsu, G.Zheng and M.A.Marcus
Seasonal Changes in Fe Species and Soluble Fe Concentration in the Atmosphere in the Northwest Pacific Region Based on the Analysis of Aerosols Collected in Tsukuba, Japan
Atmos. Chem. Phys., **13** (2013) 7695.

L.Wang, J.Li, J.Pan, X.Jiang, Y.Ji, Y.Li, Y.Qu, Y.Zhao, X.Wu and C.Chen
Revealing the Binding Structure of the Protein Corona on Gold Nanorods Using Synchrotron Radiation-Based Techniques: Understanding the Reduced Damage in Cell Membranes
J. Am. Chem. Soc., **135** (2013) 17359.

M.Terabayashi, T.Matsui, K.Okamoto, H.Ozawa, Y.Kaneko and S.Maruyama
Micro-X-Ray Absorption Near Edge Structure Determination of $Fe^{3+}/\Sigma Fe$ in Omphacite Inclusion within Garnet from Dabie Eclogite, East-Central China
Island Arc, **22** (2013) 37.

H.Hanashima, N.Kitajima, T.Abe and A.Hokura
Study on Accumulation Mechanism of Arsenic and Selenium in *Pteris vittata* L. Using Synchrotron Radiation X-Ray Fluorescence Analysis
Adv. X-Ray Chem. Anal. Jpn., **44** (2013) 279. (*in Japanese*).

H.Kagi, S.Odake, H.Ishibashi, K.Shozugawa, M.Matsuo, W.Satake and T.Mikouchi
Oxygen Fugacity and Valence State of Chromium in Ferropericlase: Can Cr^{2+} Be a Redox Indicator for the Deep Mantle?
J. Mineralogical and Petrological Sciences, **108** (2013) 172.

S.Mitsunobu, C.Muramatsu, K.Watanabe and M.Sakata
Behavior of Antimony(V) during the Transformation of Ferrihydrite and its Environmental Implications
Environ. Sci. Technol., **47** (2013) 9660.

S.Mitsunobu, N.Hamamura, T.Kataoka and F.Shiraishi
Arsenic Attenuation in Geothermal Streamwater Coupled with Biogenic Arsenic(III) Oxidation
Applied Geochemistry, **35** (2013) 154.

4B2

V.Petrykin, K.Macounova, M.Okube, S.Mukerjee and P.Krtil
Local Structure of Co Doped RuO_2 Nanocrystalline Electrocatalytic Materials for Chlorine and Oxygen Evolution
Catal. Today, **202** (2013) 63.

M.Yashima, T.Sekikawa, D.Sato, H.Nakano and K.Omoto
Crystal Structure and Oxide-Ion Diffusion of Nanocrystalline, Compositionally Homogeneous Ceria-Zirconia $Ce_{0.5}Zr_{0.5}O_2$ up to 1176 K
Crystal Growth and Design, **13** (2013) 829.

M.Okubo, K.Kagesawa, Y.Mizuno, D.Asakura, E.Hosono, T.Kudo, H.S.Zhou, K.Fujii, H.Uekusa, S.Nishimura, A.Yamada, A.Okazawa and N.Kojima
Reversible Solid State Redox of an Octacyanometallate-Bridged Coordination Polymer by Electrochemical Ion Insertion/Extraction
Inorg. Chem., **52** (2013) 3772.

K.Fujii, M.Aoki and H.Uekusa
Solid-State Hydration/Dehydration of Erythromycin A Investigated by ab Initio Powder X-Ray Diffraction Analysis: Stoichiometric and Nonstoichiometric Dehydrated Hydrate
Cryst. Growth Design, **13** (2013) 2060.

M.Yashima, U.Fumi, H.Nakano, K.Omoto and J.R.Hester
Crystal Structure, Optical Properties, and Electronic Structure of Calcium Strontium Tungsten Oxynitrides $Ca_xSr_{1-x}WO_2N$
J. Phys. Chem. C, **117** (2013) 18529.

K.Fujii, H.Kato, K.Omoto, M.Yashima, J.Chen and X.Xing
Experimental Visualization of the Bi-O Covalency in Ferroelectric Bismuth Ferrite($BiFeO_3$) by Synchrotron X-Ray Powder Diffraction Analysis
Phys. Chem. Chem. Phys., **15** (2013) 6779.

T.Ye, P.Barpanda, S.Nishimura, N.Furuta, S.-C.Chung and A.Yamada
General Observation of Fe^{3+}/Fe^{2+} Redox Couple Close to 4 V in Partially Substituted $Li_2FeP_2O_7$ Pyrophosphate Solid-Solution Cathodes
Chem. Mater., **25** (2013) 3623.

J.Kim, K.H.Cho, I.Kagomiya and K.Park
Structural Studies of Porous Ni/YSZ Cermets Fabricated by the Solid-State Reaction Method
Ceramics International, **39** (2013) 7467.

I.Kagomiya, S.Matsumoto, K.Kakimoto, H.Ohsato, H.Sakai and Y.Maeda
Annealing Effect on Temperature Coefficient of Resistivity in $La_{1-x}Sr_xMnO_3$ Ceramics
J. Euro. Ceram. Soc., **33** (2013) 985.

K.Terada, H.Kurobe, M.Ito, Y.Yoshihashi, E.Yonemochi, K.Fujii and H.Uekusa
Polymorphic and Pseudomorphic Transformation Behavior of Acyclovir Based on Thermodynamics and Crystallography
J. Therm. Anal. Calorim., **113** (2013) 1261.

I.Kagomiya, K.Jimbo and K.Kakimoto
Distribution Change of Oxygen Vacancies in Layered Perovskite Type$(Sr,La)_{n+1}Fe_nO_{3n+1}$($n$=3)
J. Sol. Stat. Chem., **207** (2013) 184.

4C

H.Wadati
Report on JSSRR Scientific Awards Resonant Soft X-Ray Scattering Studies of Transition-Metal-Oxide Thin Films
J. Jpn. Soc. Synchrotron Rad. Res., **26** (2013) 118. (*in Japanese*).

Y.Yamaki, Y.Yamasaki, H.Nakao, Y.Murakami, Y.Kaneko, and Y.Tokura
X-Ray Photoinduced Persistent and Bidirectional Phase Transition Enabled by Impurity Doping in Layered Manganite
Phys. Rev. B, **87** (2013) 081107.

M.Kamitani, M.S.Bahramy, R.Arita, S.Seki, T.Arima, Y.Tokura and S.Ishiwata
Superconductivity in Cu_xIrTe_2 Driven by Interlayer Hybridization
Phys. Rev. B, **87** (2013) 180501.

K.Tomiyasu, Y.Kubota, S.Shimomura, M.Onodera, S.Koyama, T.Nojima, S.Ishihara, H.Nakao and Y.Murakami
Spin-State Responses to Light Impurity Substitution in Low-Spin Perovskite $LaCoO_3$
Phys. Rev. B, **87** (2013) 224409.

Y.Ishiguro, K.Kimura, S.Nakatsuji, S.Tsutsui, A.Q.R.Baron T.Kimura and Y.Wakabayashi
Dynamical Spin-Orbital Correlation in the Frustrated Magnet $Ba_3CuSb_2O_9$
Nature Communications, **4** (2013) 3022.

J.Fujioka, Y.Yamasaki, H.Nakao, R.Kumai, Y.Murakami, M.Nakamura, M.Kawasaki and Y.Tokura
Spin-Orbital Superstructure in Strained Ferrimagnetic Perovskite Cobalt Oxide
Phys. Rev. Lett., **111** (2013) 027206.

M.Nakamura, R.Imai, N.Otsuka, N.Hoshi and O.Sakata
Ethanol Oxidation on Well-Ordered PtSn Surface Alloy on Pt(111) Electrode
J. Phys. Chem. C, **117** (2013) 18139.

R.Takahashi, T.Honda, A.Miyake, T.Kagayama, K.Shimizu, T.Ebihara, T.Kimura and Y.Wakabayashi
Valence Ordering in the Intermediate-Valence Magnet YbPd
Phys. Rev. B, **88** (2013) 054109.

A.Ruammaitree, H.Nakahara, K.Akimoto, K.Soda and Y.Saito
Determination of Non-Uniform Graphene Thickness on SiC(0001) by X-Ray Diffraction
Appl. Surf. Sci., **282** (2013) 297.

5A

A.Gao, G.-Y. Mei, S.Liu, P.Wang, Q.Tang, Y.-P. Liu, H.Wen, X.-M.An, L.-Q.Zhang, X.-X.Yan and D.-C.Liang
High-Resolution Structures of AidH Complexes Provide Insights into a Novel Catalytic Mechanism for *N*-Acyl Homoserine Lactonase
Acta Cryst. D, **69** (2013) 82.

T.Yanagisawa, T.Sumida, R.Ishii and S.Yokoyama
A Novel Crystal Form of Pyrrolysyl-tRNA Synthetase Reveals the Pre- and Post-Aminoacyl-tRNA Synthesis Conformational States of the Adenylate and Aminoacyl Moieties and an Asparagine Residue in the Catalytic Site
Acta Cryst. D, **69** (2013) 5.

N.Saito and Y.Matsuura
A 2.1-Å-Resolution Crystal Structure of Unliganded CRM1 Reveals the Mechanism of Autoinhibition
J. Mol. Biol., **425** (2013) 350.

K.Makabe, T.Nakamura and K.Kuwajima
Structural Insights into the Stability Perturbations Induced by N-Terminal Variation in Human and Goat α-Lactalbumin.
Protein Eng. Design and Selection, **26** (2013) 165.

D.F.Li, L.Feng, Y.J.Hou and W.Liu
The Expression, Purification and Crystallization of a Ubiquitin-Conjugating Enzyme E2 from *Agrocybe aegerita* Underscore the Impact of His-Tag Location on Recombinant Protein Properties
Acta Cryst. F, **69** (2013) 153.

C.Nakamura, S.Yajima, T.Miyamoto and M.Sue
Structural Analysis of an Epsillon-Class Glutathione Transferase from Housefly, *Musca domestica*
Biochem. Biophys. Res. Commun., **430** (2013) 1206.

J.Otani, K.Arita, T.Kato, M.Kinoshita, H.Kimura, I.Suetake, S.Tajima, M.Ariyoshi and M.Shirakawa
Structural Basis of the Versatile DNA Recognition Ability of the Methyl-CpG Binding Domain of Methyl-CpG Binding Domain Protein 4
J. Biol. Chem., **288** (2013) 6351.

Y.Itoh, S.Sekine, S.Suetsugu and S.Yokoyama
Tertiary Structure of Bacterial Selenocysteine tRNA
Nucl. Acids Res., **41** (2013) 6729.

Z.Fujimoto, R.Suzuki, T.Shiotsuki, W.Tsuchiya, A.Tase, M.Momma and T.Yamazaki
Crystal Structure of Silkworm *Bombyx mori* JHBP in Complex with 2-Methyl-2,4-Pentanediol: Plasticity of JH-Binding Pocket and Ligand-Induced Conformational Change of the Second Cavity in JHBP
PLoS One, **8** (2013) e56261.

Z.Fujimoto, A.Jackson, M.Michikawa, T.Maehara, M.Momma, B.Henrissat, HJ.Gilbert and S.Kaneko
The Structure of a *Streptomyces avermitilis* α-L-Rhamnosidase Reveals a Novel Carbohydrate-Binding Module CBM67 within the Six-Domain Arrangement
J. Biol. Chem., **288** (2013) 12376.

J.Y.Yoon, J.Kim, D.R.An, S.J.Lee, H.S.Kim,H.N.Im H.J.Yoon, J.Y.Kim, S.J.Kim, B.W.Han and S.W.Suh
Structural and Functional Characterization of HP0377, a Thioredoxin-Fold Protein from *Helicobacter pylori*
Acta Cryst. D, **69** (2013) 735.

M.Fujihashi, K.Mito, E.F.Pai and K.Miki
Atomic Resolution Structure of the Orotidine 5'-Monophosphate Decarboxylase Product Complex Combined with Surface Plasmon Resonance Analysis: Implication for the Catalytic Mechanism
J. Biol. Chem., **288** (2013) 9011.

T.Ouchi, T.Tomita, A.Horie, A.Yoshida, K.Takahashi, H.Nishida, K.Lassak, H.Taka, R.Mineki, T.Fujimura, S.Kosono, C.Nishiyama, R.Masui, S.Kuramitsu, S.-V.Albers, T.Kuzuyama and M.Nishiyama
Lysine and Arginine Biosyntheses Mediated by a Common Carrier Protein in *Sulfolobus*
Nature Chemical Biology, **9** (2013) 277.

Q.Zhang, , S.Qi, M.Xu, L.Yu, Y.Tao, Z.Deng, W.Wu, J.Li, Z.Chen and J.Wong
Structure-Function Analysis Reveals a Novel Mechanism for Regulation of Histone Demethylase LSD2/AOF1/KDM1b
Cell Res., **23** (2013) 225.

A.Matsumoto, Y.Shimizu, C.Takemoto, T.Ueda, T.Uchiumi and K.Ito
Crystallization and Preliminary X-Ray Analysis of Peptidyl-tRNA Hydrolase from *Thermus thermophilus* HB8
Acta Cryst. F, **69** (2013) 332.

T.Miyafusa, J.M.M.Caaveiro, Y.Tanaka, M.E.Tanner and K.Tsumoto
Crystal Structure of the Capsular Polysaccharide Synthesizing Protein CapE of *Staphylococcus aureus*
Biosci. Rep., **33** (2013) 463.

J.Kobayashi and Y.Matsuura
Structural Basis for Cell-Cycle-Dependent Nuclear Import Mediated by the Karyopherin Kap121p
J. Mol. Biol., **425** (2013) 1852.

J.Wachino, Y.Yamaguchi, S.Mori, H.Kurosaki, Y.Arakawa and K.Shibayama.
Structural Insights into the Subclass B3 Metallo-β-Lactamase, SMB-1, and the Mode of Inhibition by the Common Metallo-β-Lactamase Inhibitor, Mercaptoacetate
Antimicrobial Agents and Chemotherapy, **57** (2013) 101.

H.Zheng, T.Miyakawa, Y.Sawano, S.Yamagoe and M.Tanokura
Crystallization and Preliminary X-Ray Analysis of Human Leukocyte Cell-Derived Chemotaxin 2 (LECT2)
Acta Cryst. F, **69** (2013) 316.

M.Okai, J.Ohtsuka, L.F.Imai, T.Mase, R.Moriuchi, M.Tsuda, K.Nagata, Y.Nagata and M.Tanokura
Crystal Structure and Site-Directed Mutagenesis Analyses of Haloalkane Dehalogenase LinB from *Sphingobium* sp. Strain MI1205
J. Bacteriol., **195** (2013) 2642.

R.Nasuno, Y.Hirano, T.Itoh, T.Hakoshima, T.Hibi and H.Takagi
Structural and Functional Analysis of the Yeast *N*-Acetyltransferase Mpr1 Involved in Oxidative Stress Tolerance via Proline Metabolism
Proc. Natl. Acad. Sci. USA, **110** (2013) 11821.

T.Arimori, N.Kawamoto, S.Shinya, N.Okazaki, M.Nakazawa, K.Miyatake, T.Fukamizo, M.Ueda and T.Tamada
Crystal Structures of the Catalytic Domain of a Novel Glycohydrolase Family 23 Chitinase from *Ralstonia* sp. A-471 Reveals a Unique Arrangement of the Catalytic Residues for Inverting Chitin Hydrolysis
J. Biol. Chem., **288** (2013) 18696.

Y.Nagamatsu, K.Takeda, T.Kuranaga, N.Numoto and K.Miki
Origin of Asymmetry on the Intersubunit Interfaces of V_1-ATPase from *Thermus thermophilus*
J. Mol. Biol., **425** (2013) 2699.

Y.Nishitani, R.Aono, A.Nakamura, T.Sato, H.Atomi, T.Imanaka and K.Miki
Structure Analysis of Archaeal AMP Phosphorylase Reveals Two Unique Modes of Dimerization
J. Mol. Biol., **425** (2013) 2709.

Y.Hattori, K.Furuita, I.Ohki, T.Ikegami, H.Fukada, M.Shirakawa, T.Fujiwara and C.Kojima
Utilization of Lysine ^{13}C-Methylation NMR for Protein-Protein Interaction Studies
J. Biomol. NMR, **55** (2013) 19.

K.Taoka, I.Ohki, H.Tsuji, C.Kojima and K.Shimamoto
Structure and Function of Florigen and the Receptor Complex
Trends in Plant Science, **18** (2013) 287.

M.Chen, J.Yu, Y.Tanaka, M.Tanaka, I.Tanaka and M.Yao
Structure of Dihydrouridine Synthase C (DusC) from *Escherichia coli*
Acta Cryst. F, **69** (2013) 834.

Y.Yagita, N.Kuse, K.Kuroki, H.Gatanaga, J.M.Carlson, T.Chikata, Z.L.Brumme, H.Murakoshi, T.Akahoshi, N.Pfeifer, S.Mallal, M.John, T.Ose, H.Matsubara, R.Kanda, Y.Fukunaga, K.Honda, Y.Kawashima, Y.Ariumi, S.Oka, K.Maenaka and M.Takiguchi
Distinct HIV-1 Escape Patterns Selected by Cytotoxic T Cells with Identical Epitope Specificity
J. Virol., **87** (2013) 2253.

T.Hirose, N.Maita, H.Gouda, J.Koseki, T.Yamamoto, A.Sugawara, H.Nakano, S.Hirono, K.Shiomi, T.Watanabe, H.Taniguchi, K.B.Sharpless, S.Omura and T.Sunazuka
Observation of the Controlled Assembly of Preclick Components in the in situ Click Chemistry Generation of a Chitinase Inhibitor
Proc. Natl. Acad. Sci. USA, **110** (2013) 15892.

A.Nakamura, T.Ishida, S.Fushinobu, K.Kusaka, I.Tanaka, K.Inaka, Y.Higuchi, M.Masaki, K.Ohta, S.Kaneko, N.Niimura, K.Igarashi and M.Samajima
Phase-Diagram-Guided Method for Growth of a Large Crystal of Glycoside Hydrolase Family 45 Inverting Cellulase Suitable for Neutron Structural Analysis
J. Synchrotron Rad., **20** (2013) 859.

S.Fushinobu, V.D.Alves and P.M.Coutinho
Multiple Rewards from a Treasure Trove of Novel Glycoside Hydrolase and Polysaccharide Lyase Structures: New Folds, Mechanistic Details, and Evolutionary Relationships
Curr. Opin. Struct. Biol., **23** (2013) 652.

K.Matsumoto, Y.Tanaka, T.Watanabe, R.Motohashi, K.Ikeda, K.Tobitani, M.Yao, I.Tanaka and S.Taguchi
Directed Evolution and Structural Analysis of NADPH-Dependent Acetoacetyl Coenzyme A(Acetoacetyl-CoA) Reductase from *Ralstonia eutropha* Reveals Two Mutations Responsible for Enhanced Kinetics
Appl. Environ. Microbiol., **79** (2013) 6134.

Z.Gai, A.Nakamura, Y.Tanaka, N.Hirano, I.Tanaka and M.Yao
Crystal Structure Analysis, Overexpression and Refolding Behavior of a DING Protein with Single Mutation
J. Synchrotron Rad., **20** (2013) 854.

T.Sugawara, D.Yamashita, Y.Tanaka, J.Kaneko, Y.Kamio, I.Tanaka and M.Yao
Preliminary X-Ray Crystallographic Study of Staphylococcal α-Hemolysin Monomer
Acta Cryst. F, **69** (2013) 868.

Z.Fujimoto
Structure and Function of Carbohydrate-Binding Module Families 13 and 42 of Glycoside Hydrolases, Comprising a β-Trefoil Fold
Biosci. Biotechnol. Biochem., **77** (2013) 1363.

T.Arimori, A.Ito, M.Nakazawa, M.Ueda and T.Tamada
Crystal Structure of Endo-1,4-β-Glucanase from *Eisenia fetida*
J. Synchrotron Rad., **20** (2013) 884.

T.Miyafusa, J.M.M.Caaveiro, Y.Tanaka and K.Tsumoto
Dynamic Elements Govern the Catalytic Activity of CapE, a Capsular Polysaccharide-Synthesizing Enzyme from *Staphylococcus aureus*
FEBS Lett., **587** (2013) 3824.

K.Takemoto, T.Matsuda, N.Sakai, D.Fu, M.Noda, S.Uchiyama, I.Kotera, Y.Arai, M.Horiuchi, K.Fukui, T.Ayabe, F.Inagaki, H.Suzuki and T.Nagai
SuperNova, a Monomeric Photosensitizing Fluorescent Protein for Chromophore-Assisted Light Inactivation.
Sci. Rep., **3** (2013) 2629.

Y.Yasutake, T.Nishioka, N.Imoto and T.Tamura
A Single Mutation at the Ferredoxin Binding Site of P450 Vdh Enables Efficient Biocatalytic Production of 25-Hydroxyvitamin D_3
ChemBioChem, **14** (2013) 2284.

M.Elahi, M.M.Islam, K.Noguchi, M.Yohda and Y.Kuroda
High Resolution Crystal Structure of Dengue-3 Envelope Protein Domain III Suggests Possible Molecular Mechanisms for Serospecific Antibody Recognition
Proteins, **81** (2013) 1090.

J.Matsuzawa, T.Umeda, H.Aikawa, C.Suzuki, Z.Fujimoto, K.Okada, H.Yamane and H.Nojiri
Crystallization and Preliminary X-Ray Diffraction Studies of the Reduced Form of the Terminal Oxygenase Component of the Rieske Nonhaem Iron Oxygenase System Carbazole 1, 9a-Dioxygenase.
Acta Cryst. F, **69** (2013) 1284.

Y.Kanemaru, F.Hasebe, T.Tomita, T.Kuzuyama and M.Nishiyama
Two ATP-Binding Cassette Transporters Involved in (*S*)-2-Aminoethyl-Cysteine Uptake in *Thermus thermophilus*
J. Bacteriology, **195** (2013) 3845.

H.Do, J.H.Lee, M.H.Kwon, H.E.Song, J.Y.An, S.H.Eom, S.G.Lee and H.J.Kim
Purification, Characterization and Preliminary X-Ray Diffraction Analysis of a Cold-Active Lipase (CpsLip) from the Psychrophilic Bacterium *Colwellia psychrerythraea* 34H
Acta Cryst. F, **69** (2013) 920.

R.Kawakami, C.Noguchi, M.Higashi, H.Sakuraba and T.Ohshima
Comparative Analysis of the Catalytic Components in the Archaeal Dye-Linked $_L$-Proline Dehydrogenase Complexes
Appl. Microbiol. Biotechnol., **97** (2013) 3419.

K.Uechi, H.Sakuraba, A.Yoshihara, K.Morimoto and G.Takata
Structural Insight into L-Ribulose 3-Epimerase from *Mesorhizobium loti*
Acta Cryst. D, **69** (2013) 2330.

S.Yoshikawa, M.Kukimoto-Niino, L.Parker, N.Handa, T.Terada, T.Fujimoto, Y.Terazawa, M.Wakiyama, M.Sato, S.Sano, T.Kobayashi, T.Tanaka, L.Chen, Z.-J.Liu, B.-C.Wang, M.Shirouzu, S.Kawa, K.Semba, T.Yamamoto and S.Yokoyama
Structural Basis for the Altered Drug Sensitivities of Non-Small Cell Lung Cancer-Associated Mutants of Human Epidermal Growth Factor Receptor
Oncogene, **32** (2013) 27.

Y.Itoh, M.J. Bröcker, S.Sekine, G.Hammond, S.Suetsugu, D.Söll and S.Yokoyama
Decameric SelA·tRNA^{Sec} Ring Structure Reveals Mechanism of Bacterial Selenocysteine Formation
Science, **340** (2013) 75.

X.Zhang, L.Jiang, G.Wang, L.Yu, Q.Zhang, Q.Xin, W.Wu, Z.Gong and Z.Chen
Structural Insights into the Abscisic Acid Stereospecificity by the ABA Receptors PYR/PYL/RCAR
PLOS ONE, **8** (2013) e67477.

P.Zhou, Z.Chen, Q.Yan, S.Yang, R.Hilgenfeld and Z.Jiang
The Structure of a Glycoside Hydrolase Family 81 Endo-β-1, 3-Glucanase
Acta Cryst. D, **69** (2013) 2027.

M.Unno, S.Kinjo, K.Kizawa and H.Takahara
Crystallization and Preliminary X-Ray Crystallographic Analysis of Human Peptidylarginine Deiminase Type I
Acta Cryst. F, **69** (2013) 1357.

M.Unno, A.Ardèvol, C.Rovira and M.Ikeda-Saito
Structures of the Substrate-Free and Product-Bound Forms of HmuO, a Heme Oxygenase from *Corynebacterium diphtheriae* :X-Ray Crystallography and Molecular Dynamics Investigation
J. Biol. Chem., **288** (2013) 34443.

T.Ogawa, K.Noguchi, M.Saito, Y.Nagahata, H.Kato, A.Ohtaki, H.Nakayama, N.Dohmae, Y.Matsushita, M.Odaka, M.Yohda, H.Nyunoya and Y.Katayama
Carbonyl Sulfide Hydrolase from *Thiobacillus thioparus* Strain THI115 Is One of the β-Carbonic Anhydrase Family Enzymes
J. Am. Chem. Soc., **135** (2013) 3818.

T.Fujiwara, K.Komoda, N.Sakurai, K.Tajima, I.Tanaka, M.Yao
The C-Di-GMP Recognition Mechanism of the PilZ Domain of Bacterial Cellulose Synthase Subunit A
Biochemical and Biophysical Research Communications, **431** (2013) 802.

H.Unno, K.Hisamatsu, T.Nagao, Y.Tateya, N.Matsumoto, S.Goda and T.Hatakeyama
Crystallization and Preliminary Crystallographic Study of Oligomers of the Haemolytic Lectin CEL-III from the Sea Cucumber *Cucumaria echinata*
Acta Cryst. F, **69** (2013) 416.

D.Iino, Y.Takakura, K.Fukano, Y.Sasaki, T.Hoshino, K.Ohsawa, A.Nakamura and S.Yajima
Crystal Structures of the Ternary Complex of APH(4)-Ia/Hph with Hygromycin B and an ATP Analog using a Thermostable Mutant
J. Struct. Biol., **183** (2013) 76.

N.Kono, U.Ohto, T.Hiramatsu, M.Urabe, Y.Uchida, Y.Satow and H.Arai
Impaired α-TTP-PIPs Interaction Underlies Familial Vitamin E Deficiency
Science, **340** (2013) 1106.

K.Yamamoto, M.Suzuki, A.Higashiura and A.Nakagawa
Three-Dimensional Structure of a *Bombyx mori* Omega-Class Glutathione Transferase
Biochemical and Biophysical Research Communications, **438** (2013) 588.

A.Shimizu, A.Kawana-Tachikawa, A.Yamagata, C.Han, D.Zhu, Y.Sato, H.Nakamura, T.Koibuchi, J.Carlson, E.Martin, C.J.Brumme, Y.Shi, G.F.Gao, Z.L.Brumme, S.Fukai and A.Iwamoto
Structure of TCR and Antigen Complexes at an Immunodominant CTL Epitope in HIV-1 Infection
Sci. Rep., **3** (2013) 3097.

S.Sugiyama, N.Shimizu, G.Sazaki, M.Hirose, Y.Takahashi, M.Maruyama, H.Matsumura, H.Adachi, K.Takano, S.Murakami, T.Inoue and Y.Mori
A Novel Approach for Protein Crystallization by a Synthetic Hydrogel with Thermoreversible Gelation Polymer
Cryst. Growth Des., **13** (2013) 1899.

J.Y.Yoon, D.R.An, H.-J.Yoon, H.S.Kim, S.J.Lee, H.N.Im, J.Y.Jang and S.W.Suh
High-Resolution Crystal Structure of *Streptococcus pyogenes* β-NAD^+ Glycohydrolase in Complex with its Endogenous Inhibitor IFS Reveals a Highly Water-Rich Interface
J. Synchrotron Rad., **20** (2013) 962.

J.Hwang, B.S.Kim, S.Y.Jang, J.G.Lim, D.-J.You, H.S.Jung, T.-K.Oh, J.-O.Lee, S.H.Choi and M.H.Kim
Structural Insights into the Regulation of Sialic Acid Catabolism by the *Vibrio vulnificus* Transcriptional Repressor NanR
Proc. Natl. Acad. Sci. USA, **110** (2013) E2829.

M.Kato, Y.Kezuka, C.Kobayashi, K.Ishibashi, T.Nonaka, M.Ishikawa and E.Katoh
Crystallization and Preliminary X-Ray Crystallographic Analysis of the Inhibitory Domain of the Tomato Mosaic Virus Resistance Protein Tm-1
Acta Cryst. F, **69** (2013) 1411.

M.Fujihashi, T.Ishida, S.Kuroda, L.P.Kotra, E.F.Pai and K.Miki
Substrate Distortion Contributes to the Catalysis of Orotidine 5'-Monophosphate Decarboxylase
J. Am. Chem. Soc., **135** (2013) 17432.

T.Tominaga, S.Watanabe, R.Matsumi, H.Atomi, T.Imanaka and K.Miki
Crystal Structures of the Carbamoylated and Cyanated Forms of HypE for [NiFe] Hydrogenase Maturation
Proc. Natl. Acad. Sci. USA, **110** (2013) 20485.

H.Kim and J.Choe
The X-Ray Crystal Structure of PA1374 from *Pseudomonas aeruginosa*, a Putative Oxidative-Stress Sensing Transcriptional Regulator
Biochem. Biophys. Res. Commun, **431** (2013) 376.

K.Yamamoto, M.Suzuki, A.Higashiura, K.Aritake, Y.Urade, N.Uodome, MD.T.Hossain and A.Nakagawa
New Insights into the Catalytic Mechanism of *Bombyx mori* Prostaglandin E Synthase Gained from Structure-Function Analysis
Biochemical and Biophysical Research Communications, **440** (2013) 762.

R.Satou, A.Miyanaga, H.Ozawa, N.Funa, Y.Katsuyama, K.Miyazono, M.Tanokura, Y.Ohnishi and S.Horinouchi
Structural Basis for Cyclization Specificity of Two *Azotobacter* Type III Polyketide Synthases: A Single Amino Acid Substitution Reverses their Cyclization Specificity
J. Biol. Chem., **288** (2013) 34146.

K.Suzuki, M.Tsunoda, M.M.Hoque, F.Zhang, J.Jiang, X.Zhang, N.Ohbayashi, H.Tanaka and A.Takenaka
Peculiarity in Crystal Packing of Anti-HIV Lectin Actinohivin in Complex with α(1-2)Mannobiose
Acta Cryst. D, **69** (2013) 1818.

F.Zhang, M.Tsunoda, K.Suzuki, Y.Kikuchi, O.Wilkinson, C.L.Millington, G.P.Margison, D.M.Williams, E.C.Morishita and A.Takenaka
Structures of DNA Duplexes Containing O^6-Carboxymethylguanine, a Lesion Associated with Gastrointestinal Cancer, Reveal a Mechanism for Inducing Pyrimidine Transition Mutations
Nucl. Acids Res., **41** (2013) 5524.

S.Aizawa, M.Senda, A.Harada, N.Maruyama, T.Ishida, T.Aigaki, A.Ishigami and T.Senda
Structural Basis of the γ-Lactone-Ring Formation in Ascorbic Acid Biosynthesis by the Senescence Marker Protein-30/Gluconolactonase
PLoS One, **8** (2013) e53706.

A.Furukawa, J.Kamishikiryo, D.Mori, K.Toyonaga, Y.Okabe, A.Toji, R.Kanda, Y.Miyake, T.Ose, S.Yamasaki and K.Maenaka
Structural Analysis for Glycolipid Recognition by the C-Type Lectins Mincle and MCL
Proc. Natl. Acad. Sci. USA, **110** (2013) 17438.

K.R.Kim, S.H.Park, H.S.Kim, K.H.Rhee, B.-G.Kim, D.G.Kim, M.S.Park, H.-J.Kim, S.Kim and B.W.Han
Crystal Structure of Human Cytosolic Aspartyl-tRNA Synthetase, a Component of Multi-tRNA Synthetase Complex
Proteins, **81** (2013) 1840.

6A

Y.Zhao, K.Hayasaka, G.Matsuba and H.Ito
In Situ Observations of Flow-Induced Precursors during Shear Flow
Macromolecules, **46** (2013) 172.

H.Okuda, T.Horiuchi, T.Tsukamoto, S.Ochiai, M.Yamasaki and Y.Kawamura
Evolution of Long-Period Stacking Order Structures on Annealing As-Cast $Mg_{85}Y_9Zn_6$ Alloy Ingot Observed by Synchrotron Radiation Small-Angle Scattering
Scripta Materialia, **68** (2013) 575.

H.Okuda and S.Ochiai
A Review on Small- and Wide-Angle X-Ray Scattering Applied to the Precipitation Process in Metallic Alloys
Metallurgical and Materials Transactions A, **44** (2013) 94.

H.Yokoyama
Small Angle X-Ray Scattering Studies of Nanocellular and Nanoporous Structures
Polymer J., **45** (2013) 3.

D.Sato, K.Obara, M.Iwahashi, Y.Kawabata and T.Kato
Re-entrant Lamellar/Onion Transition with Varying Temperature under Shear Flow
Langmuir, **29** (2013) 121.

M.Yoshino, T.Kikukawa, H.Takahashi, T.Takagi, Y.Yokoyama, H.Amii, T.Baba, T.Kanamori and M.Sonoyama
Physicochemical Studies of Bacteriorhodopsin Reconstituted in Partially Fluorinated Phosphatidylcholine Bilayers
J. Phys. Chem. B, **117** (2013) 5422.

Y.Sugimoto, M.Shioya, H.Matsumoto, M.Minagawa and A.Tanioka
Structure Changes during Tensile Deformation and Mechanical Properties of a Twisted Carbon Nanotube Yarn
Carbon, **60** (2013) 193.

H.Takeno and W.Nakamura
Structural and Mechanical Properties of Composite Hydrogels Composed of Clay and a Polyelectrolyte Prepared by Mixing
Colloid and Polymer Science, **291** (2013) 1393.

M.Harada, M.Yamada, Y.Kimura and K.Saijo
Influence of the Organization of Water-in-Ionic Liquid Microemulsions on the Size of Silver Particles during Photoreduction
J. Colloid Interface Sci., **406** (2013) 94.

K.Nagata, N.Hongo, Y.Kameda, A.Yamamura, H.Sasaki, W.C.Lee, K.Ishikawa, E.Suzuki and M.Tanokura
The Structure of Brazzein, a Sweet-Tasting Protein from the Wild African Plant *Pentadiplandra brazzeana*.
Acta Cryst. D, **69** (2013) 642.

K.Matsui, S.Seno, Y.Nozue, Y.Shinohara, Y.Amemiya, E.B.Berda, G.Rojas and K.B.Wagener
Influence of Branch Incorporation into the Lamella Crystal on the Crystallization Behavior of Polyethylene with Precisely Spaced Branches
Macromolecules, **46** (2013) 4438.

K.Fukuhara, Y.Fujii, Y.Nagashima, M.Hara, S.Nagano, and T.Seki
Liquid-Crystalline Polymer and Block Copolymer Domain Alignment Controlled by Free-Surface Segregation
Angew. Chem. Int. Ed., **52** (2013) 5988.

G.Cui, S.Ohya, T.Matsutani, S.Nagano, T.Dohi, S.Nakamura, S.Sakurai, T.Miyazaki and K.Yamamoto
Perpendicular Orientation of Sub-10 nm Channels in Polystyrene-*b*-Poly(4-Hydroxyl Styrene)/PEG Oligomer Blend Thin Films
Nanoscale, **5** (2013) 6713.

F.Kaneko, N.Seto, K.Sasaki, S.Sakurai and T.Kimura
Simultaneous SAXS and WAXS Study on the Guest Exchange Process of Syndiotactic Polystyrene: Crystalline Complex Formation with Triethylene Glycol Dimethyl Ether
Macromol. Chem. Phys., **214** (2013) 1893.

Y.Matsumura, M.Shinjo, T.Matsui, K.Ichimura, J.Song and H.Kihara
Structural Study of hNck2 SH3 Domain Protein in Solution by Circular Dichroism and X-Ray Solution Scattering
Biophys. Chem., **175** (2013) 39.

Y.Matsumura, M.Shinjo, S.J.Kim, N.Okishio, M.Gruebele and H.Kihara
Transient Helical Structure during PI3K and Fyn SH3 Domain Folding
J. Phys. Chem. B, **117** (2013) 4836.

M.Morimoto, T.Morita, T.Takanohashi and K.Nishikawa
Specific Asphaltene Aggregation in Toluene at Around 50 mg/L
J. Jpn. Petrol. Inst., **56** (2013) 58.

T.Morita, K.Kurihara, O.Yoshida, H.Imamura, Y.Hatakeyama, K.Nishikawa and N.Uehara
Fusion Growth of Gold Nanoparticles Induced by the Conformational Change of a Thermoresponsive Polymer Studied by Distance Distribution Functions
J. Phys. Chem. C, **117** (2013) 13602.

A.Nakamura, T.Ishida, S.Fushinobu, K.Kusaka, I.Tanaka, K.Inaka, Y.Higuchi, M.Masaki, K.Ohta, S.Kaneko, N.Niimura, K.Igarashi and M.Samajima
Phase-Diagram-Guided Method for Growth of a Large Crystal of Glycoside Hydrolase Family 45 Inverting Cellulase Suitable for Neutron Structural Analysis
J. Synchrotron Rad., **20** (2013) 859.

S.Fushinobu, V.D.Alves and P.M.Coutinho
Multiple Rewards from a Treasure Trove of Novel Glycoside Hydrolase and Polysaccharide Lyase Structures: New Folds, Mechanistic Details, and Evolutionary Relationships
Curr. Opin. Struct. Biol., **23** (2013) 652.

Y.Takenaka, Y.Kawabata, H.Kitahata, M.Yoshida, Y.Matsuzawa and T.Ohzono
Effects of Surfactant Concentration on Formation of High-Aspect-Ratio Gold Nanorods
J. Colloid Interface Sci., **407** (2013) 265.

Z.Fujimoto
Structure and Function of Carbohydrate-Binding Module Families 13 and 42 of Glycoside Hydrolases, Comprising a β-Trefoil Fold
Biosci. Biotechnol. Biochem., **77** (2013) 1363.

N.Suzuki, Y-M.Kim, M.Momma, Z.Fujimoto, M.Kobayashi, A.Kimura and K.Funane
Crystallization and Preliminary X-Ray Crystallographic Analysis of Cycloisomaltooligosaccharide Glucanotransferase from *Bacillus circulans* T-3040
Acta Cryst. F, **69** (2013) 946.

T.Hiromoto, E.Honjo, T.Tamada, N.Noda, K.Kazuma, M.Suzuki and R.Kuroki
Crystal Structure of UDP-Glucose:Anthocyanidin 3-*O*-Glucosyltransferase from *Clitoria ternatea*
J. Synchrotron Rad., **20** (2013) 894.

A.A.Timchenko, O.V.Novosylna, E.A.Prituzhalov, H.Kihara, A.V.El'skaya, B.S.Negrutskii and I.N.Serdyuk
Different Oligomeric Properties and Stability of Highly Homologous A1 and Proto-Oncogenic A2 Variants of Mammalian Translation Elongation Factor eEF1
Biochemistry, **52** (2013) 5345.

H.Takeno and T.Mochizuki
A Structural Development of an Organogel Explored by Synchrotron Time-Resolved Small-Angle X-Ray Scattering
Colloid Polym. Sci., **291** (2013) 2783.

T.Ogawa, K.Noguchi, M.Saito, Y.Nagahata, H.Kato, A.Ohtaki, H.Nakayama, N.Dohmae, Y.Matsushita, M.Odaka, M.Yohda, H.Nyunoya and Y.Katayama
Carbonyl Sulfide Hydrolase from *Thiobacillus thioparus* Strain THI115 Is One of the β-Carbonic Anhydrase Family Enzymes
J. Am. Chem. Soc., **135** (2013) 3818.

D.Iino, Y.Takakura, K.Fukano, Y.Sasaki, T.Hoshino, K.Ohsawa, A.Nakamura and S.Yajima
Crystal Structures of the Ternary Complex of APH(4)-Ia/Hph with Hygromycin B and an ATP Analog using a Thermostable Mutant
J. Struct. Biol., **183** (2013) 76.

T.Shinkai, M.Ito, K.Sugiyama, K.Ito and H.Yokoyama
Retrograde Order-Disorder Transition of a Semi-Fluorinated Block Copolymer Induced by Supercritical Carbon Dioxide
Soft Matter, **9** (2013) 10689.

N.Yoshimoto, T.Itoh, Y.Inaba, H.Ishii and K.Yamamoto
Structural Basis for Inhibition of Carboxypeptidase B by Selenium-Containing Inhibitor: Selenium Coordinates to Zinc in Enzyme
J. Med. Chem., **56** (2013) 7527.

T.Nakano, D.Kawaguchi and Y.Matsushita
Anisotropic Self-Assembly of Gold Nanoparticle Grafted with Polyisoprene and Polystyrene Having Symmetric Polymer Composition
J. Am. Chem. Soc., **135** (2013) 6798.

6C

S.Hosokawa, N.Happo, T.Ozaki, H.Ikemoto, T.Shishido and K.Hayashi
Extent and Feature of Lattice Distortions around Ga Impurity Atoms in InSb Single Crystal
Phys. Rev. B, **87** (2013) 094104.

M.Okube and S.Sasaki
Accurate Determination of Anomalous Scattering Factor near Fe *K* Absorption Edge
J. Phys.: Conf. Ser., **425** (2013) 202002.

M.Okube, A.Kinoshita, J.Yoshizaki, T.Toyoda and S.Sasaki
Spin Orientation in (Ti-Mn) Ba Ferrite Estimated from Resonant X-Ray Magnetic Scattering
J. Phys.: Conf. Ser., **425** (2013) 102005.

K.Hayashi
Atomic Resolution Holography
Butsuri, **68** (2013) 217. (*in Japanese*).

K.Fukuda, J.Sato, T.Saida, W.Sugimoto, Y.Ebina, T.Shibata, M.Osada and T.Sasaki
Fabrication of Ruthenium Metal Nanosheets via Topotactic Metallization of Exfoliated Ruthenate Nanosheets
Inorg. Chem., **52** (2013) 2280.

K.Hayashi, N.Happo and S.Hosokawa
Evaluation of Local Lattice Distortion by X-Ray Fluorescence Holography
J. Jpn. Soc. Synchrotron Rad. Res., **26** (2013) 195. (*in Japanese*).

T.Ozawa, K.Fukuda, Y.Ebina and T.Sasaki
Soft-Chemical Exfoliation of $RbSrNb_2O_6F$ into Homogeneously Unilamellar Oxyfluoride Nanosheets
Inorganic Chemistry, **52** (2013) 415.

M.Kimura and R.Murao
Continuous Cooling Transformation(CCT) Concept for Iron Ore Sintering using *In Situ* Quick X-Ray Diffraction and Confocal Laser Microscope
ISIJ International, **53** (2013) 2047.

7A

S.M.Suturin, V.V.Fedorov, A.G.Banshchikov, D.A.Baranov, K.V.Koshmak, P.Torelli, J.Fujii, G.Panaccione, K.Amemiya, M.Sakamaki, T.Nakamura, M.Tabuchi, L.Pasquali and N.S.Sokolov
Proximity Effects and Exchange Bias in Co/MnF_2(111) Heterostructures Studied by X-Ray Magnetic Circular Dichroism
J. Phys.: Condens. Matter, **25** (2013) 046002.

M.Sakamaki and K.Amemiya
Effect of Structural Strain on Magnetic Anisotropy Energy of Each Element in Alternately Layered FeNi Thin Films
Phys. Rev. B, **87** (2013) 014428.

H.Niwa, M.Saito, M.Kobayashi, Y.Harada, M.Oshima, S.Moriya, K.Matsubayashi, Y.Nabae, S.Kuroki, T.Ikeda, K.Terakura, J.Ozaki and S.Miyata
Probing Carbon Edge Exposure of Iron Phthalocyanine-Based Oxygen Reduction Catalysts by Soft X-Ray Absorption Spectroscopy
J. Power Sources, **223** (2013) 30.

J.Okabayashi, S.Kono, Y.Yamada and K.Nomura
Mössbauer and X-Ray Absorption Studies in Fe and V Co-Doped SnO_2
Hyperfine Interact., **217** (2013) 99.

O.Endo, M. Nakamura and K.Amemiya
Depth-Dependent C K-NEXAFS Spectra for Self-Assembled Monolayers of 4-Methylbenzenethiol and 4-Ethylbenzenethiol on Au(1 1 1)
J. Elec. Spec. Relat. Phenom., **187** (2013) 72.

K.Amemiya and M.Sakamaki
Temperature Dependence of Remanent Magnetization of Thin Films at the Interface to a Nonmagnetic Material: Cu/Ni/Cu(100)
Phys. Rev. B, **88** (2013) 014401.

O.Endo, M.Nakamura and K.Amemiya
Separation of C K-NEXAFS Spectra for Layer-by-Layer Analysis of Carbon-Based Thin Films: An *n*-Alkane Monolayer Adsorbed on a Monolayer Graphene Substrate Grown on a Pt(111) Surface
J. Elec. Spec. Relat. Phenom., **189** (2013) 27.

J.Okabayashi, H.Sukegawa, Z.Wen, K.Inomata and S.Mitani
Large Anisotropic Fe Orbital Moments in Perpendicularly Magnetized Co_2FeAl Heusler Alloy Thin Films Revealed by Angular-Dependent X-Ray Magnetic Circular Dichroism
Appl. Phys. Lett., **103** (2013) 102402.

H.-M.Lee, S.-B.Kang K.-B.Chung and H.-K.Kim
Transparent and Flexible Amorphous In-Si-O Films for Flexible Organic Solar Cells
Appl. Phys. Lett., **102** (2013) 021914.

K.-C.Ok, Y.Park, K.-B.Chung and J.-S.Park
The Effect of Ta Doping in Polycrystalline TiO_x and the Associated Thin Film Transistor Properties
Appl. Phys. Lett., **103** (2013) 213501.

O.Endo, M.Nakamura and K.Amemiya
Phase Transition of *n*-$C_{36}H_{74}$ Monolayer on Pt(111) Covered with Monolayer Graphene Studied by C K-NEXAFS
J. Phys. Chem. C, **117** (2013) 21856.

Y.Matsumoto, S.Entani, A.Koide, M.Ohtomo, P.V.Avramov, H.Naramoto, K.Amemiya, T.Fujikawa and S.Sakai
Spin Orientation Transition Across the Single-Layer Graphene/Nickel Thin Film Interface
J. Mater. Chem. C, **1** (2013) 5533.

7C

F.Liu, K.Asakura, P.Xie, J.Wang and H.He
An XAFS Study on the Specific Microstructure of Active Species in Iron Titanate Catalyst for NH_3-SCR of NO_x
Catal. Today, **201** (2013) 131.

Y.Izumi
Recent Advances in Photocatalytic Conversion of Carbon Dioxide into Fuels with Water and/or Hydrogen using Solar Energy and Beyond
Coordination Chem. Rev., **257** (2013) 171.

T.Kamegawa, D.Yamahana, H.Seto and H.Yamashita
Preparation of Single-Site Ti-Containing Mesoporous Silica with a Nanotube Architecture and its Enhanced Catalytic Activities
J. Mater. Chem. A, **1** (2013) 891.

T.Kamegawa, R.Kido, D.Yamahana and H.Yamashita
Design of TiO_2-Zeolite Composites with Enhanced Photocatalytic Performances under Irradiation of UV and Visible Light
Micropor. Mesopor. Mater., **165** (2013) 142.

D.Asakura, C.H.Li, Y.Mizuno, M.Okubo, H.S.Zhou and D.R.Talham
Bimetallic Cyanide-Bridged Coordination Polymers as Lithium Ion Cathode Materials: Core@Shell Nanoparticles with Enhanced Cyclability
J. Am. Chem. Soc., **135** (2013) 2793.

J.Kim, Y.Kim, S.Han,S.Choi and J.Lee
Photocatalytic Synthesis of Oxygenated Hydrocarbons from Diesel Fuel for Mobile DeNOx Application
J. Catal., **302** (2013) 58.

F.Rashidi, T.Sasaki, A.M.Rashidi, A.N.Kharat and K.J.Jozani
Ultradeep Hydrodesulfurization of Diesel Fuels using Highly Efficient Nanoalumina-Supported Catalysts: Impact of Support, Phosphorus, and/or Boron on the Structure and Catalytic Activity
J. Catal., **299** (2013) 321.

O.Haruyama, K.Kisara, A.Yamashita, K.Kogure, Y.Yokoyama and K.Sugiyama
Characterization of Free Volume in Cold-Rolled $Zr_{55}Cu_{30}Ni_5Al_{10}$ Bulk Metallic Glasses
Acta Materialia, **61** (2013) 3224.

S.Nozawa, T.Iwazumi, H.Osawa and T.Uozumi
Photoinduced Local Symmetry Breaking in $SrTiO_3$
Applied Physics Express, **6** (2013) 061501.

O.Haruyama, H.Sawada, K.Yoshikawa, T.Kawamata, Y.Yokoyama and K.Sugiyama
Static Measurements for α- and β-Relaxation below T_g in a $Zr_{55}Cu_{30}Ni_5Al_{10}$ BMG
TMS2013 Annual Meeting Supplemental Proceedings, (2013) 273.

S.Mandal, K.K.Bando, C.Santra, S.Maity, O.O.James, D.Mehta and B.Chowdhury
Sm-CeO_2 Supported Gold Nanoparticle Catalyst for Benzyl Alcohol Oxidation using Molecular O_2
Appl. Catal. A: General, **452** (2013) 94.

H.Einaga, Y.Teraoka and A.Ogata
Catalytic Oxidation of Benzene by Ozone over Manganese Oxides Supported on USY Zeolite
J. Catal., **305** (2013) 227.

M.Takachi, T.Matsuda and Y.Moritomo
Structural, Electronic, and Electrochemical Properties of $Li_xCo[Fe(CN)_6]_{0.90}2.9H_2O$
Jpn. J. Appl. Phys., **52** (2013) 044301.

M.Nakai, T.Funabiki, C.Ohtsuki, M.Harada, A.Ichimura, R.Tanaka, T.Nishioka, I.Kinoshita, M.Mikuriya, J.Guo, H.Benten, H.Ohkita, S.Ito, M.Obata, Y.Nakabayashi and S.Yano
Syntheses, Structures, and Photochemical Properties of (μ_3-O)tris[bis(μ-carboxylato)]trimanganese Complexes with Naphthylacetate Ligands with Relevance to Artificial Solar Energy-Harvesting Systems
Inorg. Chim. Acta, **406** (2013) 130.

Y.Moritomo, M.Takachi, Y.Kurihara and T.Matsuda
Synchrotron-Radiation X-Ray Investigation of Li^+/Na^+ Intercalation into Prussian Blue Analogues
Adv. Mater. Sci. Eng., **2013** (2013) 967285.

M.Takachi, T.Matsuda and Y.Moritomo
Redox Reactions in Prussian Blue Analogue Films with Fast Na^+ Intercalation
Jpn. J. Appl. Phys., **52** (2013) 090202.

S.Mandal, C.Santra, K.K.Bando, O.O.James, S.Maity, D.Mehta and B.Chowdhury
Aerobic Oxidation of Benzyl Alcohol over Mesoporous Mn-Doped Ceria Supported Au Nanoparticle Catalyst
Journal of Molecular Catalysis A:Chemical, **378** (2013) 47.

S.Suzuki, S.Mukai, Y.Koike, K.Kinoshita, K.Fujikawa, W.-J.Chun, M.Nomura and K.Asakura
Improvement of XANAM with a qPlus Sensor for Enhancing Chemical Sensitivity on Surface Analysis
Proc. ALC2013, (2013)

Z.Quan, E.Ni, S.Hayashi and N.Sonoyama
Structure and Electrochemical Properties of Multiple Metal Oxide Nanoparticles as Cathodes of Lithium Batteries
J. Mater. Chem. A, **1** (2013) 8848.

H.Yoshitake and R.Otsuka
Grafting of Precoordinated Cu^{2+}−*N*-(2-Aminoethyl) Aminopropylsilane Complexes onto Mesoporous Silicas and the Adsorption of Aqueous Selenate on them
Langmuir, **29** (2013) 10513.

Y.Kurihara, T.Matsuda and Y.Moritomo
Structural Properties of Manganese Hexacyanoferrates against Li Concentration
Jpn. J. Appl. Phys., **52** (2013) 017301.

T.Shimono, D.Tanabe, W.Kobayashi, H.Nitani and Y.Moritomo
Electronic State of P2-Type Na_xMO_2(M = Mn and Co) as Investigated by In Situ X-Ray Absorption Spectroscopy
J. Phys. Soc. Jpn., **82** (2013) 124717.

F.Liu, H.He, Z.Lian, W.Shan, L.Xie, K.Asakura, W.Yang and H.Deng
Highly Dispersed Iron Vanadate Catalyst Supported on TiO_2 for the Selective Catalytic Reduction of NO_x with NH_3
J. Catal., **307** (2013) 340.

F.Liu, H.He and L.Xie
XAFS Study on the Specific Deoxidation Behavior of Iron Titanate Catalyst for the Selective Catalytic Reduction of NO_x with NH_3
ChemCatChem, **5** (2013) 3760.

T.Toyao, M.Saito, Y.Horiuchi, K.Mochizuki, M.Iwata, H.Higashimura and M.Matsuoka
Efficient Hydrogen Production and Photocatalytic Reduction of Nitrobenzene over a Visible-Light-Responsive Metal-Organic Framework Photocatalyst
Catal. Sci. Technol., **3** (2013) 2092.

Y.Okuhara, H.Matsubara, C.Numako and M.Takata
Effective Doping of Al in ZnO Films by Multi-Target Reactive Sputtering for Near-Infrared Reflection
Journal of the Australian Ceramic Society, **49** (2013) 15.

L.Chen, T.Mashimo, C.Iwamoto, H.Okudera, E.Omurzak, H.S.Ganapathy, H.Ihara, J.Zhang, Z.Abdullaeva, S.Takebe and A.Yoshiasa
Synthesis of Novel CoC_x@C Nanoparticles
Nanotechnology, **24** (2013) 045602.

T.Shimono, W.Kobayashi, H.Nitani, R.Kumai and Y.Moritomo
Electrochemical Lithium Intercalation into $Bi_2Sr_2CaCu_2O_{8+\delta}$
J. Phys.: Conf. Ser., **428** (2013) 012021.

K.Nakagawa, T.Ogata, K.Yamaguchi, J.Jitoku, K.-I.Sotowa, S.Sugiyama, T.Moriga and M.Adachi
Layered Titanate Nanosheets Prepared by a Surfactant-Templating Approach: Effects of Lamellar Mesostructure on Surface Functionality
Science and Advanced Material, **6** (2013) 1535.

J.Kim, K.H.Cho, I.Kagomiya and K.Park
Structural Studies of Porous Ni/YSZ Cermets Fabricated by the Solid-State Reaction Method
Ceramics International, **39** (2013) 7467.

I.Kagomiya, S.Matsumoto, K.Kakimoto, H.Ohsato, H.Sakai and Y.Maeda
Annealing Effect on Temperature Coefficient of Resistivity in $La_{1-x}Sr_xMnO_3$ Ceramics
J. Euro. Ceram. Soc., **33** (2013) 985.

N.Yabuuchi, Y.Kawamoto, R.Hara, T.Ishigaki, A.Hoshikawa, M.Yonemura, T.Kamiyama and S.Komaba
A Comparative Study of $LiCoO_2$ Polymorphs: Structural and Electrochemical Characterization of O2-, O3-, and O4-Type Phases
Inorg. Chem., **52** (2013) 9131.

T.Hariu, H.Arima and K.Sugiyama
The Structure of Hydrated Copper-Silicate Gels, an Analogue Compound for Natural Chrysocolla
J. Min. Petrol. Sci., **108** (2013) 111.

I.Kagomiya, K.Jimbo and K.Kakimoto
Distribution Change of Oxygen Vacancies in Layered Perovskite Type$(Sr,La)_{n+1}Fe_nO_{3n+1}$($n$=3)
J. Sol. Stat. Chem., **207** (2013) 184.

8A

T.Matsuda, M.Takachi and Y.Moritomo
A Sodium Manganese Ferrocyanide Thin Film for Na-Ion Batteries
Chem. Comm., **49** (2013) 2750.

M.Takachi, T.Matsuda and Y.Moritomo
Cobalt Hexacyanoferrate as Cathode Material for Na^+ Secondary Battery
Appl. Phys. Express, **6** (2013) 025802.

T.Kobayashi, S.Miyasaka, S.Tajima, T.Nakano, Y.Nozue, N.Chikumoto, H.Nakao, R.Kumai and Y.Murakami
Change of Electronic State and Crystal Structure by Postannealing in Superconducting $SrFe_2(As_{0.65}P_{0.35})_2$
Phys. Rev. B, **87** (2013) 174520.

M.Takachi, T.Matsuda and Y.Moritomo
Structural, Electronic, and Electrochemical Properties of $Li_xCo[Fe(CN)_6]_{0.90}2.9H_2O$
Jpn. J. Appl. Phys., **52** (2013) 044301.

K.Saito, T.Miyazawa, A.Fujiwara, M.Hishida, H.Saitoh, M.Massalska-Arodź and Y.Yamamura
Reassessment of Structure of Smectic Phases: Nano-Segregation in Smectic E Phase in 4-*n*-Alkyl-4'-isothiocyanato-1,1'-biphenyls
J. Chem. Phys., **139** (2013) 114902.

Y.Moritomo, M.Takachi, Y.Kurihara and T.Matsuda
Synchrotron-Radiation X-Ray Investigation of Li^+/Na^+ Intercalation into Prussian Blue Analogues
Adv. Mater. Sci. Eng., **2013** (2013) 967285.

M.Takachi, T.Matsuda and Y.Moritomo
Redox Reactions in Prussian Blue Analogue Films with Fast Na^+ Intercalation
Jpn. J. Appl. Phys., **52** (2013) 090202.

T.Adachi, H.Saitoh, Y.Yamamura, M.Hishida, M.Ueda, S.Ito and K.Saito
Universality of Molten State of Alkyl Chain in Liquid-Crystalline Mesophases: Smectic E Phase of 6-Alkyl-2-Phenylazulene
Bull. Chem. Soc. Jpn., **86** (2013) 1022.

Y.Kurihara, T.Matsuda and Y.Moritomo
Structural Properties of Manganese Hexacyanoferrates against Li Concentration
Jpn. J. Appl. Phys., **52** (2013) 017301.

S.Horiuchi, R.Kumai and Y.Tokura
High-Temperature and Pressure-Induced Ferroelectricity in Hydrogen-Bonded Supramolecular Crystals of Anilic Acids and 2,3-Di(2-Pyridinyl) Pyrazine
J. Am. Chem. Soc., **135** (2013) 4492.

S.Asai, R.Okazaki, I.Terasaki, Y.Yasui, W.Kobayashi, A.Nakao, K.Kobayashi, R.Kumai, H.Nakao, Y.Murakami, N.Igawa, A.Hoshikawa, T.Ishigaki, O.Parkkima, M.Karppinen and H.Yamauchi
Spin State of Co^{3+} in $LaCo_{1-x}Rh_xO_3$ Investigated by Structural Phenomena
J. Phys. Soc. Jpn., **82** (2013) 114606.

Y.Suzuki, S.Shibasaki, Y.Kubozono and T.Kambe
Antiferromagnetic Resonance in the Mott Insulator fcc-Cs_3C_{60}
J. Phys.: Condens. Matter, **25** (2013) 366001.

T.Mastuda, Y.Kurihara and Y.Moritomo
Lithium Intercalation Properties in Manganese-Iron Prussian Blue Analogues
J. Phys.: Conf. Ser., **428** (2013) 012019.

T.Shimono, W.Kobayashi, H.Nitani, R.Kumai and Y.Moritomo
Electrochemical Lithium Intercalation into $Bi_2Sr_2CaCu_2O_{8+\delta}$
J. Phys.: Conf. Ser., **428** (2013) 012021.

T.Isono, H.Kamo, A.Ueda, K.Takahashi, A.Nakao, R.Kumai, H.Nakano, K.Kobayashi, Y.Murakami and H.Mori
Hydrogen Bond-Promoted Metallic State in a Purely Organic Single-Component Conductor under Pressure
Nature Commun., **4** (2013) 1344.

8B

M.Mito, Y.Komorida, H.Deguchi, T.Tajiri, T.Iwamoto and Y.Kitamoto
Artificial Material Manipulation of Magnetic Anisotropy in FePt Magnetic Nanoparticles through Application of Hydrostatic Pressure
J. Appl. Phys., **113** (2013) 044302.

K.Matsuda, K.Yanagi, H.Kyakuno, S.Sagitani, H.Kataura and Y.Maniwa
^{13}C-NMR Shift of Highly Concentrated Metallic and Semiconducting Single-Walled Carbon Nanotubes
J. Phys. Soc. Jpn., **82** (2013) 015001.

T.Honda, Y.Hiraoka, Y.Wakabayashi and T.Kimura
Refinement of Crystal Structure of a Magnetoelectric U-Type Hexaferrite $Sr_4Co_2Fe_{36}O_{60}$
J. Phys. Soc. Jpn., **82** (2013) 025003.

T.Hayashi, H.Shibata, S.Orita and T.Akitsu
Variety of Structures of Binuclear Chiral Schiff Base Ce(III)/Pr(III)/Lu(III)-Ni(II)/Cu(II)/Zn(II) Complexes
Eur. Chem. Bull., **2** (2013) 49.

H.Maeda, Y.Ishiguro, T.Honda, J-S.Jung, S.Michimura, T.Inami, T.Kimura and Y.Wakabayashi
Structural Investigation of Magnetocapacitive $SmMnO_3$
J. Ceram. Soc. Jpn., **121** (2013) 265.

E.Hosono, T.Saito, J.Hoshino, Y.Mizuno, M.Okubo, D.Asakura, K.Kagesawa, D.Nishio-Hamane, T.Kudo and HS.Zhou
Synthesis of $LiNi_{0.5}Mn_{1.5}O_4$ and $0.5Li_2MnO_3$-$0.5LiNi_{1/3}Co_{1/3}Mn_{1/3}O_2$ Hollow Nanowires by Electrospinning
CrystEngComm, **15** (2013) 2592.

N.Hayashi and T.Akitsu
Anisotropic Thermally-Accessible Lattice Distortion of a Cu(II)-Cr(VI) Complex Bimetallic Oxide by Adsorbing a Chiral One-Dimensional Cu(II)-Cr(VI) Coordination Polymer
J. Chem. Chem. Eng., **7** (2013) 306.

Y.Lee, D.Seoung, Y.-N.Jang, T.Vogt and Y.Lee
Pressure-Induced Hydration and Insertion of CO_2 into Ag-Natrolite
Chem. Eur. J., **19** (2013) 5806.

N.J.O.Silva, S.Saisho, M.Mito, A.Millan, F.Palacio, A.Cabot, O.Iglesias and A.Labarta
Pressure Effects in Hollow and Solid Iron Oxide Nanoparticles
J. Magn. Magn. Mater., **335** (2013) 1.

T.Tajiri, N.Terashita, K.Hamamoto, H.Deguchi, M.Mito, Y.Morimoto, K.Konishi and A.Kohno
Size Dependences of Crystal Structure and Magnetic Properties of $DyMnO_3$ Nanoparticles
J. Magn. Magn. Mater., **345** (2013) 288.

K.Saito, T.Miyazawa, A.Fujiwara, M.Hishida, H.Saitoh, M.Massalska-Arodź and Y.Yamamura
Reassessment of Structure of Smectic Phases: Nano-Segregation in Smectic E Phase in 4-*n*-Alkyl-4'-isothiocyanato-1,1'-biphenyls
J. Chem. Phys., **139** (2013) 114902.

T.Adachi, H.Saitoh, Y.Yamamura, M.Hishida, M.Ueda, S.Ito and K.Saito
Universality of Molten State of Alkyl Chain in Liquid-Crystalline Mesophases: Smectic E Phase of 6-Alkyl-2-Phenylazulene
Bull. Chem. Soc. Jpn., **86** (2013) 1022.

S.Kawaguchi, H.Ishibashi, S.Nishihara, M.Miyagawa, K.Inoue, S.Mori and Y.Kubota
Anomalous Magnetization Behaviour in a Single Crystal of Vanadium Spinel FeV_2O_4
J. Phys.: Condens. Matter, **25** (2013) 416005.

Y.Lee, D.Seoung, Y.-N.Jang, T.Vogt and Y.Lee
Pressure-Induced Hydration and Insertion of CO_2 into Ag-Natrolite
Chem. Eur. J., **19** (2013) 5806.

F.Kagawa, T.Sato, K.Miyagawa, K.Kanoda, Y.Tokura, K.Kobayashi, R.Kumai and Y.Murakami
Charge-Cluster Glass in an Organic Conductor
Nature Physics, **9** (2013) 419.

S.Asai, R.Okazaki, I.Terasaki, Y.Yasui, W.Kobayashi, A.Nakao, K.Kobayashi, R.Kumai, H.Nakao, Y.Murakami, N.Igawa, A.Hoshikawa, T.Ishigaki, O.Parkkima, M.Karppinen and H.Yamauchi
Spin State of Co^{3+} in $LaCo_{1-x}Rh_xO_3$ Investigated by Structural Phenomena
J. Phys. Soc. Jpn., **82** (2013) 114606.

Y.Suzuki, S.Shibasaki, Y.Kubozono and T.Kambe
Antiferromagnetic Resonance in the Mott Insulator fcc-Cs_3C_{60}
J. Phys.: Condens. Matter, **25** (2013) 366001.

H.Kyakuno, K.Matsuda, Y.Nakai, T.Fukuoka, Y.Maniwa, H.Nishihara and T.Kyotani
Amorphous Water in Three-Dimensional Confinement of Zeolite-Templated Carbon
Chem. Phys. Lett., **571** (2013) 54.

T.Tajiri, K.Hamamoto, Y.Ando, H.Deguchi, M.Mito and A.Kohno
Synthesis and Magnetic Properties of $DyMnO_3$ Nanoparticles in Mesoporous Silica
J. Korean Physical Society, **63** (2013) 826.

D.Seoung, Y.Lee, C.-C.Kao, T.Vogt and Y.Lee
Super-Hydrated Zeolites: Pressure-Induced Hydration in Natrolites
Chem. Eur. J., **19** (2013) 10876.

9A

R.Simura, T.Yagi, K.Sugiyama, T.Yanagida and A.Yoshikawa
Growth of Ce-Doped $Ba_3Gd(BO_3)_3$ and $Sr_3Gd(BO_3)_3$ Single Crystals by Micro-Pulling-Down Method and Analysis of Luminescence Properties
J. Cryst. Growth, **362** (2013) 145.

R.Simura, S.Kawai, K.Sugiyama, T.Yanagida, T.Sugawara, T.Shishido and A.Yoshikawa
Valence State of Dopant and Scintillation Properties of Ce-Doped $Sr_3Y(BO_3)_3$ Crystal
J. Cryst. Growth, **362** (2013) 296.

M.Tada
Hard X-Ray Time-Resolved/Space-Resolved X-Ray Absorption Fine Structure Analysis for Heterogeneous Metal Catalysts
J. Phys. Soc. Jpn., **82** (2013) 021013.

Y.Izumi
Recent Advances in Photocatalytic Conversion of Carbon Dioxide into Fuels with Water and/or Hydrogen using Solar Energy and Beyond
Coordination Chem. Rev., **257** (2013) 171.

T.Kashiwabara, Y.Takahashi, M.A.Marcus, T.Uruga, H.Tanida, Y.Terada and A.Usui
Tungsten Species in Natural Ferromanganese Oxides Related to its Different Behavior from Molybdenum in Oxic Ocean
Geochim. Cosmochim. Acta, **106** (2013) 364.

W.-J.Chun, K.Miyazaki, N.Watanabe, Y.Koike, S.Takakusagi, K.Fujikawa, M.Nomura, Y.Iwasawa and K.Asakura
Au Clusters on TiO_2(110) (1 × 1) and (1 × 2) Surfaces Examined by Polarization-Dependent Total Reflection Fluorescence XAFS
J. Phys. Chem. C, **117** (2013) 252.

T.Fujimori, Y.Tanino and M.Takaoka
Thermochemical Behavior of Lead Adjusting Formation of Chlorinated Aromatics in MSW Fly Ash
Environ. Sci. Technol., **47** (2013) 2169.

S.Yamashita, M.Katayama and Y.Inada
Reduction Kinetics of Nickel Species Supported on Silica
J. Phys., Conf. Ser., **430** (2013) 012051.

K.Tanaka, A.Sakaguchi, Y.Kanai, H.Tsuruta, A.Shinohara and Y.Takahashi
Heterogeneous Distribution of Radiocesium in Aerosols, Soil and Particulate Matters Emitted by the Fukushima Daiichi Nuclear Power Plant Accident: Retention of Micro-Scale Heterogeneity during the Migration of Radiocesium from the Air into Ground and River Systems
J. Radioanal. Nucl. Chem., **295** (2013) 1927.

N.Yabuuchi, K.Yamamoto, K.Yoshii, I.Nakai, T.Nishizawa, A.Omaru, T.Toyooka and S.Komaba
Structural and Electrochemical Characterizations on Li_2MnO_3-$LiCoO_2$-$LiCrO_2$ System as Positive Electrode Materials for Rechargeable Lithium Batteries
J. Electrochem. Soc., **160** (2013) A39.

I.Nakai, A.Hattori, T.Ishii and Y.J.Li
XAS Spectra of Mechanically Milled TiO_2
J. Phys.: Conf. Ser., **430** (2013) 012084.

Z.W.Zhang, G.D.Zheng, K.Shozugawa, M.Matsuo and Y.D.Zhao
Iron and Sulfur Speciation in Some Sedimentary-Transformation-Type of Lead-Zinc Deposits in West Kunlun Lead-Zinc Ore Deposit Zone, Northwest China
J. Radioanal. Nucl. Chem., **297** (2013) 83.

T.Tobase, L.Wang, A.Yoshiasa, M.Okube, T.Nakatani, Y.Hayasaka and H.Isobe
XAFS Study on Ca Local Structure in Natural Glasses and Tektite
J. Phys.: Conf. Ser., **430** (2013) 012070.

L.Wang, A.Yoshiasa, M.Okube, T.Nakatani, Y.Hayasaka and H.Isobe
Local Structure of Titanium in Natural Glasses Probed by X-Ray Absorption Fine Structure
J. Phys.: Conf. Ser., **430** (2013) 012121.

H.Uehara, M.H.B.Hanaffi, Y.Koike, K.Fujikawa, S.Suzuki, H.Ariga, S.Takakusagi, W.J.Chun, Y.Iwasawa and K.Asakura,
Anisotropic Growth of a Nickel Trimer Formed on a Highly-Stepped TiO_2(110) Surface
Chem. Phys. Lett., **570** (2013) 64.

I.Nakai, M.Sasano, K.Inui, T.Korekawa, H.Ishijima, H.Katoh, Y.J.Li and M.Kurisu
Oxygen Vacancy and Magnetism of a Room Temperature Ferromagnet Co-Doped TiO_2
J. Korean Phys. Soc., **63** (2013) 532.

S.Takakusagi, H.Nojima, H.Ariga, H.Uehara, K.Miyazaki, W.-J.Chun, Y.Iwasawa and K.Asakura
Fine Tuning and Orientation Control of Surface Cu Complexes on TiO_2(110) Premodified with Mercapto Compounds: the Effect of Different Mercapto Group Positions
Phys. Chem. Chem. Phys., **15** (2013) 14080.

K.Asakura, S.Takakusagi, H.Ariga, W-J.Chun, S.Suzuki, Y.Koike, H.Uehara, K.Miyazaki and Y.Iwasawa
Preparation and Structure of a Single Au Atom on the TiO_2(110) Surface: Control of the Au-Metal Oxide Surface Interaction
Faraday Discussions, **162** (2013) 165.

S.Takakusagi, W-J.Chun, H.Uehara, K.Asakura and Y.Iwasawa
Polarization-Dependent Total-Reflection Fluorescence X-Ray Absorption Fine Structure for 3D Structural Determination and Surface Fine Tuning
Topics in Catal., **56** (2013) 1477.

R.Nakada, Y.Takahashi and M.Tanimizu
Isotopic and Speciation Study on Cerium during its Solid-Water Distribution with Implication for Ce Stable Isotope as a Paleo-Redox Proxy
Geochim. Cosmochim. Acta, **103** (2013) 49.

Y.Takahashi, T.Furukawa, Y.Kanai, M.Uematsu, G.Zheng and M.A.Marcus
Seasonal Changes in Fe Species and Soluble Fe Concentration in the Atmosphere in the Northwest Pacific Region Based on the Analysis of Aerosols Collected in Tsukuba, Japan
Atmos. Chem. Phys., **13** (2013) 7695.

N.Murata, T.Suzuki, M.Kobayashi, F.Togoh and K.Asakura
Characterization of Pt-Doped SnO_2 Catalyst for a High-Performance Micro Gas Sensor
Phys. Chem. Chem. Phys., **15** (2013) 17938.

Y.Idemoto, H.Endo and N.Kitamura
Substitution Effect on Cathode Property, Crystal and Electronic Structures of $LiMn_{0.5}Ni_{0.5}O_2$ as Cathode Active Material for Li-Ion Battery
Electrochemistry, **81** (2013) 971. (*in Japanese*).

K.Nitta, Y.Omori, T.Miyanaga, K.Takegahara, H.Sugawara, D.Kikuchi and H.Sato
Extended X-Ray Absorption Fine Structure Thermal Factor Analysis of Rattling in Filled Skutterudites RT_4Sb_{12} (R: La, Ce, Pr, Nd, and Sm; T: Fe, Ru, and Os)
J. Phys. Soc. Jpn., **82** (2013) 044801.

Y.Okuhara, H.Matsubara, C.Numako and M.Takata
Effective Doping of Al in ZnO Films by Multi-Target Reactive Sputtering for Near-Infrared Reflection
Journal of the Australian Ceramic Society, **49** (2013) 15.

T.Hiratoko, A.Yoshiasa, T.Nakatani, M.Okube, A.Nakatsuka and K.Sugiyama
Temperature Dependence of Pre-Edge Features in Ti *K*-Edge XANES Spectra for $ATiO_3$(A = Ca and Sr), A_2TiO_4(A = Mg and Fe), TiO_2 Rutile and TiO_2 Anatase
J. Synchrotron Rad., **20** (2013) 641.

H.Hanashima, N.Kitajima, T.Abe and A.Hokura
Study on Accumulation Mechanism of Arsenic and Selenium in *Pteris vittata* L. Using Synchrotron Radiation X-Ray Fluorescence Analysis
Adv. X-Ray Chem. Anal. Jpn., **44** (2013) 279. (*in Japanese*).

9C

M.Tada
Hard X-Ray Time-Resolved/Space-Resolved X-Ray Absorption Fine Structure Analysis for Heterogeneous Metal Catalysts
J. Phys. Soc. Jpn., **82** (2013) 021013.

Y.Izumi
Recent Advances in Photocatalytic Conversion of Carbon Dioxide into Fuels with Water and/or Hydrogen using Solar Energy and Beyond
Coordination Chem. Rev., **257** (2013) 171.

M.Nishi, T.Ohkubo, K.Tsurusaki, A.Itadani, B.Ahmmad, K.Urita, I.Moriguchi, S.Kittaka and Y.Kuroda
Highly Compressed Nanosolution Restricted in Cylindrical Carbon Nanospaces
Nanoscale, **5** (2013) 2080.

M.Okubo, K.Kagesawa, Y.Mizuno, D.Asakura, E.Hosono, T.Kudo, H.S.Zhou, K.Fujii, H.Uekusa, S.Nishimura, A.Yamada, A.Okazawa and N.Kojima
Reversible Solid State Redox of an Octacyanometallate-Bridged Coordination Polymer by Electrochemical Ion Insertion/Extraction
Inorg. Chem., **52** (2013) 3772.

N.Yabuuchi, K.Yamamoto, K.Yoshii, I.Nakai, T.Nishizawa, A.Omaru, T.Toyooka and S.Komaba
Structural and Electrochemical Characterizations on Li_2MnO_3-$LiCoO_2$-$LiCrO_2$ System as Positive Electrode Materials for Rechargeable Lithium Batteries
J. Electrochem. Soc., **160** (2013) A39.

J.Kugai, T.Moriya, S.Seino, T.Nakagawa, Y.Ohkubo, H.Nitani and T.A.Yamamoto
Effect of CeO_2 Support Properties on Structure of Pt-Cu Nanoparticles Synthesized by Electron Beam Irradiation Method for Preferential CO Oxidation
Chem. Eng. J., **223** (2013) 347.

F.Rashidi, T.Sasaki, A.M.Rashidi, A.N.Kharat and K.J.Jozani
Ultradeep Hydrodesulfurization of Diesel Fuels using Highly Efficient Nanoalumina-Supported Catalysts: Impact of Support, Phosphorus, and/or Boron on the Structure and Catalytic Activity
J. Catal., **299** (2013) 321.

Z.W.Zhang, G.D.Zheng, K.Shozugawa, M.Matsuo and Y.D.Zhao
Iron and Sulfur Speciation in Some Sedimentary-Transformation-Type of Lead-Zinc Deposits in West Kunlun Lead-Zinc Ore Deposit Zone, Northwest China
J. Radioanal. Nucl. Chem., **297** (2013) 83.

A.Koganemaru, A.Yoshiasa, L.Wang, T.Nakatani, A.Nakatsuka, M.Okube, H.Arima and K.Sugiyama
Effective Pair Potential for Ca-O Bonds in $CaGeO_3$ Polymorphs
J. Phys.: Conf. Ser., **430** (2013) 012068.

T.Tobase, L.Wang, A.Yoshiasa, M.Okube, T.Nakatani, Y.Hayasaka and H.Isobe
XAFS Study on Ca Local Structure in Natural Glasses and Tektite
J. Phys.: Conf. Ser., **430** (2013) 012070.

L.Wang, A.Yoshiasa, M.Okube, T.Nakatani, Y.Hayasaka and H.Isobe
Local Structure of Titanium in Natural Glasses Probed by X-Ray Absorption Fine Structure
J. Phys.: Conf. Ser., **430** (2013) 012121.

B.Ahmmad, M.Nishi, F.Hirose, T.Ohkubo and Y.Kuroda
Structure of Hydrated Cobalt Ions Confined in the Nanospace of Single-Walled Carbon Nanotubes
Phys. Chem. Chem. Phys., **15** (2013) 8264.

L.B.Garcia, T.Calveta, M.A.Cuevas-Diarteia, S.Ueno and K.Sato
In situ Observation of Transformation Pathways of Polymorphic Forms of 1,3-Dipalmitoyl-2-Oleoyl Glycerol (POP) Examined with Synchrotron Radiation X-Ray Diffraction and DSC
Cryst. Eng. Comm., **15** (2013) 302.

T.Yokoyama and K.Eguchi
Anisotropic Thermal Expansion and Cooperative Invar/Anti-Invar Effects in Mn Alloys
Phys. Rev. Lett., **110** (2013) 075901.

F.Hayashi and M.Iwamoto
Yttrium-Modified Ceria as a Highly Durable Catalyst for the Selective Conversion of Ethanol to Propene and Ethene
ACS Catal., **3** (2013) 14.

S.Mandal, K.K.Bando, C.Santra, S.Maity, O.O.James, D.Mehta and B.Chowdhury
Sm-CeO_2 Supported Gold Nanoparticle Catalyst for Benzyl Alcohol Oxidation using Molecular O_2
Appl. Catal. A: General, **452** (2013) 94.

T.Yamada, K.Morita, H.Wang, K.Kume, H.Yoshikawa and K.Awaga
In Situ Seamless Magnetic Measurements for Solid-State Electrochemical Processes in Prussian Blue Analogues
Angew. Chem. Int. Ed., **52** (2013) 6238.

S.Wada, K.Oka, K.Watanabe and Y.Izumi
Catalytic Conversion of Carbon Dioxide into Dimethyl Carbonate using Reduced Copper-Cerium Oxide Catalysts as Low as 353K and 1.3MPa and the Reaction Mechanism
Frontiers in Chemistry, **1** (2013) 8.

G.Cui, S.Ohya, T.Matsutani, S.Nagano, T.Dohi, S.Nakamura, S.Sakurai, T.Miyazaki and K.Yamamoto
Perpendicular Orientation of Sub-10 nm Channels in Polystyrene-*b*-Poly(4-Hydroxyl Styrene)/PEG Oligomer Blend Thin Films
Nanoscale, **5** (2013) 6713.

S.Fujieda, K.Shinoda, S.Suzuki and B.Jeyadevan
Disorder-Order Transformation and Local Structure Changes of FePt Nanoparticles Synthesized by Polyol Process
IEEE Transactions on Magnetics, **49** (2013) 3303.

M.Yoshida, K.Maeda, D.Lu, J.Kubota and K.Domen
Lanthanoid Oxide Layers on Rhodium-Loaded $(Ga_{1-x}Zn_x)(N_{1-x}O_x)$ Photocatalyst as a Modifier for Overall Water Splitting under Visible-Light Irradiation
J. Phys. Chem. C, **117** (2013) 14000.

Y.Tasaki-Handa, K.Ooi, M.Tanaka and A.Wakisaka
Tunable Selectivity of Lanthanide Ion Exchange within a Coordination Polymer
Anal. Sci., **29** (2013) 685.

F.Kaneko, N.Seto, K.Sasaki, S.Sakurai and T.Kimura
Simultaneous SAXS and WAXS Study on the Guest Exchange Process of Syndiotactic Polystyrene: Crystalline Complex Formation with Triethylene Glycol Dimethyl Ether
Macromol. Chem. Phys., **214** (2013) 1893.

I.Nakai, M.Sasano, K.Inui, T.Korekawa, H.Ishijima, H.Katoh, Y.J.Li and M.Kurisu
Oxygen Vacancy and Magnetism of a Room Temperature Ferromagnet Co-Doped TiO_2
J. Korean Phys. Soc., **63** (2013) 532.

S.Mandal, C.Santra, K.K.Bando, O.O.James, S.Maity, D.Mehta and B.Chowdhury
Aerobic Oxidation of Benzyl Alcohol over Mesoporous Mn-Doped Ceria Supported Au Nanoparticle Catalyst
Journal of Molecular Catalysis A:Chemical, **378** (2013) 47.

S.Zhang, S.Muratsugu, N.Ishiguro and M.Tada
Ceria-Doped Ni/SBA-16 Catalysts for Dry Reforming of Methane
ACS Catal., **3** (2013) 1855.

S.Muratsugu, Z.Weng and M.Tada
Surface Functionalization of Supported Mn Clusters to Produce Robust Mn Catalysts for Selective Epoxidation
ACS Catal., **3** (2013) 2020.

L.Wang, S.Yamamoto, S.Malwadkar, S.Nagamatsu, T.Sasaki, K.Hayashizaki, M.Tada and Y.Iwasawa
Direct Synthesis of Phenol from Benzene and O_2, Regulated by NH_3 on Pt/β and Pt-Re/ZSM-5 Catalysts
ChemCatChem, **5** (2013) 2203.

T.Ohkubo
Hydration and Coordination Structure of d-Block Metals Formed by the Confinement Effect of Carbon Micropores
Tanso, **260** (2013) 297. (*in Japanese*).

K.Nitta, Y.Omori, T.Miyanaga, K.Takegahara, H.Sugawara, D.Kikuchi and H.Sato
Extended X-Ray Absorption Fine Structure Thermal Factor Analysis of Rattling in Filled Skutterudites RT_4Sb_{12} (R: La, Ce, Pr, Nd, and Sm; T: Fe, Ru, and Os)
J. Phys. Soc. Jpn., **82** (2013) 044801.

L.Bayés-García, T.Calvet, M.À.Cuevas-Diarte, S.Ueno and K.Sato
In Situ Observation of Transformation Pathways of Polymorphic Forms of 1,3-Dipalmitoyl-2-Oleoyl Glycerol(POP) Examined with Synchrotron Radiation X-Ray Diffraction and DSC
CrystEngComm, **15** (2013) 302.

L.Bayés-García, T.Calvet, M.À.Cuevas-Diarte, S.Ueno and K.Sato
Crystallization and Transformation of Polymorphic Forms of Trioleoyl Glycerol and 1,2-Dioleoyl-3-*rac*-linoleoyl Glycerol
J. Phys. Chem. B, **117** (2013) 9170.

L.Chen, T.Mashimo, C.Iwamoto, H.Okudera, E.Omurzak, H.S.Ganapathy, H.Ihara, J.Zhang, Z.Abdullaeva, S.Takebe and A.Yoshiasa
Synthesis of Novel CoC_x@C Nanoparticles
Nanotechnology, **24** (2013) 045602.

T.Hiratoko, A.Yoshiasa, T.Nakatani, M.Okube, A.Nakatsuka and K.Sugiyama
Temperature Dependence of Pre-Edge Features in Ti *K*-Edge XANES Spectra for $ATiO_3$(A = Ca and Sr), A_2TiO_4(A = Mg and Fe), TiO_2 Rutile and TiO_2 Anatase
J. Synchrotron Rad., **20** (2013) 641.

L.Wang, A.Yoshiasa, M.Okube, T.Hiratoko, Y.Hu, H.Arima and K.Sugiyama
Local Structure of Iron in Tektites and Natural Glass: An Insight through X-Ray Absorption Fine Structure Spectroscopy
Journal of Mineralogical and Petrological Sciences, **108** (2013) 288.

T.Ye, P.Barpanda, S.Nishimura, N.Furuta, S.-C.Chung and A.Yamada
General Observation of Fe^{3+}/Fe^{2+} Redox Couple Close to 4 V in Partially Substituted $Li_2FeP_2O_7$ Pyrophosphate Solid-Solution Cathodes
Chem. Mater., **25** (2013) 3623.

A.Itadani, Y.Sogawa, A.Oda, H.Torigoe, T.Ohkubo and Y.Kuroda
Further Evidence for the Existence of a Dual-Cu^+ Site in MFI Working as the Efficient Site for C_2H_6 Adsorption at Room Temperature
Langmuir, **29** (2013) 9727.

M.Sato and A.Nakahira
Influence of Fe Addition to Hydroxyapatite by Aqueous Solution Process
J. Ceramic Society of Japan, **121** (2013) 422.

M.Sato and A.Nakahira
Influence of Fe Addition to Hydroxyapatite by Hydrothermal Process
J. Ceramic Society of Japan, **121** (2013) 559.

10A

A.Koganemaru, A.Yoshiasa, L.Wang, T.Nakatani, A.Nakatsuka, M.Okube, H.Arima and K.Sugiyama
Effective Pair Potential for Ca-O Bonds in $CaGeO_3$ Polymorphs
J. Phys.: Conf. Ser., **430** (2013) 012068.

L.Wang, A.Yoshiasa, M.Okube, T.Nakatani, Y.Hayasaka and H.Isobe
Local Structure of Titanium in Natural Glasses Probed by X-Ray Absorption Fine Structure
J. Phys.: Conf. Ser., **430** (2013) 012121.

M.Okube and S.Sasaki
Accurate Determination of Anomalous Scattering Factor near Fe *K* Absorption Edge
J. Phys.: Conf. Ser., **425** (2013) 202002.

M.Okube, A.Kinoshita, J.Yoshizaki, T.Toyoda and S.Sasaki
Spin Orientation in (Ti-Mn) Ba Ferrite Estimated from Resonant X-Ray Magnetic Scattering
J. Phys.: Conf. Ser., **425** (2013) 102005.

I.Kusachi, S.Kobayashi, Y.Takechi, Y.Nakamuta, T.Nagase, K.Yokoyama, K.Momma, R.Miyawaki, M.Shigeoka and S.Matsubara
Shimazakiite-4*M* and Shimazakiite-4*O*, $Ca_2B_2O_5$, Two Polytypes of a New Mineral from Fuka, Okayama Prefecture, Japan
Mineralo. Magazine, **77** (2013) 93.

S.Takenaka, T.Tsukamoto, H.Matsune and M.Kishida
Carbon Nanotube-Supported Pd-Co Catalysts Covered with Silica Layers as Active and Stable Cathode Catalysts for Polymer Electrolyte Fuel Cells
Catal. Sci. Technol., **3** (2013) 2723.

L.Chen, T.Mashimo, C.Iwamoto, H.Okudera, E.Omurzak, H.S.Ganapathy, H.Ihara, J.Zhang, Z.Abdullaeva, S.Takebe and A.Yoshiasa
Synthesis of Novel CoC_x@C Nanoparticles
Nanotechnology, **24** (2013) 045602.

A.Yoshiasa
Precise Structure Analyses of the Earth and Planetary Materials by Both Diffraction and XAFS Methods
Japanese Magazine of Mineralogical and Petrological Sciences, **42** (2013) 111. (*in Japanese*).

A.Yoshiasa, A.Nakatsuka, M.Okube and T.Katsura
Single-Crystal Metastable High Temperature $C2/c$ Clinoenstatite Quenched Rapidly from High Temperature and High Pressure
Acta Cryst. B, **69** (2013) 541.

T.Nagase, K.Momma, T.Kuribayashi and M.Tanaka
Texture of Lutecite
J. Mineralogical and Petrological Sci., **108** (2013) 87.

A.Nakatsuka, M.Shimokawa, N.Nakayama, O.Ohtaka, H.Arima, M.Okube and A.Yoshiasa
Static Disorders of Atoms and Experimental Determination of Debye Temperature in Pyrope: Low- and High-Temperature Single-Crystal X-Ray Diffraction Study—Reply
American Mineralogist, **98** (2013) 783.

K.Fujiwara, T.Tamaki, C.Kishimori, R.Titorenkova, A.Nakatsuka and N.Nakayama
Crystal Structures of Cobalt-Exchanged Sodium GTS-Type Titanosilicates and the Elution Test by Acid Solution
Trans. Mat. Res. Soc. Japan, **38** (2013) 455.

N.Nakayama, K.Takahashi, K.Fujiwara, A.Nakatsuka, M.Isobe and Y.Ueda
Structural Phase Transitions of Li_2MgSiO_4 and Li_2MgGeO_4
Trans. Mat. Res. Soc. Japan, **38** (2013) 419.

10B

T.Miyanaga, Y.Suzuki, N.Matsumoto, S.Narita, T.Ainai and H.Hoshino,
Formation of Ag Clusters in Zeolite X Studied by in situ EXAFS and Infrared Spectroscopy
Microporous and Mesoporous Material, **168** (2013) 213.

B.O.Leung, F.Jalilehvand, V.Mah, M.Parvez and Q.Wu
Silver(I) Complex Formation with Cysteine, Penicillamine, and Glutathione
Inorg. Chem., **52** (2013) 4593.

A.Gallo, R.Psaro, M.Guidotti, V.D.Santo, R.D.Pergola, D.Masih and Y.Izumi
Cluster-Derived Ir-Sn/SiO_2 Catalysts for the Catalytic Dehydrogenation of Propane: a Spectroscopic Study
Dalton Transactions, **42** (2013) 12714.

10C

T.Sato, K.Tanaka, A.Toyokura, R.Mori, R.Takahashi, K.Terao and S.Yusa
Self-Association of a Thermosensitive Amphiphilic Block Copolymer Poly(*N*-isopropylacrylamide)-*b*-poly(*N*-vinyl-2-pyrrolidone) in Aqueous Solution upon Heating
Macromolecules, **46** (2013) 226.

Y.Sakai, R.Gomi, K.Kato, H.Yokoyama and K.Ito
Structure and Dynamics of Polyrotaxane-Based Sliding Graft Copolymers with Alkyl Side Chains
Soft Matter, **9** (2013) 1895.

S.Nakagawa, T.Tanaka, T.Ishizone, S.Nojima, Y.Kakiuchi, K.Yamaguchi and S.Nakahama
Crystallization behavior of Poly(ϵ-Caprolactone) Chains Confined in Nanocylinders: Effects of Block Chains Tethered to Nanocylinder Interface
Macromolecules, **46** (2013) 2199.

T.Sakurai, H.Nagakura, S.Gondo and S.Nojima
Crystallization of Poly(ϵ-Caprolactone) Blocks Confined in Crystallized Lamellar Morphology of Poly(ϵ-Caprolactone)-*Block*-Polyethylene Copolymers: Effects of Polyethylene Crystallinity and Confinement Size
Polymer J., **45** (2013) 436.

S.Goda, H.Sadakata, H.Unno and T.Hatakeyama
Effects of Detergents on the Oligomeric Structures of Hemolytic Lectin CEL-III as Determined by Small-Angle X-Ray Scattering
Biosci. Biotechnol. Biochem., **77** (2013) 679.

H.Takeno and W.Nakamura
Structural and Mechanical Properties of Composite Hydrogels Composed of Clay and a Polyelectrolyte Prepared by Mixing
Colloid and Polymer Science, **291** (2013) 1393.

K.Okoshi
Conform to Its Shape
Kobunshi, **62** (2013) 9. (*in Japanese*).

K.Oyamada, K.Terao, M.Suwa, S.Kitamura and T.Sato
Lyotropic Liquid Crystallinity of Amylose Tris(alkylcarbamates): Cholesteric and Smectic Phase Formation in Different Solvents
Macromolecules, **46** (2013) 4589.

K.Terao, K.Shigeuchi, K.Oyamada, S.Kitamura and T.Sato
Solution Properties of a Cyclic Chain Having Tunable Chain Stiffness: Cyclic Amylose Tris(*n*-butylcarbamate) in Θ and Good Solvents
Macromolecules, **46** (2013) 5355.

N.Asano, S.Kitamura and K.Terao
Local Conformation and Intermolecular Interaction of Rigid Ring Polymers Are Not Always the Same as the Linear Analogue: Cyclic Amylose Tris(phenylcarbamate) in Θ Solvents
J. Phys. Chem. B, **117** (2013) 9576.

S.Nakano, N.Tomita and G.Matsuba
Precise Analysis for Amorphous Poly(Acrylo Nitrile) Gels
Sen'i Gakkaishi, **69** (2013) 210. (*in Japanese*).

T.T.T.Thanh, V.T.T.Tran, Y.Yuguchi, L.M.Bui and T.T.Nguyen
Structure of Fucoidan from Brown Seaweed *Turbinaria ornata* as Studied by Electrospray Ionization Mass Spectrometry (ESIMS) and Small Angle X-Ray Scattering (SAXS) Techniques
Marine Drugs, **11** (2013) 2431.

S.Gondo, S.Osawa, T.Sakurai and S.Nojima
Crystallization of Double Crystalline Block Copolymer/Crystalline Homopolymer Blends: 1. Crystalline Morphology
Polymer, **54** (2013) 6768.

K.Sato, M.Koga, S.Kang, K.Sakajiri, J.Watanabe and M.Tokita
Lamellar Morphology of an ABA Triblock Copolymer with a Main-Chain Nematic Polyester Central Block
Macromol. Chem. Phys., **214** (2013) 1089.

K.Kizawa, Y.Jinbo, T.Inoue, H.Takahara, M.Unno, C.W.Heizmann and Y.Izumi
Human S100A3 Tetramerization Propagates Ca^{2+}/Zn^{2+} Binding States
Biochimica et Biophyssica Acta, **1833** (2013) 1712.

J.Uewaki, H.Kamikubo, J.Kurita, N.Hiroguchi, H.Moriuchi, M.Yoshida, M.Kataoka, N.Utsunomiya-Tate and S.Tate
Preferential Domain Orientation of HMGB2 Determined by the Weak Intramolecular Interactions Mediated by the Interdomain Linker
Chemical Physics, **419** (2013) 212.

A.Nakamura, T.Nemoto, I.U.Heinemann, K.Yamashita, T.Sonoda, K.Komoda, I.Tanaka, D.Söll and M.Yao
Structural Basis of Reverse Nucleotide Polymerization
Proc. Natl. Acad. Sci. USA, **110** (2013) 20970.

T.Nakano, D.Kawaguchi and Y.Matsushita
Anisotropic Self-Assembly of Gold Nanoparticle Grafted with Polyisoprene and Polystyrene Having Symmetric Polymer Composition
J. Am. Chem. Soc., **135** (2013) 6798.

M.Hamaguchi, H.Kamikubo, K.N.Suzuki, Y.Hagihara, I.Yanagihara, I.Sakata, M.Kataoka and D.Hamada
Structural Basis of α-Catenin Recognition by EspB from Enterohaemorrhagic *E.coli* Based on Hybrid Strategy using Low-Resolution Structural and Protein Dissection
PLoS One, **8** (2013) e71618.

N.Inoue, D.Hamada, H.Kamikubo, K.Hirata, M.Kataoka, M.Yamamoto, M.Ikawa, M.Okabe and Y.Hagihara
Molecular Dissection of IZUMO1, a Sperm Protein Essential for Sperm-Egg Fusion
Development, **140** (2013) 3221.

Y.Watanabe and Y.Inoko
Characterization of a Large Glycoprotein Proteoglycan by Size-Exclusion Chromatography Combined with Light and X-Ray Scattering Methods
J. Chromatography A, **1303** (2013) 100.

M.Hirai, R.Kimura, K.Takeuchi, Y.Hagiwara, R.Kawai-Hirai, N.Ohta, N.Igarashi and N.Shimizu
Structure of Liposome Encapsulating Proteins Characterized by X-Ray Scattering and Shell-Modeling
J. Synchrotron Rad., **20** (2013) 869.

M.Hirai, R.Kimura, K.Takeuchi, M.Sugiyama, K.Kasahara, N.Ohta, B.Farago, A.Stadler and G.Zaccai
Change of Dynamics of Raft-Model Membrane Induced by Amyloid-β Protein Binding
Eur. Phys. J. E, **36** (2013) 74.

R.Zhu, T.Hoshi, Y.Muroga, T.Hagiwara, S.Yano and T.Sawaguchi
Microstructure and Mechanical Properties of a Polyethylene/Polydimethylsiloxane Composite Prepared using Supercritical Carbon Dioxide
J. Appl. Polym. Sci., **127** (2013) 3388.

T.Hashimoto, M.Harada, S.Nojima and T.Okada
Number Density of Liquid Inclusions Formed in Frozen Aqueous Electrolyte
ChemPhysChem, **14** (2013) 3410.

Y.Koide, H.Ikake, Y.Muroga and S.Shimizu
Effect of the Cast-Solvent on the Morphology of Cast Films Formed with a Mixture of Stereoisomeric Poly(Lactic Acids)
Polymer J., **45** (2013) 645.

H.Aizawa and S.Ichikawa
Effect of Increasing Concentration of Each of Three Polar Solvents(1,4-Dioxane, Dimethyl Sulfoxide, *N*,*N*-Dimethylformamide) on Changes in the Shape of Polysorbate 20 Micelles
J. Solution Chem., **42** (2013) 882.

11A

T.Kinoshita, K.Arai, K.Fukumoto, T.Ohkochi, M.Kotsugi, F.Guo, T.Muro, T.Nakamura, H.Osawa, T.Matsushita and T.Okuda
Observation of Micro-Magnetic Structures by Synchrotron Radiation Photoelectron Emission Microscopy
J. Phys. Soc. Jpn., **82** (2013) 021005.

Y.Kitajima, Y.Nanba, M.Tanaka, Y.Koga, A.Ueno, K.Nakagawa, H.Tokoro, S.Ohkoshi, T.Iwazumi, K.Okada and Y.Isozumi
Observation of π Backbonding Features in Fe 2p X-Ray Absorption Spectra and Fe 1s-4p-1s Resonant X-Ray Emission Spectra of $RbMn[Fe(CN)_6]$
J. Phys.: Conf. Ser., **430** (2013) 012082.

Md.A.Mannan, Y.Baba, N.Hirao, T.Kida, M.Nagano and H.Noguchi
Hexagonal Nano-Crystalline BCN Films Grown on Si (100) Substrate Studied by X-Ray Absorption Spectroscopy
Mater. Sci. Appl., **4** (2013) 11.

S.Ueda, K.Hayashida, H.Nakajima, N.Anabuki, H.Tsunemi, H.Kan, T.Kohmura, S.Ikeda, K.Kaneko, T.Watanabe, K.Mori, M.Nobukawa, H.Murakami, K.Sakata, S.Todoroki, N.Yagihashi, E.Mizuno, M.Muramatsu, H.Suzuki and S.Takagi
Measurement of the Soft X-Ray Response of P-Channel Back-Illuminated CCD
Nucl. Instrum. Meth. Phys. Res. A, **704** (2013) 140.

Y.Okuhara, H.Matsubara, C.Numako and M.Takata
Effective Doping of Al in ZnO Films by Multi-Target Reactive Sputtering for Near-Infrared Reflection
Journal of the Australian Ceramic Society, **49** (2013) 15.

H.Nakajima, M.Fujikawa, H.Mori, H.Kan, S.Ueda, H.Kosugi, N.Anabuki, K.Hayashida and H.Tsunemi
Single Event Effect Characterization of the Mixed-Signal ASIC Developed for CCD Camera in Space Use
Nucl. Instrum. Meth. Phys. Res. A, **731** (2013) 166.

S.Ueda, K.Hayashida, H.Nakajima and H.Tsunemi
X-Ray Measurement of the Elemental Abundances at the Outskirts of the Perseus Cluster with Suzaku
Astronomische Nachrichten, **334** (2013) 426.

K.Mori, Y.Nishioka, S.Ohura, Y.Koura, M.Yamauchi, H.Nakajima, S.Ueda, H.Kan, N.Anabuki, R.Nagino, K.Hayashida, H.Tsunemi, T.Kohmura, S.Ikeda, H.Murakami, M.Ozaki, T.Dotani, Y.Maeda and K.Sagara
Proton Radiation Damage Experiment on P-Channel CCD for an X-Ray CCD Camera Onboard the ASTRO-H Satellite
Nucl. Instrum. Meth. Phys. Res. A, **731** (2013) 160.

11B

V.Petrykin, K.Macounova, M.Okube, S.Mukerjee and P.Krtil
Local Structure of Co Doped RuO_2 Nanocrystalline Electrocatalytic Materials for Chlorine and Oxygen Evolution
Catal. Today, **202** (2013) 63.

T.Fujimori, Y.Tanino and M.Takaoka
Thermochemical Behavior of Lead Adjusting Formation of Chlorinated Aromatics in MSW Fly Ash
Environ. Sci. Technol., **47** (2013) 2169.

J.Okamoto, K.Horigane, H.Nakao, K.Amemiya, M.Kubota, Y.Murakami and K.Yamada
Resonant Soft X-Ray Scattering Study of the Magnetic Structures in $La_{1.5}Ca_{0.5}CoO_4$ using a High Vacuum Diffractormeter with a 4-Blade-Slit Detector System
J. Phys.: Conf. Ser., **425** (2013) 202003.

T.Imazono, M.Koike, N.Hasegawa, M.Koeda, T.Nagano, H.Sasai, Y.Oue, Z.Yonezawa, S.Kuramoto, M.Terauchi, H.Takahashi, N.Handa and T.Murano
Development of a Flat-Field Spectrograph with a Wide-Band Multilayer Grating and Prefocusing Mirror Covering 2-4 keV
J. Phys.: Conf. Ser., **425** (2013) 152008.

Y.Hashimoto and N.Yamaguchi
Chemical Speciation of Cadmium and Sulfur K-Edge XANES Spectroscopy in Flooded Paddy Soils Amended with Zerovalent Iron
Soil Sci. Soc. Am. J., **77** (2013) 1189.

L.Wang, J.Li, J.Pan, X.Jiang, Y.Ji, Y.Li, Y.Qu, Y.Zhao, X.Wu and C.Chen
Revealing the Binding Structure of the Protein Corona on Gold Nanorods Using Synchrotron Radiation-Based Techniques: Understanding the Reduced Damage in Cell Membranes
J. Am. Chem. Soc., **135** (2013) 17359.

T.Imazono, M.Koike, T.Kawachi, N.Hasegawa, M.Koeda, T.Nagano, H.Sasai, Y.Oue, Z.Yonezawa, S.Kuramoto, M.Terauchi, H.Takahashi, N.Handa and T.Murano
Development of an Objective Flat-Field Spectrograph for Electron Microscopic Soft X-Ray Emission Spectrometry in 50–4000 eV
Proc. of SPIE, **8848** (2013) 884812.

11D

T.Hatano and S.Aihara
Monochromator Operation in the Carbon Window Region at the Reflectometry Beamline BL-11D of the Photon Factory
J. Phys.: Conf. Ser., **425** (2013) 152018.

T.Tsuru, K.Arai and T.Hatano
Homogenized Ion Milling over the Whole Area of EUV Spherical Multilayer Mirrors for Reflection Phase Error Correction
J. Phys.: Conf. Ser., **425** (2013) 152009.

T.Hatano, S.Aihara, K.Uchida and T.Tsuru
Performance of the Post-Focusing Mirror System at the Reflectometry Beamline BL-11D of the Photon Factory
J. Phys: Conf. Ser., **463** (2013) 012010.

12C

R.Simura, T.Yagi, K.Sugiyama, T.Yanagida and A.Yoshikawa
Growth of Ce-Doped $Ba_3Gd(BO_3)_3$ and $Sr_3Gd(BO_3)_3$ Single Crystals by Micro-Pulling-Down Method and Analysis of Luminescence Properties
J. Cryst. Growth, **362** (2013) 145.

R.Simura, S.Kawai, K.Sugiyama, T.Yanagida, T.Sugawara, T.Shishido and A.Yoshikawa
Valence State of Dopant and Scintillation Properties of Ce-Doped $Sr_3Y(BO_3)_3$ Crystal
J. Cryst. Growth, **362** (2013) 296.

M.Tada
Hard X-Ray Time-Resolved/Space-Resolved X-Ray Absorption Fine Structure Analysis for Heterogeneous Metal Catalysts
J. Phys. Soc. Jpn., **82** (2013) 021013.

Y.Izumi
Recent Advances in Photocatalytic Conversion of Carbon Dioxide into Fuels with Water and/or Hydrogen using Solar Energy and Beyond
Coordination Chem. Rev., **257** (2013) 171.

T.Kashiwabara, Y.Takahashi, M.A.Marcus, T.Uruga, H.Tanida, Y.Terada and A.Usui
Tungsten Species in Natural Ferromanganese Oxides Related to its Different Behavior from Molybdenum in Oxic Ocean
Geochim. Cosmochim. Acta, **106** (2013) 364.

S.Yamashita, M.Katayama and Y.Inada
Reduction Kinetics of Nickel Species Supported on Silica
J. Phys., Conf. Ser., **430** (2013) 012051.

K.Tanaka, A.Sakaguchi, Y.Kanai, H.Tsuruta, A.Shinohara and Y.Takahashi
Heterogeneous Distribution of Radiocesium in Aerosols, Soil and Particulate Matters Emitted by the Fukushima Daiichi Nuclear Power Plant Accident: Retention of Micro-Scale Heterogeneity during the Migration of Radiocesium from the Air into Ground and River Systems
J. Radioanal. Nucl. Chem., **295** (2013) 1927.

N.Yabuuchi, K.Yamamoto, K.Yoshii, I.Nakai, T.Nishizawa, A.Omaru, T.Toyooka and S.Komaba
Structural and Electrochemical Characterizations on Li_2MnO_3-$LiCoO_2$-$LiCrO_2$ System as Positive Electrode Materials for Rechargeable Lithium Batteries
J. Electrochem. Soc., **160** (2013) A39.

Y.Suzuki, M.Kuchida, Y.Sakama, H.Saiki, I.Karube and N.Tsubaki
Promotion Effect of the Addition of Eu to Co/Silica Catalyst for Fischer-Tropsch Synthesis
Catal. Commun., **36** (2013) 75.

K.Shiota, G.Imai, K.Oshita and M.Takaoka
Characterization of Lead, Chromium, and Cadmium in Dust Emitted from Municipal Solid Waste Incineration Plants
J. Phys.: Conf. Ser., **430** (2013) 012095.

Z.W.Zhang, G.D.Zheng, K.Shozugawa, M.Matsuo and Y.D.Zhao
Iron and Sulfur Speciation in Some Sedimentary-Transformation-Type of Lead-Zinc Deposits in West Kunlun Lead-Zinc Ore Deposit Zone, Northwest China
J. Radioanal. Nucl. Chem., **297** (2013) 83.

M.Tanaka, Y.Takahashi and N.Yamaguchi
A Study on Adsorption Mechanism of Organoarsenic Compounds on Ferrihydrite by XAFS
J. Phys.: Conf. Ser., **430** (2013) 012100.

S.Nakajima, H.Segawa, S.Yanagida, A.Yasumori and N.Hirosaki
Fabrication of TiO_2-SiO_2 Glasses Containing Ca-α-SiAlON:Eu^{2+} Phosphor using the Sol-Gel Process
J. Ceramic Soc. Jpn., **121** (2013) 361.

N.Yabuuchi, M.Yano, H.Yoshida, S.Kuze and S.Komaba
Synthesis and Electrode Performance of O3-Type $NaFeO_2$-$NaNi_{1/2}Mn_{1/2}O_2$ Solid Solution for Rechargeable Sodium Batteries
J. Electrochem. Soc., **160** (2013) A3131.

N.Panitlertumpai, W.Nakbanpote, A.Sangdee, K.Thumanu, I.Nakai and A.Hokura
Zinc and/or Cadmium Accumulation in *Gynura pseudochina* (L.) DC. Studied *in vitro* and the Effect on Crude Protein
J. Molecular Structure, **1036** (2013) 279.

S.Mandal, K.K.Bando, C.Santra, S.Maity, O.O.James, D.Mehta and B.Chowdhury
Sm-CeO_2 Supported Gold Nanoparticle Catalyst for Benzyl Alcohol Oxidation using Molecular O_2
Appl. Catal. A: General, **452** (2013) 94.

T.Ohtsuka, N.Yamaguchi, T.Makino, K.Sakurai, K.Kimura, K.Kudo, E.Homma, D.Dong and S.Amachi
Arsenic Dissolution from Japanese Paddy Soil by a Dissimilatory Arsenate-Reducing Bacterium *Geobacter* sp. OR-1
Environ. Sci. Technol., **47** (2013) 6263.

M.Yoshida, K.Maeda, D.Lu, J.Kubota and K.Domen
Lanthanoid Oxide Layers on Rhodium-Loaded $(Ga_{1-x}Zn_x)(N_{1-x}O_x)$ Photocatalyst as a Modifier for Overall Water Splitting under Visible-Light Irradiation
J. Phys. Chem. C, **117** (2013) 14000.

Q.Yu, K.Sasaki, K.Tanaka, T.Ohnuki and T.Hirajima
Zinc Sorption during Bio-Oxidation and Precipitation of Manganese Modifies the Layer Stacking of Biogenic Birnessite
Geomicrobiol. J., **30** (2013) 829.

Y.Huang, H.Ariga, X.Zheng, X.Duan, S.Takakusagi, K.Asakura and Y.Yuan
Silver-Modulated SiO_2-Supported Copper Catalysts for Selective Hydrogenation of Dimethyl Oxalate to Ethylene Glycol
J. Catal., **307** (2013) 74.

M.Yoshida, T.Yomogida, T.Mineo, K.Nitta, K.Kato, T.Masuda, H.Nitani, H.Abe, S.Takakusagi, T.Uruga, K.Asakura, K.Uosaki and H.Kondoh
In situ Observation of Carrier Transfer in the Mn-Oxide/Nb:$SrTiO_3$ Photoelectrode by X-Ray Absorption Spectroscopy
Chem. Comm., **49** (2013) 7848.

T.Imaoka, H.Kitazawa, WJ.Chun, S.Omura, K.Albrecht and K.Yamamoto
Magic Number Pt_{13} and Misshapen Pt_{12} Clusters: Which One is the Better Catalyst?
J. Am. Chem. Soc., **135** (2013) 13089.

H.Ikemoto, T.Watanabe and T.Miyanaga
EXAFS Study of the Local Structure of Bismuth Film Deposited at Liquid Nitrogen Temperature
e-J. Surf. Sci. Nanotech., **11** (2013) 110.

S.Grangeon, F.Claret, C.Lerouge, F.Warmont, T.Sato, S.Anraku, C.Numako, Y.Linard and B.Lanson
On the Nature of Structural Disorder in Calcium Silicate Hydrates with a Calcium/Silicon Ratio Similar to Tobermorite
Cement and Concrete Research, **52** (2013) 31.

S.Mandal, C.Santra, K.K.Bando, O.O.James, S.Maity, D.Mehta and B.Chowdhury
Aerobic Oxidation of Benzyl Alcohol over Mesoporous Mn-Doped Ceria Supported Au Nanoparticle Catalyst
Journal of Molecular Catalysis A:Chemical, **378** (2013) 47.

S.Muratsugu, Z.Weng and M.Tada
Surface Functionalization of Supported Mn Clusters to Produce Robust Mn Catalysts for Selective Epoxidation
ACS Catal., **3** (2013) 2020.

R.Nakada, Y.Takahashi and M.Tanimizu
Isotopic and Speciation Study on Cerium during its Solid-Water Distribution with Implication for Ce Stable Isotope as a Paleo-Redox Proxy
Geochim. Cosmochim. Acta, **103** (2013) 49.

M.Tanaka, Y.Takahashi, N.Yamaguchi, K.-W.Kim, G.Zheng and M.Sakamitsu
The Difference of Diffusion Coefficients in Water for Arsenic Compounds at Various pH and its Dominant Factors Implied by Molecular Simulations
Geochim. Cosmochim. Acta, **105** (2013) 360.

Y.Takahashi, T.Furukawa, Y.Kanai, M.Uematsu, G.Zheng and M.A.Marcus
Seasonal Changes in Fe Species and Soluble Fe Concentration in the Atmosphere in the Northwest Pacific Region Based on the Analysis of Aerosols Collected in Tsukuba, Japan
Atmos. Chem. Phys., **13** (2013) 7695.

N.Murata, T.Suzuki, M.Kobayashi, F.Togoh and K.Asakura
Characterization of Pt-Doped SnO_2 Catalyst for a High-Performance Micro Gas Sensor
Phys. Chem. Chem. Phys., **15** (2013) 17938.

L.Wang, J.Li, J.Pan, X.Jiang, Y.Ji, Y.Li, Y.Qu, Y.Zhao, X.Wu and C.Chen
Revealing the Binding Structure of the Protein Corona on Gold Nanorods Using Synchrotron Radiation-Based Techniques: Understanding the Reduced Damage in Cell Membranes
J. Am. Chem. Soc., **135** (2013) 17359.

K.Nitta, Y.Omori, T.Miyanaga, K.Takegahara, H.Sugawara, D.Kikuchi and H.Sato
Extended X-Ray Absorption Fine Structure Thermal Factor Analysis of Rattling in Filled Skutterudites RT_4Sb_{12} (R: La, Ce, Pr, Nd, and Sm; T: Fe, Ru, and Os)
J. Phys. Soc. Jpn., **82** (2013) 044801.

J.Chang, Y.Tani, H.Naitou, N.Miyata, H.Seyama and K.Tanaka
Cobalt(II) Sequestration on Fungal Biogenic Manganese Oxide Enhanced by Manganese(II) Oxidase Activity
Applied Geochemistry, **37** (2013) 170.

F.Liu, W.Shan, Z.Lian, L.Xie, W.Yang and H.He
Novel $MnWO_x$ Catalyst with Remarkable Performance for Low Temperature NH_3-SCR of NO_x
Catal. Sci. Technol., **3** (2013) 2699.

K.Tanaka, Q.Yu, K.Sasaki and T.Ohnuki
Cobalt(II) Oxidation by Biogenic Mn Oxide Produced by *Pseudomonas* sp. Strain NGY-1
Geomicrobiology Journal, **30** (2013) 874.

S.Takenaka, T.Tsukamoto, H.Matsune and M.Kishida
Carbon Nanotube-Supported Pd-Co Catalysts Covered with Silica Layers as Active and Stable Cathode Catalysts for Polymer Electrolyte Fuel Cells
Catal. Sci. Technol., **3** (2013) 2723.

L.Wang, A.Yoshiasa, M.Okube, T.Hiratoko, Y.Hu, H.Arima and K.Sugiyama
Local Structure of Iron in Tektites and Natural Glass: An Insight through X-Ray Absorption Fine Structure Spectroscopy
Journal of Mineralogical and Petrological Sciences, **108** (2013) 288.

J.Kim, K.H.Cho, I.Kagomiya and K.Park
Structural Studies of Porous Ni/YSZ Cermets Fabricated by the Solid-State Reaction Method
Ceramics International, **39** (2013) 7467.

I.Kagomiya, S.Matsumoto, K.Kakimoto, H.Ohsato, H.Sakai and Y.Maeda
Annealing Effect on Temperature Coefficient of Resistivity in $La_{1-x}Sr_xMnO_3$ Ceramics
J. Euro. Ceram. Soc., **33** (2013) 985.

H.Hanashima, N.Kitajima, T.Abe and A.Hokura
Study on Accumulation Mechanism of Arsenic and Selenium in *Pteris vittata* L. Using Synchrotron Radiation X-Ray Fluorescence Analysis
Adv. X-Ray Chem. Anal. Jpn., **44** (2013) 279. (*in Japanese*).

H.Kagi, S.Odake, H.Ishibashi, K.Shozugawa, M.Matsuo, W.Satake and T.Mikouchi
Oxygen Fugacity and Valence State of Chromium in Ferropericlase: Can Cr^{2+} Be a Redox Indicator for the Deep Mantle?
J. Mineralogical and Petrological Sciences, **108** (2013) 172.

T.Ozaki, X.Wang and T.Ohnuki
Manganese and Arsenic Oxidation Performance of Bacterium-Yunotaki 86(BY86) from Hokkaido, Japan, and the Bacterium's Phylogeny
Geomicrobiol. J., **30** (2013) 559.

M.Jiang, T.Ohnuki, S.Yamasaki, K.Tanaka and S.Utsunomiya
Adsorption of Ytterbium onto *Saccharomyces cerevisiae* Fungal Cells: A pH-Dependent Contribution of Phosphoryl Functional Group
J. Radioanal. Nucl. Chem., **295** (2013) 2283.

S.Mitsunobu, C.Muramatsu, K.Watanabe and M.Sakata
Behavior of Antimony(V) during the Transformation of Ferrihydrite and its Environmental Implications
Environ. Sci. Technol., **47** (2013) 9660.

I.Kagomiya, K.Jimbo and K.Kakimoto
Distribution Change of Oxygen Vacancies in Layered Perovskite Type$(Sr,La)_{n+1}Fe_nO_{3n+1}$($n$=3)
J. Sol. Stat. Chem., **207** (2013) 184.

13A

S.Shimizu, H.Noritake, T.Koitaya, K.Mukai, S.Yoshimoto and J.Yoshinobu
Site-Specific Chemical States of Adsorbed CO on Pt(997): A High Resolution XPS Study
Surf. Sci., **608** (2013) 220.

T.Koitaya, K.Mukai, S.Yoshimoto and J.Yoshinobu
Energy Level Alignment of Cyclohexane on Rh(111) Surfaces: The Importance of Interfacial Dipole and Final-State Screening
J. Chem. Phys., **138** (2013) 044702.

K.Ozawa, T.Kakubo, K.Shimizu, N.Amino, K.Mase and T.Komatsu
High-Resolution Photoelectron Spectroscopy Analysis of Sulfidation of Brass at the Rubber/Brass Interface
Appl. Surf. Sci., **264** (2013) 297.

K.Ozawa, T.Kakubo, K.Shimizu, N.Amino, K.Mase, Y.Izumi, T.Muro and T.Komatsu
High-Resolution Photoelectron Spectroscopy Study of Degradation of Rubber-to-Brass Adhesion by Thermal Aging
Appl. Surf. Sci., **268** (2013) 117.

T.Kajiwara,Y.Nakamori, A.Visikovskiy, T.Iimori, F.Komori, K.Nakatsuji, K.Mase and S.Tanaka
Graphene Nanoribbons on Vicinal SiC Surfaces by Molecular Beam Epitaxy
Phys. Rev. B, **87** (2013) 121407.

A.Toyoshima, T.Kikuchi, H.Tanaka, K.Mase, K.Amemiya, and K.Ozawa
Performance of PF BL-13A, a Vacuum Ultraviolet and Soft X-Ray Undulator Beamline for Studying Organic Thin Films Adsorbed on Surfaces
J. Phys.: Conf. Ser., **425** (2013) 152019.

R.Toyoshima, M.Yoshida, Y.Monya, K.Suzuki, K.Amemiya, K.Mase, B.S.Mun and H.Kondo
Photoelectron Spectroscopic Study of CO and NO Adsorption on Pd(100) Surface under Ambient Pressure Conditions
Surf. Sci., **615** (2013) 33.

H.Koike, T.Kubo, K.Uchida, M.Chikamatsu, R.Azumi, K.Mase and K.Kanai
Direct Observation of Energy Band Development in a One-Dimensional Biradical Molecular Chain by Ultraviolet Photoemission Spectroscopy
Appl. Phys. Lett., **102** (2013) 134103.

Y.Harada, T.Koitaya, K.Mukai, S.Yoshimoto and J.Yoshinobu
Spectroscopic Characterization and Transport Properties of Aromatic Monolayers Covalently Attached to Si(111) Surfaces
J. Phys. Chem. C, **117** (2013) 7497.

R.Toyoshima, M.Yoshida, Y.Monya, K.Suzuki, K.Amemiya, K.Mase, B.S.Mun and H.Kondoh
In Situ Photoemission Observation of Catalytic CO Oxidation Reaction on Pd(110) under Near-Ambient Pressure Conditions: Evidence for the Langmuir-Hinshelwood Mechanism
J. Phys. Chem. C, **117** (2013) 20617.

K.Niwa, C.Miyakawa, T.Yagi and J.Matsuda
Argon Solubility in SiO_2 Melt under High Pressures: A New Experimental Result using Laser-Heated Diamond Anvil Cell
Earth and Planetary Sci. Lett., **363** (2013) 1.

W.Xie, P.L.Prabhumirashi, Y.Nakayama, K.A.McGarry, M.L.Geier, Y.Uragami, K.Mase, C.J.Douglas, H.Ishii, M.C.Hersam and C.D.Frisbie
Utilizing Carbon Nanotube Electrodes to Improve Charge Injection and Transport in Bis(Trifluoromethyl)-Dimethyl-Rubrene Ambipolar Single Crystal Transistors
ACS Nano, **7** (2013) 10245.

13B

S.Wang, T.Sakurai, X.Hao, W.Fu, S.Masuda and K.Akimoto
Favorable Electronic Structure for Organic Solar Cells Induced by Strong Interaction at Interface
J. Appl. Phys., **114** (2013) 183707.

T.Sakurai, S.Wang, S.Toyoshima and K.Akimoto
Role of Electrode Buffer Layers in Organic Solar Cells
Renewable and Sustainable Energy Conference (IRSEC), 2013 International, (2013) 46.

13C

T.Kinoshita, K.Arai, K.Fukumoto, T.Ohkochi, M.Kotsugi, F.Guo, T.Muro, T.Nakamura, H.Osawa, T.Matsushita and T.Okuda
Observation of Micro-Magnetic Structures by Synchrotron Radiation Photoelectron Emission Microscopy
J. Phys. Soc. Jpn., **82** (2013) 021005.

14A

H.Takahashi, M.Yoshino, T.Takagi, H.Amii, T.Baba, T.Kanamori and M.Sonoyama
Non-Ideal Mixing of Dimyristoylphosphatidylcholine with its Partially Fluorinated Analogue in Hydrated Bilayers
Chem. Phys. Lett., **559** (2013) 107.

S.Kishimoto, H.Yonemura, S.Adachi, S.Shimazaki, M.Ikeno, M.Saito, T.Taniguchi and M.Tanaka
A Fast X-Ray Detector using Silicon Avalanche Photodiodes of 64-Pixel Linear Array
J. Phys.: Conf. Ser., **425** (2013) 062007.

S.Ueda, K.Hayashida, H.Nakajima, N.Anabuki, H.Tsunemi, H.Kan, T.Kohmura, S.Ikeda, K.Kaneko, T.Watanabe, K.Mori, M.Nobukawa, H.Murakami, K.Sakata, S.Todoroki, N.Yagihashi, E.Mizuno, M.Muramatsu, H.Suzuki and S.Takagi
Measurement of the Soft X-Ray Response of P-Channel Back-Illuminated CCD
Nucl. Instrum. Meth. Phys. Res. A, **704** (2013) 140.

N.Yahaba, M.Koshimizu, T.Yanagida, Y.Fujimoto, R.Haruki, F.Nishikido, S.Kishimoto and K.Asai
X-Ray Detection Capability and Luminescence Property of Cs_2ZnCl_4 Single Crystal Scintillators
Houshasen Kagaku, **95** (2013) 27. (*in Japanese*).

M.Koshimizu, T.Yanagida, Y.Fujimoto, A.Yamazaki, K.Watanabe, A.Uritani, K.Fukuda, N.Kawaguchi, S.Kishimoto and K.Asai
Origin of Fast Scintillation Components of $LiCaAlF_6$ Crystals
Appl. Phys. Express, **6** (2013) 062601.

S.Kishimoto, H.Yonemura, S.Adachi, S.Shimazaki, M.Ikeno, M.Saito, T.Taniguchi, M.Tanaka
64-Pixel Linear-Array Si-APD Detector for X-Ray Time-Resolved Experiments
Nucl. Instrum. Meth. Phys. Res. A, **731** (2013) 53.

H.Nakajima, M.Fujikawa, H.Mori, H.Kan, S.Ueda, H.Kosugi, N.Anabuki, K.Hayashida and H.Tsunemi
Single Event Effect Characterization of the Mixed-Signal ASIC Developed for CCD Camera in Space Use
Nucl. Instrum. Meth. Phys. Res. A, **731** (2013) 166.

S.Ueda, K.Hayashida, H.Nakajima and H.Tsunemi
X-Ray Measurement of the Elemental Abundances at the Outskirts of the Perseus Cluster with Suzaku
Astronomische Nachrichten, **334** (2013) 426.

K.Mori, Y.Nishioka, S.Ohura, Y.Koura, M.Yamauchi, H.Nakajima, S.Ueda, H.Kan, N.Anabuki, R.Nagino, K.Hayashida, H.Tsunemi, T.Kohmura, S.Ikeda, H.Murakami, M.Ozaki, T.Dotani, Y.Maeda and K.Sagara
Proton Radiation Damage Experiment on P-Channel CCD for an X-Ray CCD Camera Onboard the ASTRO-H Satellite
Nucl. Instrum. Meth. Phys. Res. A, **731** (2013) 160.

14B

K.Hirano, and Y.Takahashi
Applications of X-Ray Magnifier and Demagnifier to Angle-Resolved X-Ray Computed Tomography
J. Phys.: Conf. Ser., **425** (2013) 192004.

K.Hirano, Y.Ito, Y.Shinohara and Y.Amemiya
Characterization of an X-Ray Diamond Phase Plate by a Polarization Analyzer using Multiple Diffraction
J. Phys.: Conf. Ser., **425** (2013) 052030.

K.Hirano Y.Takahashi and S.Nagamachi
Application of X-Ray Phase Plate to Grazing Incidence X-Ray Topography for the Control of Penetration Depth
Nucl. Instrum. Meth. Phys. Res. A, **729** (2013) 537.

T.Miyoshi, Y.Arai, T.Chiba, Y.Fujita, K.Hara, S.Honda, Y.Igarashi, Y.Ikegami, Y.Ikemoto, T.Kohriki, M.Ohno, Y.Ono, N.Shinoda, A.Takeda, K.Tauchi, T.Tsuboyama, H.Tadokoro, Y.Unno and M.Yanagihara
Monolithic Pixel Detectors with 0.2 μm FD-SOI Pixel Process Technology
Nucl. Instrum. Meth. Phys. Res. A, **732** (2013) 530.

J.Duan, C.Hu, S.Luo, X.Zhao and T.Wang
Microcomputed Tomography with Diffraction-Enhanced Imaging for Morphologic Characterization and Quantitative Evaluation of Microvessel of Hepatic Fibrosis in Rats
PLOS ONE, **8** (2013) e78176.

A.Ruammaitree, H.Nakahara, K.Akimoto, K.Soda and Y.Saito
Determination of Non-Uniform Graphene Thickness on SiC(0001) by X-Ray Diffraction
Appl. Surf. Sci., **282** (2013) 297.

T.Emoto
Behavior of Peak Intensity of Rocking Curve for Asymmetric Bragg Reflection Uniquely Determined by Strain Distribution
e-J. Surf. Sci. Nanotech, **11** (2013) 127.

R.Negishi, T.Fukamachi, S.Jongsukswat, K.Hirano, K.Hirano and T.Kawamura
Phase Determination of the Crystal Structure Factor by Measuring Rocking Curves from a Polar Crystal
J. Appl. Cryst., **46** (2013) 1216.

H.Okamoto and K.Mizuno
Observation of the Japan Ware by the X-Ray Diffraction-Enhanced Imaging Method
Journal of the Tsuruma Health Science Society, **37(2)** (2013) 51. (*in Japanese*).

14C

S.Takeya, A.Yoneyama, K.Ueda, K.Hyodo, H.Yamawaki, H.Fujihisa, Y.Gotoh and T.Takeda
Phase-Contrast X-Ray Images of Ice and Water on Carbon Paper for Fuel Cells Measured by Diffraction-Enhanced Imaging Technique
Jpn. J. Appl. Phys., **52** (2013) 048002.

H.Ito, S.Matsushita, K.Hyodo, Y.Sato and Y.Sakakibara
Using Synchrotron Radiation Angiography with a Highly Sensitive Detector to Identify Impaired Peripheral Perfusion in Rat Pulmonary Emphysema
J. Synchrotron Rad., **20** (2013) 376.

Y.Wu, K.Hyodo, N.Sunaguchi, T.Yuasa and M.Ando
Development of High Sensitivity X-Ray Multiple-Times-Diffraction Enhanced Imaging (M-DEI) Optics
J. Phys.: Conf. Ser., **425** (2013) 192008.

Y.Sung, C.J.R.Sheppard, G.Barbartathis, M.Ando and R.Gupta
Full-Wave Approach for X-Ray Phase Imaging
Optics Express, **21** (2013) 17547.

N.Sunaguchi, T.Yuasa and M.Ando
Iterative Reconstruction Algorithm for Analyzer Based Phase-Contrast Computed Tomography of Hard and Soft Tissue
Appl. Phys. Lett., **103** (2013) 143702.

A.Ruammaitree, H.Nakahara, K.Akimoto, K.Soda and Y.Saito
Determination of Non-Uniform Graphene Thickness on SiC(0001) by X-Ray Diffraction
Appl. Surf. Sci., **282** (2013) 297.

T.Yuasa, N.Sunaguchi, S.Ichihara and M.Ando
A Physico-Mathematical Formulation Based on Ray Equation for Reconstructing Refraction-Based 3-D Image of Soft Tissue
J. Instrum., **8** (2013) C05001.

H.Okamoto and K.Mizuno
Observation of the Japan Ware by the X-Ray Diffraction-Enhanced Imaging Method
Journal of the Tsuruma Health Science Society, **37(2)** (2013) 51. (*in Japanese*).

M.P.Olbinado, P.Vagovič, W.Yashiro and A.Momose
Demonstration of Stroboscopic X-Ray Talbot Interferometry using Polychromatic Synchrotron and Laboratory X-Ray Sources
Appl. Phys. Express, **6** (2013) 096601.

15A

Y.Sakai, R.Gomi, K.Kato, H.Yokoyama and K.Ito
Structure and Dynamics of Polyrotaxane-Based Sliding Graft Copolymers with Alkyl Side Chains
Soft Matter, **9** (2013) 1895.

S.G.Guryanov, V.V.Filimonov, A.A.Timchenko, B.S.Melnik, H.Kihara, V.P.Kutyshenko, L.P.Ovchinnikov and G.V.Semisotnov
The Major mRNP Protein YB-1: Structural and Association Properties in Solution
Biochim. Biophys. Acta, **1834** (2013) 559.

Y.Morimoto, T.Nakagawa and M.Kojima
Small-Angle X-Ray Scattering Constraints and Local Geometry Like Secondary Structures Can Construct a Coarse-Grained Protein Model at Amino Acid Residue Resolution
Biochem. Biophys. Res. Commun., **431** (2013) 65.

H.Okuda and S.Ochiai
A Review on Small- and Wide-Angle X-Ray Scattering Applied to the Precipitation Process in Metallic Alloys
Metallurgical and Materials Transactions A, **44** (2013) 94.

H.Yokoyama
Small Angle X-Ray Scattering Studies of Nanocellular and Nanoporous Structures
Polymer J., **45** (2013) 3.

D.Sato, K.Obara, M.Iwahashi, Y.Kawabata and T.Kato
Re-entrant Lamellar/Onion Transition with Varying Temperature under Shear Flow
Langmuir, **29** (2013) 121.

K.Saijo, G.Shin, T.Hashimoto, Y.Amemiya and K.Ito
Strain-Phase-Resolved Dynamic SAXS Studies of BCC-Spherical Domains in Block Copolymers under LAOS: Creation of Twinned BCC-Sphere and their Dynamic Response
Macromolecules, **46** (2013) 1549.

N.Sota, K.Saijo, H.Hasegawa, T.Hashimoto, Y.Amemiya, and K.Ito
Directed Self-Assembly of Block Copolymers into Twin BCC-Sphere: Phase Transition Process from Aligned Hex-Cylinder to BCC-Sphere Induced by a Temperature Jump between the Two Equilibrium Phases
Macromolecules, **46** (2013) 2298.

Y.Sugimoto, M.Shioya, H.Matsumoto, M.Minagawa and A.Tanioka
Structure Changes during Tensile Deformation and Mechanical Properties of a Twisted Carbon Nanotube Yarn
Carbon, **60** (2013) 193.

M.Harada, M.Yamada, Y.Kimura and K.Saijo
Influence of the Organization of Water-in-Ionic Liquid Microemulsions on the Size of Silver Particles during Photoreduction
J. Colloid Interface Sci., **406** (2013) 94.

K.Matsui, S.Seno, Y.Nozue, Y.Shinohara, Y.Amemiya, E.B.Berda, G.Rojas and K.B.Wagener
Influence of Branch Incorporation into the Lamella Crystal on the Crystallization Behavior of Polyethylene with Precisely Spaced Branches
Macromolecules, **46** (2013) 4438.

G.Cui, S.Ohya, T.Matsutani, S.Nagano, T.Dohi, S.Nakamura, S.Sakurai, T.Miyazaki and K.Yamamoto
Perpendicular Orientation of Sub-10 nm Channels in Polystyrene-*b*-Poly(4-Hydroxyl Styrene)/PEG Oligomer Blend Thin Films
Nanoscale, **5** (2013) 6713.

K.Oshima and K.Wakabayashi
Structural Basis of Muscle Regulation by Synchrotron X-Ray Diffraction: Head-Head Interactions of Myosin Crossbridges in Resting Higher Vertebrate Striated Muscle
J. Cryst. Soc. Jpn., **55** (2013) 203. (*in Japanese*).

Y.Matsumura, M.Shinjo, T.Matsui, K.Ichimura, J.Song and H.Kihara
Structural Study of hNck2 SH3 Domain Protein in Solution by Circular Dichroism and X-Ray Solution Scattering
Biophys. Chem., **175** (2013) 39.

Y.Matsumura, M.Shinjo, S.J.Kim, N.Okishio, M.Gruebele and H.Kihara
Transient Helical Structure during PI3K and Fyn SH3 Domain Folding
J. Phys. Chem. B, **117** (2013) 4836.

A.A.Timchenko, O.V.Novosylna, E.A.Prituzhalov, H.Kihara, A.V.El'skaya, B.S.Negrutskii and I.N.Serdyuk
Different Oligomeric Properties and Stability of Highly Homologous A1 and Proto-Oncogenic A2 Variants of Mammalian Translation Elongation Factor eEF1
Biochemistry, **52** (2013) 5345.

H.Takeno and T.Mochizuki
A Structural Development of an Organogel Explored by Synchrotron Time-Resolved Small-Angle X-Ray Scattering
Colloid Polym. Sci., **291** (2013) 2783.

L.Bayés-García, T.Calvet, M.À.Cuevas-Diarte, S.Ueno and K.Sato
Crystallization and Transformation of Polymorphic Forms of Trioleoyl Glycerol and 1,2-Dioleoyl-3-*rac*-linoleoyl Glycerol
J. Phys. Chem. B, **117** (2013) 9170.

15B1

H.Koizumi, S.Uda, K.Fujiwara, M.Tachibana, K.Kojima and J.Nozawa
Improvement of Crystal Quality for Tetragonal Hen Egg White Lysozyme Crystals under Application of an External Alternating Current Electric Field
J. Appl. Cryst., **46** (2013) 25.

S.Hosokawa, N.Happo, T.Ozaki, H.Ikemoto, T.Shishido and K.Hayashi
Extent and Feature of Lattice Distortions around Ga Impurity Atoms in InSb Single Crystal
Phys. Rev. B, **87** (2013) 094104.

Y.Kitajima, Y.Nanba, M.Tanaka, Y.Koga, A.Ueno, K.Nakagawa, H.Tokoro, S.Ohkoshi, T.Iwazumi, K.Okada and Y.Isozumi
Observation of π Backbonding Features in Fe 2p X-Ray Absorption Spectra and Fe 1s-4p-1s Resonant X-Ray Emission Spectra of $RbMn[Fe(CN)_6]$
J. Phys.: Conf. Ser., **430** (2013) 012082.

S.Kawakami, N.Nakajima, T.Takigawa, M.Nakatake, H.Maruyama, Y.Tezuka and T.Iwazumi
UV-Induced Change in the Electronic Structure of $SrTiO_3$ at Low Temperature Probed by Resonant X-Ray Emission Spectroscopy
J. Phys. Soc. Jpn., **82** (2013) 053701.

K.Mizuno, T.Kobayashi, H.Taniguchi and H.Okamoto
Growth and X-Ray Topographic Characterization of κ-$(BEDT\text{-}TTF)_2Cu[N(CN)_2]Br$ Single Crystals
Trans. Mat. Res. Soc. Japan, **38** (2013) 565.

15B2

T.Shirasawa, J.Tsunoda, T.Hirahara and T.Takahashi
Structure of Bi/Bi_2Te_3 Heteroepitaxial Film Studied by X-Ray Crystal Truncation Rod Scattering
Phys. Rev. B, **87** (2013) 075449.

15C

Y.Kato, H.Umezawa, S.Shikata and M.Touge
Effect of an Ultraflat Substrate on the Epitaxial Growth of Chemical-Vapor-Deposited Diamond
Appl. Phys. Express, **6** (2013) 025506.

S.Harada, Y.Yamamoto, K.Seki and T.Ujihara
Reduction of Threading Screw Dislocation Utilizing Defect Conversion during Solution Growth of 4H-SiC
Material Science Forum, **740-742** (2013) 189.

Y.Yamamoto, S.Harada, K.Seki, A.Horio, T.Mitsuhashi and T.Ujihara
Effect of Surface Polarity on the Conversion of Threading Dislocations in Solution Growth
Materials Science Forum, **740-742** (2013) 15.

K.Hirano Y.Takahashi and S.Nagamachi
Application of X-Ray Phase Plate to Grazing Incidence X-Ray Topography for the Control of Penetration Depth
Nucl. Instrum. Meth. Phys. Res. A, **729** (2013) 537.

S.Harada, Y.Yamamoto, K.Seki, A.Horio, T.Mitsuhashi, M.Tagawa and T.Ujihara
Evolution of Threading Screw Dislocation Conversion during Solution Growth of 4H-SiC
APL Materials, **1** (2013) 022109.

S.Harada, Y.Yamamoto, K.Seki and T.Ujihara
Current Advances in SiC Solution Growth
J. Jpn. Assoc. Cryst., **40** (2013) 25. (*in Japanese*).

T.Emoto
Behavior of Peak Intensity of Rocking Curve for Asymmetric Bragg Reflection Uniquely Determined by Strain Distribution
e-J. Surf. Sci. Nanotech, **11** (2013) 127.

R.Negishi, T.Fukamachi, S.Jongsukswat, K.Hirano, K.Hirano and T.Kawamura
Phase Determination of the Crystal Structure Factor by Measuring Rocking Curves from a Polar Crystal
J. Appl. Cryst., **46** (2013) 1216.

16A

S.M.Suturin, V.V.Fedorov, A.G.Banshchikov, D.A.Baranov, K.V.Koshmak, P.Torelli, J.Fujii, G.Panaccione, K.Amemiya, M.Sakamaki, T.Nakamura, M.Tabuchi, L.Pasquali and N.S.Sokolov
Proximity Effects and Exchange Bias in Co/MnF_2(111) Heterostructures Studied by X-Ray Magnetic Circular Dichroism
J. Phys.: Condens. Matter, **25** (2013) 046002.

H.Wadati
Report on JSSRR Scientific Awards Resonant Soft X-Ray Scattering Studies of Transition-Metal-Oxide Thin Films
J. Jpn. Soc. Synchrotron Rad. Res., **26** (2013) 118. (*in Japanese*).

M.Sakamaki and K.Amemiya
Effect of Structural Strain on Magnetic Anisotropy Energy of Each Element in Alternately Layered FeNi Thin Films
Phys. Rev. B, **87** (2013) 014428.

K.Amemiya, M.Sakamaki, P.Mazalski, I.Sveklo, Z.Kurant, A.Maziewski, M.O.Liedke, J.Fassbender, A.Wawro and L.T.Baczewski
Ga^+ Ion Irradiation-Induced Changes in Magnetic Anisotropy of a Pt/Co/Pt Thin Film Studied by X-Ray Magnetic Circular Dichroism
EPJ Web of Conferences, **40** (2013) 08002.

S.-M.Huttula, P.Lablanquie, L.Andric, J.Palaudoux, M.Huttula, S.Sheinerman, E.Shigemasa, Y.Hikosaka, K.Ito and F.Penent
Decay of a $2p$ Inner-Shell Hole in an Ar^+ Ion
Phys. Rev. Lett., **110** (2013) 113002.

Y.Yamasaki, T.Sudayama, J.Okamoto, H.Nakao, M.Kubota and Y.Murakami
Diffractometer for Small Angle Resonant Soft X-Ray Scattering under Magnetic Field
J. Phys.: Conf. Ser., **425** (2013) 132012.

K.Amemiya, M.Sakamaki, T.Koide, K.Ito, K.Tsuchiya, K.Harada, T.Aoto, T.Shioya, T.Obina, S.Yamamoto and Y.Kobayashi
Fast Polarization Switching in the Soft X-Ray Region at PF BL-16A
J. Phys. Conf. Ser., **425** (2013) 152015.

K.Tsuchiya, T.Shioya, T.Aoto, K.Harada, T.Obina, M.Sakamaki and K.Amemiya
Operation of a Fast Polarization-Switching Source at the Photon Factory
J. Phys. Conf. Ser., **425** (2013) 132017.

J.Okamoto, K.Horigane, H.Nakao, K.Amemiya, M.Kubota, Y.Murakami and K.Yamada
Resonant Soft X-Ray Scattering Study of the Magnetic Structures in $La_{1.5}Ca_{0.5}CoO_4$ using a High Vacuum Diffractormeter with a 4-Blade-Slit Detector System
J. Phys.: Conf. Ser., **425** (2013) 202003.

M.Nakano, F.Penent, M.Tashiro, T.P.Grozdanov, M.Zitnik, S.Carniato, P.Selles, L.Andric, P.Lablanquie, J.Palaudoux, E.Shigemasa, H.Iwayama, Y.Hikosaka, K.Soejima, I.H.Suzuki, N.Kouchi and K.Ito
Single Photon K^{-2} and $K^{-1}K^{-1}$ Double Core Ionization in C_2H_{2n} (n=1-3), CO and N_2 as a Potential New Tool for Chemical Analysis
Phys. Rev. Lett., **110** (2013) 163001.

Y.Hikosaka, M.Sawa, M.Nakano, K.Soejima, P.Lablanquie, F.Penent and K.Ito
Elelctron Reemission Processes Following Photoelectron Recapture due to Post-Collision Interaction Inner-Shell Photoionization of Water Molecules
J. Chem. Phys., **138** (2013) 214308.

T.Harano, G.Shibata, K.Ishigami, Y.Takahashi, V.K.Verma, V.R.Singh, T.Kadono, A.Fujimori, Y.Takeda, T.Okane, Y.Saitoh, H.Yamagami, T.Koide, H.Yamada, A.Sawa, M.Kawasaki, Y.Tokura, and A.Tanaka
Role of Doped Ru in Coercivity-Enhanced $La_{0.6}Sr_{0.4}MnO_3$ Thin Flm Studied by X-Ray Magnetic Circular Dichroism
Appl. Phys. Lett., **102** (2013) 222404.

K.Amemiya and M.Sakamaki
Temperature Dependence of Remanent Magnetization of Thin Films at the Interface to a Nonmagnetic Material: Cu/Ni/Cu(100)
Phys. Rev. B, **88** (2013) 014401.

M.Nakano, P.Selles, P.Lablanquie, Y.Hikosaka, F.Penent, E.Shigemasa, K.Ito and S.Carniato
Near-Edge X-Ray Absorption Fine Structures Revealed in Core Ionization Photoelectron Spectroscopy
Phys. Rev. Lett., **111** (2013) 123001.

M.Sakamaki, K.Amemiya, A.Nambu, K.Ueda, J.Shimizu and K.Watanabe
Ar^+ Ion Milling-Induced Suppression of Surface Oxidation in $Fe_{70}Co_{30}$ Thin Films
Mater. Chem. Phys., **143** (2013) 281.

K.Yoshimatsu, H.Wadati, E.Sakai, T.Harada, Y.Takahashi, T.Harano, G.Shibata, K.Ishigami, T.Kadono, T.Koide, T.Sugiyama, E.Ikenaga, H.Kumigashira, M.Lippmaa, M.Oshima and A.Fujimori
Spectroscopic Studies on the Electronic and Magnetic States of Co-Doped Perovskite Manganite $Pr_{0.8}Ca_{0.2}Mn_{1-y}Co_yO_3$ Thin Films
Phys. Rev. B, **88** (2013) 174423.

S.Chakraverty, T.Matsuda, H.Wadati, J.Okamoto, Y.Yamasaki, H.Nakao, Y.Murakami, S.Ishiwata, M.Kawasaki, Y.Taguchi, Y.Tokura and H.Y.Hwang
Multiple Helimagnetic Phases and Topological Hall Effect in Epitaxial Thin Films of Pristine and Co-Doped $SrFeO_3$
Phys. Rev. B, **88** (2013) 220405.

T.Harano, G.Shibata, K.Yoshimatsu, K.Ishigami, V.K.Verma, Y.Takahashi, T.Kadono, T.Yoshida, A.Fujimori, T.Koide, F.-H.Chang, H.-J.Lin, D.-J.Huang, C.-T.Chen, P.-H.Xiang, H.Yamada and A.Sawa
Phase Diagram of $Ca_{1-x}Ce_xMnO_3$ Thin Films Studied by X-Ray Magnetic Circular Dichroism
Solid State Commun., **174** (2013) 30.

17A

A.Gao, G.-Y. Mei, S.Liu, P.Wang, Q.Tang, Y.-P. Liu, H.Wen, X.-M.An, L.-Q.Zhang, X.-X.Yan and D.-C.Liang
High-Resolution Structures of AidH Complexes Provide Insights into a Novel Catalytic Mechanism for *N*-Acyl Homoserine Lactonase
Acta Cryst. D, **69** (2013) 82.

N.Saito and Y.Matsuura
A 2.1-Å-Resolution Crystal Structure of Unliganded CRM1 Reveals the Mechanism of Autoinhibition
J. Mol. Biol., **425** (2013) 350.

Z.Wang, Y.Wu, L.Li and X.-D.Su
Intermolecular Recognition Revealed by the Complex Structure of Human CLOCK-BMAL1 Basic Helix-Loop-Helix Domains with E-Box DNA
Cell Res., **23** (2013) 213.

S.Liang, J.Dai, S.Hou, L.Su, D.Zhang, H.Guo, S.Hu, H.Wang, Z.Rao, Y.Guo and Z.Lou
Structural Basis for Treating Tumor Necrosis Factor α (TNFα)-Associated Diseases with the Therapeutic Antibody Infliximab
J. Biol. Chem., **288** (2013) 13799.

T.Shiba, Y.Kido, K.Sakamoto, D.K.Inaoka, C.Tsuge, R.Tatsumi, G.Takahashi, E.O.Balogun, T.Nara, T.Aoki, T.Honma, A.Tanaka, M.Inoue, S.Matsuoka, H.Saimoto, A.L.Moore, S.Harada and K.Kita
Structure of the Trypanosome Cyanide-Insensitive Alternative Oxidase
Proc. Natl. Acad. Sci. USA, **110** (2013) 4580.

T.Ito, T.Katayama, M.Hattie, H.Sakurama, J.Wada, R.Suzuki, H.Ashida, T.Wakagi, K.Yamamoto, K.A.Stubbs and S.Fushinobu
Crystal Structures of a Glycoside Hydrolase Family 20 Lacto-*N*-Biosidase from *Bifidobacterium bifidum*
J. Biol. Chem., **288** (2013) 11795.

W.J.Li, D.F.Li, Y.L.Hu, X.E.Zhang, L.J.Bi and D.C.Wang.
Crystal Structure of L,D-Transpeptidase Ldt_{Mt2} in Complex with Meropenem Reveals the Mechanism of Carbapenem Against *Mycobacterium tuberculosis*
Cell Res., **5** (2013) 728.

J.Otani, K.Arita, T.Kato, M.Kinoshita, H.Kimura, I.Suetake, S.Tajima, M.Ariyoshi and M.Shirakawa
Structural Basis of the Versatile DNA Recognition Ability of the Methyl-CpG Binding Domain of Methyl-CpG Binding Domain Protein 4
J. Biol. Chem., **288** (2013) 6351.

Z.Fujimoto, R.Suzuki, T.Shiotsuki, W.Tsuchiya, A.Tase, M.Momma and T.Yamazaki
Crystal Structure of Silkworm *Bombyx mori* JHBP in Complex with 2-Methyl-2,4-Pentanediol: Plasticity of JH-Binding Pocket and Ligand-Induced Conformational Change of the Second Cavity in JHBP
PLoS One, **8** (2013) e56261.

K.J.Cho, J-H.Lee, K.W.Hong, S-H.Kim, Y.Park, J.Y.Lee, S.Kang, S.Kim, J.H.Yang, E-K.Kim, J.H.Seok, S.Unzai, S.Y.Park, X.Saelens, C-J.Kim, J-Y.Lee, C.Kang, H-B.Oh, M.S.Chung and K.H.Kim
Insight into Structural Diversity of Influenza Virus Hemagglutinin
J. Gen. Virol., **94** (2013) 1712.

B.Li, Q.Wang, X.Pan, I.F.Castro, Y.Sun, Y.Guo, X.Tao, C.Risco, S.-F.Sui and Z.Lou
Bunyamwera Virus Possesses a Distinct Nucleocapsid Protein to Facilitate Genome Encapsidation
Proc. Natl. Acad. Sci. USA, **110** (2013) 9048.

T.-Y.Jung, Y.-S.Kim, B.-H.Oh and E.Woo
Identification of a Novel Ligand Binding Site in Phosphoserine Phosphatase from the Hyperthermophilic Archaeon *Thermococcus onnurineus*
Proteins, **81** (2013) 819.

D.Sasaki, S.Watanabe, R.Matsumi, T.Shoji, A.Yasukochi, K.Tagashira, W.Fukuda, T.Kanai, H.Atomi, T.Imanaka and K.Miki
Identification and Structure of a Novel Archaeal HypB for [NiFe] Hydrogenase Maturation
J. Mol. Biol., **425** (2013) 1627.

H.Sasanuma, M.S.Tawaramoto, J.P.Lao, H.Hosaka, E.Sanda, M.Suzuki, E.Yamashita, N.Hunter, M.Shinohara, A.Nakagawa, A.Shinohara
A New Protein Complex Promoting the Assembly of Rad51 Filaments
Nature Commun., **4** (2013) 1676.

A.Matsumoto, Y.Shimizu, C.Takemoto, T.Ueda, T.Uchiumi and K.Ito
Crystallization and Preliminary X-Ray Analysis of Peptidyl-tRNA Hydrolase from *Thermus thermophilus* HB8
Acta Cryst. F, **69** (2013) 332.

J.Kobayashi and Y.Matsuura
Structural Basis for Cell-Cycle-Dependent Nuclear Import Mediated by the Karyopherin Kap121p
J. Mol. Biol., **425** (2013) 1852.

H.Makyio, T.Takeuchi, M.Tamura, K.Nishiyama, H.Takahashi, H.Natsugari, Y.Arata, K.Kasai, Y.Yamada, S.Wakatsuki and R.Kato
Structural Basis of Preferential Binding of Fucose-Containing Saccharide by the *Caenorhabditis elegans* Galectin LEC-6
Glycobiology, **23** (2013) 797.

R.Nasuno, Y.Hirano, T.Itoh, T.Hakoshima, T.Hibi and H.Takagi
Structural and Functional Analysis of the Yeast *N*-Acetyltransferase Mpr1 Involved in Oxidative Stress Tolerance via Proline Metabolism
Proc. Natl. Acad. Sci. USA, **110** (2013) 11821.

T.Arimori, N.Kawamoto, S.Shinya, N.Okazaki, M.Nakazawa, K.Miyatake, T.Fukamizo, M.Ueda and T.Tamada
Crystal Structures of the Catalytic Domain of a Novel Glycohydrolase Family 23 Chitinase from *Ralstonia* sp. A-471 Reveals a Unique Arrangement of the Catalytic Residues for Inverting Chitin Hydrolysis
J. Biol. Chem., **288** (2013) 18696.

Y.Nagamatsu, K.Takeda, T.Kuranaga, N.Numoto and K.Miki
Origin of Asymmetry on the Intersubunit Interfaces of V_1-ATPase from *Thermus thermophilus*
J. Mol. Biol., **425** (2013) 2699.

K.J.Cho, J.-H.Lee, K.W.Hong, S.-H.Kim, Y.Park, J.Y.Lee, S.Kang, S.Kim, J.H.Yang, E.-K.Kim, J.H.Seok, S.Unzai, S.Y.Park, X.Saelens, C.-J.Kim, J.-Y.Lee, C.Kang, H.-B.Oh, M.S.Chung and K.H.Kim
Insight into Structural Diversity of Influenza Virus Haemagglutinin
J. General Virology, **94** (2013) 1712.

W.Zhang, Y.Shi, X.Lu, Y.Shu, J.Qi and G.F.Gao
An Airborne Transmissible Avian Influenza H5 Hemagglutinin Seen at the Atomic Level
Science, **340** (2013) 1463.

S.Okazaki, S.Nakano, D.Matsui, S.Akaji, K.Inagaki and Y.Asano
X-Ray Crystallographic Evidence for the Presence of the Cysteine Tryptophylquinone Cofactor in L-Lysine ε-Oxidase from *Marinomonas mediterranea*
J. Biochem., **154** (2013) 233.

T.Hirose, N.Maita, H.Gouda, J.Koseki, T.Yamamoto, A.Sugawara, H.Nakano, S.Hirono, K.Shiomi, T.Watanabe, H.Taniguchi, K.B.Sharpless, S.Omura and T.Sunazuka
Observation of the Controlled Assembly of Preclick Components in the in situ Click Chemistry Generation of a Chitinase Inhibitor
Proc. Natl. Acad. Sci. USA, **110** (2013) 15892.

T.Kinoshita, T.Nakaniwa, Y.Sekiguchi, Y.Sogabe, A.Sakurai, S.Nakamura and I.Nakanishi
Crystal Structure of Human CK2α at 1.06 ÅResolution
J. Synchrotron Rad., **20** (2013) 974.

A.Nakamura, T.Ishida, S.Fushinobu, K.Kusaka, I.Tanaka, K.Inaka, Y.Higuchi, M.Masaki, K.Ohta, S.Kaneko, N.Niimura, K.Igarashi and M.Samajima
Phase-Diagram-Guided Method for Growth of a Large Crystal of Glycoside Hydrolase Family 45 Inverting Cellulase Suitable for Neutron Structural Analysis
J. Synchrotron Rad., **20** (2013) 859.

S.Fushinobu, V.D.Alves and P.M.Coutinho
Multiple Rewards from a Treasure Trove of Novel Glycoside Hydrolase and Polysaccharide Lyase Structures: New Folds, Mechanistic Details, and Evolutionary Relationships
Curr. Opin. Struct. Biol., **23** (2013) 652.

T.Osawa, H.Inanaga and T.Numata
Crystallization and Preliminary X-Ray Diffraction Analysis of the Cmr2-Cmr3 Subcomplex in the CRISPR-Cas RNA-Silencing Effector Complex
Acta Cryst. F, **69** (2013) 585.

T.Osawa, H.Inanaga and T.Numata
Crystal Structure of the Cmr2-Cmr3 Subcomplex in the CRISPR-Cas RNA Silencing Effector Complex
J. Mol. Biol., **425** (2013) 3811.

Z.Gai, A.Nakamura, Y.Tanaka, N.Hirano, I.Tanaka and M.Yao
Crystal Structure Analysis, Overexpression and Refolding Behavior of a DING Protein with Single Mutation
J. Synchrotron Rad., **20** (2013) 854.

Z.Fujimoto
Structure and Function of Carbohydrate-Binding Module Families 13 and 42 of Glycoside Hydrolases, Comprising a β-Trefoil Fold
Biosci. Biotechnol. Biochem., **77** (2013) 1363.

T.Arimori, A.Ito, M.Nakazawa, M.Ueda and T.Tamada
Crystal Structure of Endo-1,4-β-Glucanase from *Eisenia fetida*
J. Synchrotron Rad., **20** (2013) 884.

K.Takemoto, T.Matsuda, N.Sakai, D.Fu, M.Noda, S.Uchiyama, I.Kotera, Y.Arai, M.Horiuchi, K.Fukui, T.Ayabe, F.Inagaki, H.Suzuki and T.Nagai
SuperNova, a Monomeric Photosensitizing Fluorescent Protein for Chromophore-Assisted Light Inactivation.
Sci. Rep., **3** (2013) 2629.

Y.Kuwano, K.Yoneda, Y.Kawaguchi and T.Araki
The Tertiary Structure of an I-Type Lysozyme Isolated from the Common Orient Clam (*Meretrix lusoria*)
Acta Cryst. F, **69** (2013) 1202.

T.Mori, Y.Shimokawa, T.Matsui, K.Kinjo, R.Kato, H.Noguchi, S.Sugio, H.Morita and I.Abe
Cloning and Structure-Function Analyses of Quinolone- and Acridone-Producing Novel Type III Polyketide Synthases from *Citrus microcarpa*
J. Biol. Chem., **288** (2013) 28845.

M.Elahi, M.M.Islam, K.Noguchi, M.Yohda and Y.Kuroda
High Resolution Crystal Structure of Dengue-3 Envelope Protein Domain III Suggests Possible Molecular Mechanisms for Serospecific Antibody Recognition
Proteins, **81** (2013) 1090.

J.-H.Ha, Y.Eo, A.Grishaev, M.Guo, J.A.I.Smith, H.O.Sintim, E.-H.Kim, H.-K.Cheong, W.E.Bentley and K.-S.Ryu
Crystal Structures of the LsrR Proteins Complexed with Phospho-AI-2 and Two Signal-Interrupting Analogues Reveal Distinct Mechanisms for Ligand Recognition
J. Am. Chem. Soc., **135** (2013) 15526.

Y.K.Kim, M.-J.Kwak, B.Ku, H.-Y.Suh, K.Joo, J.Lee, J.U.Jung and B.-H.Oh
Structural Basis of Intersubunit Recognition in Elongin BC-Cullin 5-SOCS Box Ubiquitin-Protein Ligase Complexes
Acta Cryst. D, **69** (2013) 1587.

T.Nishiyama, H.Noguchi, H.Yoshida, S.-Y.Park and J.R.H.Tame
The Structure of the Deacetylase Domain of *Escherichia coli* PgaB, an Enzyme Required for Biofilm Formation: a Circularly Permuted Member of the Carbohydrate Esterase 4 Family
Acta Cryst. D, **69** (2013) 44.

Y.Itoh, M.J. Bröcker, S.Sekine, G.Hammond, S.Suetsugu, D.Söll and S.Yokoyama
Decameric SelA·tRNA^{Sec} Ring Structure Reveals Mechanism of Bacterial Selenocysteine Formation
Science, **340** (2013) 75.

J.Son, E.H.Lee, M.Park, J.H.Kim, J.Kim, S.Kim, Y.H.Jeond and K.Y.Hwang
Conformational Changes in Human Prolyl-tRNA Synthetase upon Binding of the Substrates Proline and ATP and the Inhibitor Halofuginone
Acta Cryst. D, **69** (2013) 2136.

E.Kim, H.-C.Lu, H.Y.Zoghbi and J.-J.Song
Structural Basis of Protein Complex Formation and Reconfiguration by Polyglutamine Disease Protein Ataxin-1 and Capicua
Genes and Development, **27** (2013) 590.

H.Zhou, Y.Sun, Y.Wang, M.Liu, C.Liu, W.Wang, X.Liu, L.Li, F.Deng, H.Wang, Y.Guo and Z.Lou
The Nucleoprotein of Severe Fever with Thrombocytopenia Syndrome Virus Processes a Stable Hexameric Ring to Facilitate RNA Encapsidation
Protein and Cell, **4** (2013) 445.

T.Wang, J.Ding, Y.Zhang, D.-C.Wang and W.Liu
Complex Structure of Type VI Peptidoglycan Muramidase Effector and a Cognate Immunity Protein
Acta Cryst. D, **69** (2013) 1889.

S.Sugiyama, N.Shimizu, G.Sazaki, M.Hirose, Y.Takahashi, M.Maruyama, H.Matsumura, H.Adachi, K.Takano, S.Murakami, T.Inoue and Y.Mori
A Novel Approach for Protein Crystallization by a Synthetic Hydrogel with Thermoreversible Gelation Polymer
Cryst. Growth Des., **13** (2013) 1899.

J.Hwang, B.S.Kim, S.Y.Jang, J.G.Lim, D.-J.You, H.S.Jung, T.-K.Oh, J.-O.Lee, S.H.Choi and M.H.Kim
Structural Insights into the Regulation of Sialic Acid Catabolism by the *Vibrio vulnificus* Transcriptional Repressor NanR
Proc. Natl. Acad. Sci. USA, **110** (2013) E2829.

Y.Hou, D.-F.Li and D.-C.Wang.
Crystallization and Preliminary X-Ray Analysis of the Flagellar Motor 'Brake' Molecule YcgR with c-di-GMP from *Escherichia coli*
Acta Cryst. F, **69** (2013) 663.

K.J.Yeo, Y.-H.Han, Y.Eo and H.-K.Cheong
Expression, Purification, Crystallization and Preliminary X-Ray Analysis of the Extracellular Sensory Domain of DraK Histidine Kinase from Streptomyces Coelicolor
Acta Cryst. F, **69** (2013) 909.

L.-J.Yu, M.Unno, Y.Kimura, K.Yanagimoto, H.Oh-oka, Z.-Y.Wang-Otomo
Structure Analysis and Characterization of the cytochrome *c*-554 from Thermophilic Green Sulfur Photosynthetic Bacterium *Chlorobaculum tepidum*
Photosynthesis Research, **118** (2013) 249.

T.Miyakawa, Y.Sawano, K.Miyazono, Y.Miyauchi, K.Hatano and M.Tanokura
A Thermoacidophile-Specific Protein Family, DUF3211, Functions as a Fatty Acid Carrier with Novel Binding Mode
J. Bacteriol., **195** (2013) 4005.

F.Zhang, M.Tsunoda, K.Suzuki, Y.Kikuchi, O.Wilkinson, C.L.Millington, G.P.Margison, D.M.Williams, E.C.Morishita and A.Takenaka
Structures of DNA Duplexes Containing O^6-Carboxymethylguanine, a Lesion Associated with Gastrointestinal Cancer, Reveal a Mechanism for Inducing Pyrimidine Transition Mutations
Nucl. Acids Res., **41** (2013) 5524.

S.Aizawa, M.Senda, A.Harada, N.Maruyama, T.Ishida, T.Aigaki, A.Ishigami and T.Senda
Structural Basis of the γ-Lactone-Ring Formation in Ascorbic Acid Biosynthesis by the Senescence Marker Protein-30/Gluconolactonase
PLoS One, **8** (2013) e53706.

Y.Yamada, L.M.G.Chavas, N.Igarashi, M.Hiraki, S.Wakatsuki and N.Matsugaki
Improvements toward Highly Accurate Diffraction Experiments at the Macromolecular Micro-Crystallography Beamline BL-17A
J. Synchrotron Rad., **20** (2013) 938.

X.Xu, X.Wang, Y.Zhang, D.C.Wang and J.Ding
Structural Basis for the Unique Heterodimeric Assembly between Cerebral Cavernous Malformation 3 and Germinal Center Kinase III
Structure, **21** (2013) 1059.

A.Furukawa, J.Kamishikiryo, D.Mori, K.Toyonaga, Y.Okabe, A.Toji, R.Kanda, Y.Miyake, T.Ose, S.Yamasaki and K.Maenaka
Structural Analysis for Glycolipid Recognition by the C-Type Lectins Mincle and MCL
Proc. Natl. Acad. Sci. USA, **110** (2013) 17438.

Y.Zhang, L.Li, X.Liu, S.Dong, W.Wang, T.Huo, Y.Guo, Z.Rao and C.Yang
Crystal Structure of Junin Virus Nucleoprotein
J Gen Virol., **94** (2013) 2175.

M.-K.Kim, Y.J.An, C.-S.Jeong, J.M.Song, M.H.Kang, Y.-H.Lee and S.-S.Cha
Expression at 279 K, Purification, Crystallization and Preliminary X-Ray Crystallographic Analysis of a Novel Cold-Active β-1,4-D-Mannanase from the Antarctic Springtail *Cryptopygus antarcticus*
Acta Cryst. F, **69** (2013) 1007.

S.-S.Cha, Y.J.An, C.-S.Jeong, M.-K.Kim, J.H.Jeon, C.-M.Lee, H.S.Lee, S.G.Kang and J.-H.Lee
Structural Basis for the β-Lactamase Activity of EstU1, a Family VIII Carboxylesterase
Proteins, **81** (2013) 2045.

M.-K.Kim, Y.J.An and S.-S.Cha
The Crystal Structure of a Novel Phosphopantothenate Synthetase from the Hyperthermophilic Archaea, *Thermococcus onnurineus* NA1
Biochemical and Biophysical Research Communications, **439** (2013) 533.

T.Ohnuma, N.Umemoto, T.Taira, T.Fukamizo and T.Numata
Crystallization and Preliminary X-Ray Diffraction Analysis of an Active-Site Mutant of 'Loopless' Family GH19 Chitinase from *Bryum coronatum* in a Complex with Chitotetraose
Acta Cryst. F, **69** (2013) 1360.

T.Ohnuma, N.Umemoto, K.Kondo, T.Numata and T.Fukamizo
Complete Subsite Mapping of a Loopful GH19 Chitinase from Rye Seedsbased on its Crystal Structure
FEBS Letters, **587** (2013) 2691.

M.Ogata, N.Umemoto, T.Ohnuma, T.Numata, A.Suzuki, T.Usui and T.Fukamizo
A Novel Transition-State Analogue for Lysozyme, 4-O-β-Tri-*N*-Acetylchitotriosyl Moranoline, Provided Evidence Supporting the Covalent Glycosyl-Enzyme Intermediate
J. Biol. Chem., **288** (2013) 6072.

S.Hu, S.Liang, H.Guo, D.Zhang, H.Li, X.Wang, W.Yang, W.Qian, S.Hou, H.Wang, Y.Guo and Z.Lou
Comparison of the Inhibition Mechanisms of Adalimumab and Infliximab in Treating Tumor Necrosis Factor α-Associated Diseases from a Molecular View
J. Biol. Chem., **288** (2013) 27059.

S.Liang, J.Dai, S.Hou, L.Su, D.Zhang, H.Guo, S.Hu, H.Wang, Z.Rao, Y.Guo and Z.Lou
Structural Basis for Treating Tumor Necrosis Factor α (TNFα)-Associated Diseases with the Therapeuic Antibody Infliximab
J. Biol. Chem., **288** (2013) 13799.

18A

A.Tosaka, I.Mochizuki, R.Negishi and Y.Shigeta
Strain Induced Intermixing of Ge Atoms in Si Epitaxial Layer on Ge(111)
J. Appl. Phys., **113** (2013) 073511.

R.Friedlein, A.Fleurence, J.T.Sadowski and Y.Yamada-Takamura
Tuning of Silicene-Substrate Interactions with Potassium Adsorption
Appl. Phys. Lett., **102** (2013) 221603.

18B

S.Chandran, J.K.Basu and M.K.Mukhopadhyay
Variation in Glass Transition Temperature of Polymer Nanocomposite Films Driven by Morphological Transitions
J. Chem. Phys., **138** (2013) 014902.

U.Subbarao, A.Sebastian, S.Rayaprol, C.S.Yadav, A.Svane, G.Vaitheeswaran and S.C.Peter
Metal Flux Crystal Growth Technique in the Determination of Ordered Superstructure in EuInGe
Crystal Growth and Design, **13** (2013) 352.

H.-S.Youn, M.-K.Kim, G.B.Kang, T.G.Ki, J.-G.Lee, J.Y.An, K.R.Park, Y.Lee, J.Y.Kang, H.-E.Song, I.Park, C.Cho, S.Fukuoka, S.H.Eom
Crystal Structure of *Sus scrofa* Quinolinate Phosphoribosyltransferase in Complex with Nicotinate Mononucleotide
PLoS ONE, **8** (2013) e62027.

S.Fushinobu, V.D.Alves and P.M.Coutinho
Multiple Rewards from a Treasure Trove of Novel Glycoside Hydrolase and Polysaccharide Lyase Structures: New Folds, Mechanistic Details, and Evolutionary Relationships
Curr. Opin. Struct. Biol., **23** (2013) 652.

Z.Fujimoto
Structure and Function of Carbohydrate-Binding Module Families 13 and 42 of Glycoside Hydrolases, Comprising a β-Trefoil Fold
Biosci. Biotechnol. Biochem., **77** (2013) 1363.

S.Gayen, M.K.Sanyal, B.Satpati, A.Rahman
Diameter-Dependent Coercivity of Cobalt Nanowires
Appl. Phys. A, **112** (2013) 775.

K.Malik, D.Das, S.Bandyopadhyay, P.Mandal, A.K.Deb, V.Srihari and A.Banerjee
Temperature-Dependent Structural Property and Power Factor of n Type Thermoelectric $Bi_{0.90}Sb_{0.10}$ and $Bi_{0.86}Sb_{0.14}$ Alloys
Appl. Phys. Lett., **103** (2013) 242108.

D.Maiti, U.Manju, S.Velaga and P.S.Devi
Phase Evolution and Growth of Iron Oxide Nanoparticles: Effect of Hydrazine Addition during Sonication
Appl. Catal. B, **13** (2013) 3637.

S.M.Amir, M.Gupta, S.Potdar, A.Gupta and J.Stahn
Study of Surfactant Mediated Growth of Ni/V Superlattices
J. Appl. Phys., **114** (2013) 024307.

18C

Y.Yoshimura, H.Abe, Y.Imai, T.Takekiyo and N.Hamaya
Decompression-Induced Crystal Polymorphism in a Room-Temperature Ionic Liquid, *N*,*N*-Diethyl-*N*-Methyl-*N*-(2-methoxyethyl) Ammonium Tetrafluoroborate
J. Phys. Chem. B, **117** (2013) 3264.

T.Sato, H.Takada, T.Yagi, H.Gotou, T.Okada, D.Wakabayashi and N.Funamori
Anomalous Behavior of Cristobalite in Helium under High Pressure
Phys. Chem. Minerals, **40** (2013) 3.

T.Matsushita, Y.Ishii and S.Kawasaki
Sodium Ion Battery Anode Properties of Empty and C_{60}-Inserted Single-Walled Carbon Nanotubes
Materials Express, **3** (2013) 30.

H.Song, Y.Ishii, A.Al-Zubaidi, T.Sakai and S.Kawasaki
Temperature-Dependent Water Solubility of Iodine-Doped Single-Walled Carbon Nanotubes Prepared using an Electrochemical Method
Phys. Chem. Chem. Phys., **15** (2013) 5767.

Y.Yoshimura, H.Abe, T.Takekiyo, M.Shigemi, N.Hamaya, R.Wada and M.Kato
Superpressing of a Room Temperature Ionic Liquid, 1-Ethyl-3-Methylimidazolium Tetrafluoroborate
J. Phys. Chem. B, **117** (2013) 12296.

T.Sato, N.Funamori and T.Yagi
Differential Strain and Residual Anisotropy in Silica Glass
J. Appl. Phys., **114** (2013) 103509.

A.Shinozaki, H.Hirai, H.Ohfuji, T.Okada, S.Machida and T.Yagi
Influence of H_2 Fluid on the Stability and Dissolution of Mg_2SiO_4 Forsterite under High Pressure and High Temperature
American Mineralogist, **98** (2013) 1604.

T.Tanaka, H.Hirai, T.Matsuoka, Y.Ohishi, T.Yagi, M.Ohtake, Y.Yamamoto, S.Nakano and T.Irifune
Phase Changes of Filled Ice Ih Methane Hydrate under Low Temperature and High Pressure
J. Chem. Phys., **139** (2013) 104701.

19A

T.Kinoshita, K.Arai, K.Fukumoto, T.Ohkochi, M.Kotsugi, F.Guo, T.Muro, T.Nakamura, H.Osawa, T.Matsushita and T.Okuda
Observation of Micro-Magnetic Structures by Synchrotron Radiation Photoelectron Emission Microscopy
J. Phys. Soc. Jpn., **82** (2013) 021005.

K.Yaji, I.Mochizuki, S.Kim, Y.Takeichi, A.Harasawa, Y.Ohtsubo, P.Le F‘evre, F.Bertran, A.Taleb-Ibrahimi, A.Kakizaki and F.Komori
Fermi Gas Behavior of a One-Dimensional Metallic Band of Pt-Induced Nanowires on Ge(001)
Phys. Rev. B, **87** (2013) 241413.

19B

T.Hayashi, H.Shibata, S.Orita and T.Akitsu
Variety of Structures of Binuclear Chiral Schiff Base Ce(III)/Pr(III)/Lu(III)-Ni(II)/Cu(II)/Zn(II) Complexes
Eur. Chem. Bull., **2** (2013) 49.

N.Hayashi and T.Akitsu
Anisotropic Thermally-Accessible Lattice Distortion of a Cu(II)-Cr(VI) Complex Bimetallic Oxide by Adsorbing a Chiral One-Dimensional Cu(II)-Cr(VI) Coordination Polymer
J. Chem. Chem. Eng., **7** (2013) 306.

T.Tsuchiya, S.Miyoshi, Y.Yamashita, H.Yoshikawa, K.Terabe, K.Kobayashi and S.Yamaguchi
Room Temperature Redox Reaction by Oxide Ion Migration at Carbon/Gd-Doped CeO_2 Heterointerface Probed by an *in situ* Hard X-Ray Photoemission and Soft X-Ray Absorption Spectroscopies
Sci. Technol. Adv. Mater., **14** (2013) 045001.

20A

Y.Kumagai, T.Odagiri, M.Nakano, T.Tanabe, I.H.Suzuki, K.Hosaka, M.Kitajima and N.Kouchi
Cross Sections for the Formation of H($n = 2$) Atom via Superexcited States in Photoexcitation of Methane and Ammonia
J. Chem. Phys., **139** (2013) 164307.

20B

L.E.Wedlock, J.B.Aitken, S.J.Berners-Price and P.J.Barnard
Bromide Ion Binding by a Dinuclear Gold(I) *N*-Heterocyclic Carbene Complex: a Spectrofluorescence and X-Ray Absorption Spectroscopic Study
Dalton Trans., **42** (2013) 1259.

B.Tooth, B.Etschmann, G.S.Pokrovski, D.Testemale, J.L.Hazemann, P.V.Grundler and J.Brugger
Bismuth Speciation in Hydrothermal Fluids: An X-Ray Absorption Spectroscopy and Solubility Study
Geochim. Cosmochim. Acta, **101** (2013) 156.

EM.Likosova, RN.Collins, J.Keller and S.Freguia
Anodic Reactivity of Ferrous Sulfide Precipitates Changing over Time due to Particulate Speciation
Environ. Sci. Technol., **47** (2013) 12366.

R.He, R.K.Hocking and T.Tsuzuki
Local Structure and Photocatalytic Property of Mechanochemical Synthesized ZnO Doped with Transition Metal Oxides
Journal of the Australian Ceramic Society, **49** (2013) 76.

D.P.Anderson, R.H.Adnan, J.F.Alvino, O.Shipper, B.Donoeva, J.-Y.Ruzicka, H.A.Qahtani, H.H.Harris, B.Cowie, J.B.Aitken, V.B.Golovko, G.F.Metha and G.G.Andersson
Chemically Synthesised Atomically Precise Gold Clusters Deposited and Activated on Titania. Part II
Phys. Chem. Chem. Phys., **15** (2013) 14806.

R.Tian, R.Donelson, C.D.Ling, P.E.R.Blanchard, T.Zhang, D.Chu, T.T.Tan and S.Li
Ga Substitution and Oxygen Diffusion Kinetics in $Ca_3Co_4O_{9+\delta}$-Based Thermoelectric Oxides
J. Phys. Chem. C, **117** (2013) 13382.

LE.Wedlock, JB.Aitken, SJ.Berners-Price and PJ.Barnard
Bromide Ion Binding by a Dinuclear Gold(I) N-Heterocyclic Carbene Complex: a Spectrofluorescence and X-Ray Absorption Spectroscopic Study
Dalton Transactions, **42** (2013) 1259.

T.D.Keene, D.Rankine, J.D.Evans, P.D.Southon, C.J.Kepert, J.B.Aitken, C.J.Sumby and C.J.Doonan
Solvent-Modified Dynamic Porosity in Chiral 3D Kagome Frameworks
Dalton Transactions, **42** (2013) 7871.

M.Fekete, R.K.Hocking, S.L.Y.Chang, C.Italiano, A.F.Patti, F.Arena and L.Spiccia
Highly Active Screen-Printed Electrocatalysts for Water Oxidation Based on β-Manganese Oxide
Energy Environ. Sci., **6** (2013) 2222.

C.K.J.Chen, J.Z.Zhang, J.B.Aitken and T.W.Hambley
Influence of Equatorial and Axial Carboxylato Ligands on the Kinetic Inertness of Platinum(IV) Complexes in the Presence of Ascorbate and Cysteine and within DLD-1 Cancer Cells
J. Med. Chem., **56** (2013) 8757.

Y.Yang, W.Liu and M.Chen
A Copper and Iron *K*-Edge XANES Study on Chalcopyrite Leached by Mesophiles and Moderate Thermophiles
Minerals Engineering, **48** (2013) 31.

27A

Y.Baba, T.Sekiguchi, I.Shimoyama and N.Hirao
Electronic Structures of Silicon Monoxide Film Probed by X-Ray Absorption Spectroscopy
Surf. Sci., **612** (2013) 77.

R.Shinoda, M.Itou, Y.Sakurai, H.Yamamoto, N.Hirao, Y.Baba, A.Iwase and T.Matsui
Magnetic Compton Scattering Studies of Magneto-Dielectric $Ba(Co_{0.85}Mn_{0.15})O_{3-\delta}$
J. Appl. Phys., **113** (2013) 17E307.

Md.A.Mannan, Y.Baba, N.Hirao, T.Kida, M.Nagano and H.Noguchi
Hexagonal Nano-Crystalline BCN Films Grown on Si (100) Substrate Studied by X-Ray Absorption Spectroscopy
Mater. Sci. Appl., **4** (2013) 11.

M.Honda, M.Yanagida and L.Han
Effect of Co-Adsorption Dye on the Electrode Interface (Ru Complex/TiO_2) of Dye-Sensitized Solar Cells
AIP Advances, **3** (2013) 072113.

M.Honda, M.Yanagida, L.Han and K.Miyano
X-Ray Characterization of Dye Adsorption in Coadsorbed Dye-Sensitized Solar Cells
J. Phys. Chem. C, **117** (2013) 17033.

S.Ishiyama, Y.Baba, R.Fujii, M.Nakamura and Y.Imahori
Direct Synthesis of Li_3N Thin Layer on Lithium Target Surface for BNCT in N_2 Gaseous Conditions
Materials Transactions, **54** (2013) 1765.

S.Ishiyama, Y.Baba, R.Fujii, M.Nakamura and Y.Imahori
Thermal Stability of BNCT Neutron Production Target Synthesized *In-Situ* Lithium Deposition and Ion Implantation
Materials Transactions, **54** (2013) 1760.

27B

N.Autsavapromporn, M.Suzuki, T.Funayama, N.Usami, I.Plante, Y.Yokota, Y.Mutou, H.Ikeda, K.Kobayashi, Y.Kobayashi, Y.Uchihori, T.K.Hei, E.I.Azzam and T.Murakami
Gap Junction Communication and the Propagation of Bystander Effects Induced by Microbeams Irradiation in Human Fibroblast Cultures: The Impact of Radiation Quality
Radiation Research, **180** (2013) 367.

M.Maeda, K.Kobayashi, H.Matsumoto, N.Usami and M.Tomita
X-Ray-Induced Bystander Responses Reduce Spontaneous Mutations in V79 Cells
J. Radiat. Res., **54** (2013) 1043.

T.Ozaki, X.Wang and T.Ohnuki
Manganese and Arsenic Oxidation Performance of Bacterium-Yunotaki 86(BY86) from Hokkaido, Japan, and the Bacterium's Phylogeny
Geomicrobiol. J., **30** (2013) 559.

28A

T.Kinoshita, K.Arai, K.Fukumoto, T.Ohkochi, M.Kotsugi, F.Guo, T.Muro, T.Nakamura, H.Osawa, T.Matsushita and T.Okuda
Observation of Micro-Magnetic Structures by Synchrotron Radiation Photoelectron Emission Microscopy
J. Phys. Soc. Jpn., **82** (2013) 021005.

S.Ideta, T.Yoshida, I.Nishi, A.Fujimori, Y.Kotani, K.Ono, Y.Nakashima, S.Yamaichi, T.Sasagawa, M.Nakajima, K.Kihou, Y.Tomioka, C.H.Lee, A.Iyo, H.Eisaki, T.Ito, S.Uchida and R.Arita
Dependence of Carrier Doping on the Impurity Potential in Transition-Metal-Substituted FeAs-Based Superconductors
Phys. Rev. Lett., **110** (2013) 107007.

Y.Tanaka, T.Sato, K.Nakayama, S.Souma, T.Takahashi, Z.Ren, M.Novak, K.Segawa and Y.Ando
Tunability of the k-Space Location of the Dirac Cones in the Topological Crystalline Insulator $Pb_{1-x}Sn_xTe$
Phys. Rev. B, **87** (2013) 155105.

T.Okuda, R.Kajimoto, M.Okawa and T.Saitoh
Effects of Hole-Doping and Disorder on the Magnetic States of Delafossite $CuCrO_2$ Having a Spin-3/2 Antiferromagnetic Triangular Sublattice
Int. J. Mod. Phys. B, **27** (2013) 1330002.

S.Ideta, T.Yoshida, M.Nakajima, W.Malaeb, T.Shimojima, K.Ishizaka, A.Fujimori, H.Kumigashira, K.Ono, K.Kihou, Y.Tomioka, C.H.Lee, A.Iyo, H.Eisaki, T.Ito and S.Uchida
Effects of Zn Substitution on the Electronic Structure of $BaFe_2As_2$ Revealed by Angle-Resolved Photoemission Spectroscopy
Phys. Rev. B, **87** (2013) 201110.

T.Yokobori, M.Okawa, K.Konishi, R.Takei, K.Katayama, S.Oozono, T.Shinmura, T.Okuda, H.Wadati, E.Sakai, K.Ono, H.Kumigashira, M.Oshima, T.Sugiyama, E.Ikenaga, N.Hamada and T.Saitoh
Electronic Structure of Hole-Doped Delafossite Oxides $CuCr_{1-x}Mg_xO_2$
Phys. Rev. B, **87** (2013) 195124.

K.Tsubota, T.Wakita, H.Nagao, C.Hiramatsu, T.Ishiga, M.Sunagawa, K.Ono, H.Kumigashira, M.Danura, K.Kudo, M.Nohara, Y.Muraoka and T.Yokoya
Collapsed Tetragonal Phase Transition of $Ca(Fe_{1-x}Rh_x)_2As_2$ Studied by Photoemission Spectroscopy
J. Phys. Soc. Jpn., **82** (2013) 073705.

K.Yoshimatsu, E.Sakai, M.Kobayashi, K.Horiba, T.Yoshida, A.Fujimori, M.Oshima and H.Kumigashira
Determination of the Surface and Interface Phase Shifts in Metallic Quantum Well Structures of Perovskite Oxides
Phys. Rev. B, **88** (2013) 115308.

H.Suzuki, T.Yoshida, S.Ideta, G.Shibata, K.Ishigami, T.Kadono, A.Fujimori, M.Hashimoto, D.H.Lu, Z.-X.Shen, K.Ono, E.Sakai, H.Kumigashira, M.Matsuo and T.Sasagawa
Absence of Superconductivity in the Hole-Doped Fe Pnictide $Ba(Fe_{1-x}Mn_x)_2As_2$: Photoemission and X-Ray Absorption Spectroscopy Studies
Phys. Rev. B, **88** (2013) 100501.

T.Sato, Y.Tanaka, K.Nakayama, S.Souma, T.Takahashi, S.Sasaki, Z.Ren, A.A.Taskin, K.Segawa and Y.Ando
Fermiology of the Strongly Spin-Orbit Coupled Superconductor $Sn_{1-x}In_xTe$: Implications for Topological Superconductivity
Phys. Rev. Lett., **110** (2013) 206804.

Y.Tanaka, T.Shoman, K.Nakayama, S.Souma, T.Sato, T.Takahashi, M.Novak, K.Segawa and Y.Ando
Two Types of Dirac-Cone Surface States on the (111) Surface of the Topological Crystalline Insulator SnTe
Phys. Rev. B, **88** (2013) 235126.

M.Sakano, M.S.Bahramy, A.Katayama, T.Shimojima, H.Murakawa, Y.Kaneko, W.Malaeb, S.Shin, K.Ono, H.Kumigashira, R.Arita, N.Nagaosa, H.Y.Hwang, Y.Tokura and K.Ishizaka
Strongly Spin-Orbit Coupled Two-Dimensional Electron Gas Emerging near the Surface of Polar Semiconductors
Phys. Rev. Lett., **110** (2013) 107204.

NE1A

S.Ono
Equation of State and Elasticity of B2-Type FeSi: Implications for Silicon in the Inner Core
Phys. Earth Planet. Inter., **224** (2013) 32.

R.Iizuka, T.Yagi, K.Komatsu, H.Gotou, T.Tsuchiya, K.Kusaba and H.Kagi
Crystal Structure of the High-Pressure Phase of Calcium Hydroxide, Portlandite: In Situ Powder and Single-Crystal X-Ray Diffraction Study
American Mineralogist, **98** (2013) 1421.

D.Nishio-Hamane, N.Tomita, T.Minakawa and S.Inaba
Iseite, $Mn_2Mo_3O_8$, a New Mineral from Ise, Mie Prefecture, Japan
Journal of Mineralogical and Petrological Sciences, **108** (2013) 37.

M.Ohnishi, N.Shimobayashi, D.Nishio-Hamane, K.Shinoda, K.Momma and T.Ikeda
Minohlite, a New Copper-Zinc Sulfate Mineral from Minoh, Osaka, Japan
Mineralogical Magazine, **77** (2013) 335.

D.Nishio-Hamane, T.Minakawa and Y.Ohgoshi
Takanawaite-(Y), a New Mineral of the *M*-Type Polymorph with $Y(Ta,Nb)O_4$ from Takanawa Mountain, Ehime Prefecture, Japan
Journal of Mineralogical and Petrological Sciences, **108** (2013) 335.

K.Niwa, T.Tanaka, M.Hasegawa, T.Okada, T.Yagi and K.Kikegawa
Pressure-Induced Noble Gas Insertion into Linde-Type A Zeolite and its Incompressible Behaviors at High Pressure
Micropor. Mesopor. Mater., **182** (2013) 191.

NE3A

K.Yoneda, H.Sakuraba, T.Araki, T.Shibata, T.Nikki, and T.Ohshima
Crystallization and Preliminary X-Ray Analysis of L-Serine 3-Dehydrogenase Complexed with $NADP^+$ from the Hyperthermophilic Archaeon *Pyrobaculum calidifontis*
Acta Cryst. F, **69** (2013) 134.

S.Arai, S.Saijo, K.Suzuki, K.Mizutani, Y.Kakinuma, Y.Ishizuka-Katsura, N.Ohsawa, T.Terada, M.Shirouzu, S.Yokoyama, S.Iwata, I.Yamato and T.Murata
Rotation Mechanism of *Enterococcus hirae* V_1-ATPase Based on Asymmetric Crystal Structures
Nature, **493** (2013) 703.

H.Tanji, U.Ohto, T.Shibata, K.Miyake and T.Shimizu
Structural Reorganization of the Toll-Like Receptor 8 Dimer Induced by Agonistic Ligands
Science, **339** (2013) 1426.

Y.Murayama, S.Sekine and S.Yokoyama
Crystallization and Preliminary X-Ray Crystallographic Analyses of *Thermus thermophilus* Backtracked RNA Polymerase
Acta Cryst. F, **69** (2013) 174.

J.Otani, K.Arita, T.Kato, M.Kinoshita, H.Kimura, I.Suetake, S.Tajima, M.Ariyoshi and M.Shirakawa
Structural Basis of the Versatile DNA Recognition Ability of the Methyl-CpG Binding Domain of Methyl-CpG Binding Domain Protein 4
J. Biol. Chem., **288** (2013) 6351.

H.S.Kim, J.Kim, H.N.Im, J.Y.Yoon, D.R.An, H.J.Yoon, J.Y.Kim, H.K.Min, S.J.Kim, J.Y.Lee, B.W.Han, and S.W.Suh
Structural Basis for the Inhibition of *Mycobacterium tuberculosis* L,D-Transpeptidase by Meropenem, a Drug Effective against Extensively Drug-Resistant Strains
Acta Cryst. D, **69** (2013) 420.

Z.Fujimoto, R.Suzuki, T.Shiotsuki, W.Tsuchiya, A.Tase, M.Momma and T.Yamazaki
Crystal Structure of Silkworm *Bombyx mori* JHBP in Complex with 2-Methyl-2,4-Pentanediol: Plasticity of JH-Binding Pocket and Ligand-Induced Conformational Change of the Second Cavity in JHBP
PLoS One, **8** (2013) e56261.

T.Ouchi, T.Tomita, A.Horie, A.Yoshida, K.Takahashi, H.Nishida, K.Lassak, H.Taka, R.Mineki, T.Fujimura, S.Kosono, C.Nishiyama, R.Masui, S.Kuramitsu, S.-V.Albers, T.Kuzuyama and M.Nishiyama
Lysine and Arginine Biosyntheses Mediated by a Common Carrier Protein in *Sulfolobus*
Nature Chemical Biology, **9** (2013) 277.

Q.Zhang, , S.Qi, M.Xu, L.Yu, Y.Tao, Z.Deng, W.Wu, J.Li, Z.Chen and J.Wong
Structure-Function Analysis Reveals a Novel Mechanism for Regulation of Histone Demethylase LSD2/AOF1/KDM1b
Cell Res., **23** (2013) 225.

T.Miyafusa, J.M.M.Caaveiro, Y.Tanaka, M.E.Tanner and K.Tsumoto
Crystal Structure of the Capsular Polysaccharide Synthesizing Protein CapE of *Staphylococcus aureus*
Biosci. Rep., **33** (2013) 463.

N.T.Vu, Y.Moriwaki, J.M.M.Caaveiro, T.Terada, H.Tsutsumi, I.Hamachi, K.Shimizu and K.Tsumoto
Selective Binding of Antimicrobial Porphyrins to the Heme-Receptor IsdH-NEAT3 of *Staphylococcus aureus*
Protein Science, **22** (2013) 942.

Y.Chiba, S.Horita, J.Ohtsuka, H.Arai, K.Nagata, Y.Igarashi, M.Tanokura and M.Ishii
Structural Units Important for Activity of a Novel-Type Phosphoserine Phosphatase from *Hydrogenobacter thermophilus* TK-6 Revealed by Crystal Structure Analysis
J. Biol. Chem., **288** (2013) 11448.

T.Miyazaki, A.Nishikawa and T.Tonozuka
Novel Findings of the Structure and Substrate Specificity of Glucosidases Belonging to Glycoside Hydrolase Family 63
Oyo Toshitsu Kagaku, **3** (2013) 151. (*in Japanese*).

T.Arimori, N.Kawamoto, S.Shinya, N.Okazaki, M.Nakazawa, K.Miyatake, T.Fukamizo, M.Ueda and T.Tamada
Crystal Structures of the Catalytic Domain of a Novel Glycohydrolase Family 23 Chitinase from *Ralstonia* sp. A-471 Reveals a Unique Arrangement of the Catalytic Residues for Inverting Chitin Hydrolysis
J. Biol. Chem., **288** (2013) 18696.

Y.Nagamatsu, K.Takeda, T.Kuranaga, N.Numoto and K.Miki
Origin of Asymmetry on the Intersubunit Interfaces of V_1-ATPase from *Thermus thermophilus*
J. Mol. Biol., **425** (2013) 2699.

Y.Nishitani, R.Aono, A.Nakamura, T.Sato, H.Atomi, T.Imanaka and K.Miki
Structure Analysis of Archaeal AMP Phosphorylase Reveals Two Unique Modes of Dimerization
J. Mol. Biol., **425** (2013) 2709.

J.-H.Liao, K.Ihara, C.-I.Kuo, K.-F.Huang, S.Wakatsuki, S.-H.Wu and C.-I.Chang
Structures of an ATP-Independent Lon-Like Protease and its Complexes with Covalent Inhibitors
Acta Cryst. D, **69** (2013) 1395.

G.Lu, Y.Hu, Q.Wang, J.Qi, F.Gao, Y.Li, Y.Zhang, W.Zhang, Y.Yuan, J.Bao, B.Zhang, Y.Shi, J.Yan and G.F.Gao
Molecular Basis of Binding between Novel Human Coronavirus MERS-CoV and its Receptor CD26
Nature, **500** (2013) 227.

T.Hirose, N.Maita, H.Gouda, J.Koseki, T.Yamamoto, A.Sugawara, H.Nakano, S.Hirono, K.Shiomi, T.Watanabe, H.Taniguchi, K.B.Sharpless, S.Omura and T.Sunazuka
Observation of the Controlled Assembly of Preclick Components in the in situ Click Chemistry Generation of a Chitinase Inhibitor
Proc. Natl. Acad. Sci. USA, **110** (2013) 15892.

T.Kinoshita, T.Nakaniwa, Y.Sekiguchi, Y.Sogabe, A.Sakurai, S.Nakamura and I.Nakanishi
Crystal Structure of Human CK2α at 1.06 ÅResolution
J. Synchrotron Rad., **20** (2013) 974.

A.Nakamura, T.Ishida, S.Fushinobu, K.Kusaka, I.Tanaka, K.Inaka, Y.Higuchi, M.Masaki, K.Ohta, S.Kaneko, N.Niimura, K.Igarashi and M.Samajima
Phase-Diagram-Guided Method for Growth of a Large Crystal of Glycoside Hydrolase Family 45 Inverting Cellulase Suitable for Neutron Structural Analysis
J. Synchrotron Rad., **20** (2013) 859.

S.Fushinobu, V.D.Alves and P.M.Coutinho
Multiple Rewards from a Treasure Trove of Novel Glycoside Hydrolase and Polysaccharide Lyase Structures: New Folds, Mechanistic Details, and Evolutionary Relationships
Curr. Opin. Struct. Biol., **23** (2013) 652.

K.Suzuki, J.Sumitani, Y-W.Nam, T.Nishimaki, S.Tani, T.Wakagi, T.Kawaguchi and S.Fushinobu
Crystal Structures of Glycoside Hydrolase Family 3 β-Glucosidase 1 from *Aspergillus aculeatus*
Biochem. J., **452** (2013) 211.

H.Nakamura, Y.L.Xue, T.Miyakawa, F.Hou, H.M.Qin, K.Fukui, X.Shi, E.Ito, S.Ito, S.H.Park, Y.Miyauchi, A.Asano, N.Totsuka, T.Ueda, M.Tanokura and T.Asami
Molecular Mechanism of Strigolactone Perception by DWARF14
Nature Commun., **4** (2013) 3613.

Y.Yasutake, T.Nishioka, N.Imoto and T.Tamura
A Single Mutation at the Ferredoxin Binding Site of P450 Vdh Enables Efficient Biocatalytic Production of 25-Hydroxyvitamin D_3
ChemBioChem, **14** (2013) 2284.

Y.Kanemaru, F.Hasebe, T.Tomita, T.Kuzuyama and M.Nishiyama
Two ATP-Binding Cassette Transporters Involved in (*S*)-2-Aminoethyl-Cysteine Uptake in *Thermus thermophilus*
J. Bacteriology, **195** (2013) 3845.

X.Zhang, L.Jiang, G.Wang, L.Yu, Q.Zhang, Q.Xin, W.Wu, Z.Gong and Z.Chen
Structural Insights into the Abscisic Acid Stereospecificity by the ABA Receptors PYR/PYL/RCAR
PLOS ONE, **8** (2013) e67477.

P.Zhou, Z.Chen, Q.Yan, S.Yang, R.Hilgenfeld and Z.Jiang
The Structure of a Glycoside Hydrolase Family 81 Endo-β-1, 3-Glucanase
Acta Cryst. D, **69** (2013) 2027.

X.Chu, X.Qin, H.Xu, L.Li, Z.Wang, F.Li, X.Xie, H.Zhou, Y.Shen and J.Long
Structural Insights into Paf1 Complex Assembly and Histone Binding
Nucleic Acids Research, **41** (2013) 10619.

B.Cui, X.Yang, S.Li, Z.Lin, Z.Wang, C.Dong and Y.Shen
The Inhibitory Helix Controls the Intramolecular Conformational Switching of the C-Terminus of STIM1
PLoS ONE, **8** (2013) e74735.

S.Aizawa, M.Senda, A.Harada, N.Maruyama, T.Ishida, T.Aigaki, A.Ishigami and T.Senda
Structural Basis of the γ-Lactone-Ring Formation in Ascorbic Acid Biosynthesis by the Senescence Marker Protein-30/Gluconolactonase
PLoS One, **8** (2013) e53706.

S.-Y.Jun, J.-S.Kim, K.-H.Choi, J.Cha and N.-C.Ha
Structure of a Novel α-Amylase AmyB from *Thermotoga neapolitana* that Produces Maltose from the Nonreducing End of Polysaccharides
Acta Cryst. D, **69** (2013) 442.

K.Harris, Q.-F.Sun, S.Sato and M.Fujita
$M_{12}L_{24}$ Spheres with Endo and Exo Coordination Sites: Scaffolds for Non-Covalent Functionalization
J. Am. Chem. Soc., **135** (2013) 12497.

H.Tanji, U.Ohto and T.Shimizu
Crystal Structures of Innate Immune RNA Receptor TLR8
J. Cryst. Soc. Jpn., **55** (2013) 285. (*in Japanese*).

NE5C

Y.Mori, Y.Kaihara, S.Nakamura, T.Yoshino and K.Takarabe
High-Pressure X-Ray Diffraction Study and Thermoelectric Measurements of Mg_2Si
Phys. Status Solidi C, **10** (2013) 1847.

NE7A

T.Matsushita, E.Arakawa, W.Voegeli and Y.F.Yano
A Simultaneous Multiple Angle-Wavelength Dispersive X-Ray Reflectometer Using a Bent-Twisted Polychromator Crystal
J. Synchrotron Rad., **20** (2013) 80.

E.Arakawa, W.Voegeli, T.Matsushita, Y.F.Yano and T.Hatano
Quick X-Ray Reflectometry in the Simultaneous Multiple Angle-Wavelength Dispersive Mode
J. Phys.: Conf. Ser., **425** (2013) 092002.

W.Voegeli, T.Matsushita, E.Arakawa, T.Shirasawa, T.Takahashi and Y.F.Yano
A Method for Measuring the Specular X-Ray Reflectivity with Millisecond Time Resolution
J. Phys.: Conf. Ser., **425** (2013) 092003.

H.Ito, S.Matsushita, K.Hyodo, Y.Sato and Y.Sakakibara
Using Synchrotron Radiation Angiography with a Highly Sensitive Detector to Identify Impaired Peripheral Perfusion in Rat Pulmonary Emphysema
J. Synchrotron Rad., **20** (2013) 376.

N.Yahaba, M.Koshimizu, T.Yanagida, Y.Fujimoto, R.Haruki, F.Nishikido, S.Kishimoto and K.Asai
X-Ray Detection Capability and Luminescence Property of Cs_2ZnCl_4 Single Crystal Scintillators
Houshasen Kagaku, **95** (2013) 27. (*in Japanese*).

M.Koshimizu, T.Yanagida, Y.Fujimoto, A.Yamazaki, K.Watanabe, A.Uritani, K.Fukuda, N.Kawaguchi, S.Kishimoto and K.Asai
Origin of Fast Scintillation Components of $LiCaAlF_6$ Crystals
Appl. Phys. Express, **6** (2013) 062601.

N.Sunaguchi, T.Yuasa, K.Hyodo and T.Zeniya
Fluorescent X-Ray Computed Tomography using the Pinhole Effect for Biomedical Applications
Optics Commun., **297** (2013) 210.

A.E.Gleason, C.E.Quiroga, A.Suzuki, R.Pentcheva and W.L.Mao
Symmetrization Driven Spin Transition in ϵ-FeOOH at High Pressure
Earth and Planetary Sci. Lett., **379** (2013) 49.

Y.F.Yano, E.Arakawa, W.Voegeli and T.Matsushita
Real-Time Investigation of Protein Unfolding at an Air-Water Interface at the 1 s Time Scale
J. Synchrotron Rad., **20** (2013) 980.

K.Sasaki, S.Matsushita, F.Sato, C.Tokunaga, K.Hyodo and Y.Sakakibara
Cardiac Sympathetic Activity Assessed by Heart Rate Variability Indicates Myocardial Ischemia on Cold Exposure in Diabetes
Ann. Vasc. Dis., **6** (2013) 583.

S.Ono, T.Kikegawa and Y.Higo
In Situ Observation of a Phase Transition in Fe_2SiO_4 at High Pressure and High Temperature
Phys. Chem. Minerals, **40** (2013) 811.

A.Suzuki
Compression Behavior of Manganite
Journal of Mineralogical and Petrological Sciences, **108** (2013) 295.

NW2A

M.Tada
Hard X-Ray Time-Resolved/Space-Resolved X-Ray Absorption Fine Structure Analysis for Heterogeneous Metal Catalysts
J. Phys. Soc. Jpn., **82** (2013) 021013.

S.Yamashita, M.Katayama and Y.Inada
Reduction Kinetics of Nickel Species Supported on Silica
J. Phys., Conf. Ser., **430** (2013) 012051.

M.Katayama, Y.Niwa, K.Doi, S.Yamashita and Y.Inada
Kinetic Study of Reduction Reaction for Supported PdO Species by Means of Dispersive XAFS Method
J. Phys., Conf. Ser., **430** (2013) 012053.

W.Voegeli, T.Matsushita, E.Arakawa, T.Shirasawa, T.Takahashi and Y.F.Yano
A Method for Measuring the Specular X-Ray Reflectivity with Millisecond Time Resolution
J. Phys.: Conf. Ser., **425** (2013) 092003.

T.Asai, S.Otsuki, T.Taniguchi, K.Monde, K.Yamashita, H.Sakurai, T.Ozeki and Y.Oshima
Structures and Absolute Configurations of Short-Branched Fatty Acid Dimers from an Endophytic Fungus of *Aloe arborescens*
Tetrahedron Lett., **54** (2013) 3402.

D.Takahashi, K.Nakabayashi, S.Tanaka and S.Ohkoshi
Two-Dimensional Octacyano-Bridged Mn(II)-Nb(IV) Bimetal Assembly with Four Different Configurations of 3-Hydroxypyridines
Inorg. Chem. Commun., **27** (2013) 47.

T.Morimoto, C.Nishiura, M.Tanaka, J.Rohacova, Y.Nakagawa, Y.Funada, K.Koike, Y.Yamamoto, S.Shishido, T.Kojima, T.Saeki, T.Ozeki and O.Ishitani
Ring-Shaped Re(I) Multinuclear Complexes with Unique Photofunctional Properties
J. Am. Chem. Soc., **135** (2013) 13266.

H.Kitagawa, H.Ohtsu and M.Kawano
Kinetic Assembly of a Thermally Stable Porous Coordination Network Based on Labile CuI Units and the Visualization of I_2 Sorption
Angew. Chem. Int. Ed., **52** (2013) 12395.

J.-D.Compain, K.Nakabayashi and S.Ohkoshi
Multilayered Networks Built from Polyoxometalates and Cyanometalates
Polyhedron, **66** (2013) 116.

M.Kimura, Y.Niwa, K.Uemura, T.Nagai, Y.Inada and M.Nomura
In Situ and Simultaneous Observation of Palladium Redox and Oxygen Storage/Release in Pd/Sr-Fe-O Perovskite Catalysts using Dispersive XAFS
Materials Transactions, **54** (2013) 246.

T,Sawaki, T.Ishizuka, M.Kawano, Y.Shiota, K.Yoshizawa and T.Kojima
Complete Photochromic Structural Changes in Ruthenium(II)-Diimine Complexes, Based on Control of the Excited States by Metalation
Chem. Eur. J., **19** (2013) 8978.

NW10A

T.Miyanaga, Y.Suzuki, N.Matsumoto, S.Narita, T.Ainai and H.Hoshino,
Formation of Ag Clusters in Zeolite X Studied by in situ EXAFS and Infrared Spectroscopy
Microporous and Mesoporous Material, **168** (2013) 213.

M.Tada
Hard X-Ray Time-Resolved/Space-Resolved X-Ray Absorption Fine Structure Analysis for Heterogeneous Metal Catalysts
J. Phys. Soc. Jpn., **82** (2013) 021013.

Y.Izumi
Recent Advances in Photocatalytic Conversion of Carbon Dioxide into Fuels with Water and/or Hydrogen using Solar Energy and Beyond
Coordination Chem. Rev., **257** (2013) 171.

S.Sugiyama, H.Tanaka, T.Bando, K.Nakagawa, K.Sotowa, Y.Katou, T.Mori, T.Yasukawa and W.Ninomiya
Liquid-Phase Oxidation of Propylene Glycol using Heavy-Metal-Free Pd/C under Pressurized Oxygen
Catal. Today, **203** (2013) 116.

M.Nishi, T.Ohkubo, K.Tsurusaki, A.Itadani, B.Ahmmad, K.Urita, I.Moriguchi, S.Kittaka and Y.Kuroda
Highly Compressed Nanosolution Restricted in Cylindrical Carbon Nanospaces
Nanoscale, **5** (2013) 2080.

M.Katayama, Y.Niwa, K.Doi, S.Yamashita and Y.Inada
Kinetic Study of Reduction Reaction for Supported PdO Species by Means of Dispersive XAFS Method
J. Phys., Conf. Ser., **430** (2013) 012053.

N.Ichikuni, Y.Nakao, K.Ishizuki, T.Hara and S.Shimazu
Effect of Local Structure of Mo Oxide on Selective Photo-Oxidation of Propane to Acetone
Catal. Lett., **143** (2013) 154.

Y.Ohkubo, M.Shibata, S.Kageyama, S.Seino, T.Nakagawa, J.Kugai and T.A.Yamamoto
Carbon-Supported AuPd Bimetallic Nanoparticles Synthesized by High-Energy Electron Beam Irradiation for Direct Formic Acid Fuel Cell
J. Mater. Sci., **48** (2013) 2142.

J.Kugai, T.Moriya, S.Seino, T.Nakagawa, Y.Ohkubo, H.Nitani, K.Ueno and T.A.Yamamoto
Structure and Catalytic Performance of Pt-Cu Bimetallic Catalysts Synthesized by Radiation-Induced Reduction Method in Aqueous Phase: Influence of Support Material and Sulfate Ion in the Precursor
J. Phys. Chem. C, **117** (2013) 5742.

J.Kugai, T.Moriya, S.Seino, T.Nakagawa, Y.Ohkubo, H.Nitani and T.A.Yamamoto
Comparison of Sructure and Catalytic Performance of Pt-Co and Pt-Cu Bimetallic Catalysts Supported in Al_2O_3 and CeO_2 Synthesized by Electron Beam Irradiation Method for Preferential CO Oxidation
Int. J. Hydrogen Energy, **38** (2013) 4456.

J.Kugai, T.Moriya, S.Seino, T.Nakagawa, Y.Ohkubo, H.Nitani and T.A.Yamamoto
Effect of CeO_2 Support Properties on Structure of Pt-Cu Nanoparticles Synthesized by Electron Beam Irradiation Method for Preferential CO Oxidation
Chem. Eng. J., **223** (2013) 347.

Y.J.Li, I.Nakai, Y.Amakai and S.Murayama
Relation between the Atomic Distance and the Valence of Amorphous Ce_xRu_{100-x}
J. Phys.: Conf. Ser., **430** (2013) 012110.

F.Rashidi, T.Sasaki, A.M.Rashidi, A.N.Kharat and K.J.Jozani
Ultradeep Hydrodesulfurization of Diesel Fuels using Highly Efficient Nanoalumina-Supported Catalysts: Impact of Support, Phosphorus, and/or Boron on the Structure and Catalytic Activity
J. Catal., **299** (2013) 321.

K.Shiota, G.Imai, K.Oshita and M.Takaoka
Characterization of Lead, Chromium, and Cadmium in Dust Emitted from Municipal Solid Waste Incineration Plants
J. Phys.: Conf. Ser., **430** (2013) 012095.

S.Muratsugu and M.Tada
Molecularly Imprinted Ru Complex Catalysts Integrated on Oxide Surfaces
Accounts of Chemical Research, **46** (2013) 300.

B.Ahmmad, M.Nishi, F.Hirose, T.Ohkubo and Y.Kuroda
Structure of Hydrated Cobalt Ions Confined in the Nanospace of Single-Walled Carbon Nanotubes
Phys. Chem. Chem. Phys., **15** (2013) 8264.

Y.Ohkubo, Y.Hamaguchi, S.Seino, T.Nakagawa, S.Kageyama, J.Kugai, H.Nitani, K.Ueno and T.A.Yamamoto
Preparation of Carbon-Supported PtCo Nanoparticle Catalysts for the Oxygen Reduction Reaction in Polymer Electrolyte Fuel Cells by an Electron-Beam Irradiation Reduction Method
J. Mater. Sci., **48** (2013) 5047.

H.Narita, M.Tanaka, H.Shiwaku, Y.Okamoto, A.Ikeda-Ohno and T.Yaita
Inner-Sphere Structure of Rhodium Complexes with Tin(II) Chloride in Concentrated Hydrochloric Acid Solution
Bull. Chem. Soc. Jpn., **86** (2013) 203.

T.Komanoya, H.Kobayashi, K.Hara, W.-J.Chun and A.Fukuoka
Simultaneous Formation of Sorbitol and Gluconic Acid from Cellobiose using Carbon-Supported Ruthenium Catalysts
J. Energy Chem., **22** (2013) 290.

M.Harada, M.Yamada, Y.Kimura and K.Saijo
Influence of the Organization of Water-in-Ionic Liquid Microemulsions on the Size of Silver Particles during Photoreduction
J. Colloid Interface Sci., **406** (2013) 94.

H.Einaga, Y.Teraoka and A.Ogata
Catalytic Oxidation of Benzene by Ozone over Manganese Oxides Supported on USY Zeolite
J. Catal., **305** (2013) 227.

Y.Okamoto, M.Nakada, M.Akabori, S.Komamine, T.Fukui, E.Ochi, H.Nitani and M.Nomura
High-Temperature X-Ray Imaging Study of Simulated High-Level Waste Glass Melt
Electrochemistry, **81** (2013) 543.

S.Sugiyama, T.Bando, Y.Seno, E.Watanabe, K.Nakagawa, M.Katoh, K-I.Sotowa, Y.Katou, S.Akihara and W.Ninomiya
The Oxidative Esterification of Propionaldehyde to Methyl Propionate in the Liquid-Phase Using a Heterogeneous Palladium Catalyst
J. Chem. Eng. Jpn., **46** (2013) 455.

Y.Huang, H.Ariga, X.Zheng, X.Duan, S.Takakusagi, K.Asakura and Y.Yuan
Silver-Modulated SiO_2-Supported Copper Catalysts for Selective Hydrogenation of Dimethyl Oxalate to Ethylene Glycol
J. Catal., **307** (2013) 74.

Y.Ohkubo, S.Kageyama, S.Seino, T.Nakagawa, J.Kugai, H.Nitani and T.A.Yamamoto
Radiolytic Synthesis of Carbon-Supported PtRu Nanoparticles Using High-Energy Electron Beam: Effect of pH Control on the PtRu Mixing State and the Methanol Oxidation Activity
J. Nanopart. Res., **15** (2013) 1597.

A.Gallo, R.Psaro, M.Guidotti, V.D.Santo, R.D.Pergola, D.Masih and Y.Izumi
Cluster-Derived Ir-Sn/SiO_2 Catalysts for the Catalytic Dehydrogenation of Propane: a Spectroscopic Study
Dalton Transactions, **42** (2013) 12714.

S.Muratsugu, M.H.Lim, T.Itoh, W.Thumrongpatanaraks, M.Kondo, S.Masaoka, T.S.A.Hor and M.Tada
Dispersed Ru Nanoclusters Transformed from a Grafted Trinuclear Ru Complex on SiO_2 for Selective Alcohol Oxidation
Dalton Trans., **42** (2013) 12611.

Y.Sasada, T.Tajima, T.Wada, T.Uchida, M.Nishi, T.Ohkubo and Y.Takaguchi
Photosensitized Hydrogen Evolution from Water Using Single-Walled Carbon Nanotube/Fullerodendron/Pt(II) Coaxial Nanohybrids
New J. Chem., **37** (2013) 4214.

N.Murata, T.Suzuki, M.Kobayashi, F.Togoh and K.Asakura
Characterization of Pt-Doped SnO_2 Catalyst for a High-Performance Micro Gas Sensor
Phys. Chem. Chem. Phys., **15** (2013) 17938.

T.Ohkubo
Hydration and Coordination Structure of d-Block Metals Formed by the Confinement Effect of Carbon Micropores
Tanso, **260** (2013) 297. (*in Japanese*).

K.Nitta, Y.Omori, T.Miyanaga, K.Takegahara, H.Sugawara, D.Kikuchi and H.Sato
Extended X-Ray Absorption Fine Structure Thermal Factor Analysis of Rattling in Filled Skutterudites RT_4Sb_{12} (R: La, Ce, Pr, Nd, and Sm; T: Fe, Ru, and Os)
J. Phys. Soc. Jpn., **82** (2013) 044801.

J.Ohyama, T.Sato, Y.Yamamoto, S.Arai and A.Satsuma
Size Specifically High Activity of Ru Nanoparticles for Hydrogen Oxidation Reaction in Alkaline Electrolyte
J. Am. Chem. Soc., **135** (2013) 8016.

H.Yoshida, Y.Fujimura, H.Yuzawa, J.Kumagai and T.Yoshida
A Heterogeneous Palladium Catalyst Hybridised with a Titanium Dioxide Photocatalyst for Direct C-C Bond Formation between an Aromatic Ring and Acetonitrile
Chem. Comm., **49** (2013) 3793.

M.Hirano, K.Enokida, K.Okazaki, S.Kuwabata, H.Yoshida and T.Torimoto
Composition-Dependent Electrocatalytic Activity of AuPd Alloy Nanoparticles Prepared *via* Simultaneous Sputter Deposition into an Ionic Liquid
Phys. Chem. Chem. Phys., **15** (2013) 7286.

K.Tanimoto, H.Kato, M.Hidaka, S.Hinokuma, K.Ikeue and M.Machida
Nanometric Colloidal Sols of CeO_2-ZrO_2 Solid Solution as Catalyst Modifiers. I. Preparation and Structure
Bull. Chem. Soc. Jpn., **86** (2013) 1210.

A.Itadani, Y.Sogawa, A.Oda, H.Torigoe, T.Ohkubo and Y.Kuroda
Further Evidence for the Existence of a Dual-Cu^+ Site in MFI Working as the Efficient Site for C_2H_6 Adsorption at Room Temperature
Langmuir, **29** (2013) 9727.

T.Hariu, H.Arima and K.Sugiyama
The Structure of Hydrated Copper-Silicate Gels, an Analogue Compound for Natural Chrysocolla
J. Min. Petrol. Sci., **108** (2013) 111.

M.Kimura, Y.Niwa, K.Uemura, T.Nagai, Y.Inada and M.Nomura
In Situ and Simultaneous Observation of Palladium Redox and Oxygen Storage/Release in Pd/Sr-Fe-O Perovskite Catalysts using Dispersive XAFS
Materials Transactions, **54** (2013) 246.

NW12A

A.Gao, G.-Y. Mei, S.Liu, P.Wang, Q.Tang, Y.-P. Liu, H.Wen, X.-M.An, L.-Q.Zhang, X.-X.Yan and D.-C.Liang
High-Resolution Structures of AidH Complexes Provide Insights into a Novel Catalytic Mechanism for *N*-Acyl Homoserine Lactonase
Acta Cryst. D, **69** (2013) 82.

T.Yanagisawa, T.Sumida, R.Ishii and S.Yokoyama
A Novel Crystal Form of Pyrrolysyl-tRNA Synthetase Reveals the Pre- and Post-Aminoacyl-tRNA Synthesis Conformational States of the Adenylate and Aminoacyl Moieties and an Asparagine Residue in the Catalytic Site
Acta Cryst. D, **69** (2013) 5.

S.Ha, J.Tong, H.Yang, H.-S.Youn, S.H.Eom and Y.J.Im
Crystallization and Preliminary X-Ray Crystallographic Analysis of Sterol Transcription Factor Upc2 from *Saccharomyces cerevisiae*
Acta Cryst. F, **69** (2013) 147.

J.Nyirenda, S.Matsumoto, T.Saitoh, N.Maita, N.N.Noda, F.Inagaki and D.Kohda
Crystallographic and NMR Evidence for Flexibility in Oligosaccharyltransferases and its Catalytic Significance
Structure, **21** (2013) 32.

S.Arai, S.Saijo, K.Suzuki, K.Mizutani, Y.Kakinuma, Y.Ishizuka-Katsura, N.Ohsawa, T.Terada, M.Shirouzu, S.Yokoyama, S.Iwata, I.Yamato and T.Murata
Rotation Mechanism of *Enterococcus hirae* V_1-ATPase Based on Asymmetric Crystal Structures
Nature, **493** (2013) 703.

H.Tanji, U.Ohto, T.Shibata, K.Miyake and T.Shimizu
Structural Reorganization of the Toll-Like Receptor 8 Dimer Induced by Agonistic Ligands
Science, **339** (2013) 1426.

K.Makabe, T.Nakamura and K.Kuwajima
Structural Insights into the Stability Perturbations Induced by N-Terminal Variation in Human and Goat α-Lactalbumin.
Protein Eng. Design and Selection, **26** (2013) 165.

D.F.Li, J.Y.Zhang, Y.J.Hou, L.Liu, Y.Hu, S.J.Liu, D.C.Wang and W.Liu
Structures of Aminophenol Dioxygenase in Complex with Intermediate, Product and Inhibitor
Acta Cryst. D, **69** (2013) 32.

B.-C.Jeong, S.H.Park, K.S.Yoo, J.S.Shin and H.K.Song
Crystal Structure of the Single Cystathionine β-Synthase Domain-Containing Protein CBSX1 from *Arabidopsis thaliana*
Biochem. Biophys. Res. Commun., **430** (2013) 265.

Y.Koga, M.Inazato, T.Nakamura, C.Hashikawa, M.Chirifu, A.Michi, T.Yamashita, S.Toma, A.Kuniyasu, S.Ikemizu, Y.Nakabeppu and Y.Yamagata
Crystallization and Preliminary X-Ray Analysis of Human MTH1 with a Homogeneous N-Terminus
Acta Cryst. F, **69** (2013) 45.

J.Kondo, M.Koganei, J.P.Maianti, V.L.Ly and S.Hanessian
Crystal Structures of a Bioactive 6'-Hydroxy Variant of Sisomicin Bound to the Bacterial and Protozoal Ribosomal Decoding Sites
ChemMedChem, **8** (2013) 733.

J.Otani, K.Arita, T.Kato, M.Kinoshita, H.Kimura, I.Suetake, S.Tajima, M.Ariyoshi and M.Shirakawa
Structural Basis of the Versatile DNA Recognition Ability of the Methyl-CpG Binding Domain of Methyl-CpG Binding Domain Protein 4
J. Biol. Chem., **288** (2013) 6351.

A.Kobe, J.M.M.Caaveiro, S.Tashiro, D.Kajihara, M.Kikkawa, T.Mitani and K.Tsumoto
Incorporation of Rapid Thermodynamic Data in Fragment-Based Drug Discovery
J. Med. Chem., **56** (2013) 2155.

N.N.Noda, Y.Fujioka, T.Hanada, Y.Ohsumi and F.Inagaki
Structure of the Atg12-Atg5 Conjugate Reveals a Platform for Stimulating Atg8-PE Conjugation
EMBO Reports, **14** (2013) 206.

Y.Itoh, M.J.Bröcker, S.Sekine, G.Hammond, S.Suetsugu, D.Söll and S.Yokoyama
Decameric SelA•tRNA^{Sec} Ring Structure Reveals Mechanism of Bacterial Selenocysteine Formation
Science, **340** (2013) 75.

Z.Fujimoto, R.Suzuki, T.Shiotsuki, W.Tsuchiya, A.Tase, M.Momma and T.Yamazaki
Crystal Structure of Silkworm *Bombyx mori* JHBP in Complex with 2-Methyl-2,4-Pentanediol: Plasticity of JH-Binding Pocket and Ligand-Induced Conformational Change of the Second Cavity in JHBP
PLoS One, **8** (2013) e56261.

Z.Fujimoto, A.Jackson, M.Michikawa, T.Maehara, M.Momma, B.Henrissat, HJ.Gilbert and S.Kaneko
The Structure of a *Streptomyces avermitilis* α-L-Rhamnosidase Reveals a Novel Carbohydrate-Binding Module CBM67 within the Six-Domain Arrangement
J. Biol. Chem., **288** (2013) 12376.

T.Uejima, K.Ihara, M.Sunada, M.Kawasaki, T.Ueda, R.Kato, A.Nakano and S.Wakatsuki
Direct Metal Recognition by Guanine Nucleotide-Exchange Factor in the Initial Step of the Exchange Reaction
Acta Cryst. D, **69** (2013) 345.

T.-Y.Jung, Y.-S.Kim, B.-H.Oh and E.Woo
Identification of a Novel Ligand Binding Site in Phosphoserine Phosphatase from the Hyperthermophilic Archaeon *Thermococcus onnurineus*
Proteins, **81** (2013) 819.

M.Fujihashi, K.Mito, E.F.Pai and K.Miki
Atomic Resolution Structure of the Orotidine 5'-Monophosphate Decarboxylase Product Complex Combined with Surface Plasmon Resonance Analysis: Implication for the Catalytic Mechanism
J. Biol. Chem., **288** (2013) 9011.

T.Ouchi, T.Tomita, A.Horie, A.Yoshida, K.Takahashi, H.Nishida, K.Lassak, H.Taka, R.Mineki, T.Fujimura, S.Kosono, C.Nishiyama, R.Masui, S.Kuramitsu, S.-V.Albers, T.Kuzuyama and M.Nishiyama
Lysine and Arginine Biosyntheses Mediated by a Common Carrier Protein in *Sulfolobus*
Nature Chemical Biology, **9** (2013) 277.

Q.Chang, R.Nitta, S.Inoue and N.Hirokawa
Structural Basis for the ATP-Induced Isomerization of Kinesin
J. Mol. Biol., **425** (2013) 1869.

C.Pathak, S.-B.Jang, H.Im, H.-J.Yoon and B.-J.Lee
Overexpression, Crystallization and Preliminary X-Ray Crystallographic Analysis of Hypothetical Protein SAV0479 from *Staphylococcus aureus* Mu50
Acta Cryst. F, **69** (2013) 405.

A.Matsumoto, Y.Shimizu, C.Takemoto, T.Ueda, T.Uchiumi and K.Ito
Crystallization and Preliminary X-Ray Analysis of Peptidyl-tRNA Hydrolase from *Thermus thermophilus* HB8
Acta Cryst. F, **69** (2013) 332.

M.Okai, J.Ohtsuka, L.F.Imai, T.Mase, R.Moriuchi, M.Tsuda, K.Nagata, Y.Nagata and M.Tanokura
Crystal Structure and Site-Directed Mutagenesis Analyses of Haloalkane Dehalogenase LinB from *Sphingobium* sp. Strain MI1205
J. Bacteriol., **195** (2013) 2642.

T.Miyazaki, A.Nishikawa and T.Tonozuka
Novel Findings of the Structure and Substrate Specificity of Glucosidases Belonging to Glycoside Hydrolase Family 63
Oyo Toshitsu Kagaku, **3** (2013) 151. (*in Japanese*).

H.Niwa, N.Handa, Y.Tomabechi, K.Honda, M.Toyama, N.Ohsawa, M.Shirouzu, H.Kagechika, T.Hirano, T.Umehara and S.Yokoyama
Structures of Histone Methyltransferase SET7/9 in Complexes with Adenosylmethionine Derivatives
Acta Cryst. D, **69** (2013) 595.

T.Miyazaki, M.Yoshida, M.Tamura, Y.Tanaka, K.Umezawa, A.Nishikawa and T.Tonozuka
Crystal Structure of the N-Terminal Domain of a Glycoside Hydrolase Family 131 Protein from *Coprinopsis cinerea*
FEBS Lett., **587** (2013) 2193.

T.Arimori, N.Kawamoto, S.Shinya, N.Okazaki, M.Nakazawa, K.Miyatake, T.Fukamizo, M.Ueda and T.Tamada
Crystal Structures of the Catalytic Domain of a Novel Glycohydrolase Family 23 Chitinase from *Ralstonia* sp. A-471 Reveals a Unique Arrangement of the Catalytic Residues for Inverting Chitin Hydrolysis
J. Biol. Chem., **288** (2013) 18696.

Y.Nishitani, R.Aono, A.Nakamura, T.Sato, H.Atomi, T.Imanaka and K.Miki
Structure Analysis of Archaeal AMP Phosphorylase Reveals Two Unique Modes of Dimerization
J. Mol. Biol., **425** (2013) 2709.

Y.Yagita, N.Kuse, K.Kuroki, H.Gatanaga, J.M.Carlson, T.Chikata, Z.L.Brumme, H.Murakoshi, T.Akahoshi, N.Pfeifer, S.Mallal, M.John, T.Ose, H.Matsubara, R.Kanda, Y.Fukunaga, K.Honda, Y.Kawashima, Y.Ariumi, S.Oka, K.Maenaka and M.Takiguchi
Distinct HIV-1 Escape Patterns Selected by Cytotoxic T Cells with Identical Epitope Specificity
J. Virol., **87** (2013) 2253.

N.Maita, T.Tsukimura, T.Taniguchi, S.Saito, K.Ohno, H.Taniguchi and H.Sakuraba
Human α-L-Iduronidase Uses its Own *N*-Glycan as a Substrate-Binding and Catalytic Module
Proc. Natl. Acad. Sci. USA, **110** (2013) 14628.

A.Miyanaga, S.Fujisawa, N.Furukawa, K.Arai, M.Nakajima and H.Taguchi
The Crystal Structure of D-Mandelate Dehydrogenase Reveals its Distinct Substrate and Coenzyme Recognition Mechanisms from those of 2-Ketopantoate Reductase
Biochem. Biophys. Res. Commun., **439** (2013) 109.

T.Miyazaki, M.Ichikawa, G.Yokoi, M.Kitaoka, H.Mori, Y.Kitano, A.Nishikawa and T.Tonozuka
Structure of a Bacterial Glycoside Hydrolase Family 63 Enzyme in Complex with its Glycosynthase Product, and Insights into the Substrate Specificity
FEBS J., **280** (2013) 4560.

T.Hirose, N.Maita, H.Gouda, J.Koseki, T.Yamamoto, A.Sugawara, H.Nakano, S.Hirono, K.Shiomi, T.Watanabe, H.Taniguchi, K.B.Sharpless, S.Omura and T.Sunazuka
Observation of the Controlled Assembly of Preclick Components in the in situ Click Chemistry Generation of a Chitinase Inhibitor
Proc. Natl. Acad. Sci. USA, **110** (2013) 15892.

Y.Matsumoto, Y.Yasutake, Y.Takeda, T.Tamura, A.Yokota and M.Wada
Crystallization and Preliminary X-Ray Diffraction Studies of D-*threo*-3-Hydroxyaspartate Dehydratase Isolated from *Delftia* sp. HT23
Acta Cryst. F, **69** (2013) 1131.

A.Nakamura, T.Ishida, S.Fushinobu, K.Kusaka, I.Tanaka, K.Inaka, Y.Higuchi, M.Masaki, K.Ohta, S.Kaneko, N.Niimura, K.Igarashi and M.Samajima
Phase-Diagram-Guided Method for Growth of a Large Crystal of Glycoside Hydrolase Family 45 Inverting Cellulase Suitable for Neutron Structural Analysis
J. Synchrotron Rad., **20** (2013) 859.

S.Fushinobu, V.D.Alves and P.M.Coutinho
Multiple Rewards from a Treasure Trove of Novel Glycoside Hydrolase and Polysaccharide Lyase Structures: New Folds, Mechanistic Details, and Evolutionary Relationships
Curr. Opin. Struct. Biol., **23** (2013) 652.

K.Suzuki, J.Sumitani, Y-W.Nam, T.Nishimaki, S.Tani, T.Wakagi, T.Kawaguchi and S.Fushinobu
Crystal Structures of Glycoside Hydrolase Family 3 β-Glucosidase 1 from *Aspergillus aculeatus*
Biochem. J., **452** (2013) 211.

C.Pathak, H.Im, Y.-J.Yang, H.-J.Yoon, H.-M.Kim, A.-R.Kwon and B.-J.Lee
Crystal Structure of Apo and Copper Bound HP0894 Toxin from *Helicobacter pylori* 26695 and Insight into mRNase Activity
Biochimica et Biophysica Acta, **1834** (2013) 2579.

Z.Fujimoto
Structure and Function of Carbohydrate-Binding Module Families 13 and 42 of Glycoside Hydrolases, Comprising a β-Trefoil Fold
Biosci. Biotechnol. Biochem., **77** (2013) 1363.

N.Suzuki, Y-M.Kim, M.Momma, Z.Fujimoto, M.Kobayashi, A.Kimura and K.Funane
Crystallization and Preliminary X-Ray Crystallographic Analysis of Cycloisomaltooligosaccharide Glucanotransferase from *Bacillus circulans* T-3040
Acta Cryst. F, **69** (2013) 946.

M.Yamada, T.Tamada, K.Takeda, F.Matsumoto, H.Ohno, M.Kosugi, K.Takaba, Y.Shoyama, S,Kimura, R.Kuroki and K.Miki
Elucidations of the Catalytic Cycle of NADH-Cytochrome b_5 Reductase by X-Ray Crystallography: New Insights into Regulation of Efficient Electron Transfer
J. Mol. Biol., **425** (2013) 4295.

J.Nomura, H.Hashimoto, T.Ohta, Y.Hashimoto, K.Wada, Y.Naruta, K-I.Oinuma and M.Kobayashi
Crystal Structure of Aldoxime Dehydratase and its Catalytic Mechanism Involved in Carbon-Nitrogen Triple-Bond Synthesis
Proc. Natl. Acad. Sci. USA, **110** (2013) 2810.

K.Takemoto, T.Matsuda, N.Sakai, D.Fu, M.Noda, S.Uchiyama, I.Kotera, Y.Arai, M.Horiuchi, K.Fukui, T.Ayabe, F.Inagaki, H.Suzuki and T.Nagai
SuperNova, a Monomeric Photosensitizing Fluorescent Protein for Chromophore-Assisted Light Inactivation.
Sci. Rep., **3** (2013) 2629.

T.Mori, Y.Shimokawa, T.Matsui, K.Kinjo, R.Kato, H.Noguchi, S.Sugio, H.Morita and I.Abe
Cloning and Structure-Function Analyses of Quinolone- and Acridone-Producing Novel Type III Polyketide Synthases from *Citrus microcarpa*
J. Biol. Chem., **288** (2013) 28845.

Y.Yasutake, T.Nishioka, N.Imoto and T.Tamura
A Single Mutation at the Ferredoxin Binding Site of P450 Vdh Enables Efficient Biocatalytic Production of 25-Hydroxyvitamin D_3
ChemBioChem, **14** (2013) 2284.

J.Matsuzawa, T.Umeda, H.Aikawa, C.Suzuki, Z.Fujimoto, K.Okada, H.Yamane and H.Nojiri
Crystallization and Preliminary X-Ray Diffraction Studies of the Reduced Form of the Terminal Oxygenase Component of the Rieske Nonhaem Iron Oxygenase System Carbazole 1, 9a-Dioxygenase.
Acta Cryst. F, **69** (2013) 1284.

Y.Kanemaru, F.Hasebe, T.Tomita, T.Kuzuyama and M.Nishiyama
Two ATP-Binding Cassette Transporters Involved in (*S*)-2-Aminoethyl-Cysteine Uptake in *Thermus thermophilus*
J. Bacteriology, **195** (2013) 3845.

Y.Itoh, M.J. Bröcker, S.Sekine, G.Hammond, S.Suetsugu, D.Söll and S.Yokoyama
Decameric SelA·tRNA^{Sec} Ring Structure Reveals Mechanism of Bacterial Selenocysteine Formation
Science, **340** (2013) 75.

A.Nishikimi, M.Kukimoto-Niino, S.Yokoyama and Y.Fukui
Immune Regulatory Functions of DOCK Family Proteins in Health and Disease
Experimental Cell Research, **319** (2013) 2343.

B.-C.Jeong, S.H.Park, K.S.Yoo, J.S.Shin and H.K.Song
Change in Single Cystathionine β-Synthase Domain-Containing Protein from a Bent to Flat Conformation upon Adenosine Monophosphate Binding
J. Struct. Biol., **183** (2013) 40.

K.H.Sung, S.Y.Lee and H.K.Song
Structural and Biochemical Analyses of the Eukaryotic Heat Shock Locus V(HslV) from *Trypanosoma brucei*
J. Biol. Chem., **288** (2013) 23234.

M.Unno, A.Ardèvol, C.Rovira and M.Ikeda-Saito
Structures of the Substrate-Free and Product-Bound Forms of HmuO, a Heme Oxygenase from *Corynebacterium diphtheriae* :X-Ray Crystallography and Molecular Dynamics Investigation
J. Biol. Chem., **288** (2013) 34443.

T.Ogawa, K.Noguchi, M.Saito, Y.Nagahata, H.Kato, A.Ohtaki, H.Nakayama, N.Dohmae, Y.Matsushita, M.Odaka, M.Yohda, H.Nyunoya and Y.Katayama
Carbonyl Sulfide Hydrolase from *Thiobacillus thioparus* Strain THI115 Is One of the β-Carbonic Anhydrase Family Enzymes
J. Am. Chem. Soc., **135** (2013) 3818.

A.Shimizu, A.Kawana-Tachikawa, A.Yamagata, C.Han, D.Zhu, Y.Sato, H.Nakamura, T.Koibuchi, J.Carlson, E.Martin, C.J.Brumme, Y.Shi, G.F.Gao, Z.L.Brumme, S.Fukai and A.Iwamoto
Structure of TCR and Antigen Complexes at an Immunodominant CTL Epitope in HIV-1 Infection
Sci. Rep., **3** (2013) 3097.

M.Kato, Y.Kezuka, C.Kobayashi, K.Ishibashi, T.Nonaka, M.Ishikawa and E.Katoh
Crystallization and Preliminary X-Ray Crystallographic Analysis of the Inhibitory Domain of the Tomato Mosaic Virus Resistance Protein Tm-1
Acta Cryst. F, **69** (2013) 1411.

T.Tominaga, S.Watanabe, R.Matsumi, H.Atomi, T.Imanaka and K.Miki
Crystal Structures of the Carbamoylated and Cyanated Forms of HypE for [NiFe] Hydrogenase Maturation
Proc. Natl. Acad. Sci. USA, **110** (2013) 20485.

R.Satou, A.Miyanaga, H.Ozawa, N.Funa, Y.Katsuyama, K.Miyazono, M.Tanokura, Y.Ohnishi and S.Horinouchi
Structural Basis for Cyclization Specificity of Two *Azotobacter* Type III Polyketide Synthases: A Single Amino Acid Substitution Reverses their Cyclization Specificity
J. Biol. Chem., **288** (2013) 34146.

H.M.Qin, A.Yamamura, T.Miyakawa, M.Kataoka, S.Maruoka, J.Ohtsuka, K.Nagata, S.Shimizu and M.Tanokura
Crystal Structure of Conjugated Polyketone Reductase(CPR-C1) from *Candida parapsilosis* IFO 0708 Complexed with NADPH
Proteins, **81** (2013) 2059.

T.Miyakawa, Y.Sawano, K.Miyazono, Y.Miyauchi, K.Hatano and M.Tanokura
A Thermoacidophile-Specific Protein Family, DUF3211, Functions as a Fatty Acid Carrier with Novel Binding Mode
J. Bacteriol., **195** (2013) 4005.

T.Tsurumura, Y.Tsumori, H.Qiu, M.Oda, J.Sakurai, M.Nagahama and H.Tsuge
Arginine ADP-Ribosylation Mechanism Based on Structural Snapshots of Iota-Toxin and Actin Complex
Proc. Natl. Acad. Sci. USA, **110** (2013) 7524.

T.Tsurumura, H.Qiu, T.Yoshida, Y.Tsumori, D.Hatakeyama, T.Kuzuhara and H.Tsuge
Conformational Polymorphism of m^7GTP in Crystal Structure of the PB2 Middle Domain from Human Influenza A Virus
PLoS ONE, **8** (2013) e82020.

X.Xu, X.Wang, Y.Zhang, D.C.Wang and J.Ding
Structural Basis for the Unique Heterodimeric Assembly between Cerebral Cavernous Malformation 3 and Germinal Center Kinase III
Structure, **21** (2013) 1059.

H.M.Ta, S.Bae, S.Han, J.Song, T.K.Ahn, S.Hohng, S.Lee and K.K.Kim
Structure-Based Elucidation of the Regulatory Mechanism for Aminopeptidase Activity
Acta Cryst. D, **69** (2013) 1738.

H.Tanji, U.Ohto and T.Shimizu
Crystal Structures of Innate Immune RNA Receptor TLR8
J. Cryst. Soc. Jpn., **55** (2013) 285. (*in Japanese*).

T.Shimizu
Structural Basis for β-Galactosidase Associated with Lysosomal Disease
Yakugaku Zasshi, **133** (2013) 509. (*in Japanese*).

L.M.G.Chavas, T.Nagae, H.Yamada, N.Watanabe, Y.Yamada, M.Hiraki and N.Matsugaki
New Methodologies at PF AR-NW12A: the Implementation of High-Pressure Macromolecular Crystallography
J. Synchrotron Rad., **20** (2013) 838.

L.M.G.Chavas, Y.Yamada, M.Hiraki, N.Igarashi, N.Matsugaki and S.Wakatsuki
10 Years of Protein Crystallography at AR-NW12A Beamline
J. Phys.: Conf. Ser., **425** (2013) 012008.

NW14A

Y.Moritomo, H.Kamioka, T.Shibata, S.Nozawa, T.Sato and S.Adachi
Photoinduced Phase Transition into a Hidden Phase in Cobalt Hexacyanoferrate as Investigated by Time-Resolved X-Ray Absorption Fine Structure
J. Phys. Soc. Jpn., **82** (2013) 033601.

M.Hoshino
Visualization of an Organic Photocatalyst 'in Action' by a Pump-Probe Single Crystal X-Ray Structure Analysis
J. Cryst. Soc. Jpn., **55** (2013) 2. (*in Japanese*).

T.Sato
The Structure of ^{3}MLCT State of $[Ru^{II}(bpy)_3]^{2+}$ in Aqueous Solution Observed by Time-Resolved XAFS
J. Cryst. Soc. Jpn., **55** (2013) 14. (*in Japanese*).

H.Sekiguchi, A.Nakagawa, K.Moriya, K.Makabe, K.Ichiyanagi, S.Nozawa, T.Sato, S.Adachi, K.Kuwajima, M.Yohda and Y.C.Sasaki
ATP Dependent Rotational Motion of Group II Chaperonin Observed by X-Ray Single Molecule Tracking
PLoS ONE, **8** (2013) e64176.

K.H.Kim, J.H.Lee, J.Kim, S.Nozawa, T.Sato, A.Tomita, K.Ichiyanagi, H.Ki, J.Kim, S.Adachi and H.Ihee
Solvent-Dependent Molecular Structure of Ionic Species Directly Measured by Ultrafast X-Ray Solution Scattering
Phys. Rev. Lett., **110** (2013) 165505.

M.Hoshino, S.Nozawa, T.Sato, A.Tomita, S.Adachi and S.Koshihara
Time-Resolved X-Ray Crystal Structure Analysis for Elucidating the Hidden 'Over-Neutralized' Phase of TTF-CA
RSC Adv., **3** (2013) 16313.

M.Hoshino
Observation of a Three-Dimensional Molecular Structure at a Photo-Excited State by Pump-Probe Single Crystal X-Ray Structure Analysis
Hyomen Kagaku, **34** (2013) 598. (*in Japanese*).

K.H.Kim, H.Ki, K.Y.Oang, S.Nozawa, T.Sato, J.Kim, T.K.Kim, J.Kim, S.Adachi and H.Ihee
Global Reaction Pathways in the Photodissociation of I_3^- Ions in Solution at 267 and 400 nm Studied by Picosecond X-Ray Liquidography
ChemPhysChem, **14** (2013) 3687.

J.Hu, K.Ichiyanagi, T.Doki, A.Goto, T.Eda, K.Norimatsu, S.Harada, D.Horiuchi, Y.Kabasawa, S.Hayashi, S.Uozumi, N.Kawai, S.Nozawa, T.Sato, S.Adachi and K.G.Nakamura
Complex Structural Dynamics of Bismuth under Laser-Driven Compression
Appl. Phys. Lett., **103** (2013) 161904.

SPF

H.Terabe, S.Iida, K.Wada, T.Hyodo, A.Yagishita and Y.Nagashima
Efficient Emission of Positronium Atoms from an Na-Coated Polycrystalline Tungsten Surface
J. Phys. Conf. Ser., **443** (2013) 012075.

Y.Fukaya, I.Mochizuki, M.Maekawa, K.Wada, T.Hyodo, I.Matsuda and A.Kawasuso
Structure of Silicene on a Ag(111) Surface Studied by Reflection High-Energy Positron Diffraction
Phys. Rev. B, **88** (2013) 205413.