4. Publication List

1A

S.Okada, T.Yamamoto, H.Watanabe, T.Nishimoto, H.Chaen, S.Fukuda, T.Wakagi and S.Fushinobu
Structural and Mutational Analysis of Substrate Recognition in Kojibiose Phosphorylase
FEBS J., **281** (2014) 778.

S.Yamashita, D.Takeshita and K.Tomita
Translocation and Rotation of tRNA during Template-Independent RNA Polymerization by tRNA Nucleotidyltransferase
Structure, **22** (2014) 315.

J.Kondo, T.Yamada, C.Hirose, I.Okamoto, Y.Tanaka and A.Ono
Crystal Structure of Metallo DNA Duplex Containing Consecutive Watson-Crick-Like T-Hg^{II}–T Base Pairs
Angew. Chem. Int. Ed., **53** (2014) 2385.

D.Matsui, D.-H.Im, A.Sugawara, Y.Fukuta, S.Fushinobu, K.Isobe and Y.Asano
Mutational and Crystallographic Analysis of L–Amino Acid Oxidase/Monooxygenase from Pseudomonas sp. AIU 813: Interconversion between Oxidase and Monooxygenase Activities
FEBS Open Bio, **4** (2014) 220.

S.Liu, L.-F.Tian, Y.-P.Liu, X.-M.An, Q.Tang, X.-X.Yan and D.-C.Liang
Structural Basis for DNA Recognition and Nuclease Processing by the Mre11 Homologue SbcD in Double- Strand Breaks Repair
Acta Cryst. D, **70** (2014) 299.

S.Niwa, L.-J.Yu, K.Takeda, Y.Hirano, T.Kawakami, Z.Y.Wang-Otomo and K.Miki
Structure of the LH1-RC complex from *Thermochromatium tepidum* at 3.0 Å
Nature, **508** (2014) 228.

T.Ito, K.Saikawa, S.Kim, K.Fujita, A.Ishiwata, S.Kaeothip, T.Arakawa, T.Wakagi, G.T.Beckham, Y.Ito, S.Fushinobu
Crystal Structure of Glycoside Hydrolase Family 127 β-L Arabinofuranosidase from *Bifidobacterium longum*
Biochem. Biophys. Res. Commun., **447** (2014) 32.

A.Kishimoto, A.Kita, T.Ishibashi, H.Tomita, Y.Yokooji, T.Imanaka, H.Atomi and K.Miki
Crystal Structure of Phosphopantothenate Synthetase from *Thermococcus kodakarensis*
Proteins **82** (2014) 1924.

Y.Sakamoto, Y.Suzuki, I.Iizuka, C.Tateoka, S.Roppongi, M.Fujimoto, H.Tanaka, M.Masaki, K.Ohta, H.Okada, T.Nonaka, Y.Morikawa, K.T.Nakamura, W.Ogasawara and N.Tanaka
S46 Peptidases are the First Exopeptidases to be Members of Clan PA
Scientific Reports, **4** (2014) 4977.

E.Tamai, H.Yoshida, H.Sekiya, H.Nariya, S.Miyata, A.Okabe, T.Kuwahara, J.Maki and S.Kamitori
X-Ray Structure of a Novel Endolysin Encoded by Episomal Phage PhiSM101 of *Clostridium perfringens*
Molecular Microbiology, **92** (2014) 326.

J.Fujita, Y.Maeda, C.Nagao, Y.Tsuchiya, Y.Miyazaki, M.Hirose, E.Mizohata, Y.Matsumoto, T.Inoue, K.Mizuguchi and H.Matsumura
Crystal Structure of FtsA from *Staphylococcus aureus*
FEBS Letters, **588** (2014) 1879.

K.J.Cho, K.W.Hong, S.-H.Kim, J.H.Seok, S.Kim, J.-H.Lee, X.Saelens, K.H.Kim
Insight into Highly Conserved H1 Subtype-Specific Epitopes in Influenza Virus Hemagglutinin
PLOS ONE, **9** (2014) e89803.

Y.Fujioka, S.W.Suzuki, H.Yamamoto, C.Kondo-Kakuta, Y.Kimura, H.Hirano, R.Akada, F.Inagaki, Y.Ohsumi and N.N.Noda
Structural Basis of Starvation-Induced Assembly of the Autophagy Initiation Complex
Nature Structural Molecular Biology, **21** (2014) 513.

X.Liu, Y.Yin, J.Wu and Z.Liu
Structure and Mechanism of an Intramembrane Liponucleotide Synthetase Central for Phospholipid Biosynthesis
Nature Communications, **5** (2014) 4244.

S.Sato, T.Yamasaki and H.Isobe
Solid-State Structures of Peapod Bearings Composed of Finite Single-Wall Carbon Nanotube and Fullerene Molecules
Proc. Natl. Acad. Sci. USA, **111** (2014) 8374.

S.Terawaki, H.Ootsuka, Y.Higuchi and K.Wakamatsu
Crystallographic Characterization of the C-Terminal Coiled-Coil Region of Mouse Bicaudal-D1(BICD1)
Acta Cryst. F, **70** (2014) 1103.

H.Niwa, J.Mikuni, S.Sasaki, Y.Tomabechi, K.Honda, M.Ikeda, N.Ohsawa, M.Wakiyama, N.Handa, M.Shirouzu, T.Honma, A.Tanaka and S.Yokoyama
Crystal Structures of the S6K1 Kinase Domain in Complexes with Inhibitors
J. Struct. Funct. Genomics, **15** (2014) 153.

E.H.Lee, G.-H.Kwak, M.-J.Kim, H.-Y.Kim and K.Y.Hwang
Structural Analysis of 1-Cys Type Selenoprotein Methionine Sulfoxide Reductase A
Arch. Biochem. Biophys., **545** (2014) 1.

V.Schaeffer, M.Akutsu, M.H.Olma, L.C.Gomes, M.Kawasaki and I.Dikic
Binding of OTULIN to the PUB Domain of HOIP Controls NF-κB Signaling
Mol. Cell, **54** (2014) 349.

H.Tsukagoshi, A.Nakamura, T.Ishida, K.K.Touhara, M.Otagiri, S.Moriya, M.Samejima, K.Igarashi, S.Fushinobu, K.Kitamoto and M.Arioka
Structural and Biochemical Analyses of Glycoside Hydrolase Family 26 β-Mannanase from a Symbiotic Protist of the Termite Reticulitermes speratus
J. Biol. Chem., **289** (2014) 10843

K.K.Touhara, T.Nihira, M.Kitaoka, H.Nakai and S.Fushinobu
Structural Basis for Reversible Phosphorolysis and Hydrolysis Reactions of 2-*O*-α-Glucosylglycerol Phosphorylase
J. Biol. Chem., **289** (2014) 18067.

K.Suzuki, A.Hori, K.Kawamoto, R.R.Thangudu, T.Ishida, K.Igarashi, M.Samejima, C.Yamada, T.Arakawa, T.Wakagi, T.Koseki and S.Fushinobu
Crystal Structure of a Feruloyl Esterase Belonging to the Tannase Family: A Disulfide Bond Near a Catalytic Triad
Proteins, **82** (2014) 2857.

D.Yamashita, T.Sugawara, M.Takeshita, J.Kaneko, Y.Kamio, I.Tanaka, Y.Tanaka and M.Yao
Molecular Basis of Transmembrane Beta-Barrel Formation of Staphylococcal Pore-Forming Toxins
Nature Communications, **5** (2014) 4897.

H.Zhao, G.Sheng, J.Wang, M.Wang, G.Bunkoczi, W.Gong, Z.Wei and Y.Wang
Crystal Structure of the RNA-Guided Immune Surveillance Cascade Complex in *Escherichia coli*
Nature, **515** (2014) 147.

C.J.Bruns, D.Fujita, M.Hoshino, S.Sato, J.F.Stoddart and M.Fujita
Emergent Ion-Gated Binding of Cationic Host-Guest Complexes within Cationic M_{12} L_{24} Molecular Flasks
J. Am. Chem. Soc., **136** (2014) 12027.

Q.Tang, Y-P.Liu, X-X.Yan, D-C.Liang
Structural and Functional Characterization of Cys4 Zinc Finger Motif in the Recombination Mediator Protein RecR
DNA Repair, **24** (2014) 10.

Q-F.Sun, S.Sato and M.Fujita
An M_{12} $(L^1)_{12}$ $(L^2)_{12}$ Cantellated Tetrahedron: A Case Study on Mixed-Ligand Self-Assembly
Angew. Chem. Int. Ed., **53** (2014) 13510.

H.Yoshida, A.Yoshihara, M.Teraoka, Y.Terami, G.Takata, K.Izumori and S.Kamitori
X-Ray Structure of a Novel L-Ribose Isomerase Acting on a Non-Natural Sugar L-Ribose as its Ideal Substrate
FEBS J., **281** (2014) 3150.

D.Takeshita, S.Yamashita and K.Tomita
Molecular Insights into Replication Initiation by Qβ Replicase Using Ribosomal Protein S1
Nucleic Acids Res., **42** (2014) 10809.

J.Lu, Y.Gu, J.Feng, W.Zhou, X.Yang and Y.Shen
Structural Insight into the Central Element Assembly of the Synaptonemal Complex
Scientific Reports, **4** (2014) 7059.

Z.Wang, X.Yang, S.Guo, Y.Yang, X.C.Su, Y.Shen and J.Long
Crystal Structure of the Ubiquitin-Like Domain-CUT Repeat-Like Tandem of Special AT-Rich Sequence Binding Protein 1 (SATB1) Reveals a Coordinating DNA-Binding Mechanism
J. Biol. Chem., **289** (2014) 27376.

G.Wang, Q.He, C.Feng, Y.Liu, Z.Deng, X.Qi, W.Wu, P.Mei and Z.Chen
The Atomic-Resolution Structure of Human Alkb Homolog 7 (ALKBH7), a Key Protein for Programmed Necrosis and Fat Metabolism
J. Biol. Chem., **289** (2014) 27924.

P.Zhou, Y.Liu, Q.Yan, Z.Chen, Z.Qin and Z.Jiang
Structural Insights into the Substrate Specificity and Transglycosylation Activity of a Fungal Glycoside Hydrolase Family 5 *β*-Mannosidase
Acta Cryst. D, **70** (2014) 2970.

T.Kimura, N.Tsutsumi, K.Arita, M.Ariyoshi, H.Ohnishi, N.Kondo, M.Shirakawa, Z.Kato and H.Tochio
Purification, Crystallization and Preliminary X-Ray Crystallographic Analysis of Human IL-18 and its Extracellular Complexes
Acta Cryst. F, **70** (2014) 1351.

N.Tsutsumi, T.Kimura, K.Arita, M.Ariyoshi, H.Ohnishi, T.Yamamoto, X.Zuo, K.Maenaka, E.Y.Park, N.Kondo, M.Shirakawa, H.Tochio and Z.Kato
The Structural Basis for Receptor Recognition of Human Interleukin-18
Nature Communications, **5** (2014) 5340.

C.Ma, C.Pathak, S.Jang, S.Lee, M.Nam, S.Kim, H.Im and B.J.Lee
Structure of *Thermoplasma volcanium* Ard1 Belongs to N-Acetyltransferase Family Member Suggesting Multiple Ligand Binding Modes with Acetyl Coenzyme A and Coenzyme A
Biochim. Biophys. Acta, **1844** (2014) 1790.

H.S.Kim, S.Y.Cha, C.H.Jo, A.Han and K.Y.Hwang
The Crystal Structure of Arginyl-tRNA Synthetase from *Homo sapiens*
FEBS Letters, **558** (2014) 2328.

Y.Nishikawa, T.Oyama, N.Kamiya, T.Kon, Y.Y.Toyoshima, H.Nakamura and G.Kurisu
Structure of the Entire Stalk Region of the Dynein Motor Domain
J. Mol. Biol., **426** (2014) 3232.

H.S.Kim, J.Kim, H.N.Im, D.R.An, M.Lee, D.Hesek, S.Mobashery, J.Y.Kim, K.Cho, H.J.Yoon, B.W.Han, B.I.Lee and S.W.Suh
Structural Basis for the Recognition of Muramyltripeptide by *Helicobacter Pylori* Csd4, a D,L-Carboxypeptidase Controlling the Helical Cell Shape
Acta Cryst. D, **70** (2014) 2800.

B.Gong, M.Shin, J.Sun, C.H.Jung, E.L.Bolt, J.V.D.Oost and J.S.Kim
Molecular Insights into DNA Interference by CRISPR Associated Nuclease-Helicase Cas3
Proc. Natl. Acad. Sci. USA, **111** (2014) 16359.

T.Matsui, X.Han, J.Yu, M.Yao and I.Tanaka.
Structural Change in FtsZ Induced by Intermolecular Interactions between Bound GTP and the T7 Loop
J. Biol. Chem., **289** (2014) 3501.

T.Fujiwara, W.Saburi, H.Matsui, H.Mori and M.Yao
Structural Insights into the Epimerization of Beta-1,4 Linked Oligosaccharides Catalyzed by Cellobiose 2-Epimerase, the Sole Enzyme Epimerizing Non-Anomeric Hydroxyl Groups of Unmodified Sugars
J. Biol. Chem., **289** (2014) 3405.

X.Shen,W.Saburi,Z.Q.Gai,K.Komoda,J.Yu, T.O.Kato, Y.Kido, H.Matsui, H.Mori and M.Yao
Crystallization and Preliminary X-Ray Crystallographic Analysis of α-Glucosidase HaG from *Halomonas* sp. Strain H11
Acta Cryst. F, **70** (2014) 464.

M.Hasegawa, S.T.Fukai, JD.Kim, A.Fukamizu and T.Shimizu
Protein Arginine Methyltransferase 7 has a Novel Homodimer-Like Structure Formed by Tandem Repeats
FEBS Letters, **588** (2014) 1942.

2A

Y.Shimazu, T.Okumura, A.Shimada, K.Tanabe, K.Tokiwa, E.Sakai, H.Kumigashira and T.Higuchi
Electronic Structure of V_2O_3 Thin Film Prepared by RF Magnetron Sputtering using Oxygen Radical and V- Metal
Jpn. J. Appl. Phys., **53** (2014) 06JG05.

S.Kawasaki, R.Takahashi, K.Akagi, J.Yoshinobu, F.Komori, K.Horiba, H.Kumigashira, K.Iwashina, A.Kudo and M.Lippmaa
Electronic Structure and Photoelectrochemical Properties of an Ir-Doped $SrTiO_3$ Photocatalyst
J. Phys. Chem. C, **118** (2014) 20222.

2C

Y.Tezuka, T.Sasaki, Y.Fujita, T.Iwamoto, H.Osawa, S.Nozawa, N.Nakajima, H.Sato and T.Iwazumi
Core Excitations in Resonant X-Ray Raman Scattering of Titanium Oxides: An Approach to Studying Electronic Structures
J. Phys. Soc. Jpn., **83** (2014) 014707.

M.Stener, P.Decleva, T.Mizuno, H.Yoshida and A.Yagishita
Off-Resonance Photoemission Dynamics Studied by Recoil Frame F1s and C1s Photoelectron Angular Distributions of CH_3F
J. Chem. Phys., **140** (2014) 044305.

T.Katayama, A.Chikamatsu, Y.Hirose, H.Kumigashira, T.Fukumura and T.Hasegawa
Metallic Conductivity in Infinite-Layer Strontium Iron Oxide Thin Films Reduced by Calcium Hydride
J. Phys. D: Appl. Phys., **47** (2014) 135304.

S.Nagira, J.Sonoyama, T.Wakita, M.Sunagawa, Y.Izumi, T.Muro, H.Kumigashira, M.Oshima, K.Deguchi, H.Okazaki, Y.Takano, O.Miura, Y.Mizuguchi, K.Suzuki, H.Usui, K.Kuroki, K.Okada, Y.Muraoka and T.Yokoya
Soft X-Ray Photoemission Study of New BiS_2 -Layered Superconductor $LaO_{1-x}F_xBiS_2$
J. Phys. Soc. Jpn., **83** (2014) 033703.

Y.Muraoka, H.Nagao, S.Katayama, T.Wakita, M.Hirai, T.Yokoya, H.Kumigashira and M.Oshima
Persistent Insulator-to-Metal Transition of a VO_2 Thin Film Induced by Soft X-Ray irradiation
Jpn. J. Appl. Phys., **53** (2014) 05FB09.

E.Sakai, K.Yoshimatsu, M.Tamamitsu, K.Horiba, A.Fujimori, M.Oshima and H.Kumigashira
Bandwidth-Controlled Metal-Insulator Transition in Epitaxial $PrNiO_3$ Ultrathin Films Induced by Dimensional Crossover
Appl. Phys. Lett., **104** (2014) 171609.

K.Usui, T.Okumura, E.Sakai, H.Kumigashira and T.Higuchi
Structural and Electronic Properties of Anatase $Ti_{1-x}Fe_xO_{2-\delta}$ Thin Film Prepared by RF Magnetron Sputtering
J. Phys.: Conf. Ser., **502** (2014) 012001.

Y.Shimazu, T.Okumura, E.Sakai, H.Kumigashira, M.Okawa, T.Saitoh and T.Higuchi
Growth of $TiO_{2-\delta}$ Thin Film by RF Magnetron Sputtering using Oxygen Radicals and Ti Metal
Jpn. J. Appl. Phys., **53** (2014) 06JG01.

T.Inoue, T.Okumura, Y.Shimazu, E.Sakai, H.Kumigashira and T.Higuchi
Electrical Conductivity of Sc-Doped TiO_2 Thin Film Prepared by RF Magnetron Sputtering
Jpn. J. Appl. Phys., **53** (2014) 06JG03.

T.Nagata, K.Kawajiri, S.Kosugi, N.Suzuki, M.Kemmotsu, T.Nandi, E.Sokell, Y.Azuma and F.Koike
Photoion Spectroscopy on Isolated Mn Atoms in the 2p→3d Excitation Region: I. Total Photoion-Yield Spectrum
J. Phys. B, **47** (2014) 185006.

S.Hosokawa, H.Sato, K.Mimura, Y.Tezuka, D.Fukunaga, K.Shimamura and F.Shimojo
Oxygen 2*p* Partial Density of States in a Typical Oxide Glass B_2O_3
J. Phys. Soc. Jpn., **83** (2014) 114601.

T.Nagata, K.Kawajiri, S.Kosugi, N.Suzuki, M.Kemmotsu, T.Nandi, E.Sokell, F.Koike and Y.Azuma Photoion Spectroscopy on Isolated Mn Atoms in the 2p→3d Excitation Region. II. Decay Processes of the Excited States
J. Phys. B, **47** (2014) 215002.

H.Wadati, J.Mravlje, K.Yoshimatsu, H.Kumigashira, M.Oshima, T.Sugiyama, E.Ikenaga, A.Fujimori, A.Georges, A.Radetinac, K.S.Takahashi, M.Kawasaki and Y.Tokura
Photoemission and DMFT Study of Electronic Correlations in $SrMoO_3$: Effects of Hund's Rule Coupling and Possible Plasmonic Sideband
Phys. Rev. B, **90** (2014) 205131.

S.Tsuru, M.Kazama, T.Fujikawa, J.Adachi and A.Yagishita
Geometric Effect on the Issue of Asymetric C 1*s* Photoelectron Angular Distributions Detected in Coincidence with the Fragment Ion Pairs of CO^+ - O^+ for CO_2 Molecules
J. Phys. B, **47** (2014) 071002.

S.Tsuru, M.Kazama, T.Fujikawa, J.Adachi, T.Mizuno and A.Yagishita
Site-Specific Fragmentation Probabilities Deduced from O^+ - CO^+ Molecular Frame Photoelectron Angular Distributions from CO_2
Chem. Phys. Lett., **608** (2014) 152.

M.Okawa, T.Yokobori, 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
Cu-O-Cr Hybridization Effects on the Electronic Structure of a Hole-Doped Delafossite Oxide $CuCr_{1-x}Mg_xO_2$
JPS Conf Proc., **3** (2014) 017027.

3A

A.Tsuchiyama, M.Uesugi, K.Uesugi, T.Nakano, R.Noguchi, T.Matsumoto, J.Matsuno, T.Nagano, Y.Imai, A.Shimada, A.Takeuchi, Y.Suzuki, T.Nakamura, T.Noguchi, M.Abe, T.Yada and A.Fujimura
Three-Dimensional Microstructure of Samples Recovered from Asteroid 25143 Itokawa: Comparison with LL5 and LL6 Chondrite Particles
Meteoritics and Planetary Science, **49** (2014) 172.

T.Noguchi, M.Kimura, T.Hashimoto, M.Konno, T.Nakamura, M.E.Zolensky, R.Okazaki, M.Tanaka, A.Tsuchiyama, A.Nakato, T.Ogami, H.Ishida, R.Sagae, S.Tsujimoto, T.Matsumoto, J.Matsuno, A.Fujimura, M.Abe, T.Yada, T.Mukai, M.Ueno, T.Okada, K.Shirai and Y.Ishibashi
Space Weathered Rims Found on the Surfaces of the Itokawa Dust Particles
Meteoritics and Planetary Science, **49** (2014) 188.

M.Kubota, H.Yamada, H.Nakao, J.Okamoto, Y.Yamasaki, A.Sawa and Y.Murakami
Magnetic and Electronic Properties of $(LaMnO_3)_5(SrMnO_3)_5$ Superlattice Revealed by Resonant Soft X-Ray Scattering
Jpn. J. Appl. Phys., **53** (2014) 05FH07.

P.Barpanda, G.Oyama, S.Nishimura, S.-C.Chung and A.Yamada
A 3.8-V Earth-Abundant Sodium Battery Electrode
Nature Communications, **5** (2014) 4358.

H.Morisaki, T.Koretsune, C.Hotta, J.Takeya, T.Kimura and Y.Wakabayashi
Large Surface Relaxation in the Organic Semiconductor Tetracene
Nature Communications, **5** (2014) 5400.

3B

K.Ozawa, Y.Mimori H.Kato, M.Emori H.Sakama, S.Imanishi, K.Edamoto and K.Mase
Shockley Surface State on α-Brass(111) and its Response to Oxygen Adsorption
Surf. Sci., **623** (2014) 6.

K.Ozawa, Y.Mimori, H.Kato, S.Imanishi, K.Edamoto and K.Mase
Photoelectron Spectroscopy Study of Interaction of Oxygen with the (111) Surface of a Cu-Zn Alloy
Surf. Sci., **623** (2014) 1.

K.Edamoto, S.Imanishi, S.Masuda, Y.Kakefuda and K.Ozawa
Angle-Resolved Photoemission Study of $Ni_2P(1010)$: Changea in the Surface Electronic Structure Induced by P Segregation
e-J. Surf. Sci. Nanotech., **12** (2014) 175.

M.Emori, A.Sakino, K.Ozawa and H.Sakama Polarization-Dependent ARPES Measurement for Valence Band of Anatase TiO_2
Solid State Commun., **188** (2014) 15.

X.Hao, S.Wang, W.Fu, T.Sakurai, S.Masuda and K.Akimoto
Novel Cathode Buffer Layer of Ag-Doped Bathocuproine for Small Molecule Organic Solar Cell with Inverted Structure
Organic Electronics, **15** (2014) 1773.

M.Yano, M.Endo, Y.Hasegawa, R.Okada, Y.Yamada and M.Sasaki
Well-Ordered Monolayers of Alkali-Doped Coronene and Picene: Molecular Arrangements and Electronic Structures
J. Chem. Phys., **141** (2014) 034708.

S.Hasegawa, S.Obara, F.Yoshida, Y.Azuma, F.Koike and T.Nagata
K-Shell Photoionization Spectra of Atomic Beryllium between $1s2s^2$ and $1s(2s2p^3P)4s$
Phys. Rev. A, **90** (2014) 032503.

3C

K.Hirano, Y.Takahashi and H.Sugiyama
Development and Application of Variable-Magnification X-Ray Bragg Magnifiers
Nucl. Instrum. Meth. Phys. Res. A, **741** (2014) 78.

K.Hirano, Y.Takahashi and H.Sugiyama
Application of Variable-Magnification X-Ray Bragg Magnifier to Analyzer-Based Phase-Contrast Computed Tomography
Jpn. J. Appl. Phys., **53** (2014) 040302.

K.Hiiragi, M.Naito, H.Watanabe, H.Maruyama and M.Ito
Estimation of Order Parameter and Spin Moment of Fe_3Pt by White X-Ray Diffraction Method
Key Engineering Materials, **596** (2014) 3.

T.Yamamoto, K.Hayashi, K.Suzuki and M.Ito
Detection of Structural Change of Pd-Cu-Ge Metallic Glass Thin Films upon Heat Treatment by using X-Ray Reflectivity
Jpn. J. Appl. Phys., **53** (2014) 05FH03.

S.Ji, K.Kojima, Y.Ishida, H.Yamaguchi, S.Saito, T.Kato, H.Tsuchida, S.Yoshida and H.Okumura
Characterization of the Defect Evolution in Thick Heavily Al-Doped 4H-SiC Epilayers
Materials Science Forum, **778-780** (2014) 151.

M.Ito, K.Suzuki, T.Tadenuma, R.Nagayasu, Y.Sakurai, Y.Onuki, E.Nishibori and M.Sakata
A study of Magnetic Moments of $CeRh_3B_2$ by X-Ray Magnetic Diffraction Experiments
J. Phys.: Conf. Ser., **502** (2014) 012018.

N.Watanabe
Development of X-Ray Differential Phase-Contrast Microscope using a Scanning Edge Filter and its Application to Phase Tomography
X-Ray Imaging Optics, **39** (2014) 1. (in Japanese).

S.Harada, Y.Yamamoto, S.Xiao, M.Tagawa and T.Ujihara
Surface Morphology and Threading Dislocation Conversion Behavior during Solution Growth of 4H-SiC using Al-Si Solvent
Materials Science Forum, **778-780** (2014) 67.

Y.Yamamoto, S.Harada, K.Seki, A.Horio, T.Mitsuhashi, D.Koike, M.Tagawa, and T.Ujihara
Low-Dislocation-Density 4H-SiC Crystal Growth Utilizing Dislocation Conversion during Solution Method
Appl. Phys. Express., **7** (2014) 065501.

S.Harada, Y.Yamamoto, K.Seki, A.Horio, M.Tagawa, and T.Ujihara
Different Behavior of Threading Edge Dislocation Conversion During the Solution Growth of 4H-SiC Depending on the Burgers Vector
Acta Mater., **81** (2014) 284.

4A

T.Kikugawa, Y.Abe, A.Nakamura and I.Nakai Investigation of Coloring Mechanism of Ancient Egyptian Copper-Red Glass and Consideration of the Manufacturing Process
BUNSEKI KAGAKU, **63** (2014) 31. (in Japanese).

N.Yamaguchi, T.Ohkura, Y.Takahashi, Y.Maejima and T.Arao
Arsenic Distribution and Speciation near Rice Roots Influenced by Iron Plaques and Redox Conditions of the Soil Matrix
Environ. Sci. Technol., **48** (2014) 1549.

A.Iida, I.Nishiyama and Y.Takanishi
Chiral Smectic Transition Phases Appearing near the Electric-Field-Induced Phase Transition Observed by Resonant Microbeam X-Ray Scattering
Phys. Rev. E, **89** (2014) 032503.

W.Satake, T.Mikouchi and M.Miyamoto
Redox States of Thirteen Shergottites as Inferred from Iron Micro X-Ray Absorption Near Edge Structure of Maskelynite
Geochemical Journal, **48** (2014) 85.

Y.Kimoto, A.Nishizawa, Y.Takanishi, A.Yoshizawa and J.Yamamoto
Layer Modulated Smectic-*C* Phase in Liquid Crystals with a Terminal Hydroxyl Group
Phys. Rev. E, **89** (2014) 042503.

T.Mikouchi, M.Komatsu, K.Hagiya, M.E.Zolensky, V.Hoffmann, J.Martinez, R.Hochleitner, M.Kaliwoda, Y.Terada, N.Yagi, M.Takata, W.Satake, Y.Aoyagi, A.Takenouchi, Y.Karouji, M.Uesugi and T.Yada
Mineralogy and Crystallography of Some Itokawa Particles Returned by the Hayabusa Asteroidal Sample Return Mission
Earth, Planets and Space, **66** (2014) 68.

Y.Takanishi, H.Yao, T.Fukasawa, K.Ema, Y.Ohtsuka, Y.Takahashi, J.Yamamoto, H.Takezoe and A.Iida
Local Orientational Analysis of Helical Filaments and Nematic Director in a Nano-Scale Phase Separation Composed of Rod-Like and Bent-Core Liquid Crystals using Small- and Wide-Angle X-Ray Microbeam Scattering
J. Phys. Chem. B, **118** (2014) 3998.

T.Sugiyama, M.Uo, T.Wada, T.Hongo, D.Omagari, K.Komiyama, H.Sasaki, H.Takahashi, M.Kusama and Y.Mori
Novel Metal Allergy Patch Test using Metal Nanoballs
Journal of Nanobiotechnology, **12** (2014) 51.

A.Matsuura and M.Kinebuchi
New Age Pathologists with the Synchrotron: How to Apply the Synchrotron-Based X-Ray Fluorescence Analysis to Pathological Diagnosis
J Nanomed Nanotechnol, **5** (2014) 121.

4B2

K.Fujii, Y.Esaki, K.Omoto, M.Yashima, A.Hoshikawa, T.Ishigaki, J.R.Hester
New Perovskite-Related Structure Family of Oxide-Ion Conducting Materials $NdBaInO_4$
Chem.Mater., **26** (2014) 2488.

M.Yashima, N.Kubo, K.Omoto, H.Fujimori, K.Fujii and K.Ohoyama
Diffusion Path and Conduction Mechanism of Protons in Hydroxyapatite
J. Phys. Chem. C, **118** (2014) 5180.

P.Barpanda, G.Oyama, S.Nishimura, S.-C.Chung and A.Yamada
A 3.8-V Earth-Abundant Sodium Battery Electrode
Nature Communications, **5** (2014) 4358.

G.Liu, S.Nishimura, S.C.Chung, K.Fuji, M.Yashima and A.Yamada
Defect Induced Sodium Disorder and Ionic Conduction Mechanism in $Na_{1.82}Mg_{1.09}P_2O_7$
J. Mater. Chem. A, **2** (2014) 18353.

K.Fujii and M.Yashima
Discovery of the New Structure Family of Oxide-Ion Conductor $NdBaIno_4$
Parity, **29(9)** (2014) 35. (in Japanese).

K.Fujii and M.Yashima
Discovery of the New Structure Family of Oxide-Ion Conducting Material
Ceramics, **49** (2014) 615. (in Japanese).

M.Yashima, K.Fujii, K.Omoto, U.Fumi, N.Kaneko, D.Haratake, K.Ueda, Y.Esaki, K.Hibino and S.Yamada
Crystal Structure Research on the Ceramic Materials for the Clean Energy using Overseas Facility
NSL News Letter, ISSP joint research on neutron scattering in facilities abroad, (2014) 12. (in Japanese).

K.Ueda, K.Omoto, K.Fujii, M.Yashima, T.Ishigaki, S.J.Kim and S.Lee
Crystal Structure and Electrical Conductivity of $LaSr_2Ga_{11}O_{20}$
NSL News Letter, ISSP Joint Research on Neutron Scattering in Facilities Abroad, (2014) 123. (in Japanese).

Y.Esaki, K.Fuji, K.Omoto, M.Yashima, T.Ishigaki, A.Hoshikawa and J.R.Hester
Crystal Structure and Electrical Conductivity of New Mixed Conductor $Nd_{2-X}Ba_XInO_{4.5-X/2}$
NSL News Letter, ISSP joint research on neutron scattering in facilities abroad, (2014) 124. (in Japanese).

4C

H.Nakao, H.Yamada, A.Sawa, K.Iwasa, J.Okamoto, T.Sudayama, Y.Yamasaki and Y.Murakami
Neutron Magnetic Scattering Study in Manganite Thin Film System
Solid State Commun., **185** (2014) 18.

H.Sakuma and J.Kawano
Structures of Mineral/Fluid Interfaces: Direct Observation by Surface X-Ray CTR Scattering Method
Chikyukagaku (Geochemistry), **48** (2014) 31. (in Japanese).

M.Kubota, H.Yamada, H.Nakao, J.Okamoto, Y.Yamasaki, A.Sawa and Y.Murakami
Magnetic and Electronic Properties of $(LaMnO_3)_5(SrMnO_3)_5$ Superlattice Revealed by Resonant Soft X-Ray Scattering
Jpn. J. Appl. Phys., **53** (2014) 05FH07.

K.Iwasa, M.Amano, H.Nakao and Y.Murakami
Structural Modulation of the Cage Lattice System DyB_6
JPS Conf. Proc., **3** (2014) 016026.

H.Morisaki, T.Koretsune, C.Hotta, J.Takeya, T.Kimura and Y.Wakabayashi
Large Surface Relaxation in the Organic Semiconductor Tetracene
Nature Communications, **5** (2014) 5400.

5A

Y.Yasutake, W.Kitagawa, M.Hata, T.Nishioka, T.Ozaki, M.Nishiyama, T.Kuzuyama and T.Tamura
Structure of the Quinoline N-Hydroxylating Cytochrome P450 RauA, an Essential Enzyme that Confers Antibiotic Activity on Aurachin Alkaloids
FEBS Letters, **588** (2014) 105.

S.Okada, T.Yamamoto, H.Watanabe, T.Nishimoto, H.Chaen, S.Fukuda, T.Wakagi and S.Fushinobu
Structural and Mutational Analysis of Substrate Recognition in Kojibiose Phosphorylase
FEBS J., **281** (2014) 778.

C.Iwasa, T.Tonozuka, M.Shinoda, Y.Sagane, K.Niwa, T.Watanabe, H.Yoshida, S.Kamitori, T.Takao, K.Oguma and A.Nishikawa
Purification, Crystallization and Preliminary X-Ray Analysis of an HA17-HA70(HA2-HA3) Complex from *Clostridium botulinum* Type C Progenitor Toxin
Acta Cryst. F, **70** (2014) 64.

T.Satoh, K.Suzuki, T.Yamaguchi and K.Kato
Structural Basis for Disparate Sugar-Binding Specificities in the Homologous Cargo Receptors ERGIC-53 and VIP36
PLOS ONE, **9** (2014) e87963.

T.Yokoyama, Y.Kosaka and M.Mizuguchi
Crystal Structures of Human Transthyretin Complexed with Glabridin
J. Med. Chem., **57** (2014) 1090.

Y.Shinohara, A.Miyanaga, F.Kudo and T.Eguchi
The Crystal Structure of the Amidohydrolase VinJ Shows a Unique Hydrophobic Tunnel for its Interaction with Polyketide Substrates
FEBS Letters, **588** (2014) 995

K.Kosami, I.Ohki, K.Hayashi, R.Tabata, S.Usugi, T.Kawasaki, T.Fujiwara, A.Nakagawa, K.Shimamoto and C.Kojima
Purification, Crystallization and Preliminary X-Ray Crystallographic Analysis of a Rice Rac/Rop GTPase, OsRac1
Acta Cryst. F, **70** (2014) 113.

S.Arai, Y.Yonezawa, M.Ishibashi, F.Matsumoto, M.Adachi, T.Tamada, H.Tokunaga, M.Blaber, M.Tokunaga and R.Kuroki
Structural Characteristics of Alkaline Phosphatase from the Moderately Halophilic Bacterium *Halomonas* sp.593
Acta Cryst. D, **70** (2014) 811.

D.Matsui, D.-H.Im, A.Sugawara, Y.Fukuta, S.Fushinobu, K.Isobe and Y.Asano
Mutational and Crystallographic Analysis of L-Amino Acid Oxidase/Monooxygenase from *Pseudomonas* sp. AIU 813: Interconversion between Oxidase and Monooxygenase Activities
FEBS Open Bio, **4** (2014) 220.

D.Takeshita, M.Kataoka, T.Miyakawa, K.Miyazono, S.Kumashiro, T.Nagai, N.Urano, A.Uzura, K.Nagata, S.Shimizu and M.Tanokura
Structural Basis of Stereospecific Reduction by Quinuclidinone Reductase
AMB express, **4** (2014) 6.

K.Sugimoto, M.Senda, D.Kasai, M.Fukuda, E.Masai and T.Senda
Molecular Mechanism of Strict Substrate Specificity of an Extradiol Dioxygenase, DesB, Derived from *Sphingobium* sp. SYK-6.
PLOS ONE, **9** (2014) e92249.

T.Ito, K.Saikawa, S.Kim, K.Fujita, A.Ishiwata, S.Kaeothip, T.Arakawa, T.Wakagi, G.T.Beckham, Y.Ito, S.Fushinobu
Crystal Structure of Glycoside Hydrolase Family 127 β-L-Arabinofuranosidase from *Bifidobacterium longum*
Biochem. Biophys. Res. Commun., **447** (2014) 32.

H.Unno, S.Goda and T.Hatakeyama
Hemolytic Lectin CEL-III Heptamerizes via a Large Structural Transition from α-Helices to a β-Barrel during the Transmembrane Pore-Formation Process
J. Biol. Chem., **289** (2014) 12805.

L.Wang, X.Yang, S.Li, Z.Wang, Y.Liu, J.Feng, Y.Zhu and Y.Shen
Structural and Mechanistic Insights into MICU1 Regulation of Mitochondrial Calcium Uptake
EMBO J., **33** (2014) 594.

T.Tsuda, M.Asami, Y.Koguchi and S.Kojima
Single Mutation Alters the Substrate Specificity of L-Amino Acid Ligase
Biochemistry, **53** (2014) 2650.

Y.Kanoh, S.Uehara, H.Iwata, K.Yoneda, T.Ohshima and H.Sakuraba
Structural Insight into Glucose Dehydrogenase from the Thermoacidophilic Archaeon *Thermoplasma volcanium*
Acta Cryst. D, **70** (2014) 1271.

C.Feng, Y.Liu, G.Wang, Z.Deng, Q.Zhang, W.Wu, Y.Tong, C.Cheng and Z.Chen
Crystal Structures of the Human RNA Demethylase Alkbh5 Reveal Basis for Substrate Recognition
J. Biol. Chem., **289** (2014) 11571.

Z.Deng, K.C.Lehmann, X.Li, C.Feng, G.Wang, Q.Zhang, X.Qi, L.Yu, X.Zhang, W.Feng, W.Wu, P.Gong, Y.Tao, C.C.Posthuma, E.J.Snijder, A.E.Gorbalenya and Z.Chen
Structural Basis for the Regulatory Function of a Complex Zinc-Binding Domain in a Replicative Arterivirus Helicase Resembling a Nonsense-Mediated mRNA Decay Helicase
Nucleic Acids Research, **42** (2014) 3464.

Y.Ishida, W.Tsuchiya, T.Fujii, Z.Fujimoto, M.Miyazawa, J.Ishibashi, S.Matsuyama, Y.Ishikawa and T.Yamazaki
Niemann-Pick Type C2 Protein Mediating Chemical Communication in the Worker Ant
Proc. Natl. Acad. Sci. USA, **111** (2014) 3847.

T.Maehara, Z.Fujimoto, H.Ichinose, M.Michikawa, K.Harazono and S.Kaneko
Crystal Structure and Characterization of the Glycoside Hydrolase Family 62 α-L –Arabinofuranosidase from *Streptomyces coelicolor*
J. Biol. Chem., **289** (2014) 7962.

N.Suzuki, Z.Fujimoto, Y.-M.Kim, M.Momma, N.Kishine, R.Suzuki, S.Suzuki, S.Kitamura, M.Kobayashi, A.Kimura and K.Funane
Structural Elucidation of the Cyclization Mechanism of α-1,6-Glucan by *Bacillus circulans* T-3040 Cycloisomaltooligosaccharide Glucanotransferase
J. Biol. Chem., **289** (2014) 12040.

A.Kishimoto, A.Kita, T.Ishibashi, H.Tomita, Y.Yokooji, T.Imanaka, H.Atomi and K.Miki
Crystal Structure of Phosphopantothenate Synthetase from *Thermococcus kodakarensis*
Proteins **82** (2014) 1924.

M.Elahi, M.M.Islam, K.Noguchi, M.Yohda, H.Toh, Y.Kuroda
Computational Prediction and Experimental Characterization of a ″Size Switch Type Repacking" during the Evolution of Dengue Envelope Protein Domain III (ED3)
BBA Protein and Proteomics **1833** (2014) 585.

T.Shimegi, T.Ooyama, T.Ohtsuki, G.Kurisu, M.Kusunoki and S.Ui
Crystallization and Preliminary X-Ray Diffraction Analysis of Domain-Chimeric L-(2*S*,3*S*)-Butanediol Dehydrogenase
Acta Cryst. F, **70** (2014) 461.

E.Tamai, H.Yoshida, H.Sekiya, H.Nariya, S.Miyata, A.Okabe, T.Kuwahara, J. Maki and S.Kamitori
X-Ray Structure of a Novel Endolysin Encoded by Episomal Phage PhiSM101 of *Clostridium perfringens*
Molecular Microbiology, **92** (2014) 326.

Y.Fujioka, S.W.Suzuki, H.Yamamoto, C.Kondo-Kakuta, Y.Kimura, H.Hirano, R.Akada, F.Inagaki, Y.Ohsumi and N.N.Noda
Structural Basis of Starvation-Induced Assembly of the Autophagy Initiation Complex
Nature Structural Molecular Biology, **21** (2014) 513.

X.Liu, Y.Yin, J.Wu and Z.Liu
Structure and Mechanism of an Intramembrane Liponucleotide Synthetase Central for Phospholipid Biosynthesis
Nature Communications, **5** (2014) 4244.

H.Yokoyama and S.Fujii
Structures and Metal-Binding Properties of *Helicobacter pylori* Neutrophil-Activating Protein with a Di-Nuclear Ferroxidase Center
Biomolecules, **4** (2014) 600.

S.Akai, H.Ikushiro, D.Sawai, H.Hayashi, N.Kamiya and I.Miyahara
Crystallographic Study of Homoserine Dehydrogenase from *Thermus thermophius* HB8
Vitamins, **88** (2014) 358. (in Japanese).

T.Mise, H.Matsunami, F.A.Samatey and I.N.Maruyama
Crystallization and Preliminary X-Ray Diffraction Analysis of the Periplasmic Domain of the *Escherichia coli* Aspartate Receptor Tar and its Complex with Aspartate
Acta Cryst. F, **70** (2014) 1219.

M.Kanagawa, Y.Liu, S.Hanashima, A.Ikeda, W.Chai, Y.Nakano, K.Kojima-Aikawa, T.Feizi and Y.Yamaguchi
Structural Basis for Multiple Sugar Recognition of Jacalin-Related Human ZG16p Lectin
J. Biol. Chem., **289** (2014) 16954.

S.Kamachi, K.Wada, M.Tamoi, S.Shigeoka and T.Tada
The 2.2 ÃResolution Structure of the Catalase- Peroxidase KatG from *Synechococcus elongatus* PCC7942
Acta Cryst. F, **70** (2014) 288.

H.Tsukagoshi, A.Nakamura, T.Ishida, K.K.Touhara, M.Otagiri, S.Moriya, M.Samejima, K.Igarashi, S.Fushinobu, K.Kitamoto and M.Arioka
Structural and Biochemical Analyses of Glycoside Hydrolase Family 26 *β*-Mannanase from a Symbiotic Protist of the Termite *Reticulitermes speratus*
J. Biol. Chem., **289** (2014) 10843.

K.K.Touhara, T.Nihira, M.Kitaoka, H.Nakai and S.Fushinobu
Structural Basis for Reversible Phosphorolysis and Hydrolysis Reactions of 2-*O*-α-Glucosylglycerol Phosphorylase
J. Biol. Chem., **289** (2014) 18067.

K.Suzuki, A.Hori, K.Kawamoto, R.R.Thangudu, T.Ishida, K.Igarashi, M.Samejima, C.Yamada, T.Arakawa, T.Wakagi, T.Koseki and S.Fushinobu
Crystal Structure of a Feruloyl Esterase Belonging to the Tannase Family: A Disulfide Bond Near a Catalytic Triad
Proteins, **82** (2014) 2857.

H.Zhao, G.Sheng, J.Wang, M.Wang, G.Bunkoczi, W.Gong, Z.Wei and Y.Wang
Crystal Structure of the RNA-Guided Immune Surveillance Cascade Complex in *Escherichia coli*
Nature, **515** (2014) 147.

Y.Itoh, M.J.Bröcker, S.Sekine, D.Söll and S.Yokoyama
Dimer-Dimer Interaction of the Bacterial Selenocysteine Synthase SelA Promotes Functional Active-Site Formation and Catalytic Specificity
J. Mol. Biol., **426** (2014) 1723.

A.Miyanaga, J.Cieślak, Y.Shinohara, F.Kudo and T.Eguchi
The Crystal Structure of the Adenylation Enzyme VinN Reveals a Unique β-Amino Acid Recognition Mechanism
J. Biol. Chem., **289** (2014) 31448.

M.Koyama, N.Shirai and Y.Matsuura
Structural Insights into How Yrb2p Accelerates the Assembly of the Xpo1p Nuclear Export Complex
Cell Reports, **9** (2014) 983.

T.Yokoyama, Y.Kosaka and M.Mizuguchi
Inhibitory Activities of Propolis and its Promising Component, Caffeic Acid Phenethyl Ester, against Amyloidogenesis of Human Transthyretin
J. Med. Chem, **57** (2014) 8928.

H.Yoshida, A.Yoshihara, M.Teraoka, Y.Terami, G.Takata, K.Izumori and S.Kamitori
X-Ray Structure of a Novel L-Ribose Isomerase Acting on a Non-Natural Sugar L-Ribose as its Ideal Substrate
FEBS J., **281** (2014) 3150.

K.Kosami, I.Ohki, M.Nagano, K.Furuita, T.Sugiki, Y.Kawano, T.Kawasaki, T.Fujiwara, A.Nakagawa, K.Shimamoto and C.Kojima
The Crystal Structure of the Plant Small GTPase OsRac1 Reveals its Mode of Binding to NADPH Oxidase
J. Biol. Chem., **289** (2014) 28569.

J.Lu, Y.Gu, J.Feng, W.Zhou, X.Yang and Y.Shen
Structural Insight into the Central Element Assembly of the Synaptonemal Complex
Scientific Reports, **4** (2014) 7059.

Z.Wang, X.Yang, S.Guo, Y.Yang, X.C.Su, Y.Shen and J.Long
Crystal Structure of the Ubiquitin-Like Domain-CUT Repeat-Like Tandem of Special AT-Rich Sequence Binding Protein 1 (SATB1) Reveals a Coordinating DNA-Binding Mechanism
J. Biol. Chem., **289** (2014) 27376.

J.P.Maianti, H.Kanazawa, P.Dozzo, R.D.Matias, L.A.Feeney, E.S.Armstrong, D.J.Hildebrandt, T.R.Kane, M.J.Gliedt, A.A.Goldblum, M.S.Linsell, J.B.Aggen, J.Kondo and S.Hanessian
Toxicity Modulation, Resistance Enzyme Evasion, and A-Site X-Ray Structure of Broad-Spectrum Antibacterial Neomycin Analogs
ACS Chemical Biology, **9** (2014) 2067.

J.Y.Kim, C.W.Kim, Y.K.Park, N.Y.Kang, N.H.Heo and K.Seff
First Successful Application of the Thallous Ion Exchange (TIE) Method. Preparation of Fully Indium- Exchanged Zeolite Y (FAU, Si/Al = 1.69)
J. Phys. Chem. C, **118** (2014) 24655.

G.Wang, Q.He, C.Feng, Y.Liu, Z.Deng, X.Qi, W.Wu, P.Mei and Z.Chen
The Atomic-Resolution Structure of Human Alkb Homolog 7 (ALKBH7), a Key Protein for Programmed Necrosis and Fat Metabolism
J. Biol. Chem., **289** (2014) 27924.

K.Ito, T.Honda, T.Suzuki, T.Miyoshi, R.Murakami, M.Yao and T.Uchiumi
Molecular Insights into the Interaction of the Ribosomal Stalk Protein with Elongation Factor 1α
Nucleic Acids Res., **42** (2014) 14042.

P.Zhou, Y.Liu, Q.Yan, Z.Chen, Z.Qin and Z.Jiang
Structural Insights into the Substrate Specificity and Transglycosylation Activity of a Fungal Glycoside Hydrolase Family 5 β-Mannosidase
Acta Cryst. D, **70** (2014) 2970.

Y.Kawaguchi, K.Yoneda, T.Torikata and T.Araki
Asp48 Function in the Hydrogen-Bonding Network Involving Asp52 of Hen Egg-White Lysozyme.
Biosci., Biotechnol., Biochem., **16** (2014) 1-9.

K.Inoue, Y.Usami, Y.Ashikawa, H.Noguchi, T.Umeda, A.Y.Ashikawa, T.Horisaki, H.Uchimura, T.Terada, S.Nakamura, K.Shimizu, H.Habe, H.Yamane, Z.Fujimoto and H.Nojiri
Structural Basis of the Divergent Oxygenation Reactions Catalyzed by the Rieske Nonheme Iron Oxygenase Carbazole 1,9a-Dioxygenase.
Appl. Environ. Microbiol., **80** (2014) 2821.

J.Matsuzawa, H.Aikawa, T.Umeda, Y.Ashikawa, C.S.Minakuchi, Y.Kawano, Z.Fujimoto, K.Okada, H.Yamane and H.Nojiri
Crystallization and Preliminary X-Ray Diffraction Analyses of the Redox-Controlled Complex of Terminal Oxygenase and Ferredoxin Components in the Rieske Nonhaem Iron Oxygenase Carbazole 1,9a-Dioxygenase
Acta Cryst. F, **70** (2014) 1406.

F.Hou, T.Miyakawa, M.Kataoka, D.Takeshita, S.Kumashiro, A.Uzura, N.Urano, K.Nagata, S.Shimizu and M.Tanokura
Structural Basis for High Substrate-Binding Affinity and Enantioselectivity of 3-Quinuclidinone Reductase AtQR.
Biochem. Biophys. Res. Commun., **446** (2014) 911.

A.Nishizawa, A.Harada, M.Senda, Y.Tachihara, D.Muramatsu, S.Kishigami, S.Mori, K.Sugiyama, T.Senda and S.Kimura
Complete Pyridine Nucleotide-Specificity Conversion of an NADH-Dependent Ferredoxin Reductase.
Biochem. J, **462** (2014) 257.

K.Ishibashi, Y.Kezuka, C.Kobayashi, M.Kato, T.Inoue, T.Nonaka, M.Ishikawa, H.Matsumura and E.Katoh
Structural Basis for the Recognition-Evasion Arms Rase between *Tomato Mosaic Virus* and the Resistance Gene *Tm*-1
Proc. Natl. Acad. Sci. USA, **111** (2014) 3486.

M.Nagae, K.M.Matsumoto, M.Kato, M.K.Kaneko, Y.Kato and Y.Yamaguchi
A Platform of C-Type Lectin-Like Receptor CLEC-2 for Binding *O*-Glycosylated Podoplanin and Nonglycosylated Rhodocytin
Structure, **22** (2014) 1711.

N.Takahashi, S.H.Nakahara, Y.Itoh, K.Takemura, A.Shimada, Y.Ueda, M.Kitamata, R.Matsuoka, K.H.Suetsugu, Y.Senju, M.X.Mori, S.Kiyonaka, D.Kohda, A.Kitao, Y.Mori and S.Suetsugu
TRPV4 Channel Activity is Modulated by Direct Interaction of the Ankyrin Domain to PI(4,5)P_2
Nature Communications, **5** (2014) 4994.

T.Tomita, T.Ozaki, K.Matsuda, M.Nishiyama and T.Kuzuyama
Crystallization and Preliminary X-Ray Diffraction Analysis of Cyclolavandulyl Diphosphate Synthase, a New Member of the *Cis*-Isoprenyl Diphosphate Synthase Superfamily
Acta Cryst. F, **70** (2014) 1410.

S.Tashiro, J.M.M.Caaveiro, C.X.Wu, Q.Q.Hoang and K.Tsumoto
Thermodynamic and Structural Characterization of the Specific Binding of Zn(II) to Human Protein DJ-1
Biochemistry, **53** (2014) 2218.

C.Han, A.K.Tachikawa, A.Shimizu, D.Zhu, H.Nakamura, E.Adachi, T.Kikuchi, M.Koga, T.Koibuchi, G.F.Gao, Y.Sato, A.Yamagata, E.Martin, S.Fukai, Z.L.Brumme and A.Iwamoto
Switching and Emergence of CTL Epitopes in HIV-1 Infection
RETROVIROLOGY, **11** (2014) 38.

Y.Nishikawa, T.Oyama, N.Kamiya, T.Kon, Y.Y.Toyoshima, H.Nakamura and G.Kurisu
Structure of the Entire Stalk Region of the Dynein Motor Domain
J. Mol. Biol., **426** (2014) 3232.

T.T.Thach and S.H.Lee
New Crystal Structures of Adenylate Kinase from *Streptococcus Pneumoniae* D39 in Two Conformations
Acta Cryst. F, **70** (2014) 1468.

H.S.Kim, J.Kim, H.N.Im, D.R.An, M.Lee, D.Hesek, S.Mobashery, J.Y.Kim, K.Cho, H.J.Yoon, B.W.Han, B.I.Lee and S.W.Suh
Structural Basis for the Recognition of Muramyltripeptide by *Helicobacter Pylori* Csd4, a D,L-Carboxypeptidase Controlling the Helical Cell Shape
Acta Cryst. D, **70** (2014) 2800.

T.T.Thach, T.T.Luong, S.H.Lee and D.K.Rhee
Adenylate Kinase from Streptococcus Pneumoniae Is Essential for Growth Through Its Catalytic Activity
FEBS Open Bio., **4** (2014) 672.

S.J.Lee, Y.S.Park, S.J.Kim, B.J.Lee and S.W.Suh
Crystal Structure of PhoU from *Pseudomonas aeruginosa*, a Negative Regulator of the Pho Regulon
J. Struct. Biol., **188** (2014) 22.

Y.Anami, T.Itoh, D.Egawa, N.Yoshimoto and K.Yamamoto
A Mixed Population of Antagonist and Agonist Binding Conformers in a Single Crystal Explains Partial Agonism against Vitamin D Receptor: Active Vitamin D Analogues with 22*R*-Alkyl Group
J. Med. Chem., **57** (2014) 4351.

K.Yamamoto, Y.Anami and T.Itoh
Development of Vitamin D Analogs Modulating the Pocket Structure of Vitamin D Receptor
Curr. Top. Med. Chem., **14** (2014) 2378.

T.Kudo, M.Ishizawa, K.Maekawa, M.Nakabayashi, Y.Watarai, H.Uchida, H.Tokiwa, T.Ikura, N.Ito, M.Makishima and S.Yamada
Combination of Triple Bond and Adamantane Ring on the Vitamin D Side Chain Produced Partial Agonists for Vitamin D Receptor
J. Med. Chem., **57** (2014) 4073.

T.Fujiwara, W.Saburi, H.Matsui, H.Mori and M.Yao
Structural Insights into the Epimerization of Beta- 1,4-Linked Oligosaccharides Catalyzed by Cellobiose 2- Epimerase, the Sole Enzyme Epimerizing Non-Anomeric Hydroxyl Groups of Unmodified Sugars
J. Biol. Chem., **289** (2014) 3405.

X.Shen, W.Saburi, Z.Q.Gai, K.Komoda, J.Yu, T.O.Kato, Y.Kido, H.Matsui, H.Mori and M.Yao
Crystallization and Preliminary X-Ray Crystallographic Analysis of α-Glucosidase HaG from *Halomonas* sp. Strain H11
Acta Cryst. F, **70** (2014) 464.

M.Hasegawa, S.T.Fukai, JD.Kim, A.Fukamizu and T.Shimizu
Protein Arginine Methyltransferase 7 has a Novel Homodimer-Like Structure Formed by Tandem Repeats
FEBS Letters, **588** (2014) 1942.

E.Yoo, D.Salunke, D.Sil, X.Guo, A.Salyer, A.Hermanson, M.Kumar, S.S.Malladi, R.Balakrishna, W.H.Thompson, H.Tanji, U.Ohto, T.Shimizu and S.A.David
Determinants of Activity at Human Toll-Like Receptors 7 and 8: Quantitative Structure-Activity Relationship (QSAR) of Diverse Heterocyclic Scaffolds
J. Med. Chem., **57** (2014) 7955.

6A

Y.Kawabata, K.Hayashi, T.Kanao and A.Ishikawa
Bilayer Structure of Ester-Amide-Type Cationic Surfactants in a Dilute Aqueous Solution
Colloids and Surfaces A: Physicochemical and Engineering Aspects, **441** (2014) 140.

T.Yamamoto, H.Okuda, K.Takeshita, N.Usami, Y.Kitajima and H.Ogawa
Grazing-Incidence Small-Angle X-Ray Scattering from Ge Nanodots Self-Organized on Si(001) Examined with Soft X-Rays
J. Synchrotron Rad., **21** (2014) 161.

H.Okuda, T.Horiuchi, T.Maruyama, M.Yamasaki, Y.Kawamura, K.Hagiwara and S.Kohara
Development of Microstructures of Long-Period Stacking Ordered Structures in $Mg_{85}Y_9Zn_6$ Alloys Annealed at 673 K(400^{o} C) Examined by Small-Angle X-Ray Scattering
Metallurgical and Materials Transactions A, **45** (2014) 147.

S.Duangjit, Y.Obata, H.Sano, Y.Onuki, P.Opanasopit, T.Ngawhirunpat, T.Miyoshi, S.Kato and K.Takayama
Comparative Study of Novel Ultradeformable Liposomes: Menthosomes, Transfersomes and Liposomes for Enhancing Skin Permeation of Meloxicam
Biol. Pharm. Bull, **37** (2014) 239.

K.Hemmi, G.Matsuba, H.Tsuji, T.Kawai, T.Kanaya, K.Toyohara, A.Oda and K.Endou
Precursors in Stereo-Complex Crystals of Poly($_{L}$-Lactic Acid)/Poly($_{D}$-Lactic Acid) Blends under Shear Flow
J. Appl. Cryst., **47** (2014) 14.

F.Kaneko, N.Seto, K.Sasaki and S.Sakurai
Multiple Site Occupation of Flexible Polymeric Compounds in Cocrystals of Syndiotactic Polystyrene
Chem. Lett., **43** (2014) 904.

G.Cui, M.Fujikawa, S.Nagano, M.Sano, H.Takase, T.Miyazaki, S.Sakurai and K.Yamamoto
Perpendicular Oriented Cylinders via Directional Coalescence of Spheres Embedded in Block Copolymer Films Induced by Solvent Annealing
Polymer, **55** (2014) 1601.

K.Yamamoto, K.Ohara, G.Cui, R.Tanaka, D.Shimada, S.Nagano, M.Sano, S.Sakurai, K.Shimokita and T.Miyazaki
Solvent Annealing Induced Perpendicular Orientation of Microdomains in Block Copolymer Thin Films
Kobunshi Ronbunshu, **71** (2014) 104. (*in Japanese*).

M.Hishida, K.Tanaka, Y.Yamamura and K.Saito
Cooperativity between Water and Lipids in Lamellar to Inverted-Hexagonal Phase Transition
J. Phys. Soc. Jpn., **83** (2014) 044801.

R.Hori, Y.Miwa, K.Yamamoto and S.Kutsumizu
Phase Structure and Phase Transition Mechanism for Light-Induced *Ia3d* Cubic Phase in 4'-*n*-Docosyloxy-3'-Nitrobiphenyl-4-Carboxlic Acid/Ethyl 4-(4'-*n*-Docosyloxyphenylazo)Benzoate Binary Mixture
J. Phys. Chem. B, **118** (2014) 3743.

H.Okuda, T.Horiuchi, M.Yamasaki, Y.Kawamura and S.Kohara
In Situ Measurements on Stability of Long-Period Stacking-Ordered Structures in $Mg_{85}Y_9Zn_6$ Alloys during Heating Examined by Multicolor Synchrotron Radiation Small-Angle Scattering
Scripta Materialia, **75** (2014) 66.

H.Okuda, T.Yamamoto, K.Takeshita, M.Hirai, K.Senoo, H.Ogawa and Y.Kitajima
Normalization of Grazing-Incidence Small Angle Scattering of Phospholipid Alloy Systems at the K Absorption Edge of Phosphorous: A Standard Sample Approach
Jpn. J. Appl. Phys., **53** (2014) 05FH02.

G.Cui, M.Fujikawa, S.Nagano, K.Shimokita, T.Miyazaki, S.Sakurai and K.Yamamoto
Macroscopic Alignment of Cylinders via Directional Coalescence of Spheres along Annealing Solvent Permeation Directions in Block Copolymer Thick Films
Macromolecules, **47** (2014) 5989.

A.B.Imran, K.Esaki, H.Gotoh, T.Seki, K.Ito, Y.Sakai and Y.Takeoka
Extremely Stretchable Thermosensitive Hydrogels by Introducing Slide-Ring Polyrotaxane Cross-Linkers and Ionic Groups into the Polymer Network
Nature Communications, **5** (2014) 5124.

F.Kaneko
Cocrystallization of Syndiotactic Polystyrene by a Guest Exchange Phenomenon: Investigation of the Mechanism and Preparation of Polymer Composites
Kobunshi Ronbunshu, **71** (2014) 540. (*in Japanese*).

Y.Maki, K.Furusawa, S.Yasuraoka, H.Okamura, N.Hosoya, M.Sunaga, T.Dobashi, Y.Sugimoto and K.Wakabayashi
Universality and Specificity in Molecular Orientation in Anisotropic Gels Prepared by Diffusion Method
Carbohydr. Polym., **108** (2014) 118.

M.Hishida, Y.Yamamura and K.Saito
Salt Effects on Lamellar Repeat Distance Depending on Head Groups of Neutrally Charged Lipids
Langmuir, **30** (2014) 10583.

M.Hishida
Correlation between Hydration States and Self-assembly Structures of Phospholipid and Surfactant
C & I Commun, **39** (2014) 17. (*in Japanese*).

M.Sano, S.Nakamura, M.Hara, S.Nagano, Y.Shinohara, Y.Amemiya and T.Seki
Pathways Toward Photoinduced Alignment Switching in Liquid Crystalline Block Copolymer Films
Macromolecules, **47** (2014) 7178.

I.Saito, T.Okamoto, K.Shimokita, T.Miyazaki and K.Yamamoto
Perpendicular Orientation of Cylindrical Microdomains of $FeCl_3$ Doped Polystyrene-*b*-poly(2-vinyl pyridine) Thin Films
Koubunshi Ronbunshu, **71** (2014) 586. (*in Japanese*).

Former 6A

D.Matsui, D.-H.Im, A.Sugawara, Y.Fukuta, S.Fushinobu, K.Isobe and Y.Asano
Mutational and Crystallographic Analysis of L-Amino Acid Oxidase/Monooxygenase from *Pseudomonas* sp. AIU 813: Interconversion between Oxidase and Monooxygenase Activities
FEBS Open Bio, **4** (2014) 220.

T.Ito, K.Saikawa, S.Kim, K.Fujita, A.Ishiwata, S.Kaeothip, T.Arakawa, T.Wakagi, G.T.Beckham, Y.Ito, S.Fushinobu
Crystal Structure of Glycoside Hydrolase Family 127 β-L-Arabinofuranosidase from *Bifidobacterium longum*
Biochem. Biophys. Res. Commun., **447** (2014) 32.

N.Suzuki, Z.Fujimoto, Y.-M.Kim, M.Momma, N.Kishine, R.Suzuki, S.Suzuki, S.Kitamura, M.Kobayashi, A.Kimura and K.Funane
Structural Elucidation of the Cyclization Mechanism of α-1,6-Glucan by *Bacillus circulans* T-3040 Cycloisomaltooligosaccharide Glucanotransferase
J. Biol. Chem., **289** (2014) 12040.

H.Yokoyama and S.Fujii
Structures and Metal-Binding Properties of *Helicobacter pylori* Neutrophil-Activating Protein with a Di-Nuclear Ferroxidase Center
Biomolecules, **4** (2014) 600.

Y.Ikehara, K.Arai, N.Furukawa, T.Ohno, T.Miyake, S.Fushinobu, M.Nakajima, A.Miyanaga and H.Taguchi The Core of Allosteric Motion in *Thermus caldophilus* L-Lactate Dehydrogenase
J. Biol. Chem., **289** (2014) 31550.

Z.Wang, L.Li and X.D.Su
Structural and Functional Characterization of a Novel α/β Hydrolase from Cariogenic Pathogen *Streptococcus Mutans*
Proteins, **82** (2014) 695.

6C

K.Fukuda and K.Kumagai
Dot-Like Formation of Metal Nanocrystals from Exfoliated Ruthenate Nanosheets
E-Journal. Surface Science and Nanotechnology, **12** (2014) 97.

S.Hosokawa, N.Happo, K.Hayashi, A.Ohnishi, M.Kitaura and M.Sasaki
An X-Ray Fluorescence Holographic Study on a $Bi_2Te_3Mn_{0.1}$ Topological Insulator
J. Phys.: Conf. Ser., **502** (2014) 012024.

M.Kimura
Synchrotron Radiation Shed Light to *In Situ* and Dynamic Observation of High-Temperature Processes e-J. Surf. Sci. Nanotech., **12** (2014) 1.

B.-W.Li, M.Osada, Y.Ebina, K.Akatsuka, K.Fukuda and T.Sasaki
High Thermal Robustness of Molecularly Thin Perovskite Nanosheets and Implications for Superior Dielectric Properties
ACS Nano, **8** (2014) 5449.

M.Okube and S.Sasaki
Site-Specific Electronic Structures of Ferrimagnetic Fe_3O_4 Measured by Resonant X-Ray Magnetic Scattering
J. Appl. Cryst., **47** (2014) 1387.

M.Okube and S.Sasaki
Resonant X-Ray Scattering and Crystal Structure Analyses
J. Cryst. Soc. Jpn., **56** (2014) 158. (in Japanese).

S.Sasaki
Magnetic Structure Examined by Synchrotron X-Rays
Crystallography in Japan (II), (2014) 99. (in Japanese).

S.Hosokawa, N.Happo, S.Senba, T.Ozaki, T.Matsushita, A.Koura, F.Shimojo and K.Hayashi
Local Clusters in a Distorted Rocksalt GeTe Crystal Found by X-Ray Fluorescence Holography
J. Phys. Soc. Jpn., **83** (2014) 124602.

M.Osada, S.Yoguchi, M.Itose, B.Li, Y.Ebina, K.Fukuda, Y.Kotani, K.Ono, S.Ueda and T.Sasaki
Controlled Doping of Semiconducting Titania Nanosheets for Tailored Spinelectronic Materials
Nanoscale, **6** (2014) 14227.

N.Happo, K.Hayashi, S.Senba, H.Sato, M.Suzuki and S.Hosokawa
Distorted and Undistorted Atomic Sites in a Ferromagnetic Semiconductor $Ge_{0.6}Mn_{0.4}Te$ Film Determined by X-Ray Fluorescence Holography
J. Phys. Soc. Jpn., **83** (2014) 113601.

K.Hayashi, N.Happo and S.Hosokawa
Applications of X-Ray Fluorescence Holography to Determine Local Lattice Distortions
J. Elec. Spec. Relat. Phenom., **195** (2014) 337.

7A

K.Amemiya, M.Sakamaki, M.Mizusawa and M.Takeda
Twisted Magnetic Structure in Ferromagnetic Ultrathin Ni Films Induced by Magnetic Anisotropy Interaction with Antiferromagnetic FeMn
Phys. Rev. B, **89** (2014) 054404.

S.Kaneko and M.Kiguchi
Investigation on the Pyrazine Molecular Junction Studied by Conductance Measurement and Near Edge X-Ray Absorption Fine Structure
Fullerenes, Nanotubes, and Carbon Nanostructures, **22** (2014) 166.

Y.Nanba, D.Asakura, M.Okubo, H.S.Zhou, K.Amemiya, K.Okada, P.-A.Glans, C.A.Jenkins, E.Arenholz and J.H.Guo
Anisotropic Charge-Transfer Effects in the Asymmetric $Fe(CN)_5NO$ Octahedron of Sodium Nitroprusside: a Soft X-Ray Absorption Spectroscopy Study
Phys. Chem. Chem. Phys., **16** (2014) 7031.

J.Takashiro, Y.Kudo, S.Kaneko, K.Takai, T.Ishii, T.Kyotani, T.Enoki and M.Kiguchi
Heat Treatment Effect on the Electronic and Magnetic Structures of Nanographene Sheets Investigated through Electron Spectroscopy and Conductance Measurements
Phys. Chem. Chem. Phys., **16** (2014) 7280.

Y.Kudo, M.Kiguchi, J.Takashiro, K.Takai and T.Enoki
Development of Edge State on Graphite Surface Induced by Ar^+ Irradiation Studied using Near-Edge X-Ray Absorption Fine Structure Spectroscopy
Carbon, **72** (2014) 152.

S.-J.Hao, V.L.J.Joly, S.Kaneko, J.Takashiro, K.Takai, H.Hayashi, T.Enoki and M.Kiguchi
Magnetic Edge-States in Nanographene, HNO_3 - Doped Nanographene and its Residue Compounds of Nanographene-Based Nanoporous Carbon
Phys. Chem. Chem. Phys., **16** (2014) 6273.

M.Sakamaki and K.Amemiya
Enhancement of Perpendicular Magnetic Anisotropy by Compressive Strain in Alternately Layered FeNi Thin Films
J. Phys.: Condens. Matter, **26** (2014) 166002.

M.Yoshida and H.Kondoh
In-Situ Observation of Model Catalysts under Reaction Conditions using X-Ray Core-Level Spectroscopy
Chem. Rec., **14** (2014) 806.

S.Kanai, M.Tsujikawa, Y.Miura, M.Shirai, F.Matsukura and H.Ohno
Magnetic Anisotropy in Ta/CoFeB/MgO Investigated by X-Ray Magnetic Circular Dichroism and First-Principles Calculation
Appl. Phys. Lett., **105** (2014) 222409.

H.Kondoh, Y.Higashi, M.Yoshida, Y.Monya, R.Toyoshima, K.Mase, K.Amemiya, F.Tsukioka, M.Nagasaka, Y.Iwasawa, H.Orita, K.Mukai and J.Yoshinobu
Structure and Photo-Induced Charge Transfer of Pyridine Molecules Adsorbed on TiO_2(110): A NEXAFS and Core-Hole-Clock Study
Electrochemistry, **82** (2014) 341.

J.Takashiro, Y.Kudo, S.J.Hao, K.Takai, D.N.Futaba, T.Enoki and M.Kiguchi
Preferential Oxidation-Induced Etching of Zigzag Edges in Nanographene
Phys. Chem. Chem. Phys., **16** (2014) 21363.

T.Miyanaga, K.Takasugi, T.Ohba, T.Aida and T.Okazaki
Magnetic and Local Structure Analysis for Fe/Cr Multilayer Films
J. Phys. Conf. Ser, **502** (2014) 012032.

7C

M.Morikawa, N.Ahmed, Y.Yoshida, Y.Izumi Photoconversion of Carbon Dioxide in Zinc-Copper- Gallium Layered Double Hydroxides: the Kinetics to Hydrogen Carbonate and Further to CO/Methanol
Appl. Catal. B, **144** (2014) 561.

R.Otsuka and H.Yoshitake
Different Modes of Adsorptions of Arsenate on Silica Grafted with Fe^{3+}-Coordinated Silanes
Journal of Colloid and Interface Science, **415** (2014) 143.

Y.Tezuka, T.Sasaki, Y.Fujita, T.Iwamoto, H.Osawa, S.Nozawa, N.Nakajima, H.Sato and T.Iwazumi
Core Excitations in Resonant X-Ray Raman Scattering of Titanium Oxides: An Approach to Studying Electronic Structures
J. Phys. Soc. Jpn., **83** (2014) 014707.

K.Oka, Y.Ogura and Y.Izumi
X-Ray Evaluation of the Boundary between Polymer Electrolyte and Platinum and Carbon Functionalization to Conduct Protons in Polymer Electrolyte Fuel Cells
J. Power Sources, **258** (2014) 83.

K.Ikeue, K.Watanabe, T.Minekishi, A.Imamura, T.Sato, Y.Nagao, Y.Nakahara and M.Machida
Fe-Substituted $10Al_2O_3{\cdot}2B_2O_3$ as a Multifunctional Support for Automotive Pd Catalysts
Appl. Catal. B, **146** (2014) 50.

T.Kawamata, K.Sugiyama, Y.Yokoyama and T.Fujita
Structural Study of Zr-Cu-Ag Bulk Metallic Glasses using the Anomalous X-Ray Scattering Method
J. Phys.: Conf. Ser., **502** (2014) 012027.

H.Arima, T.Kawamata, Y.Yokoyama and K.Sugiyama
Structure of $Al_{87}Y_8Ni_5$ Amorphous Alloy Analyzed by Anomalous X-Ray Scattering
JPS Conf. Proc., **1** (2014) 012107.

M.Morikawa, Y.Ogura, N.Ahmed, S.Kawamura, G.Mikami, S.Okamoto and Y.Izumi
Photocatalytic Conversion of Carbon Dioxide into Methanol in Reverse Fuel Cells with Tungsten Oxide and Layered Double Hydroxide Photocatalysts for Solar Fuel Generation
Catal. Sci. Technol., **4** (2014) 1644.

H.Abe, M.Sakamaki and K.Amemiya
Structures of Fe Magnetic Ultrathin Films on Cu(001) before and after CO Adsorption Revealed by EXAFS
J. Phys. Soc. Jpn., **83** (2014) 084603.

Y.Idemoto
Investigation into Properties of Highly Functional Oxides using Quantum Beam and Thermodynamic Measurement
J. Ceram. Soc. Jpn., **122** (2014) 839.

S.Nagashima, S.Furukawa, S.Kamiguchi, R.Kajio, H.Nagashima, A.Yamaguchi, M.Shirai, H.Kurokawa and T.Chihara
Catalytic Activity of Molecular Rhenium Sulfide Clusters $[Re_6S_8(OH)_{6-n}(H_2O)_n]^{(4-n)-}$ (n = 0, 2, 4, 6) with Retention of the Octahedral Metal Frameworks: Dehydrogenation and Dehydration of 1,4-Butanediol
J. Clust. Chem., **25** (2014) 1203.

R.Kaur, S.Gupta, S.K.Mehta, Y.Imai, T.Takiue, H.Matsubara and M.Aratono
Probing the Self-Aggregation Behavior and Counter Ion Distribution of a Copper Surfactant Complex
New J. Chem., **38** (2014) 3925.

B.Sarkar, C.Pendem, L.N.S.Konathala, T.Sasaki and R.Bal
Pt Nanoparticle Supported on Nanocrystalline CeO_2: Highly Selective Catalyst for Upgradation of Phenolic Derivatives Present in Bio-Oil
J. Mater. Chem. A, **2** (2014) 18398.

R.Tiwari, B.Sarkar, R.Tiwari, C.Pendem, T.Sasaki, S.Saran and R.Bal
Pt Nanoparticles with Tuneable Size Supported on Nanocrystalline Ceria for the Low Temperature Water- Gas-Shift (WGS) Reaction
J. Mol. Catal. A: Chem., **395** (2014) 117.

S.Acharyya, S.Ghosh, R.Tiwari, B.Sarkar, R.Singha, C.Pendem, T.Sasaki and R.Bal
Preparation of the $CuCr_2O_4$ Spinel Nanoparticles Catalyst for Selective Oxidation of Toluene to Benzaldehyde
Green Chem., **16** (2014) 2500.

B.Sarkar, C.Pendem, L.N.S.Konathala, T.Sasaki and R.Bal
Formation of Ilmenite-type $CoTiO_3$ on TiO_2 and its Performance in Oxidative Dehydrogenation of Cyclohexane with Molecular Oxygen
Catal. Commun., **56** (2014) 5.

T.Kamegawa, Y.Ishiguro, R.Kido and H.Yamashita Design of Composite Photocatalyst of TiO_2 and Y- Zeolite for Degradation of 2-Propanol in the Gas Phase under UV and Visible Light Irradiation
Molecules, **19** (2014) 16477.

8A

Y.Nakai, K.Honda, K.Yanagi, H.Kataura, T.Kato, T.Yamamoto and Y. Maniwa
Giant Seebeck Coefficient in Semiconducting Single-Wall Carbon Nanotube Film
Appl. Phys. Express, **7** (2014) 025103.

F.Kagawa, S.Horiuchi, N.Minami, S.Ishibashi, K.Kobayashi, R.Kumai, Y.Murakami and Y.Tokura Polarization
Switching Ability Dependent on Multidomain Topology in a UniaxialOrganic Ferroelectric
Nano Lett., **14** (2014) 239.

T.Sato, F.Kagawa, K.Kobayashi, K.Miyagawa, K.Kanoda, R.Kumai, Y.Murakami and Y.Tokura
Emergence of Nonequilibrium Charge Dynamics in a Charge-Cluster Glass
Phys. Rev. B, **89** (2014) 121102(R).

Y.Kurihara and Y.Moritomo
Electrochemical, Structural, and Electronic Properties of Mn-Co Hexacyanoferrates against Li Concentration
Jpn. J. Appl. Phys., **53** (2014) 067101.

Y.Takeichi, N.Inami, T.Ueno, K.Saito, H.Otori, R.Sagayama, R.Kumai and K.Ono
Micromanipulation and Pick-Up System for X-Ray Diffraction Characterization of Micrometer-Sized Single Particles
J. Phys.: Conf. Ser, **502** (2014) 012008.

R.Mitsuyama, S.Tadera, H.Kyakuno, R.Suzuki, H.Ishii, Y.Nakai, Y.Miyata, K.Yanagi, H.Kataura and Y.Maniwa
Chirality Fingerprinting and Geometrical Determination of Single-Walled Carbon Nanotubes: Analysis of Fine Structure of X-Ray Diffraction Pattern
Carbon, **75** (2014) 299.

K.T.Lai, A.Takemori, S.Miyasaka, S.Tajima, A.Nakao, H.Nakao, R.Kumai and Y.Murakami
Suppression of Superconductivity around x=0.5-0.7 in $LaFeP_{1-x}As_xO_{0.95}F_{0.05}$
JPS Conf. Proc., **1** (2014) 012104.

Y.Sekine, M.Nihei, R.Kumai, H.Nakao, Y.Murakami and H.Oshio
X-Ray-Induced Phase Transitions by Selective Excitation of Heterometal Ions in a Cyanide-Bridged Fe-Co Molecular Square
Chem. Comm., **50** (2014) 4050.

T.Matsumoto, G.N.Newton, T.Shiga, S.Hayami, Y.Matsui, H.Okamoto, R.Kumai, Y.Murakami and H.Oshio
Programmable Spin-State Switching in a Mixed Valence Spin-Crossover Iron Grid
Nature Communications, **5** (2014) 3865.

D.Choudhury, T.Suzuki, D.Okuyama, D.Morikawa, K.Kato, M.Takata, K.Kobayashi, R.Kumai, H.Nakao, Y.Murakami, M.Bremholm, B.B.Iversen, T.Arima, Y.Tokura and Y.Taguchi
Evolution of Magnetic and Structural Transitions and Enhancement of Magnetocaloric Effect in $Fe_{1-x}Mn_xV_2O_4$
Phys. Rev. B, **89** (2014) 104427.

T.Aree, H.-B.Bu¨rgi, D.Chernyshov and K.W.To¨rnroos
Dynamics and Thermodynamics of Crystalline Polymorphs. 3. γ-Glycine, Analysis of Variable-Temperature Atomic Displacement Parameters, and Comparison of Polymorph Stabilities
J. Phys. Chem. A, **118** (2014) 9951.

M.Hagiwara, M.Ikeda, T.Kida, K.Matsuda, S.Tadera, H.Kyakuno, K.Yanagi, Y.Maniwa and K.Okunishi
Haldane State Formed by Oxygen Molecules Encapsulated in Single-Walled Carbon Nanotubes
J. Phys. Soc. Jpn., **83** (2014) 113706.

A.Kobayashi, T.Ohba, E.Saitoh, Y.Suzuki, S.Noro, H.C.Chang and M.Kato
Flexible Coordination Polymers Composed of Luminescent Ruthenium(II) Metalloligands: Importance of the Position of the Coordination Site in Metalloligands
Inorg. Chem. **53**(2014) 2910.

K.Kobayashi, S.Horiuchi, S.Ishibashi, F.Kagawa, Y.Murakami and R.Kumai
Structure-Property Relationship of Supramolecular Ferroelectric [H-66dmbp][Hca] Accompanied by High Polarization, Competing Structural Phases, and Polymorphs
Chem. Eur. J., **20** (2014) 17515.

H.Ikemoto
The Structures and Properties of Tenanoparticles
Proceeding of the 26th Symposium on Phase Change Oriented Science (2014) 3.

T.Nakayama, T.Sakuraba, S.Tomita, A.Kaneko, E.Takai, K.Shiraki, K.Tashiro, N.Ishii, Y.Hasegawa, Y.Yamada, R.Kumai and Y.Yamamoto
Charge-Separated Fmoc-Peptide β-Sheets: Sequence-Secondary Structure Relationship for Arranging Charged Side Chains on Both Sides
Asian J. Org. Chem. **3** (2014) 1182.

T.Sato, F.Kagawa, K.Kobayashi, A.Ueda, H.Mori, K.Miyagawa, K.Kanoda, R.Kumai, Y.Murakami and Y.Tokura
Systematic Variations in the Charge-Glass-Forming Ability of Geometrically Frustrated theta-(BEDT-TTF)$_{2}$X Organic Conductors
J. Phys. Soc. Jpn. **83** (2014) 083602.

9A

M.Morikawa, N.Ahmed, Y.Yoshida, Y.Izumi Photoconversion of Carbon Dioxide in Zinc-Copper- Gallium Layered Double Hydroxides: the Kinetics to Hydrogen Carbonate and Further to CO/Methanol
Appl. Catal. B, **144** (2014) 561.

M.Tanaka, Y.S.Togo, N.Yamaguchi and Y.Takahashi
An EXAFS Study on the Adsorption Structure of Phenyl-Substituted Organoarsenic Compounds on Ferrihydrit
J. Colloid Interface Sci., **415** (2014) 13.

K.Oka, Y.Ogura and Y.Izumi
X-Ray Evaluation of the Boundary between Polymer Electrolyte and Platinum and Carbon Functionalization to Conduct Protons in Polymer Electrolyte Fuel Cells
J. Power Sources, **258** (2014) 83.

M.Katayama, K.Sumiwaka, R.Miyahara, H.Yamashige, H.Arai, Y.Uchimoto, T.Ohta, Y.Inada and Z.Ogumi
X-Ray Absorption Fine Structure Imaging of Inhomogeneous Electrode Reaction in $LiFePO_4$ Lithium-Ion Battery cathode
J. Power Sources, **269** (2014) 994.

M.Morikawa, Y.Ogura, N.Ahmed, S.Kawamura, G.Mikami, S.Okamoto and Y.Izumi
Photocatalytic Conversion of Carbon Dioxide into Methanol in Reverse Fuel Cells with Tungsten Oxide and Layered Double Hydroxide Photocatalysts for Solar Fuel Generation
Catal. Sci. Technol., **4** (2014) 1644.

R.Nakada, K.Ogawa, N.Suzuki, S.Takahashi and Y.Takahashi
Late Triassic Compositional Changes of Aeolian Dusts in the Pelagic Panthalassa: Response to the Continental Climatic Change
Paleogeography. Paleoclimatology. Paleoecology., **393** (2014) 61.

H.Uehara, Y.Uemura, T.Ogawa, K.Kono, R.Ueno, Y.Niwa, H.Nitani, H.Abe, S.Takakusagi, M.Nomura, Y.Iwasawa and K.Asakura
In Situ Back-Side Illumination Fluorescence XAFS(BI-FXAFS) Studies on Platinum Nanoparticles Deposited on a HOPG Surface as a Model Fuel Cell: a New Approach to the Pt-HOPG Electrode/Electrolyte Interface
Phys. Chem. Chem. Phys., **16** (2014) 13748.

K.Mori, Y.Iwata, M.Yamamoto, N.Kimura, A.Miyauchi, G.Okamoto, T.Toyoshima and H.Yamashita
An Efficient $Cu/BaO/La_2O_3$ Catalyst for the Simultaneous Removal of Carbon Soot and Nitrogen Oxides from Simulated Diesel Exhaust
J. Phys. Chem. C, **118** (2014) 9078.

Y.Idemoto
Investigation into Properties of Highly Functional Oxides using Quantum Beam and Thermodynamic Measurement
J. Ceram. Soc. Jpn., **122** (2014) 839.

R.Nakada, T.Shirai, S.Takahashi, N.Suzuki, K.Ogawa and Y.Takahashi
A Geochemical Constraint on the Formation Process of a Manganese Carbonate Nodule in the Siliceous Mudstone of the Jurassic Accretionary Complex in the Mino Belt, Japan
J. Asian Earth Sci., **96** (2014) 59.

Y.Hatakeyama, K.Asakura, S.Takahashi, K.Judai and K.Nishikawa
Microscopic Structure of Naked Au Nanoparticles Synthesized in Typical Ionic Liquids by Sputter Deposition
J. Phys. Chem. C, **118** (2014) 27973.

H.Abe
Direct Evidence of Calcium Oxalate Formation in Spinach
Chem. Lett., **43** (2014) 1841.

T.Sugiyama, M.Uo, T.Wada, T.Hongo, D.Omagari, K.Komiyama, H.Sasaki, H.Takahashi, M.Kusama and Y.Mori
Novel Metal Allergy Patch Test using Metal Nanoballs
Journal of Nanobiotechnology, **12** (2014) 51.

S.Hinokuma, H.Kogami, N,Yamashita, Y.Katsuhara, K.Ikeue and M.Machida
Subnano-Particle Ce Catalyst Prepared by Pulsed Arc- Plasma Process
Catal. Commun., **54** (2014) 81.

A.Ohta
Speciation Study of Cr in Geochemical Reference Material Sediment Series using Sequential Extraction and XAFS Spectroscopy
Geostandards and Geoanalytical Research, **39** (2014) 87.

T.Kashiwabara, Y.Oishi, A.Sakaguchi, T.Sugiyama, A.Usui and Y.Takahashi
Chemical Processes for the Extreme Enrichment of Tellurium into Marine Ferromanganese Oxides
Geochim. Cosmochim. Acta, **131** (2014) 150.

M.Kato, K.Kimijima, M.Shibata, H.Notsu, K.Ogino, K.Inokuma, N.Ohta, H.Uehara, Y.Uemura, N.Oyaizu, T.Ohba, S.Takakusagi, K.Asakura and I.Yagi
Deprotonation of a Dinuclear Copper Complex of 3,5-Diamino-1,2,4-Triazole for High Oxygen Reduction Activity
Phys. Chem. Chem. Phys., **17** (2014) 8638.

Y.Ogawa, R.Yamada, K.Shinoda, C.Inoue and N.Tsuchiya
The Fate of Arsenic in a River Acidified by Volcanic Activity and an Acid Thermal Water and Sedimentation Mechanism
ENVIRONMENTAL SCIENCE PROCESSES and IMPACTS, **16** (2014) 2325.

Q.H.Fan, Y.Takahashi, K.Tanaka and A.Sakaguchi
An EXAFS Study on the Effects of Natural Organic Matter and the Expandability of Clay Minerals on Cesium Adsorption and Mobility
Geochim. Cosmochim. Acta, **135** (2014) 49.

Q.Fan, N.Yamaguchi, M.Tanaka, H.Tsukada, and Y.Takahashi,
Relationship between the Adsorption Species of Cesium and Radiocesium Interception Potential in Soils and Minerals: an EXAFS Study
J. Environ. Radioact., **138** (2014) 92.

Y.Takahashi, K.Kondo, A.Miyaji, Y.Watanabe, Q.H.Fan, T.Honma and K.Tanaka
Recovery and Separation of Rare Earth Elements using Salmon Milt
PLOS ONE, **1371** (2014) 0114858.

T.Kamegawa, Y.Ishiguro, R.Kido and H.Yamashita Design of Composite Photocatalyst of TiO_2 and Y- Zeolite for Degradation of 2-Propanol in the Gas Phase under UV and Visible Light Irradiation
Molecules, **19** (2014) 16477.

9C

M.Morikawa, N.Ahmed, Y.Yoshida, Y.Izumi
Photoconversion of Carbon Dioxide in Zinc-Copper-Gallium Layered Double Hydroxides: the Kinetics to Hydrogen Carbonate and Further to CO/Methanol
Appl. Catal. B, **144** (2014) 561.

K.Oka, Y.Ogura and Y.Izumi
X-Ray Evaluation of the Boundary between Polymer Electrolyte and Platinum and Carbon Functionalization to Conduct Protons in Polymer Electrolyte Fuel Cells
J. Power Sources, **258** (2014) 83.

T.Ohkubo, M.Ushio, K.Urita, I.Moriguchi, B.Ahmmad, A.Itadani and Y.Kuroda
Nanospace-Enhanced Photoreduction for the Synthesis of Copper(I) Oxide Nanoparticles under Visible-Light Irradiation
J. Colloid Interface Sci., **421** (2014) 165.

J.Liu, T.Hisatomi, G.Ma, A.Iwanaga, T.Minegishi, Y.Moriya, M.Katayama, J.Kubota and K.Domen
Improving the Photoelectrochemical Activity of $La_5Ti_2CuS_5O_7$ for Hydrogen Evolution by Particle Transfer and Doping
Energy Environ. Sci., 7 (2014) 2239.

Y.Masubuchi, H.Sato, T.Motohashi and S.Kikkawa Magnetic Softening of Co Doped α''-$Fe_{16}N_2$ Containing Residual Fe-Co Alloy Prepared in Low Temperature Nitridation
Journal of the Ceramic Society of Japan, **122** (2014) 288.

T.Yanoh, A.Kurokawa, H.Takeuchi, S.Yano, K.Onuma, T.Kondo, K.Miike, T.Miyasaka, K.Mibu and Y.Ichiyanagi
Characterization of Magnetic and Dielectric Properties of $Bi_{1-x}Gd_xFeO_3$ Nanoparticles by Local Structure Analyses
J. Nanosci. Nanotechnol, **14** (2014) 2190.

Y.Kurihara and Y.Moritomo
Electrochemical, Structural, and Electronic Properties of Mn-Co Hexacyanoferrates against Li Concentration
Jpn. J. Appl. Phys., **53** (2014) 067101.
H.Kitagawa, N.Ichikuni, H.Okuno, T.Hara and S.Shimazu

XAFS and HAADF STEM Combined Characterization for Size Regulated Ni Nanocluster Catalyst and its Unique Size Dependence for Water Gas Shift Reaction
Appl. Catal. A, **478** (2014) 66.

H.Abe, Y.Niwa, H.Nitani and M.Nomura
Development of Surface Sensitive DXAFS Measurement Method by Applying Kramers-Kronig Relations to Total Reflection Spectra
J. Phys.: Conf. Ser., **502** (2014) 012035.

M.Morikawa, Y.Ogura, N.Ahmed, S.Kawamura, G.Mikami, S.Okamoto and Y.Izumi
Photocatalytic Conversion of Carbon Dioxide into Methanol in Reverse Fuel Cells with Tungsten Oxide and Layered Double Hydroxide Photocatalysts for Solar Fuel Generation
Catal. Sci. Technol., **4** (2014) 1644.

D.Tongsakul, S.Nishimura and K.Ebitani
Effect of Stabilizing Polymers on Catalysis of Hydrotalcite-Supported Platinum Nanoparticles for Aerobic Oxidation of 1,2-Propanediol in Aqueous Solution at Room Temperature
J. Phys. Chem. C, **118** (2014) 11723.

S.Takemura, S.Kawakami, M.Harada and M.Iida Solvation Structure of a Copper(II) Ion in Protic Ionic Liquids Comprising *N*-Hexylethylenediamine
Inorg. Chem., **53** (2014) 9667.

Y.Masubuchi, R.Miyazaki, H.Kikuchi, T.Motohashi and S.Kikkawa
Exfoliation of One-Dimensional TiO_5 Chain in K_2TiO_3
Dalton Trans., **43** (2014) 13751.

K.Ingle, K.R.Priolkar, A.Pal, V.P.S.Awana and S.Emura
Local Structural Distortions and their Role in Superconductivity in $SmFeAsO_{1-x}F_x$ Superconductors
Supercond. Sci. Technol., **27** (2014) 075010.

J.Ohyama, R.Kanao, A.Esaki and A.Satsuma
Conversion of 5-Hydroxymethylfurfural to a Cyclopentanone Derivative by Ring Rearrangement over Supported Au Nanoparticles
Chem. Comm., **50** (2014) 5633.

H.Choudhary, S.Nishimura and K.Ebitani
Tailored Design of Palladium Species Grafted on an Amino Functionalized Organozinc Coordination Polymer as a Highly Pertinent Heterogeneous Catalyst
J. Mater. Chem. A, **2** (2014) 18687.

H.Einaga, J.Kawarada, K.Kimura and Y.Teraoka
Preparation of Platinum Nanoparticles on TiO_2 from DNA-Protected Particles
Colloid. Surf. A: Physicochem. Eng. Aspects, **455** (2014) 179.

Y.Hatakeyama, K.Asakura, S.Takahashi, K.Judai and K.Nishikawa
Microscopic Structure of Naked Au Nanoparticles Synthesized in Typical Ionic Liquids by Sputter Deposition
J. Phys. Chem. C, **118** (2014) 27973.

A.Cho, H.Kim, A.Iino, A.Takagaki and S.T.Oyama
Kinetic and FTIR Studies of 2-Methyltetrahydrofuran Hydrodeoxygenation on Ni_2P/SiO_2
J. Catal., **318** (2014) 151.

Y.Yamamoto, S.Arai, A.Esaki, J.Ohyama, A.Satsuma and N.Tanaka
Statistical Distribution of Single Atoms and Clusters of Supported Au Catalyst Analyzed by Global High-Resolution HAADF-STEM Observation with Morphological Image-Processing Operation
Microscopy, **63** (2014) 209.

F.Hayashi, M.Tanaka, D.Lin and M.Iwamoto
Surface Structure of Yttrium-Modified Ceria Catalysts and Reaction Pathways from Ethanol to Propene
J. Catal., **316** (2014) 112.

T.Yumura, A.Oda, H.Torigoe, A.Itadani, Y.Kuroda, T.Wakasugi and H.Kobayashi
Combined Experimental and Computational Approaches to Elucidate the Structures of Silver Clusters Inside the ZSM-5 Cavity
J. Phys. Chem. C, **118** (2014) 23874.

B.Sarkar, C.Pendem, L.N.S.Konathala, T.Sasaki and R.Bal
Pt Nanoparticle Supported on Nanocrystalline CeO_2: Highly Selective Catalyst for Upgradation of Phenolic Derivatives Present in Bio-Oil
J. Mater. Chem. A, **2** (2014) 18398.

E.I.Naito, H.Hondoh, S.Ueno and K.Sato
Mixing Phase Behavior of 1,3-Dipalmitoyl-2-Oleoyl-*sn*-Glycerol (POP) and 1,2-Dipalmitoyl-3-Oleoyl-*rac*-Glycerol (PPO) in *n*-Dodecane Solution
J. Am Oil Chem Soc, **91** (2014) 1837.

H.Shintaku, K.Nakajima, M.Kitano, N.Ichikuni and M.Hara
Lewis Acid Catalysis of TiO_4 Tetrahedra on Mesoporous Silica in Water
ACS Catalysis, **4** (2014) 1198.

R.Tiwari, B.Sarkar, R.Tiwari, C.Pendem, T.Sasaki, S.Saran and R.Bal
Pt Nanoparticles with Tuneable Size Supported on Nanocrystalline Ceria for the Low Temperature Water- Gas-Shift (WGS) Reaction
J. Mol. Catal. A: Chem., **395** (2014) 117.

B.Sarkar, C.Pendem, L.N.S.Konathala, R.Tiwari, T.Sasaki and R.Bal
Cu Nanoclusters Supported on Nanocrystalline SiO_2- MnO_2: a Bifunctional Catalyst for the One-Step Conversion of Glycerol to Acrylic Acid
Chem. Comm., **50** (2014) 9707.

S.Acharyya, S.Ghosh, R.Tiwari, B.Sarkar, R.Singha, C.Pendem, T.Sasaki and R.Bal
Preparation of the $CuCr_2O_4$ Spinel Nanoparticles Catalyst for Selective Oxidation of Toluene to Benzaldehyde
Green Chem., **16** (2014) 2500.

B.Sarkar, C.Pendem, L.N.S.Konathala, T.Sasaki and R.Bal
Formation of Ilmenite-type $CoTiO_3$ on TiO_2 and its Performance in Oxidative Dehydrogenation of Cyclohexane with Molecular Oxygen
Catal. Commun., **56** (2014) 5.

S.Acharyya, S.Ghosh, S.Adak, T.Sasaki and R.Bal
Facile Synthesis of $CuCr_2O_4$ Spinel Nanoparticles: a Recyclable Heterogeneous Catalyst for the One Pot Hydroxylation of Benzene
Catal. Sci.Technol., **4** (2014) 4232.

A.Oda, H.Torigoe and Y.Kuroda
MFI-Type Zeolite Functioning as the Specific Field for the Zinc Ion Working as the Activation Site for H2, as Well as CH4, at around 300 K
Zeolite, **31** (2014) 88. (in Japanese).

Y.Kuroda
Novel Properties Derived from Inorganic Compounds with Nanometer-Sized Pores: Chemisorption (1)
Journal of the Japan Society of Colour Material, **87** (2014) 102. (in Japanese).

Y.Kuroda
Novel Properties Derived from Inorganic Compounds with Nanometer-Sized Pores: Chemisorption (2)
J. Jpn. Soc. Colour Mater, **87** (2014) 131. (in Japanese).

T.Zhuang, K.Hiraoka, M.Kurisu, K.Konishi, T.Kamimori and I.Nakai
Valence Fluctuation in $YbIn_{1-x}Cd_xCu_4$ Compounds Studied by XANES
JPS Conf. Proc., **3** (2014) 011069

9C (SAXS)

F.Kaneko, N.Seto, K.Sasaki and S.Sakurai
Multiple Site Occupation of Flexible Polymeric Compounds in Cocrystals of Syndiotactic Polystyrene
Chem. Lett., **43** (2014) 904.

G.Cui, M.Fujikawa, S.Nagano, M.Sano, H.Takase, T.Miyazaki, S.Sakurai and K.Yamamoto
Perpendicular Oriented Cylinders via Directional Coalescence of Spheres Embedded in Block Copolymer Films Induced by Solvent Annealing
Polymer, **55** (2014) 1601.

K.Yamamoto, K.Ohara, G.Cui, R.Tanaka, D.Shimada, S.Nagano, M.Sano, S.Sakurai, K.Shimokita and T.Miyazaki
Solvent Annealing Induced Perpendicular Orientation of Microdomains in Block Copolymer Thin Films
Kobunshi Ronbunshu, **71** (2014) 104. (in Japanese).

H.Takahashi
On Hydration Repulsive Forces between Various Phosphlipid Bilayers
JPS Conf. Proc., **1** (2014) 012041.

Y.Kawabata, A.Murakami and T.Kato
Electrolyte Effect on Lamellar Domain Morphology in a Nonionic Surfactant Solution below the Krafft Temperature
J. Phys. Chem. B, **118** (2014) 1022.

G.Cui, M.Fujikawa, S.Nagano, K.Shimokita, T.Miyazaki, S.Sakurai and K.Yamamoto
Macroscopic Alignment of Cylinders via Directional Coalescence of Spheres along Annealing Solvent Permeation Directions in Block Copolymer Thick Films
Macromolecules, **47** (2014) 5989.

F.Kaneko
Cocrystallization of Syndiotactic Polystyrene by a Guest Exchange Phenomenon: Investigation of the Mechanism and Preparation of Polymer Composites
Kobunshi Ronbunshu, **71** (2014) 540. (in Japanese).

10A

T.Kuribayashi, A.Sano-Furukawa and T.Nagase
Observation of Pressure-Induced Phase Transition of δ-AlOOH by using Single-Crystal Synchrotron X-Ray Diffraction Method
Phys. Chem. Mineral., **41** (2014) 303.

R.Simura and K.Sugiyama
Site Determination of Sr in $Sr_3YB_3O_9$ Crystals by Anomalous X-Ray Scattering
J. Phys.: Conf. Ser., **502** (2014) 012028.

A.Nakayama, Y.Onda, S.Yamada, H.Fujihisa, M.Sakata, Y.Nakamoto, K.Shimizu, S.Nakano, A.Ohmura, F.Ishikawa and Y.Yamada
Collapse of CuO Double Chains and Suppression of Superconductivity in High-Pressure Phase of $YBa_2Cu_4O_8$
J. Phys. Soc. Jpn., **83** (2014) 093601.

M.Okube and S.Sasaki
Site-Specific Electronic Structures of Ferrimagnetic Fe_3O_4 Measured by Resonant X-Ray Magnetic Scattering
J. Appl. Cryst., **47** (2014) 1387.

M.Okube and S.Sasaki
Resonant X-Ray Scattering and Crystal Structure Analyses
J. Cryst. Soc. Jpn., **56** (2014) 158. (in Japanese).

A.Nakatsuka
Crystal Chemistry of Earth's Interior Related Materials with Edge-Sharing Structures
Crystallography in Japan (II), (2014) 157. (in Japanese).

A.Nakatsuka
Mineralogical Crystallography as a Function of Temperature − Elucidation of Atomic Displacement Behavior −
J. Cryst. Soc. Jpn., **56** (2014) 150. (in Japanese).

S.Sasaki
Magnetic Structure Examined by Synchrotron X-Rays
Crystallography in Japan (II), (2014) 99. (in Japanese).

S.Sasaki
Synchrotron Radiation and Crystal-Structure Analysis in the 1980s
Crystallography in Japan (II), (2014) 29. (in Japanese).

10C

Y.Koide, H.Ikake, Y.Muroga and S.Shimizu
Relationship between Transparency and Morphology of Cast Films Composed of a Mixture of Poly-D-Lactic Acid and Poly-L-Lactic Acid
Kobunshi Ronbunshu, **71** (2014) 47. (in Japanese).

K.Hemmi, G.Matsuba, H.Tsuji, T.Kawai, T.Kanaya, K.Toyohara, A.Oda and K.Endou
Precursors in Stereo-Complex Crystals of Poly(L-Lactic Acid)/Poly(D-Lactic Acid) Blends under Shear Flow
J. Appl. Cryst., **47** (2014) 14.

K.Terao, N.Morihana and H.Ichikawa
Solution SAXS Measurements over a Wide Temperature Range to Determine the Unperturbed Chain Dimensions of Polystyrene and a Cyclic Amylose Derivative
Polymer Journal, **46** (2014) 155.

Y.Asai, K.Yamada, M.Yamada, A.Takano and Y.Matsushita
Formation of Tetragonally-Packed Rectangular Cylinders from ABC Block Terpolymer Blends
ACS Macro Lett., **3** (2014) 166.

T.Okuhara, A.Hashidzume, K.Terao and T.Sato Aggregation and Phase Separation of Hydrophilically Modified Poly(Dimethylsiloxane) in Methanol-Water Mixtures
Polymer Journal, **46** (2014) 264.

H.Takeno and Y.Kuribayashi
Structural Studies of 1,3:2,4-Dibenzylidene Sorbitol Gels
Advanced Materials Research, **896** (2014) 300.

K.Terao and T.Sato
Lyotropic Liquid Crystals of Rigid Polymers
Ekisho, **18** (2014) 108. (in Japanese).

S.Nakagawa, T.Tanaka, T.Ishizone, S.Nojima, K.Kamimura, K.Yamaguchi and S.Nakahama
Crystallization Behavior of Poly(ε-Caprolactone) Chains Confined in Lamellar Nanodomains
Polymer, **55** (2014) 4394.

A.B.Imran, K.Esaki, H.Gotoh, T.Seki, K.Ito, Y.Sakai and Y.Takeoka
Extremely Stretchable Thermosensitive Hydrogels by Introducing Slide-Ring Polyrotaxane Cross-Linkers and Ionic Groups into the Polymer Network
Nature Communications, **5** (2014) 5124.

N.Suzuki, S.Ban, E.Itoh, S.Chen, F.L.Imai, Y.Sawano, T.Miyakawa, M.Tanokura and N.Yonezawa
Calcium-Dependent Structural Changes in Human Reticulocalbin-1
J. Biochem., **155** (2014) 281.

T.Sumi, H.Imamura, T.Morita, Y.Isogai and K.Nishikawa
Model-Potential-Free Analysis of Small Angle Scattering of Proteins in Solution: Insights into Solvent Effects on Protein-Protein Interaction
Phys. Chem. Chem. Phys., **16** (2014) 25492.

S.Kudo, J.M.Caaveiro, S.Goda, S.Nagatoishi, K.Ishii, T.Matsuura, Y.Sudou, T.Kodama, T.Hamakubo and K.Tsumoto
Identification and Characterization of the X-Dimer of Human P-Cadherin: Implications for Homophilic Cell Adhesion
Biochemistry, **53** (2014) 1742.

R.Hijikawa, L.Huang, G.Kiyofuji, H.Marubayashi and S.Nojima
Crystallization Behavior of Poly(β-propiolactone)-*block*-polyethylene Copolymers with Varying Polyethylene Crystallinities
Polymer, **55** (2014) 6960.

Y.Maki, K.Furusawa, S.Yasuraoka, H.Okamura, N.Hosoya, M.Sunaga, T.Dobashi, Y.Sugimoto and K.Wakabayashi
Universality and Specificity in Molecular Orientation in Anisotropic Gels Prepared by Diffusion Method
Carbohydr. Polym., **108** (2014) 118.

I.Saito, T.Okamoto, K.Shimokita, T.Miyazaki and K.Yamamoto
Perpendicular Orientation of Cylindrical Microdomains of $FeCl_3$ Doped Polystyrene-*b*-poly(2-vinyl pyridine) Thin Films
Koubunshi Ronbunshu, **71** (2014) 586. (in Japanese).

H.Takeoka, N.Fukui, S.Sakurai, Y.Nakamura and S.Fujii
Nanomorphology Characterization of Sterically Stabilized Polypyrrole-Palladium Nanocomposite Particles
Polymer Journal, **46** (2014) 704.

C.Takahashi, S.Yoshihara, S.Kang, K.Sakajiri, J.Watanabe and M.Tokita
Decrease in the Isotropization Temperature and Enthalpy of Main-Chain Polymer Smectic Liquid Crystals as a Result of the Inclusion of Chain Ends
Polymer, **55** (2014) 2609.

M.Hasegawa, S.T.Fukai, JD.Kim, A.Fukamizu and T.Shimizu
Protein Arginine Methyltransferase 7 has a Novel Homodimer-Like Structure Formed by Tandem Repeats
FEBS Letters, **588** (2014) 1942.

11A

R.Ishikawa, A.R.Lupini, F.Oba, S.D.Findlay, N.Shibata, T.Taniguchi, K.Watanabe, H.Hayashi, T.Sakai, I.Tanaka, Y.Ikuhara and S.J.Pennycook
Atomic Structure of Luminescent Centers in High- Efficiency Ce-Doped *w*-AlN Single Crystal
Scientific Reports, **4** (2014) 3778.

S.Kitamoto, S.Ogawa, T.Komatsu, R.Umezu, J.Sugimoto, H.Suzuki, D.Nambu, H.Tsumura, H.Seta, A.Hoshino, S.Aikawa and Y.Niizuma
Estimation of Observation Possibility of the X-Ray Interferometer with an X-Ray Beam-Splitter
Proc. of SPIE, **9144** (2014) 70.

I.Shimoyama, Y.Baba and T.Sekiguchi
A Polarization Rule on Atomic Arrangements of Graphite-Like Boron Carbonitride
Carbon, **71** (2014) 1.

S.Shiki, M.Ukibe, N.Matsubayashi, N.Zen, M.Koike, Y.Kitajima and M.Ohkubo
Current Status of AIST X-Ray-Absorption-Spectroscopy (XAFS) Instrument with 100-Pixel Superconducting- Tunnel-Junction Array Detector
J. Low Temp. Phys., **176** (2014) 604.

T.Miyanaga, T.Azuhata, K.Nakajima, H.Nagoya, K.Hazu and S.F.Chichibu
Polaraized XAFS Study of Al *K*-Edge for *m*-Plane AlGaN Films
J. Phys. Conf. Ser,, **502** (2014) 012031.

W.B.K.Putri, D.H.Tran, O.Y.Lee, W.N.Kang, T.Miyanaga, D.S.Yang and B.Kang,
Effect of Different Thickness Crystalline SiC Buffer Layers on the Ordering of MgB_2 Films Probed by Extended X-Ray Absorption Fine Structure
J. Appl. Phys., **115** (2014) 093901.

11B

T.Yamamoto, H.Okuda, K.Takeshita, N.Usami, Y.Kitajima and H.Ogawa
Grazing-Incidence Small-Angle X-Ray Scattering from Ge Nanodots Self-Organized on Si(001) Examined with Soft X-Rays
J. Synchrotron Rad., **21** (2014) 161.

H.Okuda, T.Yamamoto, K.Takeshita, M.Hirai, K.Senoo, H.Ogawa and Y.Kitajima
Normalization of Grazing-Incidence Small Angle Scattering of Phospholipid Alloy Systems at the K Absorption Edge of Phosphorous: A Standard Sample Approach
Jpn. J. Appl. Phys., **53** (2014) 05FH02.

Y.Hashimoto, A.Takamoto, R.Kikkawa, K.Murakami and N.Yamaguchi
Formations of Hydroxyapatite and Inositol Hexakisphosphate in Poultry Litter during the Composting Period: Sequential Fractionation, P K-Edge XANES and Solution ^{31}P NMR Investigations
Environ. Sci. Technol., **48** (2014) 5486.

Y.Hashimoto and Y.Watanabe
Combined Applications of Chemical Fractionation, Solution ^{31}P-NMR and P K-Edge XANES to Determine Phosphorus Speciation in Soils Formed on Serpentine Landscapes
Geoderma, **230** (2014) 143.

H.Nakao, Y.Yamasaki, J.Okamoto, T.Sudayama, Y.Takahashi, K.Kobayashi, R.Kumai and Y.Murakami
Development of an In-Vacuum Diffractometer for Resonant Soft X-Ray Scattering
J. Phys.: Conf. Ser., **502** (2014) 012015.

Y.Takahashi, H.Nakao, R.Kumai, S.Ishibashi, S.Horiuchi, M.Kohyama, K.Kobayashi, Y.Yamasaki, J.Okamoto, T.Sudayama, Y.Murakami and Y.Tokura
Molecular Electronic States in Charge Transfer Complex Studied by X-Ray Absorption Spectroscopy
J. Phys.: Conf. Ser., **502** (2014) 012036.

T.Fujimori, Y.Nishimoto, K.Shiota and M.Takaoka
Contrasting Effects of Sulfur Dioxide on Cupric Oxide and Chloride during Thermochemical Formation of Chlorinated Aromatics
Environ. Sci. Technol., **48** (2014) 13644.

A.Takamoto and Y.Hashimoto
Assessment of Hedleys Sequential Extraction Method for Phosphorus Forms in Biosolids using P K-Edge X-Ray Absorption Near-Edge Structure Spectroscopy
Chem. Lett., **43** (2014) 1696.

T.Tanikawa, Y.Hashimoto, N.Yamaguchi, Y.Ito, S.Fukushima, K.Kanda, M.Uemura, T.Hasegawa, M.Takahashi and S.Yoshinaga
Sulfur Accumulation in Melanudands during Development by Upbuilding Pedogenesis since 14-15 cal.ka
Geoderma, **232** (2014) 609.

11D

S.Tanaka, Y.Takano, M.Okusawa and K.Mase
What Does the Angle-Integrated Photoelectron Spectrum Show? A Comparison between First-Principles Calculation and Experiments for Graphite
J. Phys. Soc. Jpn., **83** (2014) 084705.

K.Mase, K.Hiraga, S.Arae, R.Kanemura, Y.Takano, K.Yanase, Y.Ogashiwa, N.Shohata, N.Kanayama, T.Kakiuchi, S.Ohno, D.Sekiba, K.K.Okudaira, M.Okusawa and M.Tanaka
Decay Processes of Si 2*s* Core Holes in Si(111)-7×7 Revealed by Si Auger Electron Si 2*s* Photoelectron Coincidence Measurements
J. Phys. Soc. Jpn., **83** (2014) 094704.

T.Ejima, T.Hatano, K.Ohno, T.Fukayama, S.Aihara, M.Yanagihara and T.Tsuru
Multilayer Coated Grazing Incidence Condenser for Large Numerical Aperture Objective at Wavelength of 4.5 nm
Appl. Optics, **53** (2014) 6846.

T.Hatano and T.Harada
Multilayer Reflectometry and Quantitative Analysis of Higher Order Diffraction Impurities of Grating Monochromator
J. Elec. Spec. Relat. Phenom., **196** (2014) 156.

12C

M.Tanaka, Y.S.Togo, N.Yamaguchi and Y.Takahashi
An EXAFS Study on the Adsorption Structure of Phenyl-Substituted Organoarsenic Compounds on Ferrihydrit
J. Colloid Interface Sci., **415** (2014) 13.

S.Takenaka, H.Miyamoto, Y.Utsunomiya, H.Matsune and M.Kishida
Catalytic Activity of Highly Durable Pt/CNT Catalysts Covered with Hydrophobic Silica Layers for the Oxygen Reduction Reaction in PEFCs
J. Phys. Chem. C, **118** (2014) 774.

T.Kikugawa, Y.Abe, A.Nakamura and I.Nakai Investigation of Coloring Mechanism of Ancient Egyptian Copper-Red Glass and Consideration of the Manufacturing Process
BUNSEKI KAGAKU, **63** (2014) 31. (in Japanese).

T.Kashiwabara, R.Toda, K.Fujinaga, T.Honma, Y.Takahashi and Y.Kato
Determination of Host Phase of Lanthanum in Deep-Sea REY-Rich Mud by XAFS and μ-XRF Using High-Energy Synchrotron Radiation
Chem. Lett., **43** (2014) 199.

K.Oka, Y.Ogura and Y.Izumi
X-Ray Evaluation of the Boundary between Polymer Electrolyte and Platinum and Carbon Functionalization to Conduct Protons in Polymer Electrolyte Fuel Cells
J. Power Sources, **258** (2014) 83.

F.Mauriello, H.Ariga, N.Murata and K.Asakura,
New Prospects for the Characterization of Heterogeneous Catlasyts by using Slow Muon Spectroscopy
J. Phys. Soc. Jpn., **2** (2014) 010306.

M.Yoshida, T.Iida, T.Mineo, T.Yomogida, K.Nitta, K.Kato, H.Nitani, H.Abe, T.Uruga and H.Kondoh
Electrochromic Characteristics of a Nickel Borate Thin Film Investigated by In Situ XAFS and UV/Vis Spectroscopy
Electrochemistry, **82** (2014) 355.

M.Katayama, K.Sumiwaka, R.Miyahara, H.Yamashige, H.Arai, Y.Uchimoto, T.Ohta, Y.Inada and Z.Ogumi
X-Ray Absorption Fine Structure Imaging of Inhomogeneous Electrode Reaction in $LiFePO_4$ Lithium-Ion Battery cathode
J. Power Sources, **269** (2014) 994.

R.Nakada, K.Ogawa, N.Suzuki, S.Takahashi and Y.Takahashi
Late Triassic Compositional Changes of Aeolian Dusts in the Pelagic Panthalassa: Response to the Continental Climatic Change
Paleogeography. Paleoclimatology. Paleoecology., **393** (2014) 61.

M.Hashimoto, S.Okajima, T.Kondo, K.Hara and W.- J.Chun
Thin Film Structures of Metal-Organic Framework $[Cu_3 BTC)_2(H_2O)_3]_n$ on $TiO_2(110)$
Electrochemistry, **82** (2014) 335.

H.Suga, Q.Fan, Y.Takeichi, K.Tanaka, H.Kondo, V.V.Kanivets, A.Sakaguchi, K.Kato, N.Inami, K.Mase, K.Ono and Y.Takahashi
Characterization of Particulate Matters in the Pripyat River in Chernobyl Related to their Adsorption of Radiocesium with Inhibition Effect by Natural Organic Matter
Chem. Lett., **43** (2014) 1128.

R.Nakada, T.Shirai, S.Takahashi, N.Suzuki, K.Ogawa and Y.Takahashi
A Geochemical Constraint on the Formation Process of a Manganese Carbonate Nodule in the Siliceous Mudstone of the Jurassic Accretionary Complex in the Mino Belt, Japan
J. Asian Earth Sci., **96** (2014) 59.

M.Yoshida, N.Gon, S.Maeda, T.Mineo, K.Nitta, K.Kato, H.Nitani, H.Abe, T.Uruga and H.Kondoh
In Situ XAFS Study of the Photoinduced Potential Shift of a MnO_x Cocatalyst on a $SrTiO_3$ Photocatalyst
Chem. Lett., **43** (2014) 1725.

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
Photoexcited Hole Transfer to a MnO_x Cocatalyst on a $SrTiO_3$ Photoelectrode during Oxygen Evolution Studied by In Situ X-Ray Absorption Spectroscopy
J. Phys. Chem. C, **118** (2014) 24302.

M.Yoshida and H.Kondoh
In-Situ Observation of Model Catalysts under Reaction Conditions using X-Ray Core-Level Spectroscopy
Chem. Rec., **14** (2014) 806.

Y.Li, B.Huliyageqi, W.Haschaolu, Z.Song, O.Tegus and I.Nakai
EXAFS Study of $Mn_{1.28}Fe_{0.67}P_{0.46}Si_{0.54}$ Compound with First-Order Phase Transition
J. Elec. Spec. Relat. Phenom., **196** (2014) 104.

Y.Hatakeyama, K.Asakura, S.Takahashi, K.Judai and K.Nishikawa
Microscopic Structure of Naked Au Nanoparticles Synthesized in Typical Ionic Liquids by Sputter Deposition
J. Phys. Chem. C, **118** (2014) 27973.

T.Sugiyama, M.Uo, T.Wada, T.Hongo, D.Omagari, K.Komiyama, H.Sasaki, H.Takahashi, M.Kusama and Y.Mori
Novel Metal Allergy Patch Test using Metal Nanoballs
Journal of Nanobiotechnology, **12** (2014) 51.

S.Hinokuma, H.Kogami, N,Yamashita, Y.Katsuhara, K.Ikeue and M.Machida
Subnano-Particle Ce Catalyst Prepared by Pulsed Arc- Plasma Process
Catal. Commun., **54** (2014) 81.

A.Ohta
Sepeciation Study on Cr in Geochemical Reference Material Sediment Series using Sequential Extraction and XAFS Spectroscopy
Geostandards and Geoanalytical Research **39** (2014) 87.

T.Kashiwabara, Y.Oishi, A.Sakaguchi, T.Sugiyama, A.Usui and Y.Takahashi
Chemical Processes for the Extreme Enrichment of Tellurium into Marine Ferromanganese Oxides
Geochim. Cosmochim. Acta, **131** (2014) 150.

K.Fujikawa, H.Ariga, S.Takakusagi, H.Uehara, T.Ohba and K.Asakura
Micro Reverse Monte Carlo Approach to EXAFS Analysis
e-J Surf.Sci.Nanotech, **12** (2014) 322.

N.Fukuda, M.Takaoka,, K.Oshita and T.Mizuno
Stabilizing Conditions of Metal Mercury in Mercury Sulfurization using a Planetary Ball Mill
J. Hazard. Mater., **276** (2014) 433.

D.N.Lobo, K.R.Priolkar, S.Emura and A.K.Nigam
Ferromagnetic Interactions and Martensitic Transformation in Fe Doped Ni-Mn-In Shape Memory Alloys
J. Appl. Phys., **18** (2014) 183903.

M.Kato, K.Kimijima, M.Shibata, H.Notsu, K.Ogino, K.Inokuma, N.Ohta, H.Uehara, Y.Uemura, N.Oyaizu, T.Ohba, S.Takakusagi, K.Asakura and I.Yagi
Deprotonation of a Dinuclear Copper Complex of 3,5-Diamino-1,2,4-Triazole for High Oxygen Reduction Activity
Phys. Chem. Chem. Phys., **17** (2014) 8638.

13A

S.Yoshimoto, K.Kameshima, T.Koitaya, Y.Harada, K.Mukai, J.Yoshinobu
Interface State and Energy Level Alignment of F_4-TCNQ Sandwiched between a Pentacene Film and the Ethylene-Terminated Si(100) Surface
Organic Electronics, **15** (2014) 356.

K.Ozawa, Y.Mimori, H.Kato, M.Emori, H.Sakama, S.Imanishi, K.Edamoto and K.Mase
Shockley Surface State on α-Brass(111) and its Response to Oxygen Adsorption
Surf. Sci. **623** (2014) 6.

K.Ozawa, Y.Mimori, H.Kato, S.Imanishi, K.Edamoto and K.Mase
Photoelectron Spectroscopy Study of Interaction of Oxygen with the (111) Surface of a Cu-Zn Alloy
Surf. Sci., **623** (2014) 1.

Y.Takeichi, N.Inami, H.Suga, K.Ono and Y.Takahashi
Development of a Compact Scanning Transmission X- Ray Microscope (STXM) at the Photon Factory
Chem. Lett., **43** (2014) 373.

R.Toyoshima, M.Shimura, M.Yoshida, Y.Monya, K.Suzuki, K.Amemiya, K.Mase, B.S.Mun and H.Kondoh
A Near-Ambient-Pressure XPS Study on Catalytic CO Oxidation Reaction over a Ru(1010) Surface
Surf. Sci., **621** (2014) 128.

M.Z.Hossain, M.B.A.Razak, S.Yoshimoto, K.Mukai, T.Koitaya, J.Yoshinobu, H.Sone, S.Hosaka and M.C.Hersam
Aqueous-Phase Oxidation of Epitaxial Graphene on the Silicon Face of SiC(0001)
J. Phys. Chem. C, **118** (2014) 1014.

Y.Moritomo, T.Sakurai, T.Yasuda, Y.Takeichi, K.Yonezawa, H.Kamioka, H.Suga, Y.Takahashi, Y.Yoshida, N.Inami, K.Mase and K.Ono
Molecular Mixing in Donor and Acceptor Domains as Investigated by Scanning Transmission X-Ray Microscopy
Appl. Phys. Express, **7** (2014) 052302.

Y.Takeichi, N.Inami, H.Suga, T.Ueno, S.Kishimoto, Y.Takahashi and K.Ono
Development of a Compact Scanning Transmission X-Ray Microscope
J. Phys.: Conf. Ser, **502** (2014) 012009.

R.Friedlein, A.Fleurence, K.Aoyagi, M.P.de Jong, H.V.Bui, F.B.Wiggers, S.Yoshimoto, T.Koitaya, S.Shimizu, H.Noritake, K.Mukai, J.Yoshinobu, Y.Yamada-Takamura
Core Level Excitations–A Fingerprint of Structural and Electronic Properties of Epitaxial Silicene
J. Chem. Phys., **140** (2014) 184704.

H.Suga, Q.Fan, Y.Takeichi, K.Tanaka, H.Kondo, V.V.Kanivets, A.Sakaguchi, K.Kato, N.Inami, K.Mase, K.Ono and Y.Takahashi
Characterization of Particulate Matters in the Pripyat River in Chernobyl Related to their Adsorption of Radiocesium with Inhibition Effect by Natural Organic Matter
Chem. Lett., **43** (2014) 1128.

Y.Yoshiike, H.Fukumoto, I.Kokubo, Y.Aoki, K.Nakatsuji and H.Hirayama
Regular Ripples at the Surfaces of Heteroepitaxially Grown Ag(111) Ultra-Thin Films on Si(111)$\sqrt{3}\times\sqrt{3}$-B Substrates
Appl. Phys. Lett., **104** (2014) 191605.

K.Ozawa, T.Kakubo, K.Shimizu, N.Amino, K.Mase, E.Ikenaga, T.Nakamura, T.Kinoshita and H.Oji
In situ Chemical State Analysis of Buried Polymer/Metal Adhesive Interface by Hard X-Ray Photoelectron Spectroscopy
Appl. Surf. Sci., **320** (2014) 177.

S.Yoshimoto, M.Furuhashi, T.Koitaya, Y.Shiozawa, K.Fujimaki, Y.Harada, K.Mukai and J.Yoshinobu
Quantitative Analysis of Chemical Interaction and Doping of the Si(111) Native Oxide Surface with Tetrafluorotetracyanoquinodimethane
J. Appl. Phys., **115** (2014) 143709.

Y.Nakayama, Y.Uragami, M.Yamamoto, S.Machida, H.Kinjo, K.Mase, K.R.Koswattage and H.Ishii
Determination of the Highest Occupied Molecular Orbital Energy of Pentacene Single Crystals by Ultraviolet Photoelectron and Photoelectron Yield Spectroscopies
Jpn. J. Appl. Phys., **53** (2014) 01AD03.

M.Yoshida and H.Kondoh
In-Situ Observation of Model Catalysts under Reaction Conditions using X-Ray Core-Level Spectroscopy
Chem. Rec., **14** (2014) 806.

H.Kondoh, Y.Higashi, M.Yoshida, Y.Monya, R.Toyoshima, K.Mase, K.Amemiya, F.Tsukioka, M.Nagasaka, Y.Iwasawa, H.Orita, K.Mukai and J.Yoshinobu
Structure and Photo-Induced Charge Transfer of Pyridine Molecules Adsorbed on TiO_2(110): A NEXAFS and Core-Hole-Clock Study
Electrochemistry, **82** (2014) 341.

R.Toyoshima, M.Yoshida, Y.Monya, K.Suzuki, K.Amemiya, K.Mase, B.S.Mun and H.Kondoh
High-Pressure-Induced Dense CO Overlayer on Pt(111) Surface: A Chemical Analysis with *In-Situ* Near Ambient Pressure XPS
Phys. Chem. Chem. Phys., **16** (2014) 23564.

Q.H.Fan, Y.Takahashi, K.Tanaka and A.Sakaguchi
An EXAFS Study on the Effects of Natural Organic Matter and the Expandability of Clay Minerals on Cesium Adsorption and Mobility
Geochim. Cosmochim. Acta, **135** (2014) 49.

Q.Fan, N.Yamaguchi, M.Tanaka, H.Tsukada, and Y.Takahashi,
Relationship between the Adsorption Species of Cesium and Radiocesium Interception Potential in Soils and Minerals: an EXAFS Study
J. Environ. Radioact., **138** (2014) 92.

Former 13A

L.Li, T.Nagai, T.Ishido, S.Motai, K.Fujino and S.Itoh
Formation of a Solid Solution in the $MgSiO_3$-$MnSiO_3$ Perovskite System
Phys. Chem. Minerals, **41** (2014) 431.

13B

X.Hao, S.Wang, W.Fu, T.Sakurai, S.Masuda and K.Akimoto
Novel Cathode Buffer Layer of Ag-Doped Bathocuproine for Small Molecule Organic Solar Cell with Inverted Structure
Organic Electronics, **15** (2014) 1773.

M.Yano, M.Endo, Y.Hasegawa, R.Okada, Y.Yamada and M.Sasaki
Well-Ordered Monolayers of Alkali-Doped Coronene and Picene: Molecular Arrangements and Electronic Structures
J. Chem. Phys., **141** (2014) 034708.

M.Z.Hossain, M.B.A.Razak, H.Noritake, Y.Shiozawa, S.Yoshimoto, K.Mukai, T.Koitaya, J.Yoshinobu and S.Hosaka
Monolayer Selective Methylation of Epitaxial Graphene on SiC(0001) Through Two-Step Chlorination- Alkylation Reactions
J. Phys. Chem. C, **118** (2014) 22096.

R.Toyoshima, M.Yoshida, Y.Monya, K.Suzuki, K.Amemiya, K.Mase, B.S.Mun and H.Kondoh
High-Pressure-Induced Dense CO Overlayer on Pt(111) Surface: A Chemical Analysis with *In-Situ* Near Ambient Pressure XPS
Phys. Chem. Chem. Phys., **16** (2014) 23564.

14A

Y.Sun, M.Koshimizu, N.Yahaba, F.Nishikido, S.Kishimoto, R.Haruki and K.Asai
High-Energy X-Ray Detection by Hafnium-Doped Organic-Inorganic Hybrid Scintillators Prepared by Sol- Gel Method
Appl. Phys. Lett., **104** (2014) 174104.

N.Yahaba, M.Koshimizu, Y.Sun, T.Yanagida, Y.Fujimoto, R.Haruki, F.Nishikido, S.Kishimoto and K.Asai
X-Ray Detection Capability of a Cs_2ZnCl_4 Single-Crystal Scintillator
Appl. Phys. Express., **7** (2014) 062602.

T.Miyoshi, M.I.Ahmed, Y.Arai, Y.Fujita, Y.Ikemoto, A.Takeda and K.Tauchi
SOI Monolithic Pixel Detector
J. Instrum., **9** (2014) C05044.

N.Ishizawa, K.Tateishi, S.Oishi and S.Kishimoto
Bond-Length Fluctuation in the Orthorhombic $3\times3\times1$ Superstructure of $LiMn_2O_4$ Spinel
American Mineralogist, **99** (2014) 1528.

S.Kishimoto, T.Mitsui, R.Haruki, Y.Yoda, T.Taniguchi, S.Shimazaki, M.Ikeno, M.Saito and M.Tanaka
Nuclear Resonant Scattering Measurements on ^{57}Fe by Multichannel Scaling with a 64-Pixel Silicon Avalanche Photodiode Linear-Array Detector
Rev. Sci. Instrum., **85** (2014) 113102.

T.Fujiwara, Y.Mitsuya, H.Takahashi, T.Fushie, S.Kishimoto, B.Guerard and M.Uesaka
The Performance of Glass GEM
J. Instrum, **9** (2014) 11007.

14B

K.Hirano, Y.Takahashi and H.Sugiyama
Development and Application of Variable-Magnification X-Ray Bragg Magnifiers
Nucl. Instrum. Meth. Phys. Res. A, **741** (2014) 78.

K.Hirano, Y.Takahashi and H.Sugiyama
Application of Variable-Magnification X-Ray Bragg Magnifier to Analyzer-Based Phase-Contrast Computed Tomography
Jpn. J. Appl. Phys., **53** (2014) 040302.

Y.Kato, H.Umezawa and S.Shikata
X-Ray Topographic Study of a Homoepitaxial Diamond Layer on an Ultraviolet-Irradiated Precision Polished Substrate
Acta Physica Polonica A, **125** (2014) 969.

T.Miyoshi, M.I.Ahmed, Y.Arai, Y.Fujita, Y.Ikemoto, A.Takeda and K.Tauchi
SOI Monolithic Pixel Detector
Journal of Instrumentation, **9** (2014) C05044.

Y.Mokuno, Y.Kato, N.Tsubouchi, A.Chayahara, H.Yamada and S.Shikata
A Nitrogen Doped Low-Dislocation Density Free-Standing Single Crystal Diamond Plate Fabricated by a Lift-Off Process
Appl. Phys. Lett., **104** (2014) 252109.

14C

M.Ando, N.Sunaguchi, Y.Wu, S.Do, Y.Sung, A.Louissaint, T.Yuasa, S.Ichihara and R.Gupta
Crystal Analyser-Based X-Ray Phase Contrast Imaging in the Dark Field: Implementation and Evaluation using Excised Tissue Specimens
European Radiology, **24** (2014) 423.

T.Miyoshi, M.I.Ahmed, Y.Arai, Y.Fujita, Y.Ikemoto, A.Takeda and K.Tauchi
SOI Monolithic Pixel Detector
J. Instrum., **9** (2014) C05044.

H.Mimachi, S.Takeya, A.Yoneyama, K.Hyodo, T.Takeda, Y.Gotoh and T.Murayama
Natural Gas Storage and Transportation within Gas Hydrate of Smaller Particle: Size Dependence of Self-Preservation Phenomenon of Natural Gas Hydrate
Chem. Eng. Sci., **118** (2014) 208.

J.Ryu, S.Ahn, S.G.Kim, T.Kim and S.J.Lee
Interactive Ion-Mediated Sap Flow Regulation in Olive and Laurel Stems: Physicochemical Characteristics of Water Transport via the Pit Structure
PLOS ONE, **9** (2014) e98484.

S.Takeya, Y.Gotoh, A.Yoneyama, K.Ueda, K.Hyodo and T.Takeda
Nondestructive Imaging of the Clathrate Hydrate Grown at Interparticle Space
Proceedings of the 8th International Conference on Gas Hydrates (ICGH8-2014), (2014)

S.Ichihara, K.Mori, N.Sunaguchi, T.Yuasa, Y.Wu and M.Ando
Three-Dimensional Observation of Sclerosing Adenosis Involved by Lobular Carcinoma in Situ using Crystal Analyzer-Based X-Ray Phase Contrast CT
Virchows Archiv, **465** (2014) S100.

N.Sunaguchi, T.Yuasa and M.Ando
Iterative Reconstruction for X-Ray Dark Field Imaging CT: Artifacts Reduction for Hard and Soft Mixture Tissue
Proc. IASTED Biomedical Engineerging, **818** (2014) 030.

Former 15A

Y.Sageshima, A.Noro and Y.Matsushita
Structural Isomer Effects on the Morphology of Block Copolymer/Metal Salts Hybrids
Journal of Polymer Science, Part B: Polymer Physics, **52** (2014) 377.

G.Cui, M.Fujikawa, S.Nagano, M.Sano, H.Takase, T.Miyazaki, S.Sakurai and K.Yamamoto
Perpendicular Oriented Cylinders via Directional Coalescence of Spheres Embedded in Block Copolymer Films Induced by Solvent Annealing
Polymer, **55** (2014) 1601.

K.Nakagawa, Y.Yamada, Y.Matsumura, S.Tsukamoto, M.Yamamoto-Ohtomo, H.Ohtomo, T.Okabe, K.Fujiwara and M.Ikeguchi
Relationship between Chain Collapse and Secondary Structure Formation in a Partially Folded Protein
Biopolymers, **101** (2014) 651.

H.Takahashi
On Hydration Repulsive Forces between Various Phosphlipid Bilayers
JPS Conf. Proc., **1** (2014) 012041.

Y.Kawabata, A.Murakami and T.Kato
Electrolyte Effect on Lamellar Domain Morphology in a Nonionic Surfactant Solution below the Krafft Temperature
J. Phys. Chem. B, **118** (2014) 1022.

M.Hishida, K.Tanaka, Y.Yamamura and K.Saito
Cooperativity between Water and Lipids in Lamellar to Inverted-Hexagonal Phase Transition
J. Phys. Soc. Jpn., **83** (2014) 044801.

A.B.Imran, K.Esaki, H.Gotoh, T.Seki, K.Ito, Y.Sakai and Y.Takeoka
Extremely Stretchable Thermosensitive Hydrogels by Introducing Slide-Ring Polyrotaxane Cross-Linkers and Ionic Groups into the Polymer Network
Nature Communications, **5** (2014) 5124.

Y.Maki, K.Furusawa, S.Yasuraoka, H.Okamura, N.Hosoya, M.Sunaga, T.Dobashi, Y.Sugimoto and K.Wakabayashi
Universality and Specificity in Molecular Orientation in Anisotropic Gels Prepared by Diffusion Method
Carbohydr. Polym., **108** (2014) 118.

M.Hishida, Y.Yamamura and K.Saito
Salt Effects on Lamellar Repeat Distance Depending on Head Groups of Neutrally Charged Lipids
Langmuir, **30** (2014) 10583.

E.I.Naito, H.Hondoh, S.Ueno and K.Sato
Mixing Phase Behavior of 1,3-Dipalmitoyl-2-Oleoyl-*sn*-Glycerol (POP) and 1,2-Dipalmitoyl-3-Oleoyl-*rac*-Glycerol (PPO) in *n*-Dodecane Solution
J. Am Oil Chem Soc, **91** (2014) 1837.

15A2

I.Saito, T.Okamoto, K.Shimokita, T.Miyazaki and K.Yamamoto
Perpendicular Orientation of Cylindrical Microdomains of $FeCl_3$ Doped Polystyrene-*b*-poly(2-vinyl pyridine) Thin Films
Koubunshi Ronbunshu, **71** (2014) 586. (*in Japanese*).

15B1

Y.Tezuka, T.Sasaki, Y.Fujita, T.Iwamoto, H.Osawa, S.Nozawa, N.Nakajima, H.Sato and T.Iwazumi
Core Excitations in Resonant X-Ray Raman Scattering of Titanium Oxides: An Approach to Studying Electronic Structures
J. Phys. Soc. Jpn., **83** (2014) 014707.

K.Mizuno, K.Morikawa, H.Okamoto and E.Hashimoto Row of Dislocation Loops as a Vacancy Source in Ultrahigh-Purity Aluminum Single Crystals with a Low Dislocation Density
Trans. Mat. Res. Soc. Japan, **39** (2014) 169.

H.Koizumi, S.Uda, K.Fujiwara, M.Tachibana, K.Kojima and J.Nozawa
Enhancement of Crystal Homogeneity of Protein Crystals under Application of an External Alternating Current Electric Field
AIP Conf. Proc., **1618** (2014) 265.

H.Koizumi, S.Uda, K.Fujiwara, M.Tachibana, K.Kojima and J.Nozawa
Control of Subgrain Formation in Protein Crystals by the Application of an External Electric Field
Cryst. Growth Des., **14** (2014) 5662.

15B2

T.Shirasawa, W.Voegeli, T.Nojima, Y.Iwasawa, Y.Yamaguchi and T.Takahashi
Identification of the Structure Model of the Si(111)-(5x2)-Au Surface
Phys. Rev. Lett., **113** (2014) 165501.

T.Shirasawa, M.Sugiki, T.Hirahara, M.Aitani, T.Shirai, S.Hasegawa and T.Takahashi
Structure and Transport Properties of Cu-Doped Bi_2Se_3 Films
Phys. Rev. B, **89** (2014) 195311.

15C

S.Ji, K.Kojima, Y.Ishida, H.Yamaguchi, S.Saito, T.Kato, H.Tsuchida, S.Yoshida and H.Okumura
Characterization of the Defect Evolution in Thick Heavily Al-Doped 4H-SiC Epilayers
Materials Science Forum, **778-780** (2014) 151.

S.Harada, Y.Yamamoto, S.Xiao, M.Tagawa and T.Ujihara
Surface Morphology and Threading Dislocation Conversion Behavior during Solution Growth of 4H-SiC using Al-Si Solvent
Materials Science Forum, **778-780** (2014) 67.

Y.Yamamoto, S.Harada, K.Seki, A.Horio, T.Mitsuhashi, D.Koike, M.Tagawa, and T.Ujihara
Low-Dislocation-Density 4H-SiC Crystal Growth Utilizing Dislocation Conversion during Solution Method
Appl. Phys. Express., **7** (2014) 065501.

S.Harada, Y.Yamamoto, K.Seki, A.Horio, M.Tagawa and T.Ujihara
Different Behavior of Threading Edge Dislocation Conversion During the Solution Growth of 4H-SiC Depending on the Burgers Vector
Acta Mater., **81** (2014) 284.

16A

K.Amemiya, M.Sakamaki, M.Mizusawa and M.Takeda
Twisted Magnetic Structure in Ferromagnetic Ultrathin Ni Films Induced by Magnetic Anisotropy Interaction with Antiferromagnetic FeMn
Phys. Rev. B, **89** (2014) 054404.

Y.Hikosaka, P.Lablanquie, F.Penent, P.Selles, E.Shigemasa and K.Ito
Resonant Multiple Auger Decay after the $2p_{3/2}4$ Excitation in Ar Studied with a Multielectron Coincidence Method
Phys. Rev. A, **89** (2014) 023410.

Y.Takeichi, N.Inami, H.Suga, K.Ono and Y.Takahashi
Development of a Compact Scanning Transmission X- Ray Microscope (STXM) at the Photon Factory
Chem. Lett., **43** (2014) 373.

J.Okamoto, H.Nakao, Y.Yamasaki, H.Wadati, A.Tanaka, M.Kubota, K.Horigane, Y.Murakami and K.Yamada
Antiferromagnetic Order of the Co^{2+} High-Spin State with a Large Orbital Angular Momentum in $La_{1.5}Ca_{0.5}CoO_4$
J. Phys. Soc. Jpn., **83** (2014) 044705.

Y.Takeichi, N.Inami, H.Suga, T.Ueno, S.Kishimoto, Y.Takahashi and K.Ono
Development of a Compact Scanning Transmission X- Ray Microscope
J. Phys.: Conf. Ser, **502** (2014) 012009.

T.Koide, Y.Saitoh, M.Sakamaki, K.Amemiya, A.Iwase and T.Matsui
Change in Magnetic and Structural Properties of FeRh Thin Films by Gold Cluster Ion Beam Irradiation with the Energy of 1.67MeV/Atom
J. Appl. Phys., **115** (2014) 17B722.

M.Sakamaki and K.Amemiya
Enhancement of Perpendicular Magnetic Anisotropy by Compressive Strain in Alternately Layered FeNi Thin Films
J. Phys.: Condens. Matter, **26** (2014) 166002.

G.Shibata, K.Yoshimatsu, E.Sakai, V.R.Singh, V.K.Verma, K.Ishigami, T.Harano, T.Kadono, Y.Takeda, T.Okane, Y.Saitoh, H.Yamagami, A.Sawa, H.Kumigashira, M.Oshima, T.Koide and A.Fujimori
Thickness-Dependent Ferromagnetic Metal to Paramagnetic Insulator Transition in $La_{0.6}Sr_{0.4}MnO_3$ Thin Films Studied by X-Ray Magnetic Circular Dichroism
Phys. Rev. B, **89** (2014) 235123.

H.Nakao, Y.Yamasaki, J.Okamoto, T.Sudayama, Y.Takahashi, K.Kobayashi, R.Kumai and Y.Murakami
Development of an In-Vacuum Diffractometer for Resonant Soft X-Ray Scattering
J. Phys.: Conf. Ser., **502** (2014) 012015.

Y.Takahashi, H.Nakao, R.Kumai, S.Ishibashi, S.Horiuchi, M.Kohyama, K.Kobayashi, Y.Yamasaki, J.Okamoto, T.Sudayama, Y.Murakami and Y.Tokura
Molecular Electronic States in Charge Transfer Complex Studied by X-Ray Absorption Spectroscopy
J. Phys.: Conf. Ser., **502** (2014) 012036.

M.Kubota, H.Yamada, H.Nakao, J.Okamoto, Y.Yamasaki, A.Sawa and Y.Murakami
Magnetic and Electronic Properties of $(LaMnO_3)_5$ $(SrMnO_3)_5$ Superlattice Revealed by Resonant Soft X-Ray Scattering
Jpn. J. Appl. Phys., **53** (2014) 05FH07.

M.Yoshida and H.Kondoh
In-Situ Observation of Model Catalysts under Reaction Conditions using X-Ray Core-Level Spectroscopy
Chem. Rec., **14** (2014) 806.

S.Shiki, M.Ukibe, N.Matsubayashi, N.Zen, M.Koike, Y.Kitajima and M.Ohkubo
Current Status of AIST X-Ray-Absorption-Spectroscopy (XAFS) Instrument with 100-Pixel Superconducting- Tunnel-Junction Array Detector
J. Low Temp. Phys., **176** (2014) 604.

Y.Takahashi, T.Kadono, S.Yamamoto, V.R.Singh, V.K.Verma, K.Ishigami, G.Shibata, T.Harano, Y.Takeda, T.Okane, Y.Saitoh, H.Yamagami, M.Takano and A.Fujimori
Orbital Magnetic Moment and Coercivity of SiO_2 -Coated FePt Nanoparticles Studied by X-Ray Magnetic Circular Dichroism
Phys. Rev. B, **90** (2014) 024423.

16B

S.Hasegawa, S.Obara, F.Yoshida, Y.Azuma, F.Koike and T.Nagata
K-Shell Photoionization Spectra of Atomic Beryllium between $1s^2s(2)$ and $1s(2s2p^3P)4s$
Phys. Rev. A, **90** (2014) 032503.

17A

Y.Yasutake, W.Kitagawa, M.Hata, T.Nishioka, T.Ozaki, M.Nishiyama, T.Kuzuyama and T.Tamura
Structure of the Quinoline N-Hydroxylating Cytochrome P450 RauA, an Essential Enzyme that Confers Antibiotic Activity on Aurachin Alkaloids
FEBS Letters, **588** (2014) 105.

S.Okada, T.Yamamoto, H.Watanabe, T.Nishimoto, H.Chaen, S.Fukuda, T.Wakagi and S.Fushinobu
Structural and Mutational Analysis of Substrate Recognition in Kojibiose Phosphorylase
FEBS J., **281** (2014) 778.

Y.Sakamoto, Y.Suzuki, I.Iizuka, C.Tateoka, S.Roppongi, H.Okada, T.Nonaka, Y.Morikawa, K.T.Nakamura, W.Ogasawara and N.Tanaka
Crystallization and Preliminary X-Ray Crystallographic Studies of Dipeptidyl Aminopeptidase BII from *Pseudoxanthomonas mexicana* WO24
Acta Cryst. F, **70** (2014) 221.

S.Yamashita, D.Takeshita and K.Tomita
Translocation and Rotation of tRNA during Template-Independent RNA Polymerization by tRNA Nucleotidyltransferase
Structure, **22** (2014) 315.

Y.Hizukuri, T.Oda, S.Tabata, K.Tamura-Kawakami, R.Oi, M.Sato, J.Takagi, Y.Akiyama and T.Nogi
A Structure-Based Model of Substrate Discrimination by a Noncanonical PDZ Tandem in the Intramembrane-Cleaving Protease RseP
Structure, **22** (2014) 326.

D.Matsui, D.-H.Im, A.Sugawara, Y.Fukuta, S.Fushinobu, K.Isobe and Y.Asano
Mutational and Crystallographic Analysis of L-Amino Acid Oxidase/Monooxygenase from *Pseudomonas* sp. AIU 813: Interconversion between Oxidase and Monooxygenase Activities
FEBS Open Bio, **4** (2014) 220.

H.-P.-T.Ngo, N.M.F.S.A.Cerqueira, J.-K.Kim, M.-K.Hong, P.A.Fernandes, M.J.Ramos, L.-W.Kang
PLP Undergoes Conformational Changes during the Course of an Enzymatic Reaction
Acta Cryst. D, **70** (2014) 596.

Y.S.Cho, J.H.Yoo, S.M.Park and H.S.Cho
The Structures of the Kinase Domain and UBA Domain of MPK38 Suggest the Activation Mechanism for Kinase Activity
Acta Cryst. D, **70** (2014) 514.

T.Suzuki, H.Makyio, H.Ando, N.Komura, M.Menjo, Y.Yamada, A.Imamura, H.Ishida, S.Wakatsuki, R.Kato and M.Kiso
Expanded Potential of Seleno-Carbohydrates as a Molecular Tool for X-Ray Structural Determination of a Carbohydrate-Protein Complex with Single/Multi-Wavelength Anomalous Dispersion Phasing
Bioorganic and Medicinal Chemistry, **22** (2014) 2090.

S.Liu, L.-F.Tian, Y.-P.Liu, X.-M.An, Q.Tang, X.-X.Yan and D.-C.Liang
Structural Basis for DNA Recognition and Nuclease Processing by the Mre11 Homologue SbcD in Double- Strand Breaks Repair
Acta Cryst. D, **70** (2014) 299.

S.Niwa, L.-J.Yu, K.Takeda, Y.Hirano, T.Kawakami, Z.-Y.Wang-Otomo and K.Miki
Structure of the LH1-RC complex from *Thermochromatium tepidum* at 3.0 Å
Nature, **508** (2014) 228.

S.Nakano, S.Okazaki, H.Tokiwa and Y.Asano
Binding of NAD^+ and L-Threonine Induces Stepwise Structural and Flexibility Changes in *Cupriavidus necator* L-Threonine Dehydrogenase
J. Biol. Chem., **289** (2014) 10445.

D.Sen, C.W.Kim, N.H.Heo and K.Seff
Introducing Copper Ions into Zeolite Y by the Thallous Ion Exchange Method: Single Crystal Structure of $|Cu_{21.6}Tl_{39.2}|[Si_{121}Al_{71}O_{384}]$-FAU
J. Porous. Mater., **21** (2014) 321.

T.Ito, K.Saikawa, S.Kim, K.Fujita, A.Ishiwata, S.Kaeothip, T.Arakawa, T.Wakagi, G.T.Beckham, Y.Ito and S.Fushinobu
Crystal Structure of Glycoside Hydrolase Family 127 β-L-Arabinofuranosidase from *Bifidobacterium longum*
Biochem. Biophys. Res. Commun., **447** (2014) 32.

L.Wang, X.Yang, S.Li, Z.Wang, Y.Liu, J.Feng, Y.Zhu and Y.Shen
Structural and Mechanistic Insights into MICU1 Regulation of Mitochondrial Calcium Uptake
EMBO J., **33** (2014) 594.

T.Tsuda, M.Asami, Y.Koguchi and S.Kojima
Single Mutation Alters the Substrate Specificity of L-Amino Acid Ligase
Biochemistry, **53** (2014) 2650.

K.Yasukawa, S.Nakano and Y.Asano
Tailoring D-Amino Acid Oxidase from the Pig Kidney to R-Stereoselective Amine Oxidase and its Use in the Deracemization of α-Methylbenzylamine
Angew. Chem. Int. Ed., **53** (2014) 4428.

A.Kishimoto, A.Kita, T.Ishibashi, H.Tomita, Y.Yokooji, T.Imanaka, H.Atomi and K.Miki
Crystal Structure of Phosphopantothenate Synthetase from *Thermococcus kodakarensis*
Proteins **82** (2014) 1924.

T.Ohnuma, N.Umemoto, T.Nagata, S.Shinya, T.Numata, T.Taira and T.Fukamizo
Crystal Structure of a "Loopless" GH19 Chitinase in Complex with Chitin Tetrasaccharide Spanning the Catalytic Center
Biochim. Biophys. Acta, **1844** (2014) 793.

Y.Sakamoto, Y.Suzuki, I.Iizuka, C.Tateoka, S.Roppongi, M.Fujimoto, H.Tanaka, M.Masaki, K.Ohta, H.Okada, T.Nonaka, Y.Morikawa, K.T.Nakamura, W.Ogasawara and N.Tanaka
S46 Peptidases are the First Exopeptidases to be Members of Clan PA
Scientific Reports, **4** (2014) 4977.

M.Elahi, M.M.Islam, K.Noguchi, M.Yohda, H.Toh, Y.Kuroda
Computational Prediction and Experimental Characterization of a ″Size Switch Type Repacking" during the Evolution of Dengue Envelope Protein Domain III (ED3)
BBA Protein and Proteomics **1833** (2014) 585.

K.J.Cho, K.W.Hong, S.-H.Kim, J.H.Seok, S.Kim, J.- H.Lee, X.Saelens, K.H.Kim
Insight into Highly Conserved H1 Subtype-Specific Epitopes in Influenza Virus Hemagglutinin
PLOS ONE, **9** (2014) e89803.

Y.Fujioka, S.W.Suzuki, H.Yamamoto, C.Kondo-Kakuta, Y.Kimura, H.Hirano, R.Akada, F.Inagaki, Y.Ohsumi and N.N.Noda
Structural Basis of Starvation-Induced Assembly of the Autophagy Initiation Complex
Nature Structural Molecular Biology, **21** (2014) 513.

S.Terawaki, H.Ootsuka, Y.Higuchi and K.Wakamatsu
Crystallographic Characterization of the C-Terminal Coiled-Coil Region of Mouse Bicaudal-D1(BICD1)
Acta Cryst. F, **70** (2014) 1103.

T.Itoh, T.Hibi, I.Sugimoto, F.Suzuki, Y.Fujii, A.Taketo and H.Kimoto
Crystallization and Preliminary X-Ray Analysis of the Catalytic Domains of *Paenibacillus* sp. Strain FPU-7 Cell-Surface-Expressed Chitinase ChiW
Acta Cryst. F, **70** (2014) 350.

H.S.Kim, G.-H.Kwak, K.Lee, C.-H.Jo, K.Y.Hwang and H.-Y.Kim
Structural and Biochemical Analysis of a Type II Free Methionine-R-Sulfoxide Reductase from *Thermoplasma acidophilum*
Arch. Biochem. Biophys., **560** (2014) 10.

N.Shibayama, K.Sugiyama, J.R.H.Tame and S.-Y.Park
Capturing the Hemoglobin Allosteric Transition in a Single Crystal Form
J. Am. Chem. Soc., **136** (2014) 5097.

H.Yokoyama and I.Matsui
Crystal Structure of the Stomatin Operon Partner Protein from *Pyrococcus horikoshii* Indicates the Formation of a Multimeric Assembly
FEBS Open Bio, **4** (2014) 804.

M.-K.Hong, A.J.M.Ribeiro, J.-K.Kim, H.-P.-T.Ngo, J.Kim, C.H.Lee, Y.-J.Ahn, P.A.Fernandes, Q.Li, M.J.Ramos and L.-W.Kang
Divalent Metal Ion-Based Catalytic Mechanism of the Nudix Hydrolase Orf153(YmfB) from *Escherichia coli*
Acta Cryst. D, **70** (2014) 1297.

V.Schaeffer, M.Akutsu, M.H.Olma, L.C.Gomes, M.Kawasaki and I.Dikic
Binding of OTULIN to the PUB Domain of HOIP Controls NF-κB Signaling
Mol. Cell, **54** (2014) 349.

H.Tsukagoshi, A.Nakamura, T.Ishida, K.K.Touhara, M.Otagiri, S.Moriya, M.Samejima, K.Igarashi, S.Fushinobu, K.Kitamoto and M.Arioka
Structural and Biochemical Analyses of Glycoside Hydrolase Family 26 *β*-Mannanase from a Symbiotic Protist of the Termite *Reticulitermes speratus*
J. Biol. Chem., **289** (2014) 10843.

K.K.Touhara, T.Nihira, M.Kitaoka, H.Nakai and S.Fushinobu
Structural Basis for Reversible Phosphorolysis and Hydrolysis Reactions of 2-*O*-*α*-Glucosylglycerol Phosphorylase
J. Biol. Chem., **289** (2014) 18067.

K.Suzuki, A.Hori, K.Kawamoto, R.R.Thangudu, T.Ishida, K.Igarashi, M.Samejima, C.Yamada, T.Arakawa, T.Wakagi, T.Koseki and S.Fushinobu
Crystal Structure of a Feruloyl Esterase Belonging to the Tannase Family: A Disulfide Bond Near a Catalytic Triad
Proteins, **82** (2014) 2857.

H.Zhao, G.Sheng, J.Wang, M.Wang, G.Bunkoczi, W.Gong, Z.Wei and Y.Wang
Crystal Structure of the RNA-Guided Immune Surveillance Cascade Complex in *Escherichia coli*
Nature, **515** (2014) 147.

L.Guo, J.Ding, R.Guo, Y.Hou, D.-C.Wang and L.Huang
Biochemical and Structural Insights into RNA Binding by Ssh10b, a Member of the Highly Conserved Sac10b Protein Family in Archaea
J. Biol. Chem., **289** (2014) 1478.

S.Nakano, M.Dadashipour and Y.Asano
Structural and Functional Analysis of Hydroxynitrile Lyase from *Baliospermum montanum* with Crystal Structure, Molecular Dynamics and Enzyme Kinetics
Biochim. Biophys. Acta, **1844** (2014) 2059.

A.Killivalavan, N.Zhuang, Y.S.Park and K.H.Lee
Purification, Crystallization and Preliminary X-Ray Diffraction Studies of UDP-Glucose: Tetrahydrobiopterin *α*-Glucosyltransferase(BGluT) from *Synechococcus* sp. PCC 7942
Acta Cryst. F, **70** (2014) 203.

Q.Tang, Y-P.Liu, X-X.Yan, D-C.Liang
Structural and Functional Characterization of Cys4 Zinc Finger Motif in the Recombination Mediator Protein RecR
DNA Repair, **24** (2014) 10.

D.Takeshita, S.Yamashita and K.Tomita
Molecular Insights into Replication Initiation by Qβ Replicase Using Ribosomal Protein S1
Nucleic Acids Res., **42** (2014) 10809.

M.K.Kim, Y.J.An, J.M.Song, C.S.Jeong, M.H.Kang, K.K.Kwon, Y.H.Lee and S.S.Cha
Structure-Based Investigation into the Functional Roles of the Extended Loop and Substrate-Recognition Sites in an Endo-β-1, 4-D-Mannanase from the Antarctic Springtail, *Cryptopygus antarcticus*
Proteins, **82** (2014) 3217.

E.O.Balogun, D.K.Inaoka, T.Shiba, Y.Kido, C.Tsuge, T.Nara, T.Aoki, T.Honma, A.Tanaka, M.Inoue, S.Matsuoka, P.A.Michels, K.Kita and S.Harada
Molecular Basis for the Reverse Reaction of African Human Trypanosomes Glycerol Kinase
Mol. Microbiol., **94** (2014) 1315.

J.Lu, Y.Gu, J.Feng, W.Zhou, X.Yang and Y.Shen
Structural Insight into the Central Element Assembly of the Synaptonemal Complex
Scientific Reports, **4** (2014) 7059.

Z.Wang, X.Yang, S.Guo, Y.Yang, X.C.Su, Y.Shen and J.Long
Crystal Structure of the Ubiquitin-Like Domain-CUT Repeat-Like Tandem of Special AT-Rich Sequence Binding Protein 1 (SATB1) Reveals a Coordinating DNA-Binding Mechanism
J. Biol. Chem., **289** (2014) 27376.

S.Hanessian, O.M.Saavedra, M.A.Vilchis-Reyes, J.P. Maianti, H.Kanazawa, P.Dozzo, R.D.Matias, A.Serio and J.Kondo
Synthesis, Broad Spectrum Antibacterial Activity, and X-Ray Co-Crystal Structure of the Decoding Bacterial Ribosomal A-Site with 4'-Deoxy-4'-Fluoro Neomycin Analogs
Chemical Science, **5** (2014) 4621.

H.Yamaguchi, J.Sebera, J.Kondo, S.Oda, T.Komuro, T.Kawamura, T.Dairaku, Y.Kondo, I.Okamoto, A.Ono, J.V.Burda, C.Kojima, V.Sychrovsky and Y.Tanaka
The Structure of Metallo-DNA with Consecutive Thymine-Hg^{II}-Thymine Base Pairs Explains Positive Entropy for the Metallo Base Pair Formation
Nucleic Acids Res., **42** (2014) 4094.

D.Yang, T.Mori, T.Matsui, M.Hashimoto, H.Morita, I.Fujii and I.Abe
Expression, Purification, and Crystallization of a Fungal Type III Polyketide Synthase that Produces the Csypyrones
Acta Cryst. F, **70** (2014) 730.

L.Zhang, J.Chen, T.Mori, Y.Yan, W.Liu and I.Abe
Crystallization, and Preliminary X-Ray Diffraction Analysis of AntE, a Crotonyl-CoA Carboxylase/Reductase from *Streptomyces* sp. NRRL 2288
Acta Cryst. F, **70** (2014) 734.

Y.Arimura, K.Shirayama, N.Horikoshi, R.Fujita, H.Taguchi, W.Kagawa, T.Fukagawa, G.Almouzni and H.Kurumizaka
Crystal Structure and Stable Property of the Cancer- Associated Heterotypic Nucleosome Containing CENP-A and H3.3.
Scientific Reports, **4** (2014) 7115.

M.Shiina, K.Hamada, T.B.Inoue, M.Shimamura, A Uchiyama, S.Baba, K.Sato and K.Ogata
Crystallization of the Ets1-Runx1-CBFβ-DNA Complex Formed on the TCRα Gene Enhancer
Acta Cryst. F, **70** (2014) 1380.

E.Hwang, H.U.Cheong, A.U.Mushtaq, H.Kim, K.J.Yeo, E.Kim, W.C.Lee, K.Y.Hwang, C.Cheong and Y.H.Jeon
Structural Basis of the Heterodimerization of the MST and RASSF SARAH Domains in the Hippo Signalling Pathway
Acta Cryst. D, **70** (2014) 1944.

Y.Fu, Y.Kim, K.S.Jin, H.S.Kim, J.H.Kim, D.Wang, M.Park, C.H.Jo, N.H.Kwon, D.Kim, M.H.Kim, Y.H.Jeon, K.Y.Hwang, S.Kim and Y.Cho
Structure of the ArgRS-GlnRS-AIMP1 Complex and its Implications for Mammalian Translation
Proc. Natl. Acad. Sci. USA, **111** (2014) 15084.

K.Inoue, Y.Usami, Y.Ashikawa, H.Noguchi, T.Umeda, A.Y.Ashikawa, T.Horisaki, H.Uchimura, T.Terada, S.Nakamura, K.Shimizu, H.Habe, H.Yamane, Z.Fujimoto and H.Nojiri
Structural Basis of the Divergent Oxygenation Reactions Catalyzed by the Rieske Nonheme Iron Oxygenase Carbazole 1,9a-Dioxygenase.
Appl. Environ. Microbiol., **80** (2014) 2821.

A.Nishizawa, A.Harada, M.Senda, Y.Tachihara, D.Muramatsu, S.Kishigami, S.Mori, K.Sugiyama, T.Senda and S.Kimura
Complete Pyridine Nucleotide-Specificity Conversion of an NADH-Dependent Ferredoxin Reductase.
Biochem. J, **462** (2014) 257.

Z.Wang, L.Li, Y.H.Dong and X.D.Su
Structural and Biochemical Characterization of MdaB from Cariogenic *Streptococcus Mutans* Reveals an NADPH-Specific Quinone Oxidoreductase
Acta Cryst. D, **70** (2014) 912.

K.Kuroki, J.Wang, T.Ose, M.Yamaguchi, S.Tabata, N.Maita, S.Nakamura, M.Kajikawa, A.Kogure, T.Satoh, H.Arase and K.Maenaka
Structural Basis for Simultaneous Recognition of an *O*-Glycan and its Attached Peptide of Mucin Family by Immune Receptor PILRα
Proc. Natl. Acad. Sci. USA, **111** (2014) 8877.

M.Nagae, K.Soga, K.M.Matsumoto, S.Hanashima, A.Ikeda, K.Yamamoto and Y.Yamaguchi
Phytohemagglutinin from *Phaseolus vulgaris* (PHA-E) Displays a Novel Glycan Recognition Mode using a Common Legume Lectin Fold
Glycobiology, **24** (2014) 368.

M.Nagae, A.Ikeda, Y.Kitago, N.Matsumoto, K.Yamamoto, and Y.Yamaguchi
Crystal Structures of Carbohydrate Recognition Domain of Blood Dendritic Cell Antigen-2 (BDCA2) Reveal a Common Domain-Swapped Dimer
Proteins, **82** (2014) 1512.

T.Tomita, T.Ozaki, K.Matsuda, M.Nishiyama and T.Kuzuyama
Crystallization and Preliminary X-Ray Diffraction Analysis of Cyclolavandulyl Diphosphate Synthase, a New Member of the *Cis-Isoprenyl* Diphosphate Synthase Superfamily
Acta Cryst. F, **70** (2014) 1410.

Y.Nishikawa, T.Oyama, N.Kamiya, T.Kon, Y.Y.Toyoshima, H.Nakamura and G.Kurisu
Structure of the Entire Stalk Region of the Dynein Motor Domain
J. Mol. Biol., **426** (2014) 3232.

H.S.Kim, J.Kim, H.N.Im, D.R.An, M.Lee, D.Hesek, S.Mobashery, J.Y.Kim, K.Cho, H.J.Yoon, B.W.Han, B.I.Lee and S.W.Suh
Structural Basis for the Recognition of Muramyltripeptide by *Helicobacter Pylori* Csd4, a D,L-Carboxypeptidase Controlling the Helical Cell Shape
Acta Cryst. D, **70** (2014) 2800.

S.J.Lee, Y.S.Park, S.J.Kim, B.J.Lee and S.W.Suh
Crystal Structure of PhoU from *Pseudomonas aeruginosa*, a Negative Regulator of the Pho Regulon
J. Struct. Biol., **188** (2014) 22.

Y.Hanada, Y.Nishimiya, A.Miura, S.Tsuda and H.Kondo
Hyperactive Antifreeze Protein from an Antarctic Sea Ice Bacterium *Colwellia* sp. Has a Compound Ice-Binding Site Without Repetitive Sequences
FEBS J., **281** (2014) 3576.

N.Asano, A.Nakamura, K.Komoda, K.Kato, I.Tanaka and M.Yao
Crystallization and Preliminary X-Ray Crystallographic Analysis of Ribosome Assembly Factors: the Rpf2-Rrs1 Complex
Acta Cryst. F, **70** (2014) 1649.

T.Matsui, X.Han, J.Yu, M.Yao and I.Tanaka.
Structural Change in FtsZ Induced by Intermolecular Interactions between Bound GTP and the T7 Loop
J. Biol. Chem., **289** (2014) 3501.

Y.Liu, A.Nakamura, Y.Nakazawa, N.Asano, K.A.Ford, M.J.Hohn, I.Tanaka, M.Yao and D.Soll
Ancient Translation Factor is Essential for tRNA- Dependent Cysteine Biosynthesis in Methanogenic Archaea
Proc. Natl. Acad. Sci. USA, **111** (2014) 10520.

F.Mimoto, S.Kadono, H.Katada, T.Igawa, T.Kamikawa and K.Hattori
Crystal Structure of a Novel Asymmetrically Engineered Fc Variant with Improved Affinity for FcγRs
Molecular Immunology, **58** (2014) 132.

H.Suzuki, U.Ohto, K.Higaki, T.M.Barragan, M.A.Moncayo, C.O.Mellet, E.Nanba, J.M.G.Fernandez, Y.Suzuki and T.Shimizu
Structural Basis of Pharmacological Chaperoning for Human β-Galactosidase
J. Biol. Chem., **289** (2014) 14560.

18A

K.Shudo, T.Aoki, S.Ohno, K.Yamazaki, F.Nakayama, M.Tanaka, T.Okuda, A.Harasawa, I.Matsuda, T.Kakizaki and M.Uchiyama
Titanium-Induced Charge of Si(001) Surface Dependent on Local Configuration
J. Elec. Spec. Relat. Phenom., **192** (2014) 35.

Sh.Yamamoto, M.Taguchi, M.Fujisawa, R.Hobara, S.Yamamoto, K.Yaji, T.Nakamura, K.Fujikawa, R.Yukawa, T.Togashi, M.Yabashi, M.Tsunoda, S.Shin and I.Matsuda
Observation of a Giant Kerr Rotation in a Ferromagnetic Transition Metal by *M*-Edge Resonant Magneto-Optic Kerr Effect
Phys. Rev. B, **89** (2014) 064423.

18B

S.A.Mollick, D.Ghose, S.R.Bhattacharyya, S.Bhunia, N.R.Ray and M.Ranjan
Synthesis of SiGe Layered Structure in Single Crystalline Ge Substrate by Low Energy Si Ion Implantation
Vacuum, **101** (2014) 387.

C.Pannu, U.B.Singh, S.Kumar, A.Tripathi, D.Kabiraj and D.K.Avasthi
Engineering the Strain in Graphene Layers with Au Decoration
Appl. Surf. Sci., **308** (2014) 193.

S.Chandran, N.Begam, V.Padmanabhan and J.K.Basu
Confinement Enhances Dispersion in Nanoparticle- Polymer Blend Films
Nature Communications, **5** (2014) 3697.

S.Singh, S.W.D'Souza, K.Mukherjee, P.Kushwaha, S.R.Barman, S.Agarwal, P.K.Mukhopadhyay, A.Chakrabarti and E.V.Sampathkumaran
Magnetic Properties and Magnetocaloric Effect in Pt Doped Ni-Mn-Ga
Appl. Phys. Lett., **104** (2014) 231909.

M.Sharma, M.K.Sanyal, B.Satpati, O.H.Seeck and S.K.Ray
Anomalous X-Ray Scattering Study of the Growth of Inverted Quantum Hut Structures in a Si-Ge Superlattice Emitting Strong Photoluminescence
Phys. Rev. B, **89** (2014) 205304.

R.R.Juluri, A.Rath, A.Ghosh, A.Bhukta, R.Sathyavathi, D.N.Rao, K.Müller, M.Schowalter, K.Frank, T.Grieb, F.Krause, A.Rosenauer and P.V.Satyam
Coherently Embedded Ag Nanostructures in Si: 3D Imaging and their Application to SERS
Scientific Reports, **4** (2014) 4633.

E.T.Dias, K.R.Priolkar and A.K.Nigam
Effect of Carbon Content on Magnetostructural Properties of Mn_3GaC
J. Magn. Magn. Mater., **363** (2014) 140.

S.Kumar, A.Tripathi, S.A.Khan, C.Pannuand D.K.Avasthi
Radiation Stability of Graphene under Extreme Conditions
Appl. Phys. Lett., **105** (2014) 133107.

S.Mitra, S.Chakraborty and K.S.R.Menon
Specular X-Ray Reflectivity Study of Interfacial SiO_2 Layer in Thermally Annealed NiO/Si Assembly
Appl. Phys. A, **117** (2014) 1185.

P.Bag, S.Singh, P.D.Babu, V.Siruguri and R.Rawat
Study of Antiferro-Ferromagnetic Phase Coexistence in Ta Doped $HfFe_2$
Physica B, **448** (2014) 50.

K.Dey, S.Majumdar and S.Giri
Ferroelectricity in Spiral Short-Range Ordered Magnetic State of Spinel $MnCr_2O_4$: Significance of Topological Frustration and Magnetoelastic Coupling
Phys. Rev. B, **90** (2014) 184424.

S.N.Guin, J.Pan, A.Bhowmik, D.Sanyal, U.V.Waghmare and K.Biswas
Temperature Dependent Reversible *p-n-p* Type Conduction Switching with Colossal Change in Thermopower of Semiconducting AgCuS
J. Am. Chem. Soc., **136** (2014) 12712.

J.Singh, N.Kaurav, N.P.Lalla and G.S.Okram
Naturally Self-Assembled Nickel Nanolattice
Journal of Materials Chemistry C, **2** (2014) 8918.

A.Malakar, B.Das, S.Sengupta, S.Acharya and S.Ray
ZnS Nanorod as an Efficient Heavy Metal Ion Extractor from Water
Journal of Water Process Engineering, **3** (2014) 74.

S.Chandran, N.Begam and J.K.Basu
Dispersion of Polymer Grafted Nanoparticles in Polymer Nanocomposite Films: Insights from Surface X-Ray Scattering and Microscopy
J. Appl. Phys., **116** (2014) 222203.

S.Singh, S.Pal and C.Biswas
Disorder Induced Resistivity Anomaly in $Ni_2 Mn_{1+x} Sn_{1-x}$
Journal of Alloys and Compounds, **616** (2014) 110.

18C

H.Abe, T.Takekiyo, N.Hatano, M.Shigemi, N.Hamaya and Y.Yoshimura
Pressure-Induced Frustration-Frustration Process in 1-Butyl-3-Methylimidazolium Hexafluorophosphate, a Room-Temperature Ionic Liquid
J. Phys. Chem. B, **118** (2014) 1138.

H.Abe, Y.Imai, T.Takekiyo, Y.Yoshimura and N.Hamaya
Low Temperature and High Pressure Crystals of Room Temperature Ionic Liquid: *N*, *N*-Diethyl-*N*-Methyl-*N*-(2-Methoxyethyl) Ammonium Tetrafluoroborate
IOP Conf. Series: Materials Science and Engineering, **54** (2014) 012003.

T.Onimaru, S.Tsutsui, M.Mizumaki, N.Kawamura, N.Ishimatsu, M.A.Avila, S.Yamamoto, H.Yamane, K.Suekuni, K.Umeo, T.Kume, S.Nakano and T.Takabatake
Simultaneous Pressure-Induced Magnetic and Valence Transitions in Type-I Clathrate $Eu_8Ga_{16}Ge_{30}$
J. Phys. Soc. Jpn., **83** (2014) 013701.

Y.Kawamura, T.Kawaai, T.Nakayama, J.Hayashi, K.Takeda, C.Sekine, T.Nishioka and Y.Ohishi
Synchrotron X-Ray Diffraction Study of $CeRu_2 Al_{10}$ under High Pressure and Low Temperature
JPS Conf. Proc., **3** (2014) 011029.

H.Yamawaki, H.Fujihisa, Y.Gotoh and S.Nakano
Phase Changes in Lithium Amide-Borohydride Complexes under High Pressure
Solid State Ionics, **262** (2014) 490.

A.Nakayama, Y.Onda, S.Yamada, H.Fujihisa, M.Sakata, Y.Nakamoto, K.Shimizu, S.Nakano, A.Ohmura, F.Ishikawa and Y.Yamada
Collapse of CuO Double Chains and Suppression of Superconductivity in High-Pressure Phase of $YBa_2Cu_4 O8$
J. Phys. Soc. Jpn., **83** (2014) 093601.

H.Hirai, H.Kadobayashi, T.Matsuoka, Y.Ohishi and Y.Yamamoto
High Pressure X-Ray Diffraction and Raman Spectroscopic Studies of the Phase Change of D_2O Ice VII at Approximately 11 GPa
High Pressure Res., **34** (2014) 289.

H.Hirai, T.Tanaka, T.Matsuoka, Y.Ohishi, T.Yagi, M.Ohtake and Y.Yamamoto
Phase Changes Induced by Guest Orientational Ordering of Filled Ice I_h Methane Hydrate under High Pressure and Low Temperature
J. Phys.: Conf. Ser., **500** (2014) 192006.

H.Yamawaki, H.Fujihisa, Y.Gotoh and S.Nakano
Structure of Intermediate Phase II of $LiNH_2$ under High Pressure
J. Phys. Chem. B, **118** (2014) 9991.

T.Tomita, M.Ebata, H.Soeda, H.Takahashi, H.Fujihisa, Y.Gotoh, Y.Mizuguchi, H.Izawa, O.Miura, S.Demura, K.Deguchi and Y.Takano
Pressure-Induced Enhancement of Superconductivity and Structural Transition in BiS_2 -Layered $LaO_{1-x}F_x BiS_2$
J. Phys. Soc. Jpn., **83** (2014) 063704.

A.Shinozaki, H.Kagi, N.Noguchi, H.Hirai, H.Ohfuji, T.Okada, S.Nakano and T.Yagi
Formation of SiH_4 and H_2 O by the Dissolution of Quartz in H_2 Fluid under High Pressure and Temperature
American Mineralogist, **99** (2014) 1265.

M.Einaga, A.Ohmura, F.Ishikawa, A.Nakayama, Y.Yamada, S.Nakano, A.Matsushita and K.Shimizu
Pressure-Induced Superconductivity in Non-Stoichiometric Bismuth Telluride $Bi_{35}Te_{65}$
J. Phys: Conf. Ser., **500** (2014) 192003.

K.Takeda, Y.Kawamura, K.Ito, J.Hayashi, K.Matsui, H.Nakane and C.Sekine
X-Ray Study with Synchrotron Radiation for New Filled Skutterudite $GdFe_4As_{12}$ at Ambient Pressure and High Pressures
JPS Conf. Proc., **3** (2014) 017019.

19A

R.Suzuki, M.Sakano, Y.J.Zhang, R.Akashi, D.Morikawa, A.Harasawa, K.Yaji, K.Kuroda, K.Miyamoto, T.Okuda, K.Ishizaka, R.Arita and Y.Iwasa
Valley-Dependent Spin Polarization in Bulk MoS_2 with Broken Inversion Symmetry
Nature Nanotechnology, **9** (2014) 611.

19B

D.-Y.Kim, S.Miyoshi, T.Tsuchiya and S.Yamaguchi
Electronic Defects Formation in Fe-Doped $BaZrO_3$ Studied by X-Ray Absorption Spectroscopy
Chem. Mater., **26** (2014) 927.

20A

K.Shigemura, M.Kitajima, M.Kurokawa, K.Toyoshima, T.Odagiri, A.Suga, H.Kato, M.Hoshino, H.Tanaka and K.Ito
Total Cross Sections for Electron Scattering from He and Ne at Very Low Energies
Phys. Rev. A, **89** (2014) 022709.

M.Kitajima, K.Shigemura, M.Kurokawa, T.Odagiri, H.Kato, M.Hoshino, H.Tanaka and K.Ito
Measurements of Ultra-Low-Energy Electron Scattering Cross Sections of Atoms and Molecules
AIP Conf. Proc., **1588** (2014) 78.

Y.Nakanishi, K.Hosaka, R.Kougo, T.Odagiri, M.Nakano, Y.Kumagai, K.Shiino, M.Kitajima and N.Kouchi
Angular Correlation of a Pair of Lyman-α Photons Produced in the Photodissociation of H_2
Phys. Rev. A, **90** (2014) 043405.

20B

S.Ji, K.Kojima, Y.Ishida, H.Yamaguchi, S.Saito, T.Kato, H.Tsuchida, S.Yoshida and H.Okumura
Characterization of the Defect Evolution in Thick Heavily Al-Doped 4H-SiC Epilayers
Materials Science Forum, **778-780** (2014) 151.

Y.Kato, H.Umezawa and S.Shikata
X-Ray Topographic Study of a Homoepitaxial Diamond Layer on an Ultraviolet-Irradiated Precision Polished Substrate
Acta Physica Polonica A, **125** (2014) 969.

S.Harada, Y.Yamamoto, S.Xiao, M.Tagawa and T.Ujihara
Surface Morphology and Threading Dislocation Conversion Behavior during Solution Growth of 4H-SiC using Al-Si Solvent
Materials Science Forum, **778-780** (2014) 67.

Y.Yamamoto, S.Harada, K.Seki, A.Horio, T.Mitsuhashi, D.Koike, M.Tagawa, and T.Ujihara
Low-Dislocation-Density 4H-SiC Crystal Growth Utilizing Dislocation Conversion during Solution Method
Appl. Phys. Express., **7** (2014) 065501.

S.Harada, Y.Yamamoto, K.Seki, A.Horio, M.Tagawa and T.Ujihara
Different Behavior of Threading Edge Dislocation Conversion During the Solution Growth of 4H-SiC Depending on the Burgers Vector
Acta Mater., **81** (2014) 284.

H.Koizumi, M.Tachibana, I.Yoshizaki, S.Fukuyama, K.Tsukamoto, Y.Suzuki, S.Uda and K.Kojima
Dislocations in High-Quality Glucose Isomerase Crystals Grown from Seed Crystals
Cryst. Growth Des., **14** (2014) 5111.

Y.Mokuno, Y.Kato, N.Tsubouchi, A.Chayahara, H.Yamada and S.Shikata
A Nitrogen Doped Low-Dislocation Density Free- Standing Single Crystal Diamond Plate Fabricated by a Lift-Off Process
Appl. Phys. Lett., **104** (2014) 252109.

Former 20B

J.N.G.Stanley, P.Benndorf, F.Heinroth, A.F.Masters and T.Maschmeyer
Probing Structure-Functionality Relationships of Catalytic Bimetallic Pt-Ru Nanoparticles Associated with Improved Sulfur Resistance
RSC Advances **4** (2014) 28062

27A

Y.Baba, I.Shimoyama, N.Hirao and T.Sekiguchi
Structure of Ultra-Thin Silicon Film on HOPG Studied by Polarization-Dependence of X-Ray Absorption Fine Structure
Chem. Phys. Lett., **594** (2014) 64.

I.Shimoyama, Y.Baba and T.Sekiguchi
A Polarization Rule on Atomic Arrangements of Graphite-Like Boron Carbonitride
Carbon, **71** (2014) 1.

Y.Baba, I.Shimoyama, N.Hirao and T.Sekiguchi
Structures of Quasi-Freestanding Ultra-Thin Silicon Films Deposited on Chemically Inert Surfaces
Chem. Phys., **444** (2014) 1.

R.Shinoda, N.Hirao, Y.Baba, A.Iwase and T.Matsui
Effect of Doping for Epitaxial $(Ba_{1-x}Yb_x)(Fe_{0.2}Zr_{0.8})O_{3-\delta}$ Thin Films with Yb
Mater. Transactions, **55** (2014) 1521.

S.Ishiyama, R.Fujii, M.Nakamura and Y.Imahori
3KeV H_2^+ Irradiation to Li/Pd/Cu Trilaminar Neutron Production Target for BNCT
Mater. Transactions, **55** (2014) 658.

M.Honda, M.Yanagida, L.Han and K.Miyano
Investigation of the Influence of Coadsorbent Dye upon the Interfacial Structure of Dye-Sensitized Solar Cells
J. Chem. Phys., **141** (2014) 174709.

M.Honda, Y.Baba, T.Sekiguchi, I.Shimoyama and N.Hirao
Electrochemical Immobilization of Biomolecules on Gold Surface Modified with Monolayered L-Cysteine
Thin Solid Films, **556** (2014) 307.

H.I.Sekiguchi and T.Sekiguchi
Molecular Ordering Effect of Regioregular Poly(3-hexylthiophene) using Sulfur K-Edge X-Ray Absorption Spectroscopy
Jpn. J. Appl. Phys., **53** (2014) 02BB07.

I.Shimoyama, N.Hirao, Y.Baba, T.Izumi, Y.Okamoto, T.Yaita, and S.Suzuki
Low-Pressure Sublimation Method for Cesium Decontamination of Clay Minerals
Clay Science, **18** (2014) 71.

R.Shinoda, A.Iwase and T.Matsui
Magnetic and Structural Properties of $Ba(Co_{1-x}Mn_x)O_3$ Using Synchrotron X-Ray Spectroscopy
J. Appl. Phys., **116** (2014) 243901.

S.Ishiyama, Y.Baba, R.Fujii, M.Nakamura and Y.Imahori
Surficial Chemical States of Li_3N Synthesized on Lithium Target for Boron Neutron Capture Therapy
Mater. Trans., JIM, **55** (2014) 539.

N.Hirao, Y.Baba, T.Sekiguchi and I.Shimoyama
Focusing of Soft X-Rays using Poly-Capillary with Precise Adjustment Mechanism and its Application to Quick Chemical-State Analysis
BUNSEKI KAGAKU, **63** (2014) 53. (in Japanese).

27B

M.Numakura, N.Sato, C.Bessada, A.Nezu, H.Akatsuka and H.Matsuura
Local Structural Analyses of Molten Thorium Fluoride in Mono- and Divalent Cationic Fluorides
Molten Salts Chemistry and Technology, **6.7** (2014) 459.

T.Kishino, R.Shinoda, K.Shimizu, Y.Saitoh, N.Ishikawa, Y.Okamoto, F.Hori, T.Matsui and A.Iwase
Effect of 10MeV Iodine Ion Irradiation on the Magnetic Properties and Lattice Structure of CeO_2
Jpn. J. Appl. Phys., **53** (2014) 05FC07.

A.Hashimoto, Y.Kaneno, S.Semboshi, H.Yoshizaki, Y.Saitoh, Y.Okamoto and A.Iwase
Microstructure Evolution and Hardness Change in Ordered Ni_3V Intermetallic Alloy by Energetic Ion Irradiation
Nucl. Instrum. Meth. Phys. Res. B, **338** (2014) 72.

R.Shinoda, A.Iwase and T.Matsui
Magnetic and Structural Properties of $Ba(Co_{1-x}Mn_x)O_3$ Using Synchrotron X-Ray Spectroscopy
J. Appl. Phys., **116** (2014) 243901.

28A

D.Ootsuki, T.Toriyama, S.Pyon, K.Kudo, M.Nohara, K.Horiba, M.Kobayashi, K.Ono, H.Kumigashira, T.Noda, T.Sugimoto, A.Fujimori, N.L.Saini, T.Konishi, Y.Ohta and T.Mizokawa
Te 5*p* Orbitals Bring Three-Dimensional Electronic Structure to Two-Dimensional $Ir_{0.95}Pt_{0.05}Te_2$
Phys. Rev. B, **89** (2014) 104506.

M.Sunagawa, T.Ishiga, K.Tsubota, T.Jabuchi, J.Sonoyama, K.Iba, K.Kudo, M.Nohara, K.Ono, H.Kumigashira, T.Matsushita, M.Arita, K.Shimada, H.Namatame, M.Taniguchi, T.Wakita, Y.Muraoka and T.Yokoya
Characteristic Two-Dimensional Fermi Surface Topology of High-T_c Iron-Based Superconductors
Scientific Reports, **4** (2014) 4381.

Y.Muraoka, H.Nagao, S.Katayama, T.Wakita, M.Hirai, T.Yokoya, H.Kumigashira and M.Oshima
Persistent Insulator-to-Metal Transition of a VO_2 Thin Film Induced by Soft X-Ray irradiation
Jpn. J. Appl. Phys., **53** (2014) 05FB09.

M.Nomura, S.Souma, A.Takayama, T.Sato, T.Takahashi, K.Eto, K.Segawa and Y.Ando
Relationship between Fermi Surface Warping and Out-of-Plane Spin Polarization in Topological Insulators: A View from Spin- and Angle-Resolved Photoemission
Phys. Rev. B, **89** (2014) 045134.

E.Ieki, K.Nakayama, Y.Miyata, T.Sato, H.Miao, N.Xu, X.-P.Wang, P.Zhang, T.Qian, P.Richard, Z.-J.Xu, J.S.Wen, G.D.Gu, H.Q.Luo, H.-H.Wen, H.Ding and T.Takahashi
Evolution from Incoherent to Coherent Electronic States and its Implications for Superconductivity in $FeTe_{1-x}Se_x$
Phys. Rev. B, **89** (2014) 140506(R).

K.Sawada, D.Ootsuki, K.Kudo, D.Mitsuoka, M.Nohara, T.Noda, K.Horiba, M.Kobayashi, K.Ono, H.Kumigashira, N.L.Saini and T.Mizokawa
Coexistence of Bloch Electrons and Glassy Electrons in $Ca_{10}(Ir_4As_8)(Fe_{2-x}Ir_xAs_2)_5$ Revealed by Angle-Resolved Photoemission Spectroscopy
Phys. Rev. B, **89** (2014) 220508(R).

T.Shimojima, T.Sonobe, W.Malaeb, K.Shinada, A.Chainani, S.Shin, T.Yoshida, S.Ideta, A.Fujimori, H.Kumigashira, K.Ono, Y.Nakashima, H.Anzai, M.Arita, A.Ino, H.Namatame, M.Taniguchi, M.Nakajima, S.Uchida, Y.Tomioka, T.Ito, K.Kihou, C.H.Lee, A.Iyo, H.Eisaki, K.Ohgushi, S.Kasahara, T.Terashima, H.Ikeda, T.Shibauchi, Y.Matsuda and K.Ishizaka
Pseudogap Formation above the Superconducting Dome in Iron Pnictides
Phys. Rev. B, **89** (2014) 045101.

T.Shimojima, Y.Suzuki, T.Sonobe, A.Nakamura, M.Sakano, J.Omachi, K.Yoshioka, M.Kuwata-Gonokami, K.Ono, H.Kumigashira, A.E.Bo¨hmer, F.Hardy, T.Wolf, C.Meingast, H.V.L¨ohneysen, H.Ikeda and K.Ishizaka
Lifting of *xz/yz* Orbital Degeneracy at the Structural Transition in Detwinned FeSe
Phys. Rev. B, **90** (2014) 121111.

K.Nakayama, Y.Miyata, G.N.Phan, T.Sato, Y.Tanabe, T.Urata, K.Tanigaki and T.Takahashi
Reconstruction of Band Structure Induced by Electronic Nematicity in an FeSe Superconductor
Phys. Rev. Lett., **113** (2014) 237001.

K.Terashima, J.Sonoyama, T.Wakita, M.Sunagawa, K.Ono, H.Kumigashira, T.Muro, M.Nagao, S.Watauchi, I.Tanaka, H.Okazaki, Y.Takano, O.Miura, Y.Mizuguchi, H.Usui, K.Suzuki, K.Kuroki, Y.Muraoka and T.Yokoya
Proximity to Fermi-Surface Topological Change in Superconducting $LaO_{0.54}F_{0.46}BiS_2$
Phys. Rev. B, **90** (2014) 220512(R).

M.Xia, J.Jiang, Z.R.Ye, Y.H.Wang, Y.Zhang, S.D.Chen, X.H.Niu, D.F.Xu, F.Chen, X.H.Chen, B.P.Xie, T.Zhang and D.L.Feng
Angle-Resolved Photoemission Spectroscopy Study on the Surface States of the Correlated Topological Insulator YbB_6
Scientific Reports, **4** (2014) 5999.

S.Ideta, T.Yoshida, M.Nakajima, W.Malaeb, H.Kito, H.Eisaki, A.Iyo, Y.Tomioka, T.Ito, K.Kihou, C.H.Lee, Y.Kotani, K.Ono, S.K.Mo, Z.Hussain, Z.X.Shen, H.Harima, S.Uchida and A.Fujimori
Electronic Structure of $BaNi_2P_2$ Observed by Angle- Resolved Photoemission Spectroscopy
Phys. Rev. B, **89** (2014) 195138.

H.Suzuki, T.Kobayashi, S.Miyasaka, T.Yoshida, K.Okazaki, L.C.C.Ambolode, S.Ideta, M.Yi, M.Hashimoto, D.H.Lu, Z.X.Shen, K.Ono, H.Kumigashira, S.Tajima and A.Fujimori
Strongly Three-Dimensional Electronic Structure and Fermi Surfaces of $SrFe_2(As_{0.65}P_{0.35})_2$: Comparison with $BaFe_2(As_{1-x}P_x)_2$
Phys. Rev. B, **89** (2014) 184513.

T.Yoshida, S.Ideta, T.Shimojima, W.Malaeb, K.Shinada, H.Suzuki, I.Nishi, A.Fujimori, K.Ishizaka, S.Shin, Y.Nakashima, H.Anzai, M.Arita, A.Ino, H.Namatame, M.Taniguchi, H.Kumigashira, K.Ono, S.Kasahara, T.Shibauchi, T.Terashima, Y.Matsuda, M.Nakajima, S.Uchida, Y.Tomioka, T.Ito, K.Kihou, C.H.Lee, A.Iyo, H.Eisaki, H.Ikeda, R.Arita, T.Saito, S.Onari and H.Kontani
Anisotropy of the Superconducting Gap in the Iron- Based Superconductor $BaFe_2(As_{1-x}P_x)_2$
Scientific Reports, **4** (2014) 7292.

M.Okawa, T.Yokobori, 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
Cu-O-Cr Hybridization Effects on the Electronic Structure of a Hole-Doped Delafossite Oxide $CuCr_{1-x}Mg_xO_2$
JPS Conf Proc., **3** (2014) 017027.

28B

Y.Nakanishi, K.Hosaka, R.Kougo, T.Odagiri, M.Nakano, Y.Kumagai, K.Shiino, M.Kitajima, and N.Kouchi
Angular Correlation of a Pair of Lyman-α Photons Produced in the Photodissociation of H_2
Phys. Rev. A, **90** (2014) 043405.

Former 28B

J.N.G.Stanley, P.Benndorf, F.Heinroth, A.F.Masters and T.Maschmeyer
Probing Structure-Functionality Relationships of Catalytic Bimetallic Pt-Ru Nanoparticles Associated with Improved Sulfur Resistance
RSC Advances **4** (2014) 28062.

NE1A

L.Li, T.Nagai, T.Ishido, S.Motai, K.Fujino and S.Itoh
Formation of a Solid Solution in the $MgSiO_3$-$MnSiO_3$ Perovskite System
Phys. Chem. Minerals, **41** (2014) 431.

D.Nishio-Hamane, T.Minakawa and H.Okada
Iwateite, $Na_2BaMn(PO_4)_2$, a New Mineral from the Tanohata Mine, Iwate Prefecture, Japan
Journal of Mineralogical and Petrological Sciences, **109** (2014) 34.

H.Yusa, F.Kawamura, T.Taniguchi, N.Hirao, Y.Ohishi and T.Kikegawa
High-Pressure Synthesis and Compressive Behavior of Tantalum Nitrides
J. Appl. Phys., **115** (2014) 103520.

K.Niwa, K.Suzuki, S.Muto, K.Tatsumi, K.Soda, T.Kikegawa and M.Hasegawa
Discovery of the Last Remaining Binary Platinum-Group Pernitride RuN_2
Chem. Eur. J., **20** (2014) 1.

K.Niwa and M.Hasegawa
Novel Material Synthesis using Laser−Heated Diamond Anvil Cell
The Review of High Pressure Science and Technology, **24** (2014) 178. (in Japanese).

H.Yusa, T.Tsuchiya, M.Akaogi, H.Kojitani, D.Yamazaki, N.Hirao, Y.Ohishi and T.Kikegawa
Postperovskite Phase Transition of $ZnGeO_3$: Comparative Crystal Chemistry of Postperovskite Phase Transition from Germanate Perovskites
Inorg. Chem., **53** (2014) 11732.

X.Lai, F.Zhu, Y.Wu, R.Huang, X.Wu, Q.Zhang, K.Yang and S.Qin
New High-Pressure Polymorph of In_2S_3 with Defect Th_3P_4-type Structure
J. Solid State Chem., **210** (2014) 155.

NE3A

Y.Yasutake, W.Kitagawa, M.Hata, T.Nishioka, T.Ozaki, M.Nishiyama, T.Kuzuyama and T.Tamura
Structure of the Quinoline N-Hydroxylating Cytochrome P450 RauA, an Essential Enzyme that Confers Antibiotic Activity on Aurachin Alkaloids
FEBS Letters, **588** (2014) 105.

S.Okada, T.Yamamoto, H.Watanabe, T.Nishimoto, H.Chaen, S.Fukuda, T.Wakagi and S.Fushinobu
Structural and Mutational Analysis of Substrate Recognition in Kojibiose Phosphorylase
FEBS J., **281** (2014) 778.

T.Satoh, K.Suzuki, T.Yamaguchi and K.Kato
Structural Basis for Disparate Sugar-Binding Specificities in the Homologous Cargo Receptors ERGIC-53 and VIP36
PLOS ONE, **9** (2014) e87963.

K.Miyazono, Y.Furuta, M.Watanabe-Matsui, T.Miyakawa, T.Ito, I.Kobayashi and M.Tanokura
A Sequence-Specific DNA Glycosylase Mediates Restriction-Modification in *Pyrococcus abyssi*
Nature Communications, **5** (2014) 3178.

D.Matsui, D.-H.Im, A.Sugawara, Y.Fukuta, S.Fushinobu, K.Isobe and Y.Asano
Mutational and Crystallographic Analysis of L-Amino Acid Oxidase/Monooxygenase from *Pseudomonas* sp. AIU 813: Interconversion between Oxidase and Monooxygenase Activities
FEBS Open Bio, **4** (2014) 220.

S.Wang, M.Ogata, S.Horita, J.Ohtsuka, K.Nagata and M.Tanokura
A Novel Mode of Ferric Ion Coordination by the Periplasmic Ferric Ion-Binding Subunit FbpA of an ABC-Type Iron Transporter from *Thermus thermophilus* HB8.
Acta Cryst. D, **70** (2014) 196.

H.M.Qin, A.Yamamura, T.Miyakawa, M.Kataoka, T.Nagai, N.Kitamura, N.Urano, S.Maruoka, J.Ohtsuka, K.Nagata, S.Shimizu and M.Tanokura
Structure of Conjugated Polyketone Reductase from *Candida parapsilosis* IFO 0708 Reveals Conformational Changes for Substrate Recognition upon NADPH Binding
Appl. Microbiol. Biotechnol., **98** (2014) 243.

S.Niwa, L.-J.Yu, K.Takeda, Y.Hirano, T.Kawakami, Z.-Y.Wang-Otomo and K.Miki
Structure of the LH1-RC Complex from *Thermochromatium Tepidum* at 3.0 Å
Nature, **508** (2014) 228.

S.Tagami, S.Sekine, L.Minakhin, D.Esyunina, R.Akasaka, M.Shirouzu, A.Kulbachinskiy, K.Severinov and S.Yokoyama
Structural Basis for Promoter Specificity Switching of RNA Polymerase by a Phage Factor
Genes and Development, **28** (2014) 521.

.Sugimoto, M.Senda, D.Kasai, M.Fukuda, E.Masai and T.Senda
Molecular Mechanism of Strict Substrate Specificity of an Extradiol Dioxygenase, DesB, Derived from *Sphingobium* sp. SYK-6.
PLOS ONE, **9** (2014) e92249.

T.Ito, K.Saikawa, S.Kim, K.Fujita, A.Ishiwata, S.Kaeothip, T.Arakawa, T.Wakagi, G.T.Beckham, Y.Ito, S.Fushinobu
Crystal Structure of Glycoside Hydrolase Family 127 β-L-Arabinofuranosidase from *Bifidobacterium longum*
Biochem. Biophys. Res. Commun., **447** (2014) 32.

T.Tsuda, M.Asami, Y.Koguchi and S.Kojima
Single Mutation Alters the Substrate Specificity of L-Amino Acid Ligase
Biochemistry, **53** (2014) 2650.

Y.Kanoh, S.Uehara, H.Iwata, K.Yoneda, T.Ohshima and H.Sakuraba
Structural Insight into Glucose Dehydrogenase from the Thermoacidophilic Archaeon *Thermoplasma volcanium*
Acta Cryst. D, **70** (2014) 1271.

C.Feng, Y.Liu, G.Wang, Z.Deng, Q.Zhang, W.Wu, Y.Tong, C.Cheng and Z.Chen
Crystal Structures of the Human RNA Demethylase Alkbh5 Reveal Basis for Substrate Recognition
J. Biol. Chem., **289** (2014) 11571.

Z.Deng, K.C.Lehmann, X.Li, C.Feng, G.Wang, Q.Zhang, X.Qi, L.Yu, X.Zhang, W.Feng, W.Wu, P.Gong, Y.Tao, C.C.Posthuma, E.J.Snijder, A.E.Gorbalenya and Z.Chen
Structural Basis for the Regulatory Function of a Complex Zinc-Binding Domain in a Replicative Arterivirus Helicase Resembling a Nonsense-Mediated mRNA Decay Helicase
Nucleic Acids Research, **42** (2014) 3464.

T.Satoh, Y.Saeki, T.Hiromoto, Y.-H.Wang, Y.Uekusa, H.Yagi, H.Yoshihara, M.Yagi-Utsumi, T.Mizushima, K.Tanaka and K.Kato
Structural Basis for Proteasome Formation Controlled by an Assembly Chaperone Nas2
Structure, **22** (2014) 731.

T.Maehara, Z.Fujimoto, H.Ichinose, M.Michikawa, K.Harazono and S.Kaneko
Crystal Structure and Characterization of the Glycoside Hydrolase Family 62 α-L-Arabinofuranosidase from *Streptomyces coelicolor*
J. Biol. Chem., **289** (2014) 7962.

N.Suzuki, Z.Fujimoto, Y.-M.Kim, M.Momma, N.Kishine, R.Suzuki, S.Suzuki, S.Kitamura, M.Kobayashi, A.Kimura and K.Funane
Structural Elucidation of the Cyclization Mechanism of α-1,6-Glucan by *Bacillus circulans* T-3040 Cycloisomaltooligosaccharide Glucanotransferase
J. Biol. Chem., **289** (2014) 12040.

A.Kishimoto, A.Kita, T.Ishibashi, H.Tomita, Y.Yokooji, T.Imanaka, H.Atomi and K.Miki
Crystal Structure of Phosphopantothenate Synthetase from *Thermococcus kodakarensis*
Proteins **82** (2014) 1924.

E.Tamai, H.Yoshida, H.Sekiya, H.Nariya, S.Miyata, A.Okabe, T.Kuwahara, J. Maki and S.Kamitori
X-Ray Structure of a Novel Endolysin Encoded by Episomal Phage PhiSM101 of *Clostridium perfringens*
Molecular Microbiology, **92** (2014) 326.

Y.Fujioka, S.W.Suzuki, H.Yamamoto, C.Kondo-Kakuta, Y.Kimura, H.Hirano, R.Akada, F.Inagaki, Y.Ohsumi and N.N.Noda
Structural Basis of Starvation-Induced Assembly of the Autophagy Initiation Complex
Nature Structural Molecular Biology, **21** (2014) 513.

X.Liu, Y.Yin, J.Wu and Z.Liu
Structure and Mechanism of an Intramembrane Liponucleotide Synthetase Central for Phospholipid Biosynthesis
Nature Communications, **5** (2014) 4244.

H.Yokoyama and S.Fujii
Structures and Metal-Binding Properties of *Helicobacter pylori* Neutrophil-Activating Protein with a Di-Nuclear Ferroxidase Center
Biomolecules, **4** (2014) 600.

Y.Ohta, Y.Hatada, Y.Hidaka, Y.Shimane, K.Usui, T.Ito, K.Fujita, G.Yokoi, M.Mori, S.Sato, T.Miyazaki, A.Nishikawa and T.Tonozuka
Enhancing Thermostability and the Structural Characterization of *Microbacterium saccharophilum* K-1 *β*-Fructofuranosidase
Appl. Microbiol. Biotechnol., **98** (2014) 6667.

H.P.Kokatla, D.Sil, H.Tanji, U.Ohto, S.S.Malladi, L.M.Fox, T.Shimizu and S.A.David
Structure-Based Design of Novel Human Toll-Like Receptor 8 Agonists
ChemMedChem, **9** (2014) 719.

K.Miyazono, K.Tsutsumi, Y.Ishino and M.Tanokura
Expression, High-Pressure Refolding, Purification, Crystallization and Preliminary X-Ray Analysis of a Novel Single-Strand-Specific 3'-5' Exonuclease PhoExo I from *Pyrococcus horikoshii* OT3
Acta Cryst. F, **70** (2014) 1076.

T.Mise, H.Matsunami, F.A.Samatey and I.N.Maruyama
Crystallization and Preliminary X-Ray Diffraction Analysis of the Periplasmic Domain of the *Escherichia coli* Aspartate Receptor Tar and its Complex with Aspartate
Acta Cryst. F, **70** (2014) 1219.

M.Kanagawa, Y.Liu, S.Hanashima, A.Ikeda, W.Chai, Y.Nakano, K.Kojima-Aikawa, T.Feizi and Y.Yamaguchi
Structural Basis for Multiple Sugar Recognition of Jacalin-Related Human ZG16p Lectin
J. Biol. Chem., **289** (2014) 16954.

K.Kashiwagi, T.Ito and S.Yokoyama
Crystal Structure of the Eukaryotic Translation Initiation Factor 2A from *Schizosaccharomyces pombe*
J. Struct. Funct. Genomics, **15** (2014) 125.

S.Kamachi, K.Wada, M.Tamoi, S.Shigeoka and T.Tada
The 2.2 Å Resolution Structure of the Catalase- Peroxidase KatG from *Synechococcus elongatus* PCC7942
Acta Cryst. F, **70** (2014) 288.

S.Kamachi, J.Nagao, M.Miyashita, Y.Nakagawa, H.Miyagawa and T.Tada
Crystallization and Preliminary X-Ray Diffraction Studies of La1 from *Liocheles australasiae*
Acta Cryst. F, **70** (2014) 915.

H.Tsukagoshi, A.Nakamura, T.Ishida, K.K.Touhara, M.Otagiri, S.Moriya, M.Samejima, K.Igarashi, S.Fushinobu, K.Kitamoto and M.Arioka
Structural and Biochemical Analyses of Glycoside Hydrolase Family 26 *β*-Mannanase from a Symbiotic Protist of the Termite *Reticulitermes speratus*
J. Biol. Chem., **289** (2014) 10843.

K.K.Touhara, T.Nihira, M.Kitaoka, H.Nakai and S.Fushinobu
Structural Basis for Reversible Phosphorolysis and Hydrolysis Reactions of 2-O-*α*-Glucosylglycerol Phosphorylase
J. Biol. Chem., **289** (2014) 18067.

K.Suzuki, A.Hori, K.Kawamoto, R.R.Thangudu, T.Ishida, K.Igarashi, M.Samejima, C.Yamada, T.Arakawa, T.Wakagi, T.Koseki and S.Fushinobu
Crystal Structure of a Feruloyl Esterase Belonging to the Tannase Family: A Disulfide Bond Near a Catalytic Triad
Proteins, **82** (2014) 2857.

C.J.Bruns, D.Fujita, M.Hoshino, S.Sato, J.F.Stoddart and M.Fujita
Emergent Ion-Gated Binding of Cationic Host-Guest Complexes within Cationic M_{12} L_{24} Molecular Flasks
J. Am. Chem. Soc., **136** (2014) 12027.

H.Itou, S.Muramatsu, Y.Shirakihara and H.Araki
Crystal Structure of the Homology Domain of the Eukaryotic DNA Replication Proteins Sld3/Treslin
Structure, **22** (2014) 1341.

T.Yokoyama, Y.Kosaka and M.Mizuguchi
Inhibitory Activities of Propolis and its Promising Component, Caffeic Acid Phenethyl Ester, against Amyloidogenesis of Human Transthyretin
J. Med. Chem, **57** (2014) 8928.

Q-F.Sun, S.Sato and M.Fujita
An M_{12} $(L^1)_{12}$ $(L^2)_{12}$ Cantellated Tetrahedron: A Case Study on Mixed-Ligand Self-Assembly
Angew. Chem. Int. Ed., **53** (2014) 13510.

H.Yoshida, A.Yoshihara, M.Teraoka, Y.Terami, G.Takata, K.Izumori and S.Kamitori
X-Ray Structure of a Novel L-Ribose Isomerase Acting on a Non-Natural Sugar L-Ribose as its Ideal Substrate
FEBS J., **281** (2014) 3150.

Z.Wang, X.Yang, S.Guo, Y.Yang, X.C.Su, Y.Shen and J.Long
Crystal Structure of the Ubiquitin-Like Domain-CUT Repeat-Like Tandem of Special AT-Rich Sequence Binding Protein 1 (SATB1) Reveals a Coordinating DNA-Binding Mechanism
J. Biol. Chem., **289** (2014) 27376.

L.Guan, H.Yabuki, M.Okai, J.Ohtsuka and M.Tanokura
Crystal Structure of the Novel Haloalkane Dehalogenase DatA from *Agrobacterium tumefaciens* C58 Reveals a Special Halide-Stabilizing Pair and Enantioselectivity Mechanism
Appl. Microbiol. Biotechnol., **98** (2014) 8573.

T.Miyakawa, K.Hatano, Y.Miyauchi, Y.Suwa, Y.Sawano and M.Tanokura
A Secreted Protein of the Plant-Specific DUF26 Family Functions as a Mannose-Binding Lectin that Exhibits Antifungal Activity
Plant Physiol., **166** (2014) 766.

K.Ito, T.Honda, T.Suzuki, T.Miyoshi, R.Murakami, M.Yao and T.Uchiumi
Molecular Insights into the Interaction of the Ribosomal Stalk Protein with Elongation Factor 1α
Nucleic Acids Res., **42** (2014) 14042.

J.Matsuzawa, H.Aikawa, T.Umeda, Y.Ashikawa, C.S.Minakuchi, Y.Kawano, Z.Fujimoto, K.Okada, H.Yamane and H.Nojiri
Crystallization and Preliminary X-Ray Diffraction Analyses of the Redox-Controlled Complex of Terminal Oxygenase and Ferredoxin Components in the Rieske Nonhaem Iron Oxygenase Carbazole 1,9a-Dioxygenase
Acta Cryst. F, **70** (2014) 1406.

A.Nishizawa, A.Harada, M.Senda, Y.Tachihara, D.Muramatsu, S.Kishigami, S.Mori, K.Sugiyama, T.Senda and S.Kimura
Complete Pyridine Nucleotide-Specificity Conversion of an NADH-Dependent Ferredoxin Reductase.
Biochem. J, **462** (2014) 257.

M.Nagae, K.Soga, K.M.Matsumoto, S.Hanashima, A.Ikeda, K.Yamamoto and Y.Yamaguchi
Phytohemagglutinin from *Phaseolus vulgaris* (PHA-E) Displays a Novel Glycan Recognition Mode using a Common Legume Lectin Fold
Glycobiology, **24** (2014) 368.

T.Tomita, T.Ozaki, K.Matsuda, M.Nishiyama and T.Kuzuyama
Crystallization and Preliminary X-Ray Diffraction Analysis of Cyclolavandulyl Diphosphate Synthase, a New Member of the Cis-Isoprenyl Diphosphate Synthase Superfamily
Acta Cryst. F, **70** (2014) 1410.

H.S.Kim, J.Kim, H.N.Im, D.R.An, M.Lee, D.Hesek, S.Mobashery, J.Y.Kim, K.Cho, H.J.Yoon, B.W.Han, B.I.Lee and S.W.Suh
Structural Basis for the Recognition of Muramyltripeptide by *Helicobacter Pylori* Csd4, a D,L-Carboxypeptidase Controlling the Helical Cell Shape
Acta Cryst. D, **70** (2014) 2800.

F.Mimoto, S.Kadono, H.Katada, T.Igawa, T.Kamikawa and K.Hattori
Crystal Structure of a Novel Asymmetrically Engineered Fc Variant with Improved Affinity for FcγRs
Molecular Immunology, **58** (2014) 132.

T.Oguri, T.Furuyama, T.Okuno, Y.Ishii, K.Tateda, R.A.Bonomo and A.S.Ibuka.
Crystal Structure of Mox-1, a Unique Plasmid-Mediated Class C β-Lactamase with Hydrolytic Activity Towards Moxalactam.
Antimicrob. Agents Chemother., **58** (2014) 3914.

E.Yoo, D.Salunke, D.Sil, X.Guo, A.Salyer, A.Hermanson, M.Kumar, S.S.Malladi, R.Balakrishna, W.H.Thompson, H.Tanji, U.Ohto, T.Shimizu and S.A.David
Determinants of Activity at Human Toll-Like Receptors 7 and 8: Quantitative Structure-Activity Relationship (QSAR) of Diverse Heterocyclic Scaffolds
J. Med. Chem., **57** (2014) 7955.

H.Suzuki, U.Ohto, K.Higaki, T.M.Barragan, M.A.Moncayo, C.O.Mellet, E.Nanba, J.M.G.Fernandez, Y.Suzuki and T.Shimizu
Structural Basis of Pharmacological Chaperoning for Human β-Galactosidase
J. Biol. Chem., **289** (2014) 14560.

NE5C

C.Yang, T.Inoue, A.Yamada, T.Kikegawa and J.Ando
Equation of State and Phase Transition of Antigorite under High Pressure and High Temperature
Physics of the Earth and Planetary Interiors, **228** (2014) 56.

S.Gr´eaux and A.Yamada
P-V-T Equation of State of $Mn_3 Al_2 Si_3 O_{12}$ Spessartine Garnet
Phys. Chem. Minerals, **41** (2014) 141.

K.Fuchizaki and N.Hamaya
Melting Curve of Molecular Crystal GeI_4
J. Phys. Soc. Jpn., **83** (2014) 074603.

R.Iizuka, K.Komatsu, H.Kagi, T.Nagai, A.Sano-Furukawa, T.Hattori, H.Gotou and T.Yagi
Phase Transitions and Hydrogen Bonding in Deuterated Calcium Hydroxide: High-Pressure and High-Temperature Neutron Diffraction Measurements
J. Solid State Chemistry, **218** (2014) 95.

C.Sekine, H.Kato, M.Kanazawa, Y.Kawamura, K.Takeda, M.Matsuda, K.Kihou, C.-H.Lee and H.Gotou
In-Situ Observation of Synthesizing Process of $Mm_xCo_4Sb_{12}$ Utilizing X-Ray Diffraction under High Temperatures and High Pressures
J. Phys.: Conf. Ser., **502** (2014) 012017.

NE7A

C.Yang, T.Inoue, A.Yamada, T.Kikegawa and J.Ando
Equation of State and Phase Transition of Antigorite under High Pressure and High Temperature
Physics of the Earth and Planetary Interiors, **228** (2014) 56.

A.M.Dymshits, K.D.Litasov, A.Shatskiy, I.S.Sharygin, E.Ohtani, A.Suzuki, N.P.Pokhilenko and K.Funakoshi
P-V-T Equation of State of Na-Majorite to 21 GPa and 1673 K
Physics of the Earth and Planetary Interiors, **227** (2014) 68.

Y.Sun, M.Koshimizu, N.Yahaba, F.Nishikido, S.Kishimoto, R.Haruki and K.Asai
High-Energy X-Ray Detection by Hafnium-Doped Organic-Inorganic Hybrid Scintillators Prepared by Sol-Gel Method
Appl. Phys. Lett., **104** (2014) 174104.

N.Doi, T.Kato, T.Kubo, M.Noda, R.Shiraishi, A.Suzuki, E.Ohtani and T.Kikegawa
Creep Behavior during the Eutectoid Transformation of Albite: Implications for the Slab Deformation in the Lower Mantle
Earth Planet. Sci. Lett., **388** (2014) 92.

Y.Nishihara, T.Ohuchi, T.Kawazoe, D.Spengler, M.Tasaka, T.Kikegawa, A.Suzuki and E.Ohtani
Rheology of Fine-Grained Forsterite Aggregate at Deep Upper Mantle Conditions
Journal of Geophysical Research: Solid Earth, **119** (2014) 1.

N.Yahaba, M.Koshimizu, Y.Sun, T.Yanagida, Y.Fujimoto, R.Haruki, F.Nishikido, S.Kishimoto and K.Asai
X-Ray Detection Capability of a Cs_2 $ZnCl_4$ Single-Crystal Scintillator
Appl. Phys. Express, **7** (2014) 062602.

A.Shinozaki, K.Mimura, H.kagi, K.Komatsu, N.Noguchi and H.Gotou
Pressure-Induced Oligomerization of Benzene at Room Temperature as a Precursory Reaction of Amorphization J. Chem. Phys., **141** (2014) 084306.

H.Ito, S.Matsushita, K.Hyodo, H.Tsurushima, Y.Sato and Y.Sakakibara
Focusing on Delayed Clearance for Identifying Small-Sized Metastatic Lung Tumors using Synchrotron Radiation Angiography with a Highly Sensitive Receiver Gen. Thorac. Cardiovasc. Surg., **62** (2014) 553.

A.M.Dymshits, K.D.Litasov, I.S.Sharygin, A.Shatskiy, E.Ohtani, A.Suzuki and K.Funakoshi
Thermal Equation of State of Majoritic Knorringite and Its Significance for Continental Upper Mantle
Journal of Geophysical Research **119** (2014) 8034.

NW2A

M.Katayama and Y.Inada
Time-Resolved X-Ray Absorption Spectroscopy by Dispersive XAFS Technique
Hyomen Kagaku, **35** (2014) 141. (in Japanese).

M.Katayama, K.Sumiwaka, R.Miyahara, H.Yamashige, H.Arai, Y.Uchimoto, T.Ohta, Y.Inada and Z.Ogumi
X-Ray Absorption Fine Structure Imaging of Inhomogeneous Electrode Reaction in $LiFePO_4$ Lithium-Ion Battery cathode
J. Power Sources, **269** (2014) 994.

H.Abe, Y.Niwa, H.Nitani and M.Nomura
Development of Surface Sensitive DXAFS Measurement Method by Applying Kramers-Kronig Relations to Total Reflection Spectra
J. Phys.: Conf. Ser., **502** (2014) 012035.

M.Kimura
Synchrotron Radiation Shed Light to *In Situ* and Dynamic Observation of High-Temperature Processes
e-J. Surf. Sci. Nanotech., **12** (2014) 1.

M.Kawano
X-Ray Direct Observation of Reactions and Labile Species on the Basis of Crystal Design
Bull. Chem. Soc. Jpn., **87** (2014) 577.

H.Uehara, Y.Uemura, T.Ogawa, K.Kono, R.Ueno, Y.Niwa, H.Nitani, H.Abe, S.Takakusagi, M.Nomura, Y.Iwasawa and K.Asakura
In Situ Back-Side Illumination Fluorescence XAFS(BI- FXAFS) Studies on Platinum Nanoparticles Deposited on a HOPG Surface as a Model Fuel Cell: a New Approach to the Pt-HOPG Electrode/Electrolyte Interface
Phys. Chem. Chem.Phys., **16** (2014) 13748.

T.Kojima, T.Yamada, Y.Yakiyama, E.Ishikawa, Y.Morita, M.Ebihara and M.Kawano
The Diversity of Zn(II) Coordination Networks Composed of Multi-Interactive Ligand $TPHAP^-$ *via* Weak Intermolecular Interaction
CrystEngComm, **16** (2014) 6335.

T.Kojima, W.Choi and M.Kawano
Single-Crystal Growth of Coordination Networks *via* the Gas Phase and Dependence of Iodine Encapsulation on the Crystal Size
Chem. Comm., **50** (2014) 13793.

H.Oyanagi, Y.Orimoto, K.Hayakawa, K.Hatada, Z.Sun, L.Zhang, K.Yamashita, H.Nakamura, M.Uehara, A.Fukano and H.Maeda
Nanoclusters Synthesized by Synchrotron Radiolysis in Concert with Wet Chemistry
Scientific Reports, **4** (2014) 7199.

A.Kobayashi, T.Ohba, E.Saitoh, Y.Suzuki, S.Noro, H.C.Chang and M.Kato
Flexible Coordination Polymers Composed of Luminescent Ruthenium(II) Metalloligands: Importance of the Position of the Coordination Site in Metalloligands
Inorg. Chem., **53** (2014) 2910.

A.Kobayashi, A.Sugiyama, T.Ohba, Y.Suzuki, H.C.Chang and M.Kato
Synthesis and Vapor-Adsorption Behavior of a Flexible Porous Coordination Polymer Built from a Bis(bipyridyl)-Cu(I) Metalloligand
Chem. Lett., **43** (2014) 1070.

K.Nakabayashi, S.Chorazy, D.Takahashi, T.Kinoshita, B.Sieklucka and S.Ohkoshi
Cesium Cyano-Bridged Co^{II}-M^{V} (M = Mo and W) Layered Frameworks Exhibiting High Thermal Durability and Metamagnetism
Cryst. Growth Des., **14** (2014) 6093.

NW10A

Y.Ogura, S.Okamoto, T.Itoi, Y.Fujishima, Y.Yoshida and Y.Izumi
A Photofuel Cell Comprising Titanium Oxide and Silver($_I$/0) Photocatalysts for Use of Acidic Water as a Fuel
Chem. Comm., **50** (2014) 3067.

H.Ikemoto and T.Miyanaga
Local Structure of Amorphous Tellurium Studied by EXAFS
J. Synchrotron Rad. **21** (2014) 409.

H.Duan, N.Yan, R.Yu, C.-R.Chang, G.Zhou, H.-S.Hu, H.Rong, Z.Niu, J.Mao, H.Asakura, T.Tanaka, P.J.Dyson, J.Li and Y.Li
Ultrathin Rhodium Nanosheets
Nature Communications, **5** (2014) 3093.

K.Kume, N.Kawasaki, H.Wang, T.Yamada, H.Yoshikawa and K.Awaga
Enhanced Capacitor Effects in Polyoxometalate/Graphene Nanohybrid Materials: a Synergetic Approach to High Performance Energy Storage
J. Mater. Chem. A, **2** (2014) 3801.

K.Oka, Y.Ogura and Y.Izumi
X-Ray Evaluation of the Boundary between Polymer Electrolyte and Platinum and Carbon Functionalization to Conduct Protons in Polymer Electrolyte Fuel Cells
J. Power Sources, **258** (2014) 83.

T.Ohkubo, M.Ushio, K.Urita, I.Moriguchi, B.Ahmmad, A.Itadani and Y.Kuroda
Nanospace-Enhanced Photoreduction for the Synthesis of Copper(I) Oxide Nanoparticles under Visible-Light Irradiation
J. Colloid Interface Sci., **421** (2014) 165.

T.Komanoya, H.Kobayashi, K.Hara, W.-J.Chun and A.Fukuoka
Kinetic Study of Catalytic Conversion of Cellulose to Sugar Alcohols under Low-Pressure Hydrogen
ChemCatChem, **6** (2014) 230.

Y.Masubuchi, H.Sato, T.Motohashi and S.Kikkawa
Magnetic Softening of Co Doped α"-$Fe_{16}N_2$ Containing Residual Fe-Co Alloy Prepared in Low Temperature Nitridation
Journal of the Ceramic Society of Japan, **122** (2014) 288.

J.Zhang, J.Teo, X.Chen, H.Asakura, T.Tanaka, K.Teramura and N.Yan
A Series of NiM(M = Ru, Rh, and Pd) Bimetallic Catalysts for Effective Lignin Hydrogenolysis in Water
ACS Catal., **4** (2014) 1574.

F.Mauriello, H.Ariga, N.Murata and K.Asakura,
New Prospects for the Characterization of Heterogeneous Catlasyts by using Slow Muon Spectroscopy
J. Phys. Soc. Jpn., **2** (2014) 010306.

T.Kawamata, K.Sugiyama, Y.Yokoyama and T.Fujita
Structural Study of Zr-Cu-Ag Bulk Metallic Glasses using the Anomalous X-Ray Scattering Method
J. Phys.: Conf. Ser., **502** (2014) 012027.

H.Arima, T.Kawamata, Y.Yokoyama and K.Sugiyama
Structure of $Al_{87}Y_8Ni_5$ Amorphous Alloy Analyzed by Anomalous X-Ray Scattering
JPS Conf. Proc., **1** (2014) 012107.

H.Kitagawa, N.Ichikuni, H.Okuno, T.Hara and S.Shimazu
XAFS and HAADF STEM Combined Characterization for Size Regulated Ni Nanocluster Catalyst and its Unique Size Dependence for Water Gas Shift Reaction
Appl. Catal. A, **478** (2014) 66.

M.Kimura
Synchrotron Radiation Shed Light to In Situ and Dynamic Observation of High-Temperature Processes
e-J. Surf. Sci. Nanotech., **12** (2014) 1.

J.Zhang, H.Asakura, J.V.Rijn, J.Yang, P.Duchesne, B.Zhang, X.Chen, P.Zhang, M.Saeys and N.Yan
Highly Efficient, NiAu-Catalyzed Hydrogenolysis of Lignin into Phenolic Chemicals
Green Chem., **16** (2014) 2432.

S.Muratsugu, S.Tajima and M.Tada
Dispersed RhMo Nanoclusters Prepared from Oxide- Supported Rh_2Mo Heterometallic Complexes as Catalysts for Alcohol Oxidation
Chem. Lett., **43** (2014) 1321.

H.Ikemoto
The Structures and Properties of Tenanoparticles
Proceeding of the 26th Symposium on Phase Change Oriented Science (2014) 3.

M.Machida, S.Minami, K.Ikeue, S.Hinokuma, Y.Nagao, T.Sato and Y.Nakahara
Rhodium Nanoparticle Anchoring on $AlPO_4$ for Efficient Catalyst Sintering Suppression
Chem. Mater., **26** (2014) 5799.

S.Hinokuma, H.Fujii, Y.Katsuhara, K.Ikeue and M.Machida
Effect of Thermal Ageing on the Structure and Catalytic Activity of Pd/CeO_2 Prepared using Arc-Plasma Process
Catalysis Science and Technology, **4** (2014) 2990.

H.Yamada, I.Saruwatari, N.Kuwata and J.Kawamura
Local Structure of Thermally Stable Super Ionic Conducting AgI Confined in Mesopores
J. Phys. Chem. C, **118** (2014) 23845.

S.Ghosh, S.Acharyya, S.Shankha, S.Adak, L.N.S.Konathala, T.Sasaki and R.Bal
Selective Oxidation of Cyclohexene to Adipic Acid Over Silver Supported Tungsten Oxide Nanostructured Catalysts
Green Chem., **16** (2014) 2826.

A.Nakamura, M.Narita, S.Narita, Y.Suzuki and T.Miyanaga
In-Situ XAFS Study of Ag Clusters in Ag-Type Zeolite- A
J. Phys. Conf. Ser,, **502** (2014) 012033.

NW12A

Y.Yasutake, W.Kitagawa, M.Hata, T.Nishioka, T.Ozaki, M.Nishiyama, T.Kuzuyama and T.Tamura
Structure of the Quinoline N-Hydroxylating Cytochrome P450 RauA, an Essential Enzyme that Confers Antibiotic Activity on Aurachin Alkaloids
FEBS Letters, **588** (2014) 105.

S.Okada, T.Yamamoto, H.Watanabe, T.Nishimoto, H.Chaen, S.Fukuda, T.Wakagi and S.Fushinobu
Structural and Mutational Analysis of Substrate Recognition in Kojibiose Phosphorylase
FEBS J., **281** (2014) 778.

T.Satoh, K.Suzuki, T.Yamaguchi and K.Kato
Structural Basis for Disparate Sugar-Binding Specificities in the Homologous Cargo Receptors ERGIC-53 and VIP36
PLOS ONE, **9** (2014) e87963.

J.Yu, D.Ogata, Z.Gai, S.Taguchi, I.Tanaka, T.Ooi and M.Yao
Structures of AzrA and of AzrC Complexed with Substrate or Inhibitor: Insight into Substrate Specificity and Catalytic Mechanism
Acta Cryst. D, **70** (2014) 553.

T.Yokoyama, Y.Kosaka and M.Mizuguchi
Crystal Structures of Human Transthyretin Complexed with Glabridin
J. Med. Chem., **57** (2014) 1090.

T.Tsurumura, H.Qiu, T.Yoshida, Y.Tsumori and H.Tsuge
Crystallization and Preliminary X-Ray Diffraction Studies of a Surface Mutant of the Middle Domain of PB2 from Human Influenza A(H1N1) Virus
Acta Cryst. F, **70** (2014) 72.

K.Kosami, I.Ohki, K.Hayashi, R.Tabata, S.Usugi, T.Kawasaki, T.Fujiwara, A.Nakagawa, K.Shimamoto and C.Kojima
Purification, Crystallization and Preliminary X-Ray Crystallographic Analysis of a Rice Rac/Rop GTPase, OsRac1
Acta Cryst. F, **70** (2014) 113.

J.Kondo, T.Yamada, C.Hirose, I.Okamoto, Y.Tanaka and A.Ono
Crystal Structure of Metallo DNA Duplex Containing Consecutive Watson-Crick-Like T-Hg^{II}-T Base Pairs
Angew. Chem. Int. Ed., **53** (2014) 2385.

S.Arai, Y.Yonezawa, M.Ishibashi, F.Matsumoto, M.Adachi, T.Tamada, H.Tokunaga, M.Blaber, M.Tokunaga and R.Kuroki
Structural Characteristics of Alkaline Phosphatase from the Moderately Halophilic Bacterium *Halomonas* sp.593
Acta Cryst. D, **70** (2014) 811.

D.Matsui, D.-H.Im, A.Sugawara, Y.Fukuta, S.Fushinobu, K.Isobe and Y.Asano
Mutational and Crystallographic Analysis of L-Amino Acid Oxidase/Monooxygenase from *Pseudomonas* sp. AIU 813: Interconversion between Oxidase and Monooxygenase Activities
FEBS Open Bio, **4** (2014) 220.

S.Wang, M.Ogata, S.Horita, J.Ohtsuka, K.Nagata and M.Tanokura
A Novel Mode of Ferric Ion Coordination by the Periplasmic Ferric Ion-Binding Subunit FbpA of an ABC-Type Iron Transporter from *Thermus thermophilus* HB8.
Acta Cryst. D, **70** (2014) 196.

H.M.Qin, A.Yamamura, T.Miyakawa, M.Kataoka, T.Nagai, N.Kitamura, N.Urano, S.Maruoka, J.Ohtsuka, K.Nagata, S.Shimizu and M.Tanokura
Structure of Conjugated Polyketone Reductase from *Candida parapsilosis* IFO 0708 Reveals Conformational Changes for Substrate Recognition upon NADPH Binding 508
Appl. Microbiol. Biotechnol., **98** (2014) 243.

T.Ito, K.Saikawa, S.Kim, K.Fujita, A.Ishiwata, S.Kaeothip, T.Arakawa, T.Wakagi, G.T.Beckham, Y.Ito and S.Fushinobu
Crystal Structure of Glycoside Hydrolase Family 127 β-L Arabinofuranosidase from *Bifidobacterium longum*
Biochem. Biophys. Res. Commun., **447** (2014) 32.

T.Tsuda, M.Asami, Y.Koguchi and S.Kojima
Single Mutation Alters the Substrate Specificity of L-Amino Acid Ligase
Biochemistry, **53** (2014) 2650.

Y.Kanoh, S.Uehara, H.Iwata, K.Yoneda, T.Ohshima and H.Sakuraba
Structural Insight into Glucose Dehydrogenase from the Thermoacidophilic Archaeon *Thermoplasma volcanium*
Acta Cryst. D, **70** (2014) 1271.

Y.Ishida, W.Tsuchiya, T.Fujii, Z.Fujimoto, M.Miyazawa, J.Ishibashi, S.Matsuyama, Y.Ishikawa and T.Yamazaki
Niemann-Pick Type C2 Protein Mediating Chemical Communication in the Worker Ant
Proc. Natl. Acad. Sci. USA, **111** (2014) 3847.

T.Maehara, Z.Fujimoto, H.Ichinose, M.Michikawa, K.Harazono and S.Kaneko
Crystal Structure and Characterization of the Glycoside Hydrolase Family 62 α-L-Arabinofuranosidase from *Streptomyces coelicolor*
J. Biol. Chem., **289** (2014) 7962.

N.Suzuki, Z.Fujimoto, Y.-M.Kim, M.Momma, N.Kishine, R.Suzuki, S.Suzuki, S.Kitamura, M.Kobayashi, A.Kimura and K.Funane
Structural Elucidation of the Cyclization Mechanism of α-1,6-Glucan by *Bacillus circulans* T-3040 Cycloisomaltooligosaccharide Glucanotransferase
J. Biol. Chem., **289** (2014) 12040.

A.Kishimoto, A.Kita, T.Ishibashi, H.Tomita, Y.Yokooji, T.Imanaka, H.Atomi and K.Miki
Crystal Structure of Phosphopantothenate Synthetase from *Thermococcus kodakarensis*
Proteins **82** (2014) 1924.

Y.Lee, Y.B.Ryu, H.-S.Youn, J.K.Cho, Y.M.Kim, J.- Y.Park, W.S.Lee, K.H.Park and S.H.Eom
Structural Basis of Sialidase in Complex with Geranylated Flavonoids as Potent Natural Inhibitors
Acta Cryst. D, **70** (2014) 1357.

T.Shimegi, T.Ooyama T.Ohtsuki, G.Kurisu, M.Kusunoki and S.Ui
Crystallization and Preliminary X-Ray Diffraction Analysis of Domain-Chimeric L-(2*S*,3*S*)-Butanediol Dehydrogenase
Acta Cryst. F, **70** (2014) 461.

E.Tamai, H.Yoshida, H.Sekiya, H.Nariya, S.Miyata, A.Okabe, T.Kuwahara, J. Maki and S.Kamitori
X-Ray Structure of a Novel Endolysin Encoded by Episomal Phage PhiSM101 of *Clostridium perfringens*
Molecular Microbiology, **92** (2014) 326.

Y.Fujioka, S.W.Suzuki, H.Yamamoto, C.Kondo-Kakuta, Y.Kimura, H.Hirano, R.Akada, F.Inagaki, Y.Ohsumi and N.N.Noda
Structural Basis of Starvation-Induced Assembly of the Autophagy Initiation Complex
Nature Structural Molecular Biology, **21** (2014) 513.

H.Yokoyama and S.Fujii
Structures and Metal-Binding Properties of *Helicobacter pylori* Neutrophil-Activating Protein with a Di-Nuclear Ferroxidase Center
Biomolecules, **4** (2014) 600.

Y.Ohta, Y.Hatada, Y.Hidaka, Y.Shimane, K.Usui, T.Ito, K.Fujita, G.Yokoi, M.Mori, S.Sato, T.Miyazaki, A.Nishikawa and T.Tonozuka
Enhancing Thermostability and the Structural Characterization of *Microbacterium saccharophilum* K-1 β-Fructofuranosidase
Appl. Microbiol. Biotechnol., **98** (2014) 6667.

S.Buchini, F.-X.Gallat, I.R.Greig, J.-H.Kim, S.Wakatsuki, L.M.G.Chavas and S.G.Withers
Tuning Mechanism-Based Inactivators of Neuraminidases: Mechanistic and Structural Insights
Angew. Chem. Int. Ed., **53** (2014) 3382.

M.Kanagawa, Y.Liu, S.Hanashima, A.Ikeda, W.Chai, Y.Nakano, K.Kojima-Aikawa, T.Feizi and Y.Yamaguchi
Structural Basis for Multiple Sugar Recognition of Jacalin-Related Human ZG16p Lectin
J. Biol. Chem., **289** (2014) 16954.

M.Naganuma, S.Sekine, Y.E.Chong, M.Guo, X.-L.Yang, H.Gamper, Y.-M.Hou, P.Schimmel and S.Yokoyama
The Selective tRNA Aminoacylation Mechanism Based on a Single G·U Pair
Nature, **510** (2014) 507.

S.Kamachi, J.Nagao, M.Miyashita, Y.Nakagawa, H.Miyagawa and T.Tada
Crystallization and Preliminary X-Ray Diffraction Studies of La1 from *Liocheles australasiae*
Acta Cryst. F, **70** (2014) 915.

M.Nakajima, R.Yoshida, A.Miyanaga and H.Taguchi
Crystallization and Preliminary X-Ray Diffraction Analysis of Lin1840, a Putative *β*-Glucosidase from *Listeria innocua*
Acta Cryst. F, **70** (2014) 1398.

H.Tsukagoshi, A.Nakamura, T.Ishida, K.K.Touhara, M.Otagiri, S.Moriya, M.Samejima, K.Igarashi, S.Fushinobu, K.Kitamoto and M.Arioka
Structural and Biochemical Analyses of Glycoside Hydrolase Family 26 *β*-Mannanase from a Symbiotic Protist of the Termite *Reticulitermes speratus*
J. Biol. Chem., **289** (2014) 10843.

K.K.Touhara, T.Nihira, M.Kitaoka, H.Nakai and S.Fushinobu
Structural Basis for Reversible Phosphorolysis and Hydrolysis Reactions of 2-O-α-Glucosylglycerol Phosphorylase
J. Biol. Chem., **289** (2014) 18067.

K.Suzuki, A.Hori, K.Kawamoto, R.R.Thangudu, T.Ishida, K.Igarashi, M.Samejima, C.Yamada, T.Arakawa, T.Wakagi, T.Koseki and S.Fushinobu
Crystal Structure of a Feruloyl Esterase Belonging to the Tannase Family: A Disulfide Bond Near a Catalytic Triad
Proteins, **82** (2014) 2857.

Y.Itoh, M.J.Bröcker, S.Sekine, D.So¨ll and S.Yokoyama
Dimer-Dimer Interaction of the Bacterial Selenocysteine SynthaseSelA Promotes Functional Active-Site Formation and Catalytic Specificity
J. Mol. Biol., **426** (2014) 1723.

A.Miyanaga, J.Cie´slak, Y.Shinohara, F.Kudo and T.Eguchi
The Crystal Structure of the Adenylation Enzyme VinN Reveals a Unique *β*-Amino Acid Recognition Mechanism
J. Biol. Chem., **289** (2014) 31448.

T.Yokoyama, Y.Kosaka and M.Mizuguchi
Inhibitory Activities of Propolis and its Promising Component, Caffeic Acid Phenethyl Ester, against Amyloidogenesis of Human Transthyretin
J. Med. Chem, **57** (2014) 8928.

T.Zhu, T.Satoh and K.Kato
Structural Insight into Substrate Recognition by the Endoplasmic Reticulum Folding-Sensor Enzyme: Crystal Structure of Third Thioredoxin-Like Domain of UDP-Glucose:Glycoprotein Glucosyltransferase
Scientific Reports, **4** (2014) 7322.

H.Yoshida, A.Yoshihara, M.Teraoka, Y.Terami, G.Takata, K.Izumori and S.Kamitori
X-Ray Structure of a Novel L-Ribose Isomerase Acting on a Non-Natural Sugar L-Ribose as its Ideal Substrate
FEBS J., **281** (2014) 3150.

K.Kosami, I.Ohki, M.Nagano, K.Furuita, T.Sugiki, Y.Kawano, T.Kawasaki, T.Fujiwara, A.Nakagawa, K.Shimamoto and C.Kojima
The Crystal Structure of the Plant Small GTPase OsRac1 Reveals its Mode of Binding to NADPH Oxidase
J. Biol. Chem., **289** (2014) 28569.

M.Shiina, K.Hamada, T.B.Inoue, M.Shimamura, AUchiyama, S.Baba, K.Sato and K.Ogata
Crystallization of the Ets1-Runx1-CBFβ-DNA Complex Formed on the TCRα Gene Enhancer
Acta Cryst. F, **70** (2014) 1380.

L.Guan, H.Yabuki, M.Okai, J.Ohtsuka and M.Tanokura
Crystal Structure of the Novel Haloalkane Dehalogenase DatA from *Agrobacterium tumefaciens* C58 Reveals a Special Halide-Stabilizing Pair and Enantioselectivity Mechanism
Appl. Microbiol. Biotechnol., **98** (2014) 8573.

K.Ito, T.Honda, T.Suzuki, T.Miyoshi, R.Murakami, M.Yao and T.Uchiumi
Molecular Insights into the Interaction of the Ribosomal Stalk Protein with Elongation Factor 1α
Nucleic Acids Res., **42** (2014) 14042.

A.Sikdar, T.Satoh, M.Kawasaki and K.Kato
Crystal Structure of Archaeal Homolog of Proteasome-Assembly Chaperone PbaA
Biochem. Biophys. Res. Commun., **453** (2014) 493.

K.Inoue, Y.Usami, Y.Ashikawa, H.Noguchi, T.Umeda, A.Y.Ashikawa, T.Horisaki, H.Uchimura, T.Terada, S.Nakamura, K.Shimizu, H.Habe, H.Yamane, Z.Fujimoto and H.Nojiri
Structural Basis of the Divergent Oxygenation Reactions Catalyzed by the Rieske Nonheme Iron Oxygenase Carbazole 1,9a-Dioxygenase.
Appl. Environ. Microbiol., **80** (2014) 2821.

J.Matsuzawa, H.Aikawa, T.Umeda, Y.Ashikawa, C.S.Minakuchi, Y.Kawano, Z.Fujimoto, K.Okada, H.Yamane and H.Nojiri
Crystallization and Preliminary X-Ray Diffraction Analyses of the Redox-Controlled Complex of Terminal Oxygenase and Ferredoxin Components in the Rieske Nonhaem Iron Oxygenase Carbazole 1,9a-Dioxygenase
Acta Cryst. F, **70** (2014) 1406.

H.M.Qin, F.L.Imai, T.Miyakawa, M.Kataoka, N.Kitamura, N.Urano, K.Mori, H.Kawabata, M.Okai, J.Ohtsuka, F.Hou, K.Nagata, S.Shimizu and M.Tanokura
L-*allo*-Threonine Aldolase with H128Y/S292R Mutation from *Aeromonas jandaei* DK-39 Reveals the Structural Basis of Changes in Substrate Stereoselectivity
Acta Cryst. D, **70** (2014) 1695.

A.Nishizawa, A.Harada, M.Senda, Y.Tachihara, D.Muramatsu, S.Kishigami, S.Mori, K.Sugiyama, T.Senda and S.Kimura
Complete Pyridine Nucleotide-Specificity Conversion of an NADH-Dependent Ferredoxin Reductase.
Biochem. J, **462** (2014) 257.

K.Ishibashi, Y.Kezuka, C.Kobayashi, M.Kato, T.Inoue, T.Nonaka, M.Ishikawa, H.Matsumura and E.Katoh
Structural Basis for the Recognition-Evasion Arms Rase between *Tomato Mosaic Virus* and the Resistance Gene *Tm-1*
Proc. Natl. Acad. Sci. USA, **111** (2014) 3486.

A.Ochiai, H.Sugai, K.Harada, S.Tanaka, Y.Ishiyama, K.Ito, T.Tanaka, T.Uchiumi, M.Taniguchi and T.Mitsui
Crystal Structure of α-Amylase from *Oryza Sativa*: Molecular Insights into Enzyme Activity and Thermostability
Biosci., Biotechnol., Biochem., **78** (2014) 989.

M.Nagae, K.M.Matsumoto, M.Kato, M.K.Kaneko, Y.Kato and Y.Yamaguchi
A Platform of C-Type Lectin-Like Receptor CLEC-2 for Binding *O*-Glycosylated Podoplanin and Nonglycosylated Rhodocytin
Structure, **22** (2014) 1711.

H.Im, S.B.Jang, C.Pathak, Y.J.Yang, H.J.Yoon, T.K.Yu, J.Y.Suh and B.J.Lee
Crystal Structure of Toxin HP0892 from *Helicobacter pylori* with Two Zn(II) at 1.8 Å Resolution.
Protein Science, **23** (2014) 819.

T.Tomita, T.Ozaki, K.Matsuda, M.Nishiyama and T.Kuzuyama
Crystallization and Preliminary X-Ray Diffraction Analysis of Cyclolavandulyl Diphosphate Synthase, a New Member of the Cis-Isoprenyl Diphosphate Synthase Superfamily
Acta Cryst. F, **70** (2014) 1410.

C.Han, A.K.Tachikawa, A.Shimizu, D.Zhu, H.Nakamura, E.Adachi, T.Kikuchi, M.Koga, T.Koibuchi, G.F.Gao, Y.Sato, A.Yamagata, E.Martin, S.Fukai, Z.L.Brumme and A.Iwamoto
Switching and Emergence of CTL Epitopes in HIV-1 Infection
RETROVIROLOGY, **11** (2014) 38.

Y.Nishikawa, T.Oyama, N.Kamiya, T.Kon, Y.Y.Toyoshima, H.Nakamura and G.Kurisu
Structure of the Entire Stalk Region of the Dynein Motor Domain
J. Mol. Biol., **426** (2014) 3232.

S.J.Lee, Y.S.Park, S.J.Kim, B.J.Lee and S.W.Suh
Crystal Structure of PhoU from *Pseudomonas aeruginosa*, a Negative Regulator of the Pho Regulon
J. Struct. Biol., **188** (2014) 22.

K.Yamamoto, Y.Anami and T.Itoh
Development of Vitamin D Analogs Modulating the Pocket Structure of Vitamin D Receptor
Curr. Top. Med. Chem., **14** (2014) 2378.

S.H.Seok, H.Im, H.S.Won, M.D.Seo, Y.S.Lee, H.J.Yoon, M.J.Cha, J.Y.Park and B.J.Lee
Structures of Inactive CRP Species Reveal the Atomic Details of the Allosteric Transition that Discriminates Cyclic Nucleotide Second Messengers
Acta Cryst. D, **70** (2014) 1726.

T.Kudo, M.Ishizawa, K.Maekawa, M.Nakabayashi, Y.Watarai, H.Uchida, H.Tokiwa, T.Ikura, N.Ito, M.Makishima and S.Yamada
Combination of Triple Bond and Adamantane Ring on the Vitamin D Side Chain Produced Partial Agonists for Vitamin D Receptor
J. Med. Chem., **57** (2014) 4073.

Y.Hanada, Y.Nishimiya, A.Miura, S.Tsuda and H.Kondo
Hyperactive Antifreeze Protein from an Antarctic Sea Ice Bacterium Colwellia sp. Has a *Compound* Ice-Binding Site Without Repetitive Sequences
FEBS J., **281** (2014) 3576.

T.Fujiwara, W.Saburi, H.Matsui, H.Mori and M.Yao
Structural Insights into the Epimerization of Beta-1,4-Linked Oligosaccharides Catalyzed by Cellobiose 2- Epimerase, the Sole Enzyme Epimerizing Non-Anomeric Hydroxyl Groups of Unmodified Sugars
J. Biol. Chem., **289** (2014) 3405.

X.Shen, W.Saburi, Z.Q.Gai, K.Komoda, J.Yu, T.O.Kato, Y.Kido, H.Matsui, H.Mori and M.Yao
Crystallization and Preliminary X-Ray Crystallographic Analysis of α-Glucosidase HaG from *Halomonas* sp. Strain H11
Acta Cryst. F, **70** (2014) 464.

NW14A

M.Hoshino
Structure Visualization of Short-Lived Photoexcited Molecule by Single Crystal X-Ray Structure Analysis
J. Cryst. Soc. Jpn., **56** (2014) 115. (in Japanese).

M.Hoshino, E.Uchida, Y.Norikane, R.Azumi, S.Nozawa, A.Tomita, T.Sato, S.Adachi and S.Koshihara
Crystal Melting by Light: X-Ray Crystal Structure Analysis of an Azo Crystal Showing Photoinduced Crystal-Melt Transition
J. Am. Chem. Soc., **136** (2014) 9158.

A.Tomita, T.Sato, S.Nozawa, N.Shibayama and S.Adachi
Structural Dynamics Measurements of the Biological Molecule using Pump-Probe Technique
J. Cryst. Soc. Jpn., **56** (2014) 253. (in Japanese).

A.F.Mabied, S.Nozawa, M.Hoshino, A.Tomita, T.Sato and S.Adachi
Application of Singular Value Decomposition Analysis to Time-Dependent Powder Diffraction Data of an *in-situ* Photodimerization Reaction
J. Synchrotron Rad., **21** (2014) 554.

Y.Uemura, H.Uehara, Y.Niwa, S.Nozawa, T.Sato, S.Adachi, B.Ohtani, S.Takakusagi and K.Asakura
In Situ Picosecond XAFS Study of an Excited State of Tungsten Oxide.
Chem. Lett. **43** (2014) 977.

SPF-A3

Y.Fukaya, M.Maekawa, A.Kawasuso, I.Mochizuki, K.Wada, T.Shidara, A.Ichimiya and T.Hyodo
Total Reflection High-Energy Positron Diffraction: An Ideal Diffraction Technique for Surface Structure Analysis
Appl. Phys. Express **7** (2014) 056601.

Y.Fukaya, M.Maekawa, I.Mochizuki, K.Wada, T.Hyodo and A.Kawasuso
Reflection High-Energy Positron Diffraction Study on the First Surface Layer
J. Phys.: Conf. Ser. **505** (2014) 012005.

K.Wada
KEK Slow Positron Facility: Current Status and Recent Results
positron sciences, **3** (2014) 11. (in Japanese).

M.Maekawa, K.Wada, Y.Fukaya, A.Kawasuso, I.Mochizuki, T.Shidara and T.Hyodo
Brightness Enhancement of a Linac-Based Intense Positron Beam for Total-Reflection High-Energy Positron Diffraction (TRHEPD)
Eur. Phys. J. D, **68** (2014) 165.

T.Hyodo, Y.Fukaya, M.Maekawa, I.Mochizuki, K.Wada, T.Shidara, A.Ichimiya and A.Kawasuso
Total Reflection High-Energy Positron Diffraction (TRHEPD)
J. Phys.: Conf. Ser., **505** (2014) 012001.

SPF-B1

K.Wada
KEK Slow Positron Facility: Current Status and Recent Results
positron sciences, **3** (2014) 11. (in Japanese).

Y.Nagashima, K.Michishio, H.Terabe, R.H.Suzuki, S.Iida, T.Yamashita, R.Kimura, T.Tachibana, I.Mochizuki, K.Wada, A.Yagishita and T.Hyodo
Positronium and Positronium Negative Ion Emission From Alkali-Metal Coated Tungsten Surfaces
J. Phys.: Conf. Ser., **505** (2014) 012037.

Y.Nagashima, K.Michishio and H.Terabe
The Simplest Three Body System: Positronium Negative Ions
AIP Conf. Proc., **1588** (2014) 27.

K.Michishio and Y.Nagashima
Development of Energy-Tunable Positronium Beams Employing
the Photodetachment of Positronium Negative Ions
JJAP Conf. Proc., **2** (2014) 011303.