

## 4. Publication List

### Former 1A

S.Ohtani, Y.Watanabe, M.Saito, N.Abe, K.Taniguchi, H.Sagayama, T.Arima, M.Watanabe and Y.Noda  
Orbital Dilution Effect in Ferrimagnetic  $\text{Fe}_{1-x}\text{Mn}_x\text{Cr}_2\text{O}_4$ : Competition between Anharmonic Lattice Potential and Spin-Orbit Coupling  
J. Phys.: Condens. Matter, **22** (2010) 176003.

### Former 1B

H.Tsuruda, Y.Komorida, M.Mito, H.Deguchi, S.Takagi, T.Iwamoto and Y.Kitamoto  
Observation of Two Kinds of ESR Spectra in FePt Nanoparticles  
J. Phys. Conf. Ser., **200** (2010) 072102.

### 1B

Y.Komorida, M.Mito, H.Deguchi, S.Takagi, T.Tajiri, A.Millan, N.Silva, M.Laguna and F.Palacio  
Effects of Pressure on Maghemite Nanoparticles with a Core/Shell Structure  
J. Magn. Magn. Mater., **322** (2010) 2117.

X.Lu, H.Nikawa, T.Tsuchiya, T.Akasaka, M.Toki, H.Sawa, N.Mizorogi and S.Nagase  
Nitrated Benzyne Derivatives of  $\text{La@C}_{82}$ : Addition of  $\text{NO}_2$  and its Positional Directing Effect on the Subsequent Addition of Benzynes  
Angew. Chem. Int. Ed., **49** (2010) 594.

Y.Maeda, S.Sato, K.Inada, H.Nikawa, M.Yamada, N.Mizorogi, T.Hasegawa, T.Tsuchiya, T.Akasaka, T.Kato, Z.Slanina and S.Nagase  
Regioselective Exohedral Functionalization of  $\text{La@C}_{82}$  and its 1,2,3,4,5- Pentamethylcyclopentadiene and Adamantylidene Adducts  
Chem. Eur. J., **16** (2010) 2193.

R.Mitsuhashi, Y.Suzuki, Y.Yamanari, H.Mitamura, T.Kambe, N.Ikeda, H.Okamoto, A.Fujiwara, M.Yamaji, N.Kawasaki, Y.Maniwa and Y.Kubozono  
Superconductivity in Alkali-Metal-Doped Picene  
Nature, **464** (2010) 76.

T.Tajiri, M.Harazono, H.Deguchi, M.Mito, A.Kohno and S.Kohiki  
Synthesis and Magnetic Property of Multiferroic  $\text{BiMnO}_3$  Nanoparticles in the Pores of Mesoporous Silica  
Jpn. J. Appl. Phys., **49** (2010) 06GH04.

Y.Kubozono, T.Kambe and A.Fujiwara  
Picene No Chodendo  
Kotaibutsuri, **45** (2010) 361. (*in Japanese*).

### Former 1C

K.Edamoto, H.Inomata, K.Ozawa, Y.Nakagawa, K.Asakura and S.Otani  
Electronic Structure of the  $\text{Ni}_2\text{P}(10\bar{1}0)$  Surface: Angle-Resolved Photoemission Study  
Solid State Commun., **150** (2010) 1120.

K.Edamoto, H.Inomata, N.Yasuno, K.Ozawa, Y.Nakagawa, K.Asakura and S.Otani  
Angle-Resolved and Resonant Photoelectron Spectroscopy Study of  $\text{Ni}_2\text{P}(10\bar{1}0)$  Single-Crystal Surface  
Hyomenkagaku, **31** (2010) 324. (*in Japanese*).

### 1C

T.Kakiuchi, S.Hashimoto, N.Fujita, M.Tanaka, K.Mase and S.Nagaoka  
Topmost-Surface-Sensitive Si-2p Photoelectron Spectra of Clean  $\text{Si}(100)\text{-}2\times 1$  Measured with Photoelectron Auger Coincidence Spectroscopy  
Surf. Sci., **604** (2010) L27.

T.Kakiuchi, S.Hashimoto, N.Fujita, M.Tanaka, K.Mase and S.Nagaoka  
Surface-Site-Selective Study of Valence Electronic Structures of Clean  $\text{Si}(100)\text{-}2\times 1$  Using  $\text{Si-L}_{23}\text{VV}$  Auger Electron-Si-2p Photoelectron Coincidence Spectroscopy  
J. Phys. Soc. Jpn., **79** (2010) 064714.

H.Nakazawa, R.Osozawa, Y.Enta and M.Suemitsu  
Changes in Chemical Bonding of Diamond-Like Carbon Films by Atomic-Hydrogen Exposure  
Diamond and Related Materials, **19** (2010) 1387.

### 2A

K.Asakura, H.Niimi and M.Kato  
Energy Filtered X-Ray Photoemission Electron Microscopy  
Advances in Imaging and Electron Physics, **162** (2010) 1.

### 2C

U.Takeuchi, A.Chikamatsu, T.Hitosugi, H.Kumigashira, M.Oshima, Y.Hirose, T.Shimada and T.Hasegawa  
Transport Properties and Electronic States of Anatase  $\text{Ti}_{1-x}\text{W}_x\text{O}_2$  Epitaxial Thin Films  
J. Appl. Phys., **107** (2010) 023705.

K.Yoshimatsu, T.Okabe, H.Kumigashira, S.Okamoto, S.Aizaki, A.Fujimori and M.Oshima  
Dimensional-Crossover-Driven Metal-Insulator Transition in  $\text{SrVO}_3$  Ultrathin Films  
Phys. Rev. Lett., **104** (2010) 147601.

H.Nogawa, T.Hitosugi, A.Chikamatsu, S.Nakao, Y.Hirose, T.Shimada, H.Kumigashira, M.Oshima and T.Hasegawa  
Carrier Compensation by Excess Oxygen Atoms in Anatase  $\text{Ti}_{0.94}\text{Nb}_{0.06}\text{O}_{2+\delta}$  Epitaxial Thin Films  
Jpn. J. Appl. Phys., **49** (2010) 041102.

T.Tanimura, S.Toyoda, H.Kamada, H.Kumigashira, M.Oshima, T.Sukegawa, G.L.Liu and Z.Liu  
Photoinduced Charge-Trapping Phenomena in Metal/High- $k$  Gate Stack Structures Studied by Synchrotron Radiation Photoemission Spectroscopy  
Appl. Phys. Lett., **96** (2010) 162902.

- S.Toyoda, H.Kamada, T.Tanimura, H.Kumigashira, M.Oshima, T.Ohtsuka, Y.Hata and M.Niwa  
Annealing Effects of In-Depth Profile and Band Discontinuity in TiN/LaO/HfSiO<sub>2</sub>/SiO<sub>2</sub>/Si Gate Stack Structure Studied by Angle-Resolved Photoemission Spectroscopy from Backside  
Appl. Phys. Lett., **96** (2010) 042905.
- Y.Ishiwata, S.Suehiro, M.Hagihala, X.G.Zheng, T.Kawae, O.Morimoto and Y.Tezuka  
Unusual Low-Temperature Phase in VO<sub>2</sub> Nanoparticles  
Phys. Rev. B, **82** (2010) 115404.
- Y.Ishiwata, S.Suehiro, Y.Soi, Y.Tezuka, O.Morimoto and X.G.Zheng  
Metal-Insulator Transition for V<sub>2</sub>O<sub>3</sub> Powder Observed Using a Soft X-Ray Emission Spectrometer  
J. Phys. Soc. Jpn., **79** (2010) 054712.
- M.Minohara, R.Yasuhara, H.Kumigashira and M.Oshima  
Termination Layer Dependence of Schottky Barrier Height for La<sub>0.6</sub>Sr<sub>0.4</sub>MnO<sub>3</sub>/Nb:SrTiO<sub>3</sub> Heterojunctions  
Phys. Rev. B, **81** (2010) 235322.
- R.Yasuhara, T.Yamamoto, I.Ohkubo, H.Kumigashira and M.Oshima  
Interfacial Chemical States of Resistance-Switching Metal/Pr<sub>0.7</sub>Ca<sub>0.3</sub>MnO<sub>3</sub> Interfaces  
Appl. Phys. Lett., **97** (2010) 132111.
- J.Adachi and A.Yagishita  
Photoionization Dynamics of Free Molecules Observed in the Molecular Frame  
Butsuri, **65** (2010) 416. (*in Japanese*).
- M.Kazama, J.Adachi, H.Shinotsuka, M.Yamazaki, Y.Ohori, A.Yagishita and T.Fujikawa  
Theoretical Study of X-Ray Photoelectron Diffraction for Fixed-in-Space CO Molecules  
Chem. Phys., **373** (2010) 261.
- A.Yagishita, J.Adachi and M.Yamazaki  
Photoemission Dynamics in the Molecular Frame  
J. Phys.: Conf. Ser., **212** (2010) 012010.
- S.Maruyama, Y.Takeyama, H.Taniguchi, H.Fukumoto, M.Itoh, H.Kumigashira, M.Oshima, T.Yamamoto and Y.Matsumoto  
Molecular Beam Deposition of Nanoscale Ionic Liquids in Ultrahigh Vacuum  
ACS Nano, **4** (2010) 5946.
- Y.Matsumoto, M.Katayama, T.Abe, T.Ohsawa, I.Ohkubo, H.Kumigashira, M.Oshima and H.Koinuma  
Chemical Trend of Fermi-Level Shift in Transition Metal-Doped TiO<sub>2</sub> Films  
J. Ceram. Soc. Jpn., **118** (2010) 993.
- M.Yamazaki, J.Adachi, Y.Kimura, M.Stener, P.Decleva and A.Yagishita  
N 1s Photoelectron Angular Distributions from Fixed-in-Space NO<sub>2</sub> Molecules: Stereodynamics and Symmetry Considerations  
J. Chem. Phys., **133** (2010) 164301.
- N.Nakajima, M.Deguchi, H.Maruyama, K.Ishiji and Y.Tezuka  
X-Ray Spectroscopic Study on Photoluminescence Properties of Red Phosphor SrTiO<sub>3</sub>:Pr<sup>3+</sup>,Al  
Jpn. J. Appl. Phys., **49** (2010) 09ME04.
- Y.Nakamura, H.Okazaki, R.Yoshida, T.Wakita, M.Hirai, Y.Muraoka, H.Takeya, K.Hirata, H.Kumigashira, M.Oshima and T.Yokoya  
Electronic Structure of the Novel Filled Skutterudite PrPt<sub>4</sub>Ge<sub>12</sub> Superconductor  
J. Phys. Soc. Jpn., **79** (2010) 124701.
- H.Sato, Y.Mukaegawa, H.Maso, Y.Utsumi, Y.Tezuka, O.Morimoto, H.Negishi, S.Negishi, H.Namatame and M.Taniguchi  
Soft X-Ray Absorption and Emission Study on Anisotropic Electronic Structure of MoO<sub>3</sub>  
J. Elec. Spec. Relat. Phenom., **181** (2010) 211.
- S.Toyoda, H.Kamada, H.Kumigashira, M.Oshima, K.Iwamoto, T.Sukegawa and Z.Liu  
Thermal Stability of TiN/HfSiON Gate Stack Structures Studied by Synchrotron-Radiation Photoemission Spectroscopy  
Appl. Phys. Lett., **97** (2010) 262903.
- M.Oshima, S.Toyoda, H.Kamada, T.Tanimura, Y.Nakamura, K.Horiba and H.Kumigashira  
Synchrotron Radiation Photoelectron Spectroscopy of Metal Gate/HfSiO(N)/SiO(N)/Si Stack Structures  
ECS Transactions, **33** (2010) 231.
- H.Kamada, S.Toyoda, T.Tanimura, H.Kumigashira, M.Oshima, G.L.Liu, Z.Liu and T.Sukegawa  
Interfacial Reactions in Ru Metal-Electrode/HfSiON Gate Stack Structures Studied by Synchrotron-Radiation Photoelectron Spectroscopy  
J. Appl. Phys., **108** (2010) 123521.
- S.Toyoda, H.Kamada, A.Kikuchi, H.Kumigashira, M.Oshima, K.Iwamoto, T.Sukegawa and Z.Liu  
Effect of Nitrogen Bonding States on Dipole at the HfSiO/SiON Interface Studied by Photoemission Spectroscopy  
J. Appl. Phys., **107** (2010) 124103.
- J.W.Liu, A.Kobayashi, K.Ueno, S.Toyoda, A.Kikuchi, J.Ohta, H.Fujioka, H.Kumigashira and M.Oshima  
Electronic Structures of *c*-plane and *a*-plane AlN/ZnO Heterointerfaces Determined by Synchrotron Radiation Photoemission Spectroscopy  
Appl. Phys. Lett., **97** (2010) 252111.

G.He, S.Toyoda, Y.Shimogaki and M.Oshima  
Thermal Stability and Chemical States of  $\text{AlO}_x\text{N}_y/\text{Si}$   
Gate Stacks Revealed by Synchrotron Radiation  
Photoemission Spectroscopy  
Appl. Surf. Sci., **257** (2010) 1638.

## 3A

M.Nakamura, D.Okuyama, J.S.Lee, T.Arima,  
Y.Wakabayashi, R.Kumai, M.Kawasaki and Y.Tokura  
Magnetically Tunable Metal Insulator Superlattices  
Adv. Mater., **22** (2010) 500.

K.Kishimoto, T.Ishikura, H.Nakamura, Y.Wakabayashi  
and T.Kimura  
Antiferroelectric Lattice Distortion Induced by  
Ferroquadrupolar Order in  $\text{DyVO}_4$   
Phys. Rev. B, **82** (2010) 012103.

J.S.Lee, M.Nakamura, D.Okuyama, R.Kumai, T.Arima,  
M.Kawasaki and Y.Tokura  
Competing Electronic Orders in Anisotropically Strained  
( $\text{Pr}_{0.6}\text{Ca}_{0.4}$ ) $_{1-x}$ ( $\text{La}_{0.6}\text{Sr}_{0.4}$ ) $_x\text{MnO}_3$  Thin Films  
Phys. Rev. B, **82** (2010) 052406.

T.Matsumura  
Observation of Magnetic Octupole by Resonant X-Ray  
Scattering  
Parity, **25** (2010) 38. (*in Japanese*).

K.Kishimoto, Y.Wakabayashi and T.Kimura  
Antiferroelectric Distortion Induced by Ferro-  
Quadrupolar Ordering in  $\text{DyVO}_4$   
J. Cryst. Soc. Jpn., **52** (2010) 239. (*in Japanese*).

## 3B

T.Odagiri, Y.Kumagai, T.Tanabe, M.Nakano,  
I.H.Suzuki, M.Kitajima and N.Kouchi  
A New Spectroscopic Method for Resolving the  
Electronic Symmetry Properties of the Highly Excited  
Molecules Produced in Photoexcitation  
Rev. Sci. Instrum., **81** (2010) 063108.

Y.Enta, H.Nakazawa, S.Sato, H.Kato and Y.Sakisaka  
Silicon Thermal Oxidation and its Thermal Desorption  
Investigated by Si 2p Core-Level Photoemission  
J. Phys.: Conf. Ser., **235** (2010) 012008.

H.Nakazawa, R.Osozawa, Y.Enta and M.Suemitsu  
Changes in Chemical Bonding of Diamond-Like Carbon  
Films by Atomic-Hydrogen Exposure  
Diamond and Related Materials, **19** (2010) 1387.

## 3C

T.Kyomen, A.Sano, Y.Murachi, M.Hanaya, K.Suzuki  
and M.Ito  
Coupling of Ferroelasticity and Ferromagnetism in  
 $\text{La}_{1-x}\text{Sr}_x\text{CoO}_3$  Twin Crystals  
Phys. Rev. B, **82** (2010) 64402.

X.Zhang, H.Sugiyama, H.Fujimoto, A.Waseda and  
T.Takatomi  
A Silicon *d*-Spacing Mapping Measurement System with  
Resolution of  $10^{-9}$   
AIP Conf. Proc., **1234** (2010) 895.

## 4A

Y.Nozue, Y.Shinohara, Y.Ogawa, T.Takamizawa,  
T.Sakurai, T.Kasahara, N.Yamaguchi, N.Yagi and  
Y.Amemiya  
Deformation Behavior of Banded Spherulite during  
Drawing Investigated by Simultaneous Microbeam  
SAXS-WAXS and POM Measurement  
Polymer, **51** (2010) 222.

Y.Takanishi, Y.Ohtsuka, Y.Takahashi and A.Iida  
Microbeam Resonant X-Ray Scattering from Bromine-  
Substituted Bent-Core Liquid Crystals  
Phys. Rev. E, **81** (2010) 011701.

W.Satake, T.Mikouchi and M.Miyamoto  
Iron Micro-XANES Measurement of Maskelynite in  
Shergottites: An Update  
Lunar and Planetary Science, **XLI** (2010) 1902.

S.Hayakawa, A.Tanaka and T.Hirokawa  
Contribution of Ni KLL Auger Electrons to the Probing  
Depth of the Conversion Electron Yield Measurements  
Anal. Sci., **26** (2010) 233.

T.Kashiwabara, S.Mitsuo, A.Hokura, N.Kitajima, T.Abe  
and I.Nakai  
*In vivo* Micro X-Ray Analysis Utilizing Synchrotron  
Radiation of the Gametophytes of Three Arsenic  
Accumulating Ferns, *Pteris vittata* L., *Pteris cretia* L.  
and *Athyrium yokoscense*, in Different Growth Stages  
Metalomics, **2** (2010) 261.

T.Kikuzuki, Y.Shinohara, Y.Nozue, K.Ito and  
Y.Amemiya  
Determination of Lamellar Twisting Manner in a Banded  
Spherulite with Scanning Microbeam X-Ray Scattering  
Polymer, **51** (2010) 1632.

S.Mitsunobu, Y.Takahashi and Y.Terada  
 $\mu$ -XANES Evidence for the Reduction of Sb(V) to Sb(III)  
in Soil from Sb Mine Tailing  
Environ. Sci. Technol., **44** (2010) 1281.

Y.Shinohara  
Structural Study of Crystallization of n-Hexadecane in  
O/W Emulsion with X-Ray Diffraction  
J. Japanese Association for Crystal Growth, **37** (2010)  
25. (*in Japanese*).

A.Iida, Y.Takahashi and Y.Takanishi  
X-Ray Characterisation of Local Molecular Orientation  
in the Electroclinic Effect of Surface-Stabilised SmA  
Liquid Crystals  
Liquid Crystals, **37** (2010) 1091.

T.Itai, Y.Takahashi, A.A.Seddique, T.Maruoka and M.Mitamura

Variations in the Redox State of As and Fe Measured by X-Ray Absorption Spectroscopy in Aquifers of Bangladesh and their Effect on As Adsorption  
Applied Geochemistry, **25** (2010) 34.

A.Waheed, Z.Yan, T.Mingguang, B.Liangman, Z.Guilin, L.Yan and L.Xiaolin

Characterization and Source Identification of Fine Particulate Matter in the Atmosphere of Downtown Shanghai using  $\mu$ -SXRF and ICP-MS  
Nucl. Sci. Tech., **21** (2010) 197.

K.Fukushi, T.Sugiura, T.Morishita, Y.Takahashi, N.Hasebe and H.Ito

Iron-Bentonite Interactions in the Kawasaki Bentonite Deposit, Zao Area, Japan  
Applied Geochemistry, **25** (2010) 1120.

J.Kameda, A.Okamoto, T.Mikouchi, R.Kitagawa and T.Kogure

The Occurrence and Structure of Vermiform Chlorite  
Clay Science, **14** (2010) 155.

W.Satake, T.Mikouchi and M.Miyamoto

Iron Micro XANES Analysis of Achondritic Plagioclase: Implications for their Redox States  
73rd Meeting of the Meteoritical Society, **45** (2010) A179.

M.Zolensky, T.Mikouchi, W.Satake and L.Le

The Valence State of Iron in CM2 Chondrite Serpentine  
73rd Meeting of the Meteoritical Society, **45** (2010) A226.

H.Miyata, W.Kubo, A.Sakai, Y.Ishida, T.Noma, M.Watanabe, A.Bendavid and P.J.Martin

Epitaxial-Like Growth of Anisotropic Mesosstructure on an Anisotropic Surface of an Oblique Nanocolumnar Structure  
J. Am. Chem. Soc., **132** (2010) 9414.

W.Nakbanpote, N.Panitlertumpai, K.Sukadeetad, O.Meesungneon and W.Noisa-Nguan

Advances in Phytoremediation Research: A Case Study of *Gynura pseudochina* (L.) DC.  
Advanced Knowledge Application in Practice, (2010) 353.

#### 4B1

T.Mikouchi, M.Zolensky, H.Takeda, K.Hagiya, K.Ohsumi, W.Satake, T.Kurihara, P.Jenniskens and M.H.Shaddad

Mineralogy of Pyroxene and Olivine in the Almahata Sitta Ureilite  
Lunar and Planetary Science, **XLI** (2010) 2344.

M.E.Zolensky, J.Herrin, T.Mikouchi, K.Ohsumi, J.M.Friedrich, A.Steele, M.Fries, S.A.Sandford, S.Milam, K.Hagiya, H.Takeda, W.Satake, T.Kurihara, M.Colbert, R.Hanna, J.Maisano, R.Ketcham, C.Goodrich, L.Le, G.A.Robinson, J.Martinez, K.Ross, P.Jenniskens and M.H.Shaddad

Mineralogy and Petrography of the Almahata Sitta Ureilite  
Meteoritics and Planetary Science, **45** (2010) 1618.

M.E.Zolensky, J.Herrin, T.Mikouchi, W.Satake, T.Kurihara, S.A.Sandford, S.N.Milam, K.Hagiya, K.Ohsumi, J.M.Friedrich, P.Jenniskens, M.H.Shaddad, L.Le and G.A.Robinson

Olivine in Almahata Sitta - Curiouser and Curiouser  
Lunar and Planetary Science Conf., **XLI** (2010) 2306.

#### 4B2

K.Fujii, H.Uekusa, N.Itoda, G.Hasegawa, E.Yonemochi, K.Terada, Z.Pan and K.D.M.Harris

Physicochemical Understanding of Polymorphism and Solid-State Dehydration/Rehydration Processes for the Pharmaceutical Material Acrinol, by ab initio Powder X-Ray Diffraction Analysis and Other Techniques  
J. Phys. Chem. C, **114** (2010) 580.

M.Yashima, N.Sirikanda and T.Ishihara

Crystal Structure, Diffusion Path, and Oxygen Permeability of a  $\text{Pr}_2\text{NiO}_4$ -Based Mixed Conductor  $(\text{Pr}_{0.9}\text{La}_{0.1})_2(\text{Ni}_{0.74}\text{Cu}_{0.21}\text{Ga}_{0.05})\text{O}_{4+\delta}$   
J. Am. Chem. Soc., **132** (2010) 2385.

M.Yashima

Crystal Structure Analysis of Catalysts  
Radioisotopes, **59** (2010) 221. (*in Japanese*).

K.Fujii, Y.Ashida, H.Uekusa, F.Guob and K.D.M.Harris  
Selective Transformation Pathways between Crystalline Forms of an Organic Material Established from Powder X-Ray Diffraction Analysis  
Chem. Comm., **46** (2010) 4264.

S.Ohi, A.Miyake and M.Yashima

Stability Field of the High-Temperature Orthorhombic Phase in the Enstatite-Diopside System  
Am. Mineral., **95** (2010) 1267.

M.Ibuki, S.Ohi, A.Tsuchiyama and T.Hirajima

Analysis of Mn-Bearing Lawsonite Occurring in Meta-Siliceous Rocks in Hakoishi Serpentinite Melange of Kurosegawa Belt, Central Kyusyu, Japan  
J. Mineralogical and Petrological Sciences, **105** (2010) 340.

M.Yashima

Mechanism of the Oxygen Permeation in the Praseodymium Nickelate-Based Mixed Conductors Expected Materials for the Future, **10** (2010) 35. (*in Japanese*).

K.Kakimoto, Y.Hayakawa and I.Kagomiya  
Low-Temperature Sintering of Dense (Li,Na,K)NbO<sub>3</sub>  
Lead-Free Piezoelectric Ceramics using the Citrate  
Precursor Technique  
J. Am. Ceram. Soc., **93** (2010) 2423.

Y.Inagaki, K.Kakimoto and I.Kagomiya  
Ferroelectric Domain Characterization of Orthorhombic  
Sodium-Potassium Niobate Piezoelectric Crystals  
J. Am. Ceram. Soc., **93** (2010) 4061.

## 4C

M.Nakamura, D.Okuyama, J.S.Lee, T.Arima,  
Y.Wakabayashi, R.Kumai, M.Kawasaki and Y.Tokura  
Magnetically Tunable Metal Insulator Superlattices  
Adv. Mater., **22** (2010) 500.

Y.Wakabayashi, J.Takeya and T.Kimura  
Sub-Å Resolution Electron Density Analysis of the  
Surface of Organic Rubrene Crystals  
Phys. Rev. Lett., **104** (2010) 066103.

T.Sakurai, T.Yamanari, M.Kubota, S.Toyoshima,  
T.Taima, Y.Yoshida and K.Akimoto  
Comparative Study on Structural Properties of Poly(3-  
Hexylthiophene) and Poly(3-Hexylthiophene):6,6-  
Phenyl-C<sub>61</sub> Butyric Acid Methyl Ester Thin Films using  
Synchrotron X-Ray Diffraction  
Jpn. J. Appl. Phys., **49** (2010) 01AC01.

T.Shimura, Y.Okamoto, T.Inoue, T.Hosoi and  
H.Watanabe  
Residual Order in the Thermal Oxide of a Fully Strained  
SiGe Alloy on Si  
Phys. Rev. B, **81** (2010) 033308.

S.Ohtani, Y.Watanabe, M.Saito, N.Abe, K.Taniguchi,  
H.Sagayama, T.Arima, M.Watanabe and Y.Noda  
Orbital Dilution Effect in Ferrimagnetic  
Fe<sub>1-x</sub>Mn<sub>x</sub>Cr<sub>2</sub>O<sub>4</sub>: Competition between Anharmonic  
Lattice Potential and Spin-Orbit Coupling  
J. Phys.: Condens. Matter, **22** (2010) 176003.

J.S.Lee, M.Nakamura, D.Okuyama, R.Kumai, T.Arima,  
M.Kawasaki and Y.Tokura  
Competing Electronic Orders in Anisotropically Strained  
(Pr<sub>0.6</sub>Ca<sub>0.4</sub>)<sub>1-x</sub>(La<sub>0.6</sub>Sr<sub>0.4</sub>)<sub>x</sub>MnO<sub>3</sub> Thin Films  
Phys. Rev. B, **82** (2010) 052406.

T.Shimura, D.Shimokawa, T.Inoue, T.Hosoi,  
H.Watanabe, O.Sakata and M.Umeno  
Thermal Stability and Electron Irradiation Damage of  
Ordered Structure in the Thermal Oxide Layer on Si  
J. Electrochem. Soc., **157** (2010) H977.

T.Kondo, M.Shibata, N.Hayashi, H.Fukumitsu,  
T.Masuda and K.Uosaki  
Resonance Surface X-Ray Scattering Technique to  
Determine the Structure of Electrodeposited Pt  
Ultrathin Layers on Au(111) Surface  
Electrochimica Acta, **55** (2010) 8302.

J.Kokubun, H.Sawai, M.Uehara, N.Momozawa,  
K.Ishida, A.Kirfel, R.V.Vedriniskii, N.M.Novikovskii,  
A.A.Novakovich and V.E.Dmitrienko  
Pure Dipole-Quadrupole Resonant Scattering Induced  
by the *p-d* Hybridization of Atomic Orbitals in Anatase  
TiO<sub>2</sub>  
Phys. Rev. B, **82** (2010) 205206.

V.E.Dmitrienko, E.N.Ovchinnikova, J.Kokubun and  
K.Ishida  
Dzyaloshinskii-Moriya Interaction: How to Measure its  
Sign in Weak Ferromagnetics?  
JETP Letter, **92** (2010) 424.

## 5A

E.Sakata, T.Satoh, S.Yamamoto, Y.Yamaguchi, M.Yagi-  
Utsumi, E.Kurimoto, K.Tanaka, S.Wakatsuki and  
K.Kato  
Crystal Structure of UbcH5b~Ubiquitin Intermediate:  
Insight into the Formation of the Self-Assembled E2~Ub  
Conjugates  
Structure, **18** (2010) 138.

S.Yamaguchi, G.Aldini, S.Ito, N.Morishita, T.Shibata,  
G.Vistoli, M.Carini and K.Uchida  
 $\Delta^{12}$ -Prostaglandin J<sub>2</sub> as a Product and Ligand of Human  
Serum Albumin: Formation of an Unusual Covalent  
Adduct at His146  
J. Am. Chem. Soc., **132** (2010) 824.

H.Nishii, T.Chiba, K.Morikami, T.A.Fukami,  
H.Sakamoto, K.Ko and H.Koyano  
Discovery of 6-Benzyloxyquinolines as c-MET Selective  
Kinase Inhibitors  
Bioorg. Med. Chem. Lett., **20** (2010) 1405.

T.Okada, T.Tomita, A.P.Wulandari, T.Kuzuyama and  
M.Nishiyama  
Mechanism of Substrate Recognition and Insight into  
Feedback Inhibition of Homocitrate Synthase from  
*Thermus thermophilus*  
J. Biol. Chem., **285** (2010) 4195.

M.Miyata, T.Sato, M.Mizuguchi, T.Nakamura,  
S.Ikemizu, Y.Nabeshima, S.Susuki, Y.Suwa, H.Morioka,  
Y.Ando, M.A.Suico, T.Shuto, T.Koga, Y.Yamagata and  
H.Kai  
Role of the Glutamic Acid 54 Residue in Transthyretin  
Stability and Thyroxine Binding  
Biochemistry, **49** (2010) 114.

A.Yamagata, H.Mimura, Y.Sato, M.Yamashita,  
A.Yoshikawa and S.Fukai  
Structural Insight into the Membrane Insertion of Tail-  
Anchored Proteins by Get3  
Genes to Cells, **15** (2010) 29.

M.Yamashita, K.Kurokawa, Y.Sato, A.Yamagata,  
H.Mimura, A.Yoshikawa, K.Sato, A.Nakano and S.Fukai  
Structural Basis for the Rho- and Phosphoinositide-  
Dependent Localization of the Exocyst Subunit Sec3  
Nature Structural Molecular Biology, **17** (2010) 180.

- H.S.Kim, H.L.Kim, K.H.Kim, D.J.Kim, S.J.Lee, J.Y.Yoon, H.J.Yoon, H.Y.Lee, S.B.Park, S.-J.Kim, J.Y.Lee and S.W.Suh  
Crystal Structure of Tpa1 from *Saccharomyces cerevisiae*, a Component of the Messenger Ribonucleoprotein Complex  
Nucl. Acids Res., **38** (2010) 2099.
- T.Oda, H.Hashimoto, N.Kuwabara, S.Akashi, K.Hayashi, C.Kojima, H.L.Wong, T.Kawasaki, K.Shimamoto, M.Sato and T.Shimizu  
Structure of the N-Terminal Regulatory Domain of a Plant NADPH Oxidase and its Functional Implications  
J. Biol. Chem., **285** (2010) 1435.
- K.Tsukimoto, R.Takada, Y.Araki, K.Suzuki, S.Karita, T.Wakagi, H.Shoun, T.Watanabe and S.Fushinobu  
Recognition of Cellooligosaccharides by a Family 28 Carbohydrate-Binding Module  
FEBS Lett., **584** (2010) 1205.
- Y.Fujioka, N.N.Noda, H.Nakatogawa, Y.Ohsumi and F.Inagaki  
Dimeric Coiled-Coil Structure of *Saccharomyces cerevisiae* Atg16 and its Functional Significance in Autophagy  
J. Biol. Chem., **285** (2010) 1508.
- N.Maita, J.Nyirenda, M.Igura, J.Kamishikiryo and D.Kohda  
Comparative Structural Biology of Eubacterial and Archaeal Oligosaccharyltransferases  
J. Biol. Chem., **285** (2010) 4941.
- K.Yoneda, J.Fukuda, H.Sakuraba and T.Ohshima  
First Crystal Structure of *L*-Lysine 6-Dehydrogenase as an NAD-Dependent Amine Dehydrogenase  
J. Biol. Chem., **285** (2010) 8444.
- N.Kudo, K.Kumagai, R.Matsubara, S.Kobayashi, K.Hanada, S.Wakatsuki and R.Kato  
Crystal Structures of the CERT START Domain with Inhibitors Provide Insights into the Mechanism of Ceramide Transfer  
J. Mol. Biol., **396** (2010) 245.
- K.Hara, H.Hashimoto, Y.Murakumo, S.Kobayashi, T.Kogame, S.Unzai, S.Akashi, S.Takeda, T.Shimizu and M.Sato  
Crystal Structure of Human REV7 in Complex with a Human REV3 Fragment and Structural Implication of the Interaction between DNA Polymerase  $\zeta$  and REV1  
J. Biol. Chem., **285** (2010) 12299.
- R.Omi, S.Kurokawa, H.Mihara, H.Hayashi, M.Goto, I.Miyahara, T.Kurihara, K.Hirotsu and N.Esaki  
Reaction Mechanism and Molecular Basis for Selenium/Sulfur Discrimination for Selenocysteine Lyase  
J. Biol. Chem., **285** (2010) 12133.
- M.Takenoya, A.Ohtaki, K.Noguchi, K.Endo, Y.Sasaki, K.Ohsawa, S.Yajima and M.Yohda  
Crystal Structure of 1-Deoxy-D-Xylulose 5-Phosphate Reductoisomerase from the Hyperthermophile *Thermotoga maritima* for Insights into the Coordination of Conformational Changes and an Inhibitor Binding  
J. Struct. Biol., **170** (2010) 532.
- Y.Hirano, M.Higuchi, C.Azai, H.Oh-oka, K.Miki and Z.-Y.Wang  
Crystal Structure of the Electron Carrier Domain of the Reaction Center Cytochrome  $c_z$  Subunit from Green Photosynthetic Bacterium *Chlorobium tepidum*  
J. Mol. Biol., **397** (2010) 1175.
- M.Senda, T.Hatta, K.Kimbara and T.Senda  
Crystallization and Preliminary Crystallographic Analysis of Manganese(II)-Dependent 2,3-Dihydroxybiphenyl 1,2-Dioxygenase from *Bacillus* sp. JF8  
Acta Cryst. F, **66** (2010) 282.
- F.Kawai, T.B.Clarke, D.I.Roper, G.-J.Han, K.Y.Hwang, S.Unzai, E.Obayashi, S.-Y.Park and J.R.H.Tame  
Crystal Structures of Penicillin-Binding Proteins 4 and 5 from *Haemophilus influenzae*  
J. Mol. Biol., **396** (2010) 634.
- Y.Akai, N.Adachi, Y.Hayashi, M.Eitoku, N.Sano, R.Natsume, N.Kudo, M.Tanokura, T.Senda and M.Horikoshi  
Structure of the Histone Chaperone CIA/ASF1-Double Bromodomain Complex Linking Histone Modification and Site-Specific Histone Eviction  
Proc. Natl. Acad. Sci. USA, **107** (2010) 8153.
- Y.Kezuka, M.Kojima, R.Mizuno, K.Suzuki, T.Watanabe and T.Nonaka  
Structure of Full-Length Class I Chitinase from Rice Revealed by X-Ray Crystallography and Small-Angle X-Ray Scattering  
Proteins, **78** (2010) 2295.
- M.Koyama and Y.Matsuura  
An Allosteric Mechanism to Displace Nuclear Export Cargo from CRM1 and RanGTP by RanBP1  
EMBO J., **29** (2010) 2002.
- D.Morimoto, S.Isogai, T.Tenno, H.Tochio, M.Shirakawa and M.Ariyoshi  
Purification, Crystallization and Preliminary Crystallographic Studies of Lys48-Linked Polyubiquitin Chains  
Acta Cryst. F, **66** (2010) 834.
- L.-H.Xu, S.Fushinobu, S.Takamatsu, T.Wakagi, H.Ikeda and H.Shoun  
Regio- and Stereospecificity of Filipin Hydroxylation Sites Revealed by Crystal Structures of Cytochrome P450 105P1 and 105D6 from *Streptomyces avermitilis*  
J. Biol. Chem., **285** (2010) 16844.

- Y.Kido, T.Shiba, D.K.Inaoka, K.Sakamoto, T.Nara, T.Aoki, T.Honma, A.Tanaka, M.Inoue, S.Matsuoka, A.Moore, S.Harada and K.Kita  
Crystallization and Preliminary Crystallographic Analysis of Cyanide-Insensitive Alternative Oxidase from *Trypanosoma brucei brucei*  
Acta Cryst. F, **66** (2010) 275.
- H.Sakuraba, K.Yokono, K.Yoneda, A.Watanabe, Y.Asada, T.Satomura, T.Yabutani, J.Motonaka and T.Ohshima  
Catalytic Properties and Crystal Structure of Quinoprotein Aldose Sugar Dehydrogenase from Hyperthermophilic Archaeon *Pyrobaculum aerophilum*  
Archives of Biochemistry and Biophysics, **502** (2010) 81.
- K.Tanaka, N.Umeki, T.Mitsui, Z.Fujimoto and S.Maruta  
Crystallographic Analysis Reveals a Unique Conformation of the ADP-Bound Novel Rice Kinesin K16  
Biochem. Biophys. Res. Commun., **401** (2010) 251.
- Z.Fujimoto, H.Ichinose, T.Maehara, M.Honda, M.Kitaoka and S.Kaneko  
Crystal Structure of an Exo-1,5- $\alpha$ -L-arabinofuranosidase from *Streptomyces avermitilis* Provides Insights into the Mechanism of Substrate Discrimination between Exo- and Endo-Type Enzymes in Glycoside Hydrolase Family 43  
J. Biol. Chem., **285** (2010) 34134.
- H.Suzuki, S.Noguchi, H.Arakawa, T.Tokida, M.Hashimoto and Y.Satow  
Peptide-Binding Sites as Revealed by the Crystal Structures of the Human Hsp40 Hdj1 C-Terminal Domain in Complex with the Octapeptide from Human Hsp70  
Biochemistry, **49** (2010) 8577.
- Y.Sakamoto, M.Ike, N.Tanaka, Y.Suzuki, W.Ogasawara, H.Okada, T.Nonaka, Y.Morikawa and K.T.Nakamura  
Crystallization and Preliminary X-Ray Crystallographic Studies of an Exo- $\beta$ -D-Glucosaminidase from *Trichoderma reesei*  
Acta Cryst. F, **66** (2010) 309.
- K.Murakami, T.Yasunaga, T.Q.P.Noguchi, Y.Gomibuchi, K.X.Ngo, T.Q.P.Uyeda and T.Wakabayashi  
Structural Basis for Actin Assembly, Activation of ATP Hydrolysis, and Delayed Phosphate Release  
Cell, **143** (2010) 275.
- A.Takano, N.Suetsugu, M.Wada and D.Kohda  
Crystallographic and Functional Analyses of J-Domain of JAC1 Essential for Chloroplast Photorelocation Movement in *Arabidopsis thaliana*  
Plant Cell Physiol., **51** (2010) 1372.
- Z.Li, Y.Zhai, J.Fang, Q.Zhou, Y.Geng and F.Sun  
Purification, Crystallization and Preliminary Crystallographic Analysis of Very-Long-Chain Acyl-CoA Dehydrogenase from *Caenorhabditis elegans*  
Acta Cryst. F, **66** (2010) 426.
- Y.Huo, Z.Hu, K.Zhang, L.Wang, Y.Zhai, Q.Zhou, G.Lander, J.Zhu, Y.He, X.Pang, W.Xu, M.Bartlam, Z.Dong and F.Sun  
Crystal Structure of Group II Chaperonin in the Open State  
Structure, **18** (2010) 1270.
- R.Suzuki, T.Katayama, B.-J.Kim, T.Wakagi, H.Shoun, H.Ashida, K.Yamamoto and S.Fushinobu  
Crystal Structures of Phosphoketolase: Thiamine Diphosphate-Dependent Dehydration Mechanism  
J. Biol. Chem., **285** (2010) 34279.
- S.Chiba, Y.Itoh, S.Sekine and S.Yokoyama  
Structural Basis for the Major Role of O-Phosphoseryl-tRNA Kinase in the UGA-Specific Encoding of Selenocysteine  
Molecular Cell, **39** (2010) 410.
- Y.Hu, Y.Gai, L.Yin, X.Wang, C.Feng, L.Feng, D.Li, X.-N.Jiang and D.-C.Wanga  
Crystal Structures of a *Populus tomentosa* 4-Coumarate: CoA Ligase Shed Light on its Enzymatic Mechanisms  
Plant Cell, **22** (2010) 3093.
- A.Shimada, K.Takano, M.Shirouzu, K.Hanawa-Suetsugu, T.Terada, K.Toyooka, T.Umehara, M.Yamamoto, S.Yokoyama and S.Suetsugu  
Mapping of the Basic Amino-Acid Residues Responsible for Tubulation and Cellular Protrusion by the EFC/F-BAR Domain of Pascin2/Syndapin II  
FEBS Lett., **584** (2010) 1111.
- M.Nishio, Y.Kamiya, T.Mizushima, S.Wakatsuki, H.Sasakawa, K.Yamamoto, S.Uchiyama, M.Noda, A.R.McKay, K.Fukui, H.-P.Hauri and K.Kato  
Structural Basis for the Cooperative Interplay between the Two Causative Gene Products of Combined Factor V and Factor VIII Deficiency  
Proc. Natl. Acad. Sci. USA, **107** (2010) 4034.
- Y.Yasutake, Y.Fujii, T.Nishioka, W.-K.Cheon, A.Arisawa and T.Tamura  
Structural Evidence for Enhancement of Sequential Vitamin D<sub>3</sub> Hydroxylation Activities by Directed Evolution of Cytochrome P450 Vitamin D<sub>3</sub> Hydroxylase  
J. Biol. Chem., **285** (2010) 31193.
- K.Yoneda, H.Sakuraba, I.Muraoka, T.Oikawa and T.Ohshima  
Crystal Structure of UDP-Galactose 4-Epimerase-Like L-Threonine Dehydrogenase Belonging to the Intermediate Short-Chain Dehydrogenase-Reductase Superfamily  
FEBS J., **277** (2010) 5124.

- H.Wang, M.Morita, X.Yang, T.Suzuki, W.Yang, J.Wang, K.Ito, Q.Wang, C.Zhao, M.Bartlam, T.Yamamoto and Z.Rao  
Crystal Structure of the Human CNOT6L Nuclease Domain Reveals Strict Poly(A) Substrate Specificity  
EMBO J., **29** (2010) 2566.
- J.Ding, J.Bao, D.Zhu, Y.Zhang and D.-C.Wang  
Crystal Structures of a Novel Anti-HIV Mannose-Binding Lectin from *Polygonatum cyrtoneuma* Hua with Unique Ligand-Binding Property and Super-Structure  
J. Struct. Biol., **171** (2010) 309.
- N.Zhang, X.Ren, D.Zhu, D.Li and D.Wang  
Crystallization and Preliminary Crystallographic Studies of CorC, a Magnesium-Ion Transporter  
Acta Cryst. F, **66** (2010) 681.
- W.-L.Huang, Y.-R.Wang, T.-P.Ko, C.-Y.Chia, K.-F.Huang and A.H.-J.Wang  
Crystal Structure and Functional Analysis of the Glutaminyl Cyclase from *Xanthomonas campestris*  
J. Mol. Biol., **401** (2010) 374.
- W.-H.Zhao, X.-R.Zhan, X.-Z.Gao, X.Liu, Y.-F.Zhang, J.Lin, L.-F.Li, S.-C.Weil and X.-D.Su  
Preliminary X-Ray Crystallographic Analysis of SMU.2055 Protein from the Caries Pathogen *Streptococcus mutans*  
Acta Cryst. F, **66** (2010) 530.
- T.Sumida, T.Yanagisawa, R.Ishii and S.Yokoyama  
Crystallization and Preliminary X-Ray Crystallographic Study of GenX, a Lysyl-tRNA Synthetase Parologue from *Escherichia coli*, in Complex with Translation Elongation Factor P  
Acta Cryst. F, **66** (2010) 1115.
- T.Yanagisawa, T.Sumida, R.Ishii, C.Takemoto and S.Yokoyama  
A Paralog of Lysyl-tRNA Synthetase Aminoacylates a Conserved Lysine Residue in Translation Elongation Factor P  
Nature Structural Molecular Biology, **17** (2010) 1136.
- E.O.Balogun, D.K.Inaoka, Y.Kido, T.Shiba, T.Nara, T.Aoki, T.Honma, A.Tanaka, M.Inoue, S.Matsuoka, P.A.M.Michels, S.Harada and K.Kita  
Overproduction, Purification, Crystallization and Preliminary X-Ray Diffraction Analysis of *Trypanosoma brucei gambiense* Glycerol Kinase  
Acta Cryst. F, **66** (2010) 304.
- H.Hashimoto, K.Hara, A.Hishiki, S.Kawaguchi, N.Shichijo, K.Nakamura, S.Unzai, Y.Tamaru, T.Shimizu and M.Sato  
Crystal Structure of Zinc-Finger Domain of Nanos and its Functional Implications  
EMBO Reports, **11** (2010) 848.
- K.Matoba, T.Shiba, T.Takeuchi, L.D.Sibley, M.Seiki, F.Kikyo, T.Horiuchi, T.Asai and S.Harada  
Crystallization and Preliminary X-Ray Structural Analysis of Nucleoside Triphosphate Hydrolases from *Neospora caninum* and *Toxoplasma gondii*  
Acta Cryst. F, **66** (2010) 1445.
- S.Maruoka, S.Horita, W.C.Lee, K.Nagata and M.Tanokura  
Crystal Structure of the ATPase Subunit and its Substrates-Dependent Association with the GATase Subunit: A Novel Regulatory Mechanism for a Two-Subunit-Type GMP Synthase from *Pyrococcus horikoshii* OT3  
J. Mol. Biol., **395** (2010) 417.
- M.Okai, K.Kubota, M.Fukuda, Y.Nagata, K.Nagata and M.Tanokura  
Crystal Structure of  $\gamma$ -Hexachlorocyclohexane Dehydrochlorinase LinA from *Sphingobium japonicum* UT26  
J. Mol. Biol., **403** (2010) 260.
- A.Okada, K.Sano, K.Nagata, S.Yasumasu, J.Ohtsuka, A.Yamamura, K.Kubota, I.Iuchi and M.Tanokura  
Crystal Structure of Zebrafish Hatching Enzyme 1 from the Zebrafish *Danio rerio*  
J. Mol. Biol., **402** (2010) 865.
- K.Yamamoto, H.Miyake, M.Kusunoki and S.Osaki  
Crystal Structures of Isomaltase from *Saccharomyces cerevisiae* and in Complex with its Competitive Inhibitor Maltose  
FEBS J., **277** (2010) 4205.
- H.Suzuki, S.Noguchi, H.Arakawa, T.Tokida, M.Hashimoto and Y.Satow  
Purification, Crystallization and Preliminary X-Ray Crystallographic Analysis of the Human Heat-Shock Protein 40 Hdj1 and its C-Terminal Peptide-Binding Domain  
Acta Cryst. F, **66** (2010) 1591.
- M.Sahlan, T.Zako, P.T.Tai, A.Ohtaki, K.Noguchi, M.Maeda, H.Miyatake, N.Dohmae and M.Yohda  
Thermodynamic Characterization of the Interaction between Prefoldin and Group II Chaperonin  
J. Mol. Biol., **399** (2010) 628.
- Y.Yamanaka, K.Hashimoto, A.Ohtaki, K.Noguchi, M.Yohda and M.Odaka  
Kinetic and Structural Studies on Roles of the Serine Ligand and a Strictly Conserved Tyrosine Residue in Nitrile Hydratase  
J. Biol. Inorg. Chem., **15** (2010) 655.
- M.Sahlan, T.Kanzaki, T.Zako, M.Maeda and M.Yohda  
Analysis of the Interaction Mode between Hyperthermophilic Archaeal Group II Chaperonin and Prefoldin using a Platform of Chaperonin Oligomers of Various Subunit Arrangements  
Biochim. Biophys. Acta, **1804** (2010) 1810.



- H.Yoshida, M.Teraoka, N.Nishi, S.Nakakita, T.Nakamura, M.Hirashima and S.Kamitori  
X-Ray Structures of Human Galectin-9 C-Terminal Domain in Complexes with a Biantennary Oligosaccharide and Sialyllactose  
*J. Biol. Chem.*, **285** (2010) 36969.
- C.J.C.Whitehouse, W.Yang, J.A.Yorke, B.C.Rowlatt, A.J.F.Strong, C.F.Blanford, S.G.Bell, M.Bartlam, L.L.Wong and Z.Rao  
Structural Basis for the Properties of Two Single-Site Proline Mutants of CYP102A1 (P450<sub>BM3</sub>)  
*ChemBioChem*, **11** (2010) 2549.
- H.Wu, L.Sun, F.Blombach, S.J.J.Brouns, A.P.L.Snijders, K.Lorenzen, R.H.H.v Heuvel, A.J.R.Heck, S.Fu, X.Li, X.C.Zhang, Z.Rao and J.v Oost  
Structure of the Ribosome Associating GTPase HflX  
*Proteins*, **78** (2010) 705.
- L.M.G.Chavas, R.Kato, N.Suzuki, M.von Itzstein, M.C.Mann, R.J.Thomson, J.C.Dyason, J.McKimm-Breschkin, P.Fusi, C.Tringali, B.Venerando, G.Tettamanti, E.Monti and S.Wakatsuki  
Complexity in Influenza Virus Targeted Drug Design: Interaction with Human Sialidases  
*J. Med. Chem.*, **53** (2010) 2998.
- T.Umeda, J.Katsuki, Y.Ashikawa, Y.Usami, K.Inoue, H.Noguchi, Z.Fujimoto, H.Yamane and H.Nojiri  
Crystallization and Preliminary X-Ray Diffraction Studies of a Ferredoxin Reductase Component of Carbazole 1,9a-Dioxygenase from *Novosphingobium* sp. KA1  
*Acta Cryst. F*, **66** (2010) 712.
- T.Umeda, J.Katsuki, Y.Ashikawa, Y.Usami, K.Inoue, H.Noguchi, Z.Fujimoto, H.Yamane and H.Nojiri  
Crystallization and Preliminary X-Ray Diffraction Studies of a Terminal Oxygenase of Carbazole 1,9a-Dioxygenase from *Novosphingobium* sp. KA1  
*Acta Cryst. F*, **66** (2010) 1480.
- Y.Li, J.Du, P.Zhang and J.Ding  
Crystal Structure of Human Copper Homeostasis Protein CutC Reveals a Potential Copper-Binding Site  
*J. Struct. Biol.*, **169** (2010) 399.
- S.Fushinobu  
Unique Sugar Metabolic Pathways of Bifidobacteria  
*Biosci. Biotechnol. Biochem.*, **74** (2010) 2374.
- T.Inuzuka, H.Suzuki, M.Kawasaki, H.Shibata, S.Wakatsuki and M.Maki  
Molecular Basis for Defect in Alix-Binding by Alternatively Spliced Isoform of ALG-2 (ALG-2<sup>ΔGF122</sup>) and Structural Roles of F122 in Target Recognition  
*BMC Structural Biology*, **10** (2010) 25.
- Y.Nishitani, S.Yoshida, M.Fujihashi, K.Kitagawa, T.Doi, H.Atomi, T.Imanaka and K.Miki  
Structure-Based Catalytic Optimization of a Type III Rubisco from a Hyperthermophile  
*J. Biol. Chem.*, **285** (2010) 39339.
- H.Yoshida, K.Takeda, K.Izumori and S.Kamitori  
Elucidation of the Role of Ser329 and the C-Terminal Region in the Catalytic Activity of *Pseudomonas stutzeri* L-Rhamnose Isomerase  
*Protein Eng. Design and Selection*, **23** (2010) 919.
- Y.Mukai, T.Nakamura, M.Yoshikawa, Y.Yoshioka, S.Tsunoda, S.Nakagawa, Y.Yamagata and Y.Tsutsumi  
Solution of the Structure of the TNF-TNFR2 Complex  
*Science Signaling*, **3** (2010) ra83.
- Z.Prokop, Y.Sato, J.Brezovsky, T.Mozga, R.Chaloupkova, T.Koudelakova, P.Jerabek, V.Stepankova, R.Natsume, J.G.E.van Leeuwen, D.B.Janssen, J.Florian, Y.Nagata, T.Senda and J.Damborsky  
Enantioselectivity of Haloalkane Dehalogenase and its Modulation by Surface Loop Engineering  
*Angew. Chem. Int. Ed.*, **49** (2010) 6111.
- G.B.Kang, H.-E.Song, M.-K.Kim, H.-S.Youn, J.Y.An, J.-G.Lee, K.R.Park and S.H.Eom  
Crystallization and Preliminary X-Ray Crystallographic Analysis of MinE, the Cell-Division Topological Specificity Factor from *Helicobacter pylori*  
*Acta Cryst. F*, **66** (2010) 527.
- G.B.Kang, H.-E.Song, M.-K.Kim, H.-S.Youn, J.-G.Lee, J.Y.An, J.-S.Chun, H.Jeon and S.H.Eom  
Crystal Structure of *Helicobacter pylori* MinE, a Cell Division Topological Specificity Factor  
*Mol. Microbiol.*, **76** (2010) 1222.
- Y.J.Im, G.B.Kang, J.H.Lee, K.R.Park, H.E.Song, E.Kim, W.K.Song, D.Park and S.H.Eom  
Structural Basis for Asymmetric Association of the βPIX Coiled Coil and Shank PDZ  
*J. Mol. Biol.*, **397** (2010) 457.
- H.H.Lee, J.Y.Jang, H.J.Yoon, S.J.Kim and S.W.Suh  
Crystal Structures of Two Archaeal Pelotas Reveal Inter-Domain Structural Plasticity  
*Biochem. Biophys. Res. Commun.*, **399** (2010) 600.
- H.H.Lee and S.W.Suh  
Overexpression, Crystallization and Preliminary X-Ray Crystallographic Analysis of *Pseudomonas aeruginosa* MnmE, a GTPase Involved in tRNA Modification  
*Acta Cryst. F*, **66** (2010) 905.

D.J.Kim, K.S.Park, J.H.Kim, S.H.Yang, J.Y.Yoon, B.G.Han, H.S.Kim, S.J.Lee, J.Y.Jang, K.H.Kim, M.J.Kim, J.S.Song, H.J.Kim, C.M.Park, S.K.Lee, B.I.Lee and S.W.Suh

*Helicobacter pylori* Proinflammatory Protein Up-Regulates NF- $\kappa$ B as a Cell-Translocating Ser/Thr Kinase

Proc. Natl. Acad. Sci. USA, **107** (2010) 21418.

T.Uejima, K.Ihara, T.Goh, E.Ito, M.Sunada, T.Ueda, A.Nakano and S.Wakatsuki

GDP-Bound and Nucleotide-Free Intermediates of the Guanine Nucleotide Exchange in the Rab5-Vps9 System  
J. Biol. Chem., **285** (2010) 36689.

T.-P.Ko, W.-Y.Jeng, C.-I.Liu, M.-D.Lai, C.-L.Wu, W.-J.Chang, H.-L.Shr, T.-J.Lu and A.H.-J.Wang

Structures of Human MST3 Kinase in Complex with Adenine, ADP and Mn<sup>2+</sup>

Acta Cryst. D, **66** (2010) 145.

F.-Y.Lin, C.-I.Liu, Y.-L.Liu, Y.Zhang, K.Wang, W.-Y.Jeng, T.-P.Ko, R.Cao, A.H.-J.Wang and E.Oldfield

Mechanism of Action and Inhibition of Dehydrosqualene Synthase

Proc. Natl. Acad. Sci. USA, **107** (2010) 21337.

T.Ohnuma, T.Numata, T.Osawa and T.Fukamizo

Crystallization and Preliminary X-Ray Diffraction Analysis of a Class V Chitinase from *Nicotiana Tabacum*  
Acta Cryst. F, **66** (2010) 1599.

K.Kubota, K.Miyazono, K.Nagata, H.Toyama, K.Matsushita and M.Tanokura

Crystallization and Preliminary X-Ray Analysis of 5-keto-D-gluconate Reductase from *Gluconobacter suboxydans* IFO12528 Complexed with 5-keto-D-gluconate and NADPH

Acta Cryst. F, **66** (2010) 1680.

### Former 6A

Y.Ada

Polar Bears, Antibiotics, and the Evolving Ribosome (Nobel Lecture)

Angew. Chem., Int. Ed., **49** (2010) 4340.

### 6A

K.Yoshimune, Y.Shirakihara, M.Wakayama and I.Yumoto

Crystal Structure of Salt-Tolerant Glutaminase from *Micrococcus luteus* K-3 in the Presence and Absence of its Product L-Glutamate and its Activator Tris

FEBS J., **277** (2010) 738.

M.Hidaka, S.Fushinobu, Y.Honda, T.Wakagi, H.Shoun and M.Kitaoka

Structural Explanation for the Acquisition of Glycosynthase Activity

J. Biochem., **147** (2010) 237.

K.Arai, T.Ishimitsu, S.Fushinobu, H.Uchikoba, H.Matsuzawa and H.Taguchi

Active and Inactive State Structures of Unliganded *Lactobacillus casei* Allosteric L-Lactate Dehydrogenase Proteins, **78** (2010) 681.

T.Matsui, M.Iwasaki, R.Sugiyama, M.Unno and M.Ikeda-Saito

Dioxygen Activation for the Self-Degradation of Heme: Reaction Mechanism and Regulation of Heme Oxygenase  
Inorg. Chem., **49** (2010) 3602.

H.Yoshida, M.Yamaji, T.Ishii, K.Izumori and S.Kamitori

Catalytic Reaction Mechanism of *Pseudomonas stutzeri* L-Rhamnose Isomerase Deduced from X-Ray Structures  
FEBS J., **277** (2010) 1045.

A.Yokota, K.Tsumoto, M.Shiroishi, T.Nakanishi, H.Kondo and I.Kumagai

Contribution of Asparagine Residues to the Stabilization of a Proteinaceous Antigen-Antibody Complex, HyHEL-10-Hen Egg White Lysozyme

J. Biol. Chem., **285** (2010) 7686.

K.Okuyama, T.Morimoto, H.Narita, T.Kawaguchi, K.Mizuno, H.P.Bächinger, G.Wu and K.Noguchi

Two Crystal Modifications of (Pro-Pro-Gly)<sub>4</sub>-Hyp-Hyp-Gly-(Pro-Pro-Gly)<sub>4</sub> Reveal the Puckering Preference of Hyp(X) in the Hyp(X):Hyp(Y) and Hyp(X):Pro(Y) Stacking Pairs in Collagen Helices

Acta Cryst. D, **66** (2010) 88.

Y.Kezuka, M.Kojima, R.Mizuno, K.Suzuki, T.Watanabe and T.Nonaka

Structure of Full-Length Class I Chitinase from Rice Revealed by X-Ray Crystallography and Small-Angle X-Ray Scattering

Proteins, **78** (2010) 2295.

S.Noguchi

Structural Changes Induced by the Deamidation and Isomerization of Asparagine Revealed by the Crystal Structure of *Ustilago Sphaerogena* Ribonuclease U2B

Biopolymers, **93** (2010) 1003.

S.Noguchi

Isomerization Mechanism of Aspartate to Isoaspartate Implied by Structures of *Ustilago sphaerogena* Ribonuclease U2 Complexed with Adenosine 3'-monophosphate

Acta Cryst. D, **66** (2010) 843.

M.Otagiri, S.Ui, Y.Takusagawa, T.Ohtsuki, G.Kurisu and M.Kusunoki

Structural Basis for Chiral Substrate Recognition by Two 2,3-Butanediol Dehydrogenases

FEBS Lett., **584** (2010) 219.

- H.Suzuki, S.Noguchi, H.Arakawa, T.Tokida, M.Hashimoto and Y.Satow  
Peptide-Binding Sites as Revealed by the Crystal Structures of the Human Hsp40 Hdj1 C-Terminal Domain in Complex with the Octapeptide from Human Hsp70  
*Biochemistry*, **49** (2010) 8577.
- E.Yoshida, M.Hidaka, S.Fushinobu, T.Koyanagi, H.Minami, H.Tamaki, M.Kitaoka, T.Katayama and H.Kumagai  
Role of a PA14 Domain in Determining Substrate Specificity of a Glycoside Hydrolase Family 3  $\beta$ -Glucosidase from *Kluyveromyces marxianus*  
*Biochem. J.*, **431** (2010) 39.
- H.Itou, N.Watanabe, M.Yao, Y.Shirakihara and I.Tanaka  
Crystal Structures of the Multidrug Binding Repressor *Corynebacterium glutamicum* CgmR in Complex with Inducers and with an Operator  
*J. Mol. Biol.*, **403** (2010) 174.
- S.Noguchi  
Conformational Variation Revealed by the Crystal Structure of RNase U2A Complexed with Ca Ion and 2'-Adenylic Acid at 1.03Å Resolution  
*Protein & Peptide Letters*, **17** (2010) 1559.
- R.Kuroki, N.Okazaki, M.Adachi, T.Ohhara, K.Kurihara and T.Tamada  
Towards Investigation of the Inhibitor-Recognition Mechanisms of Drug-Target Proteins by Neutron Crystallography  
*Acta Cryst. D*, **66** (2010) 1126.
- T.Tamada, T.Kinoshita, T.Tada and R.Kuroki  
Elucidation of Advanced Function of Elastase by Combined High-Resolution Neutron and X-Ray Analysis  
*J. Cryst. Soc. Jpn.*, **52** (2010) 133. (*in Japanese*).
- T.Tamada and M.Adachi  
Structure Determination of Drug Target Proteins by Neutron Crystallography  
*Radioisotopes*, **59** (2010) 299. (*in Japanese*).
- R.Kuroki, T.Tamada, K.Kurihara, T.Ohhara and M.Adachi  
Collaborative Use of Neutron and X-Ray for Determination of Drug Target Proteins  
*Yakugaku Zasshi*, **130** (2010) 657. (*in Japanese*).
- W.-L.Huang, Y.-R.Wang, T.-P.Ko, C.-Y.Chia, K.-F.Huang and A.H.-J.Wang  
Crystal Structure and Functional Analysis of the Glutaminy Cyclase from *Xanthomonas campestris*  
*J. Mol. Biol.*, **401** (2010) 374.
- S.Maruoka, S.Horita, W.C.Lee, K.Nagata and M.Tanokura  
Crystal Structure of the ATPase Subunit and its Substrates-Dependent Association with the GATase Subunit: A Novel Regulatory Mechanism for a Two-Subunit-Type GMP Synthase from *Pyrococcus horikoshii* OT3  
*J. Mol. Biol.*, **395** (2010) 417.
- H.Suzuki, S.Noguchi, H.Arakawa, T.Tokida, M.Hashimoto and Y.Satow  
Purification, Crystallization and Preliminary X-Ray Crystallographic Analysis of the Human Heat-Shock Protein 40 Hdj1 and its C-Terminal Peptide-Binding Domain  
*Acta Cryst. F*, **66** (2010) 1591.
- M.Sahlan, T.Zako, P.T.Tai, A.Ohtaki, K.Noguchi, M.Maeda, H.Miyatake, N.Dohmae and M.Yohda  
Thermodynamic Characterization of the Interaction between Prefoldin and Group II Chaperonin  
*J. Mol. Biol.*, **399** (2010) 628.
- M.Sahlan, T.Kanzaki, T.Zako, M.Maeda and M.Yohda  
Analysis of the Interaction Mode between Hyperthermophilic Archaeal Group II Chaperonin and Prefoldin using a Platform of Chaperonin Oligomers of Various Subunit Arrangements  
*Biochim. Biophys. Acta*, **1804** (2010) 1810.
- L.M.G.Chavas, R.Kato, N.Suzuki, M.von Itzstein, M.C.Mann, R.J.Thomson, J.C.Dyason, J.McKimm-Breschkin, P.Fusi, C.Tringali, B.Venerando, G.Tettamanti, E.Monti and S.Wakatsuki  
Complexity in Influenza Virus Targeted Drug Design: Interaction with Human Sialidases  
*J. Med. Chem.*, **53** (2010) 2998.
- T.Umeda, J.Katsuki, Y.Ashikawa, Y.Usami, K.Inoue, H.Noguchi, Z.Fujimoto, H.Yamane and H.Nojiri  
Crystallization and Preliminary X-Ray Diffraction Studies of a Ferredoxin Reductase Component of Carbazole 1,9a-Dioxygenase from *Novosphingobium* sp. KA1  
*Acta Cryst. F*, **66** (2010) 712.
- T.Umeda, J.Katsuki, Y.Ashikawa, Y.Usami, K.Inoue, H.Noguchi, Z.Fujimoto, H.Yamane and H.Nojiri  
Crystallization and Preliminary X-Ray Diffraction Studies of a Terminal Oxygenase of Carbazole 1,9a-Dioxygenase from *Novosphingobium* sp. KA1  
*Acta Cryst. F*, **66** (2010) 1480.
- X.-J.Wang, Q.Cao, X.Liu, K.-T.Wang, W.Mi, Y.Zhang, L.-F.Li, A.C.LeBlanc and X.-D.Su  
Crystal Structures of Human Caspase 6 Reveal a New Mechanism for Intramolecular Cleavage Self-Activation  
*EMBO Reports*, **11** (2010) 841.
- S.Fushinobu  
Unique Sugar Metabolic Pathways of Bifidobacteria  
*Biosci. Biotechnol. Biochem.*, **74** (2010) 2374.

H.Yoshida, K.Takeda, K.Izumori and S.Kamitori  
Elucidation of the Role of Ser329 and the C-Terminal  
Region in the Catalytic Activity of *Pseudomonas stutzeri*  
L-Rhamnose Isomerase  
Protein Eng. Design and Selection, **23** (2010) 919.

H.Yokoyama  
Three-Dimensional Structure of Membrane Protein  
Stomatin and Function of Stomatin-Specific Protease  
Yakugaku Zasshi, **130** (2010) 1289. (*in Japanese*).

H.H.Lee, J.Y.Jang, H.J.Yoon, S.J.Kim and S.W.Suh  
Crystal Structures of Two Archaeal Pelotas Reveal Inter-  
Domain Structural Plasticity  
Biochem. Biophys. Res. Commun., **399** (2010) 600.

T.Uejima, K.Ihara, T.Goh, E.Ito, M.Sunada, T.Ueda,  
A.Nakano and S.Wakatsuki  
GDP-Bound and Nucleotide-Free Intermediates of the  
Guanine Nucleotide Exchange in the Rab5-Vps9 System  
J. Biol. Chem., **285** (2010) 36689.

## 6C

M.Yashima, N.Sirikanda and T.Ishihara  
Crystal Structure, Diffusion Path, and Oxygen  
Permeability of a  $\text{Pr}_2\text{NiO}_4$ -Based Mixed Conductor  
( $\text{Pr}_{0.9}\text{La}_{0.1}$ )<sub>2</sub>( $\text{Ni}_{0.74}\text{Cu}_{0.21}\text{Ga}_{0.05}$ ) $\text{O}_{4+\delta}$   
J. Am. Chem. Soc., **132** (2010) 2385.

M.Yashima  
Crystal Structure Analysis of Catalysts  
Radioisotopes, **59** (2010) 221. (*in Japanese*).

N.Happo, M.Fujiwara, K.Tanaka, S.Hosokawa and  
K.Hayashi  
Lattice Distortion in  $\gamma$ -Ray Detector Material  
 $\text{Cd}_{0.96}\text{Zn}_{0.04}\text{Te}$  Probed by Zn  $K\alpha$  X-Ray Fluorescence  
Holography  
J. Elec. Spec. Relat. Phenom., **181** (2010) 154.

K.Fukuda, T.Saida, J.Sato, M.Yonezawa, Y.Takasu and  
W.Sugimoto  
Synthesis of Nanosheet Crystallites of Ruthenate with an  
 $\alpha$ - $\text{NaFeO}_2$  - Related Structure and its Electrochemical  
Supercapacitor Property  
Inorg. Chem., **49** (2010) 4391.

T.Shibata, Y.Ebina, T.Ohnishi, K.Takada, T.Kogure  
and T.Sasaki  
Fabrication of Anatase Thin Film with Perfect *c*-Axis  
Orientation on Glass Substrate Promoted by a Two-  
Dimensional Perovskite Nanosheet Seed Layer  
Crystal Growth & Design, **10** (2010) 3787.

M.Okube, Y.Kaneko, S.Ohsawa, T.Toyoda, T.Mori and  
S.Sasaki  
Site-Selective Determination of Magnetic Helices in  
 $\text{BaTiCoFe}_{10}\text{O}_{19}$  by Resonant Magnetic Scattering  
AIP Conf. Proc., **1234** (2010) 871.

Y.Kaneko, M.Okube and S.Sasaki  
Estimation of the Magnetic Electron-Density  
Distribution by RXMS at the Electronic Transition  
in Absorption Edge  
AIP Conf. Proc., **1234** (2010) 883.

N.Happo, K.Hayashi and S.Hosokawa  
Data Analysis of X-Ray Fluorescence Holography by  
Subtracting Normal Component from Inverse Hologram  
Jpn. J. Appl. Phys., **49** (2010) 116601.

K.Oda, K.Akita, N.Hisamori, F.Suzuki and S.Ohya  
X-Ray Residual Stress Measurement on Surface Treated  
Ti-6Al-4V Alloy  
Proc. of JSMS 44th Symposium on X-Ray Studies  
on Mechanical Behavior of Materials, (2010) 61. (*in  
Japanese*).

J.Sato, H.Kato, M.Kimura, K.Fukuda and W.Sugimoto  
Conductivity of Ruthenate Nanosheets Prepared via  
Electrostatic Self-Assembly: Characterization of Isolated  
Single Nanosheet Crystallite to Mono- and Multilayer  
Electrodes  
Langmuir, **26** (2010) 18049.

## 7A

K.Kanai, T.Miyazaki, H.Suzuki, M.Inaba, Y.Ouchi and  
K.Seki  
Effect of Annealing on the Electronic Structure of Poly(3-  
Hexylthiophene) Thin Film  
Phys. Chem. Chem. Phys., **12** (2010) 273.

R.Sumii and K.Amemiya  
NEXAFS Study of the Growth of 4-Cyano-4'-  
Iodobiphenyl Molecular Crystal on GeS(001)  
J. Elec. Spec. Relat. Phenom., **812** (2010) 51.

V.L.J.Joly, M.Kiguchi, S.-J.Hao and T.Enoki  
Observation of Magnetic Edge State in Graphene  
Nanoribbons  
Phys. Rev. B, **81** (2010) 245428.

T.Shimada, B.S.Mun, I.F.Nakai, A.Banno, H.Abe,  
Y.Iwasawa, T.Ohta and H.Kondoh  
Irreversible Change in the NO Adsorption State on  
Pt(111) under High Pressure Studied by AP-XPS,  
NEXAFS, and STM  
J. Phys. Chem. C, **114** (2010) 17030.

T.Enoki, V.Joly, M.Kiguchi and K.Takai  
Electronic Structure and Magnetic Property of Nano  
Graphene and Graphene Edge  
Kotaibutsuri, **45** (2010) 25. (*in Japanese*).

S.Wada and K.Tanaka  
Chemical Reaction by Core Electron Excitation  
J. Mass Spectrom. Soc. Jpn., **58** (2010) 17. (*in  
Japanese*).

## 7C

- H.Yoshitake, H.Nakajima, Y.Oumi and T.Sano  
Control of Spacing between Aminoalkyl Functions by Mesostructural Transition in a Polysilsesquioxane Lamellar Assembly  
*J. Mater. Chem.*, **20** (2010) 2024.
- K.Nakagawa, Y.Tanimoto, K.Sotowa and S.Sugiyama  
Preparation of Carbon-Supported Pt Catalysts Covered with Silica Layers and Application to Dehydrogenation Catalysts of Organic Hydride  
*Bull. Inst. Tech. Sci., Univ. Tokushima*, **55** (2010) 37. (*in Japanese*).
- S.Shironita, T.Takasaki, T.Kamegawa, K.Mori and H.Yamashita  
Synthesis of Nano-Sized Platinum Metal Particles on Ti-Containing Mesoporous Silica using Microwave-Assisted Deposition Method  
*Topics in Catal.*, **53** (2010) 218.
- K.Mori, Y.Kondo and H.Yamashita  
Direct Synthesis of Water-Dispersible FePt Nanoparticles Capped with L-Cysteine  
*J. Nanosci. Nanotechnol.*, **10** (2010) 222.
- Y.Fujimoto  
Local Structure of Infrared Bismuth Luminescent Center in Bismuth-Doped Silica Glass  
*J. Am. Ceram. Soc.*, **93** (2010) 581.
- A.Miyaake, Y.Masubuchi, T.Takeda and S.Kikkawa  
Indium and Gallium Oxynitrides Prepared in the Presence of  $Zn^{2+}$  by Ammonolysis of the Oxide Precursors Obtained via the Citrate Route  
*Mater. Res. Bulletin*, **45** (2010) 505.
- Y.Matsushima, R.Satoh, T.Kawai, K.Maeda and T.Suzuki  
Characterization of  $SnO_2$  Thin Films Prepared by a Liquid Phase Deposition Method and Dynamic Responses to Alcohol Vapors  
*J. Ceram. Soc. Jpn.*, **118** (2010) 206.
- K.Nakagawa, Y.Tanimoto, T.Okayama, K.Sotowa, S.Sugiyama and T.Moriga  
Catalytic Property of Carbon-Supported Pt Catalysts Covered with Organosilica Layers on Dehydrogenation of Organic Hydride  
*Studies Surf. Sci. Catal.*, **175** (2010) 201.
- K.Nakagawa, S.Takenaka, H.Matsune and M.Kishida  
Preparation of Silica-Coated Pt-Ni Alloy Nanoparticles using Microemulsion and Formation of Carbon Nanofibers by Ethylene Decomposition  
*Studies Surf. Sci. Catal.*, **175** (2010) 793.
- S.Shironita, M.Goto, T.Kamegawa, K.Mori and H.Yamashita  
Preparation of Highly Active Platinum Nanoparticles on ZSM-5 Zeolite Including Cerium and Titanium Dioxides as Photo-Assisted Deposition Sites  
*Catal. Today*, **153** (2010) 189.
- K.Mori and H.Yamashita  
Progress in Design and Architecture of Metal Nanoparticles for Catalytic Applications  
*Phys. Chem. Chem. Phys.*, **12** (2010) 14420.
- Y.Gonda and H.Yoshitake  
Adsorption of Transition Metal Cations onto a Lamellar Poly(3-aminopropyl)silsesquioxane: Cation-Cation Interaction and Transition of Adsorption Phase  
*J. Phys. Chem. C*, **114** (2010) 20076.
- N.Nakajima, M.Deguchi, H.Maruyama, K.Ishiji and Y.Tezuka  
X-Ray Spectroscopic Study on Photoluminescence Properties of Red Phosphor  $SrTiO_3:Pr^{3+},Al$   
*Jpn. J. Appl. Phys.*, **49** (2010) 09ME04.
- K.Asakura  
Atomic Aspects on Surface Chemical Reactions  
*Catal. Today*, **157** (2010) 2.
- O.Haruyama, T.Makimura, T.Miyakawa and K.Sugiyama  
A Study on Chemical Short Range Ordering in  $Pd_{40}Ni_{40}P_{20}$  Bulk Metallic Glass by Anomalous X-Ray Scattering  
*High Temp. Mater. Proc.*, **29** (2010) 381.
- T.Kamegawa, T.Shudo and H.Yamashita  
Preparation of Cr-Ti Binary Oxide Anchored Mesoporous Silica by CVD Method and their Photocatalytic Activities  
*Topics in Catal.*, **53** (2010) 555.
- K.Kakimoto, Y.Hayakawa and I.Kagomiya  
Low-Temperature Sintering of Dense (Li,Na,K)NbO<sub>3</sub> Lead-Free Piezoelectric Ceramics using the Citrate Precursor Technique  
*J. Am. Ceram. Soc.*, **93** (2010) 2423.
- Y.Inagaki, K.Kakimoto and I.Kagomiya  
Ferroelectric Domain Characterization of Orthorhombic Sodium-Potassium Niobate Piezoelectric Crystals  
*J. Am. Ceram. Soc.*, **93** (2010) 4061.
- T.Wada, K.K.Bando, T.Miyamoto, H.Ariga, S.Takakusagai, S.T.Oyama and K.Asakura  
Active Structure of Ni<sub>2</sub>P Hydrodesulfurization Catalysts and Sulfurization Effect  
*106th CATS Meeting Abstracts*, **52** (2010) 462. (*in Japanese*).

## 8A

- H.Sakai, S.Ishiwata, D.Okuyama, A.Nakao, H.Nakao, Y.Murakami, Y.Taguchi and Y.Tokura  
Electron Doping in the Cubic Perovskite SrMnO<sub>3</sub>: Isotropic Metal Versus Chainlike Ordering of Jahn-Teller Polarons  
*Phys. Rev. B*, **82** (2010) 180409.

## 8B

- R.Mitsubishi, Y.Suzuki, Y.Yamanari, H.Mitamura, T.Kambe, N.Ikeda, H.Okamoto, A.Fujiwara, M.Yamaji, N.Kawasaki, Y.Maniwa and Y.Kubozono  
Superconductivity in Alkali-Metal-Doped Picene  
*Nature*, **464** (2010) 76.
- T.Akitsu, M.Okawara and K.Sano  
Variable Temperature Powder X-Ray Synchrotron Diffraction Studies on Chiral Cu(II) and Dicyano Ag(I), Au(I) Bimetallic Assemblies  
*Asian Chemistry Letters*, **14** (2010) 1.
- A.Kobayashi, T.Yonemura and M.Kato  
Vapour-Induced Amorphous-Crystalline Transformation of a Luminescent Platinum(II)-Diimine Complex  
*Eur. J. Inorg. Chem.*, **2010** (2010) 2465.
- K.Kishimoto, T.Ishikura, H.Nakamura, Y.Wakabayashi and T.Kimura  
Antiferroelectric Lattice Distortion Induced by Ferroquadrupolar Order in DyVO<sub>4</sub>  
*Phys. Rev. B*, **82** (2010) 012103.
- A.Kobayashi, H.Hara, S.Noro and M.Kato  
Multifunctional Sensing Ability of a New Pt/Zn-Based Luminescent Coordination Polymer  
*Dalton Trans.*, **39** (2010) 3400.
- A.Kobayashi, M.Dosen, M.Chang, K.Nakajima, S.Noro and M.Kato  
Synthesis of Metal-Hydrazone Complexes and Vapochromic Behavior of their Hydrogen-Bonded Proton-Transfer Assemblies  
*J. Am. Chem. Soc.*, **132** (2010) 15286.
- H.Sakai, S.Ishiwata, D.Okuyama, A.Nakao, H.Nakao, Y.Murakami, Y.Taguchi and Y.Tokura  
Electron Doping in the Cubic Perovskite SrMnO<sub>3</sub>: Isotropic Metal Versus Chainlike Ordering of Jahn-Teller Polarons  
*Phys. Rev. B*, **82** (2010) 180409.
- K.Kishimoto, Y.Wakabayashi and T.Kimura  
Antiferroelectric Distortion Induced by Ferro-Quadrupolar Ordering in DyVO<sub>4</sub>  
*J. Cryst. Soc. Jpn.*, **52** (2010) 239. (*in Japanese*).
- T.Matsukawa, M.Yoshimura, K.Sasai, M.Uchiyama, M.Yamagishi, Y.Tominari, Y.Takahashi, J.Takeya, Y.Kitaoka, Y.Mori and T.Sasaki  
Growth of Thin Rubrene Single Crystals from 1-Propanol Solvent  
*J. Cryst. Growth*, **312** (2010) 310.
- M.Yamagishi, Y.Tominari, T.Uemura, K.Yamada and J.Takeya  
Air-Stable n-Channel Single-Crystal Field-Effect Transistors  
*J. Appl. Phys.*, **49** (2010) 01AB05.
- T.Uemura, M.Yamagishi, S.Ono and J.Takeya  
Very Low-Voltage Operation of Ionic Liquid-Gated n-Type Organic Field-Effect Transistors  
*J. Appl. Phys.*, **49** (2010) 01AB13.
- T.Uemura, M.Yamagishi, Y.Okada, K.Nakayama, M.Yoshizumi, M.Uno and J.Takeya  
Monolithic Complementary Inverters Based on Organic Single Crystals  
*Adv. Mater.*, **22** (2010) 3938.
- M.Yamagishi, J.Soeda, T.Uemura, Y.Okada and Y.Takatsuki  
Free-Electron-Like Hall Effect in High-Mobility Organic Thin-Film Transistors  
*Phys. Rev. B*, **81** (2010) 161306.
- M.Uno, Y.Hirose, T.Uemura, K.Takimiya, Y.Nakazawa and J.Takeya  
High-Power and High-Speed Organic Three-Dimensional Transistors with Submicrometer Channels  
*Appl. Phys. Lett.*, **97** (2010) 013301.
- M.Uno, Y.Hirose, K.Nakayama, T.Uemura, Y.Nakazawa, K.Takimiya and J.Takeya  
High-Power Organic Field-Effect Transistors Using a Three-Dimensional Structure  
*Mater. Res. Soc. Symp. Proc.*, **1270** (2010) II08-07.
- M.Yamagishi, T.Uemura, Y.Takatsuki, J.Soeda, Y.Okada, Y.Hirose, Y.Nakazawa, S.Shinamura, K.Takimiya and J.Takeya  
Hall Effect of Solution-Crystallized and Vapor-Deposited 2,7-dioctylbenzothieno[3,2-b]benzothiophene Field-Effect Transistors  
*Mater. Res. Soc. Symp. Proc.*, **1270** (2010) II06-20.
- T.Matsukawa, M.Yoshimura, M.Uchiyama, M.Yamagishi, A.Nakao, Y.Takahashi, J.Takeya, Y.Kitaoka, Y.Mori and T.Sasaki  
Polymorphs of Rubrene Crystal Grown from Solution  
*J. Appl. Phys.*, **49** (2010) 085502.
- K.Nakayama, M.Uno, T.Nishikawa, Y.Nakazawa and J.Takeya  
Air-Stable and High-Mobility Organic Thin-Film Transistors of Poly(2,5-bis(2-thienyl)-3,6-dihexadecylthieno[3,2-b]thiophene) on Low-Surface-Energy Self-Assembled Monolayers  
*Organic Electronics*, **11** (2010) 1620.
- J.Takeya, M.Uno and K.Nakayama  
Three-Dimensional Organic Field-Effect Transistors on Plastic Substrates: Flexible Transistors with Very High Output Current  
*Mater. Res. Soc. Symp. Proc.*, **1197** (2010) D09-05.

- E.M.Opiso, T.Sato, K.Morimoto, A.Asai, S.Anraku, C.Numako and T.Yoneda  
Incorporation of Arsenic during the Formation of Mg-Bearing Minerals at Alkaline Condition  
*Minerals Engineering*, **23** (2010) 230.
- Y.-F.Li, X.Wang, L.Wang, B.Li, Y.Gao and C.Chen  
Direct Quantitative Speciation of Selenium in Selenium-Enriched Yeast and Yeast-Based Products by X-Ray Absorption Spectroscopy Confirmed by HPLC-ICP-MS  
*J. Anal. At. Spectrom.*, **25** (2010) 426.
- T.Fujimori, M.Takaoka and S.Morisawa  
Chlorinated Aromatic Compounds in a Thermal Process Promoted by Oxychlorination of Ferric Chloride  
*Environ. Sci. Technol.*, **44** (2010) 1974.
- K.Mori, Y.Kondo and H.Yamashita  
Direct Synthesis of Water-Dispersible FePt Nanoparticles Capped with L-Cysteine  
*J. Nanosci. Nanotechnol.*, **10** (2010) 222.
- S.Mitsunobu, Y.Takahashi and Y.Terada  
 $\mu$ -XANES Evidence for the Reduction of Sb(V) to Sb(III) in Soil from Sb Mine Tailing  
*Environ. Sci. Technol.*, **44** (2010) 1281.
- K.Ishiji, M.Deguchi, K.Kawakami, N.Nakajima, T.Matsuda, H.Tokoro, S.Ohkoshi and T.Iwazumi  
Observation of the Fixed Fe-CN-Mn Cluster in Cesium Manganese Hexacyanoferrate  
*J. Phys. Soc. Jpn.*, **79** (2010) 074801.
- Y.Idemoto, K.Ueki and N.Kitamura  
Dependence of Average and Local Structures and Cathode Performance on Synthetic Condition of  $\text{Li}_x(\text{Mn}_{1/3}\text{Co}_{1/3}\text{Ni}_{1/3})\text{O}_2$  as a Cathode Active Material for Li Ion Battery  
*Electrochemistry*, **78** (2010) 475.
- Y.Matsushima, R.Satoh, T.Kawai, K.Maeda and T.Suzuki  
Characterization of  $\text{SnO}_2$  Thin Films Prepared by a Liquid Phase Deposition Method and Dynamic Responses to Alcohol Vapors  
*J. Ceram. Soc. Jpn.*, **118** (2010) 206.
- M.Uo, K.Asakura, K.Watanabe and F.Watari  
XAFS Analysis of the Bronchoalveolar Lavage Fluid of a Tungsten Carbide Pneumoconiosis Patient  
*Chem. Lett.*, **39** (2010) 852.
- S.Bellu, L.Sala, J.Gonzalez, S.Garcia, M.Frascaroli, P.Blanes, J.Garcia, J.S.Peregrin, A.Atria, J.Ferron, M.Harada, C.Cong and Y.Niwa  
Thermodynamic and Dynamic of Chromium Biosorption by Pectic and Lignocellulosic Biowastes  
*J. Water Resource and Protection*, **2** (2010) 888.
- T.Fujimori, Y.Fujinaga and M.Takaoka  
Deactivation of Metal Chlorides by Alkaline Compounds Inhibits Formation of Chlorinated Aromatics  
*Environ. Sci. Technol.*, **44** (2010) 7678.
- T.Hashimoto, T.Nishimura, J.M.Lim, D.Kim and H.Maeda  
Formation of Metal-Assisted Stable Double Helices in Dimers of Cyclic Bis-Tetrapyrroles that Exhibit Spring-Like Motion  
*Chem. Eur. J.*, **16** (2010) 11653.
- S.Shironita, M.Goto, T.Kamegawa, K.Mori and H.Yamashita  
Preparation of Highly Active Platinum Nanoparticles on ZSM-5 Zeolite Including Cerium and Titanium Dioxides as Photo-Assisted Deposition Sites  
*Catal. Today*, **153** (2010) 189.
- K.Mori and H.Yamashita  
Progress in Design and Architecture of Metal Nanoparticles for Catalytic Applications  
*Phys. Chem. Chem. Phys.*, **12** (2010) 14420.
- T.Fujimori, Y.Tanino, M.Takaoka and S.Morisawa  
Chlorination Mechanism of Carbon during Dioxin Formation using Cl-K Near-Edge X-Ray-Absorption Fine Structure  
*Anal. Sci.*, **26** (2010) 1119.
- N.Nakajima, M.Deguchi, H.Maruyama, K.Ishiji and Y.Tezuka  
X-Ray Spectroscopic Study on Photoluminescence Properties of Red Phosphor  $\text{SrTiO}_3:\text{Pr}^{3+},\text{Al}$   
*Jpn. J. Appl. Phys.*, **49** (2010) 09ME04.
- Y.Takahashi, M.Yamamoto, Y.Yamamoto and K.Tanaka  
EXAFS Study on the Cause of Enrichment of Heavy REEs on Bacterial Cell Surfaces  
*Geochim. Cosmochim. Acta*, **74** (2010) 5443.
- K.Asakura  
Atomic Aspects on Surface Chemical Reactions  
*Catal. Today*, **157** (2010) 2.
- T.Kashiwabara, Y.Takahashi, T.Uruga, H.Tanida, Y.Terada, Y.Niwa and M.Nomura  
Speciation of Tungsten in Natural Ferromanganese Oxides using Wavelength Dispersive XAFS  
*Chem. Lett.*, **39** (2010) 870.
- Y.Idemoto, H.Kotani and N.Kitamura  
Crystal and Electronic Structures of  $\text{Bi}_4(\text{Ti},\text{Si})_3\text{O}_{12}$  Ferroelectrics  
*J. Jpn. Soc. Powder Powder Metallurgy*, **57** (2010) 191. (*in Japanese*).
- M.Tada  
Surface-Mediated Design and Catalytic Properties of Active Metal Complexes for Advanced Catalysis Creation  
*Bull. Chem. Soc. Jpn.*, **83** (2010) 855.
- T.Takei, I.Okuda, K.K Bando, T.Akita and M.Haruta  
Gold Clusters Supported on  $\text{La}(\text{OH})_3$  for CO Oxidation at 193 K  
*Chem. Phys. Lett.*, **493** (2010) 207.

- K.Oka, Y.Shibata, T.Itoi and Y.Izumi  
Synthesis and Site Structure of a Replica Platinum-Carbon Composite Formed Utilizing Ordered Mesopores of Aluminum-MCM-41 for Catalysis in Fuel Cells  
*J. Phys. Chem. C*, **114** (2010) 1260.
- K.Nakagawa, Y.Tanimoto, K.Sotowa and S.Sugiyama  
Preparation of Carbon-Supported Pt Catalysts Covered with Silica Layers and Application to Dehydrogenation Catalysts of Organic Hydride  
*Bull. Inst. Tech. Sci., Univ. Tokushima*, **55** (2010) 37. (*in Japanese*).
- M.Kakiage, T.Tamura, S.Murakami, H.Takahashi, T.Yamanobe and H.Uehara  
Hierarchical Constraint Distribution of Ultra-High Molecular Weight Polyethylene Fibers with Different Preparation Methods  
*J. Mater. Sci.*, **45** (2010) 2574.
- N.Koizumi, Y.Hamabe, S.Jung, Y.Suzuki, S.Yoshida and M.Yamada  
In-situ Observation of Ni-Mo-S Phase Formed on NiMo/Al<sub>2</sub>O<sub>3</sub> Catalyst Sulfided at High Pressure by Means of Ni and Mo K-Edge EXAFS Spectroscopy  
*J. Synchrotron Rad.*, **17** (2010) 414.
- D.Shigeoka, H.Katayanagi, Y.Moro, S.Kimura, T.Hiroki, T.Mashino and Y.Ichianagi  
Production of Co-Ti Ferrite Nanoparticles for Use as Agents in Hyperthermia Treatment  
*J. Phys.: Conf. Ser.*, **200** (2010) 122002.
- Y.Ichianagi, Y.Moro, H.Katayanagi, S.Kimura, D.Shigeoka, T.Hiroki and T.Mashino  
Magnetic and thermal analysis of MFe<sub>2</sub>O<sub>4</sub> (M = Co, Mn, Zn) Nanoparticles  
*J. Therm. Anal. Calorim.*, **99** (2010) 83.
- M.Okubo, Y.Mizuno, H.Yamada, J.Kim, E.Hosono, H.Zhou, T.Kudo and I.Honma  
Fast Li-Ion Insertion into Nanosized LiMn<sub>2</sub>O<sub>4</sub> without Domain Boundaries  
*ACS Nano*, **4** (2010) 741.
- A.Miyaake, Y.Masubuchi, T.Takeda and S.Kikkawa  
Indium and Gallium Oxynitrides Prepared in the Presence of Zn<sup>2+</sup> by Ammonolysis of the Oxide Precursors Obtained via the Citrate Route  
*Mater. Res. Bulletin*, **45** (2010) 505.
- X.W.Zhu, Y.Masubuchi, T.Motohashi and S.Kikkawa  
Synthesis and Photoluminescence of Blue-Emitting 15R-Sialon:Eu<sup>2+</sup> Phosphors  
*J. Alloys and Compounds*, **496** (2010) 407.
- K.Nakagawa, Y.Tanimoto, T.Okayama, K.Sotowa, S.Sugiyama and T.Moriga  
Catalytic Property of Carbon-Supported Pt Catalysts Covered with Organosilica Layers on Dehydrogenation of Organic Hydride  
*Studies Surf. Sci. Catal.*, **175** (2010) 201.
- K.Nakagawa, S.Takenaka, H.Matsune and M.Kishida  
Preparation of Silica-Coated Pt-Ni Alloy Nanoparticles using Microemulsion and Formation of Carbon Nanofibers by Ethylene Decomposition  
*Studies Surf. Sci. Catal.*, **175** (2010) 793.
- H.Takagi, K.Yamamoto, S.Okamoto and S.Sakurai  
Characteristic Phase Behavior of Polybutadiene-*block*-Poly( $\epsilon$ -Caprolactone)/Polybutadiene Blend after Melting Crystalline-Amorphous Alternating Lamellar Structure  
*Polymer*, **51** (2010) 4160.
- H.Torigoe, T.Mori, K.Fujie, T.Ohkubo, A.Itadani, K.Gotoh, H.Ishida, H.Yamashita, T.Yumura, H.Kobayashi and Y.Kuroda  
Direct Information on Structure and Energetic Features of Cu<sup>+</sup>-Xe Species Formed in MFI-Type Zeolite at Room Temperature  
*J. Phys. Chem. Lett.*, **1** (2010) 2642.
- A.Itadani, M.Tanaka, T.Mori, H.Torigoe, H.Kobayashi and Y.Kuroda  
Potential for Fixation of N<sub>2</sub> at Room Temperature Utilizing a Copper-Ion-Exchanged MFI-Type Zeolite as an Adsorbent: Evaluation of the Bond Dissociation Energy of Adsorbed NN and the Bond Strength of the Cu<sup>+</sup>-N(N) Species  
*J. Phys. Chem. Lett.*, **1** (2010) 2385.
- A.Itadani, T.Yumura, T.Ohkubo, H.Kobayashi and Y.Kuroda  
Existence of Dual Species Composed of Cu<sup>+</sup> in CuMFI Being Bridged by C<sub>2</sub>H<sub>2</sub>  
*Phys. Chem. Chem. Phys.*, **12** (2010) 6455.
- H.Takagi, Y.Sugino, S.Hara, K.Yamamoto, S.Okamoto, S.Shimada and S.Sakurai  
Small Angle X-Ray Scattering Study on Phase Transition Behavior from Crystalline-Amorphous Alternative Lamellar Structure to Gyroid Phase of Semicrystalline Block Copolymer Polybutadiene-*block*-Poly( $\epsilon$ -Caprolactone)  
*Kobunshi Ronbunshu*, **67** (2010) 521. (*in Japanese*).
- A.Yamaguchi, N.Hiyoshi, O.Sato, M.Osada and M.Shirai  
Lignin Gasification over Charcoal-Supported Palladium and Nickel Bimetal Catalysts in Supercritical Water  
*Chem. Lett.*, **39** (2010) 1251.
- Y.Moro, H.Katayanagi, S.Kimura, D.Shigeoka, T.Hiroki, T.Mashino and Y.Ichianagi  
Size Control of Mn-Zn Ferrite Nanoparticles and their XAFS Spectra  
*Surf. Inter. Anal.*, **42** (2010) 1655.
- K.Yamamoto, N.Umegaki, T.Matsutani, H.Takagi, E.Ito and S.Sakurai  
Microphase Separated Structures of Block Copolymer Thin Film with Non-Volatile Selective Solvent  
*IOP Conf. Ser.: Materials Science and Engineering*, **14** (2010) 012002.



Y.Hamabe, S.Jung, H.Suzuki, N.Koizumi and M.Yamada  
Quasi *in situ* Ni K-Edge EXAFS Investigation of the Spent NiMo Catalyst from Ultra-Deep Hydrodesulfurization of Gas Oil in a Commercial Plant  
J. Synchrotron Rad., **17** (2010) 530.

H.Matsumori, S.Takenaka, H.Matsune and M.Kishida  
Preparation of Carbon Nanotube-Supported Pt Catalysts Covered with Silica Layers; Application to Cathode Catalysts for PEFC  
Appl. Catal. A, **373** (2010) 176.

S.Takenaka, A.Hirata, H.Matsune and M.Kishida  
Preparation of Carbon-Supported Pt-Co Alloy Nanoparticles for Oxygen Reduction Reaction: Promotion of Pt-Co Alloy Formation by Coverage with Silica  
Chem. Lett., **39** (2010) 458.

S.Takenaka, A.Hirata, E.Tanabe, H.Matsune and M.Kishida  
Preparation of Supported Pt-Co Alloy Nanoparticle Catalysts for the Oxygen Reduction Reaction by Coverage with Silica  
J. Catal., **274** (2010) 228.

S.Nozaawa, T.Sato, S.Adachi and S.Koshihara  
Detecting Ultrafast Switching of Molecular Magnetism and Structural Change by Pulsed Synchrotron X-Ray  
Miraizairyo, **10** (2010) 6. (*in Japanese*).

M.Tada  
Surface-Mediated Design and Catalytic Properties of Active Metal Complexes for Advanced Catalysis Creation  
Bull. Chem. Soc. Jpn., **83** (2010) 855.

Y.Ohashi, T.Motohashi, Y.Masubuchi and S.Kikkawa  
Crystal Structure and Superconductive Characteristics of Nb<sub>0.89</sub>Al<sub>0.11</sub> Oxynitrides  
J. Solid State Chem., **183** (2010) 1710.

T.Wada, K.K.Bando, T.Miyamoto, H.Ariga, S.Takakusagai, S.T.Oyama and K.Asakura  
Active Structure of Ni<sub>2</sub>P Hydrodesulfurization Catalysts and Sulfurization Effect  
106th CATSJ Meeting Abstracts, **52** (2010) 462. (*in Japanese*).

#### 10A

A.Yoshiasa, T.Ito, K.Sugiyama, A.Nakatsuka, M.Okube, M.Kurosawa and T.Katsura  
A Peculiar Site Preference of Boron in MgAl<sub>2-x</sub>B<sub>x</sub>O<sub>4</sub> (x = 0.0, 0.11 and 0.13) Spinel under High-Pressure and High-Temperature  
Z. Anorg. Allg. Chem., **636** (2010) 472.

M.Okube, Y.Kaneko, S.Ohsawa, T.Toyoda, T.Mori and S.Sasaki  
Site-Selective Determination of Magnetic Helices in BaTiCoFe<sub>10</sub>O<sub>19</sub> by Resonant Magnetic Scattering  
AIP Conf. Proc., **1234** (2010) 871.

Y.Kaneko, M.Okube and S.Sasaki  
Estimation of the Magnetic Electron-Density Distribution by RXMS at the Electronic Transition in Absorption Edge  
AIP Conf. Proc., **1234** (2010) 883.

R.Bagum, A.Yoshiasa, S.Okayasu, Y.Iguchi, M.Ono, M.Okube and T.Mashimo  
Effect of Strong Gravity on Y<sub>1</sub>Ba<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub> Superconductor  
J. Appl. Phys., **108** (2010) 053517.

#### Former 10B

K.Ishiji, M.Deguchi, K.Kawakami, N.Nakajima, T.Matsuda, H.Tokoro, S.Ohkoshi and T.Iwazumi  
Observation of the Fixed Fe-CN-Mn Cluster in Cesium Manganese Hexacyanoferrate  
J. Phys. Soc. Jpn., **79** (2010) 074801.

#### 10B

K.Shimura, S.Kato, T.Yoshida, H.Itoh, T.Hattori and H.Yoshida  
Photocatalytic Steam Reforming of Methane over Sodium Tantalate  
J. Phys. Chem. C, **114** (2010) 3493.

M.Tada  
Surface-Mediated Design and Catalytic Properties of Active Metal Complexes for Advanced Catalysis Creation  
Bull. Chem. Soc. Jpn., **83** (2010) 855.

#### 10C

S.Kato, H.Kamikubo, S.Hirano, Y.Yamazaki and M.Kataoka  
Nonlocal Interactions are Responsible for Tertiary Structure Formation in Staphylococcal Nuclease  
Biophys. J., **98** (2010) 678.

Y.Izumi, H.Ebisawa and Y.Jinbo  
Solution Structure of Apocalmodulin Bound to a Binding Domain Peptide from the IQ Motifs of Myosin V  
Bull. Yamagata Univ. (Eng.), **32** (2010) 1.

S.Nojima, Y.Ohguma, K.Kadena, T.Ishizone, Y.Iwasaki and K.Yamaguchi  
Crystal Orientation of Poly( $\epsilon$ -Caprolactone) Homopolymers Confined in Cylindrical Nanodomains  
Macromolecules, **43** (2010) 3916.

D.Q.Zou and H.Yoshida  
Size Effect of Silica Nanoparticles on Thermal Decomposition of PMMA  
J. Therm. Anal. Calor., **99** (2010) 21.

M.Sugiyama, N.Fujii, Y.Morimoto, K.Itoh, K.Mori, T.Fukunaga and N.Fujii  
SAXS and SANS Observations of Abnormal Aggregation of Human  $\alpha$ -Crystallin  
Chemistry & Biodiversity, **7** (2010) 1380.

T.Higa, H.Nagakura, T.Sakurai and S.Nojima  
Crystal Orientation of Poly( $\epsilon$ -Caprolactone) Blocks  
Confined in Crystallized Polyethylene Lamellar  
Morphology of Poly( $\epsilon$ -Caprolactone)-*Block*-Polyethylene  
Copolymers  
*Polymer*, **51** (2010) 5576.

M.T.Hossain, S.Teshiba, Y.Shigeoka, T.Fujisawa,  
Y.Inoko, D.Sakano, K.Yamamoto, Y.Banno and Y.Aso  
Structural Properties of Silkworm Small Heat-Shock  
Proteins: sHSP19.9 and sHSP20.8  
*Biosci. Biotechnol. Biochem.*, **74** (2010) 1556.

T.Onai and M.Hirai  
Morphology Transition of Raft-Model Membrane  
Induced by Osmotic Pressure: Formation of Double-  
Layered Vesicle Similar to an Endo- and/or Exocytosis  
*J. Phys.: Conf. Ser.*, **247** (2010) 012018.

### 11A

Md.A.Mannan, H.Noguchi, T.Kida, M.Nagano, N.Hirao  
and Y.Baba

Growth and Characterization of Stoichiometric BCN  
Films on Highly Oriented Pyrolytic Graphite by  
Radiofrequency Plasma Enhanced Chemical Vapor  
Deposition  
*Thin Solid Films*, **518** (2010) 4163.

D.Asakura, T.Koide, S.Yamamoto, K.Tsuchiya,  
T.Shioya, K.Amemiya, V.R.Singh, T.Kataoka,  
Y.Yamazaki, Y.Sakamoto, A.Fujimori, T.Taira and  
M.Yamamoto  
Magnetic States of Mn and Co Atoms at Co<sub>2</sub>MnGe/MgO  
Interfaces Seen via Soft X-Ray Magnetic Circular  
Dichroism  
*Phys. Rev. B*, **82** (2010) 184419.

### 11B

M.Kato, I.H.Suzuki, A.Nohtomi, Y.Morishita,  
T.Kurosawa and N.Saito  
Photon W-Value of Dry Air Determined using a  
Cryogenic Radiometer Combined with a Multi-Electrode  
Ion Chamber for Soft X-Rays  
*Radiat. Phys. Chem.*, **79** (2010) 397.

L.Wang, Y.-F.Li, L.Zhou, Y.Liu, L.Meng, K.Zhang,  
X.Wu, L.Zhang, B.Li and C.Chen  
Characterization of Gold Nanorods in vivo by Integrated  
Analytical Techniques: Their Uptake, Retention, and  
Chemical Forms  
*Anal. Bioanal. Chem.*, **396** (2010) 1105.

T.Fujimori, M.Takaoka and S.Morisawa  
Chlorinated Aromatic Compounds in a Thermal Process  
Promoted by Oxychlorination of Ferric Chloride  
*Environ. Sci. Technol.*, **44** (2010) 1974.

Y.Gonda, Y.Oumi, T.Sano and H.Yoshitake  
Structural Transformations of Lamellar Assembly of  
Polysilsesquioxane Nanosheets and Arsenate Adsorptions  
on Transformed Variants  
*Colloids and Surfaces A*, **360** (2010) 159.

T.Miyamoto, H.Niimi, Y.Kitajima, T.Naito and  
K.Asakura  
Ag L<sub>3</sub>-Edge X-Ray Absorption Near-Edge Structure of  
4d<sup>10</sup> (Ag<sup>+</sup>) Compounds: Origin of the Edge Peak and  
its Chemical Relevance  
*J. Phys. Chem. A*, **114** (2010) 4093.

K.Horiba, H.Kawanaka, Y.Aiura, T.Saitoh, C.Satoh,  
Y.Kikuchi, M.Yokoyama, Y.Nishihara, R.Eguchi,  
Y.Senba, H.Ohashi, Y.Kitajima and S.Shin  
Electronic Structure of SrRu<sub>1-x</sub>Mn<sub>x</sub>O<sub>3</sub> Studied by  
Photoemission and X-Ray Absorption Spectroscopy  
*Phys. Rev. B*, **81** (2010) 245127.

K.Ikeue, S.Shiiba and M.Machida  
Novel Visible-Light-Driven Photocatalyst Based on Mn-  
Cd-S for Efficient H<sub>2</sub> Evolution  
*Chem. Mater.*, **22** (2010) 743.

T.Fujimori, Y.Fujinaga and M.Takaoka  
Deactivation of Metal Chlorides by Alkaline Compounds  
Inhibits Formation of Chlorinated Aromatics  
*Environ. Sci. Technol.*, **44** (2010) 7678.

T.Fujimori, Y.Tanino, M.Takaoka and S.Morisawa  
Chlorination Mechanism of Carbon during Dioxin  
Formation using Cl-K Near-Edge X-Ray-Absorption Fine  
Structure  
*Anal. Sci.*, **26** (2010) 1119.

T.Inoue, K.Takehara, N.Shimizu, D.Ishijima, T.Katori  
and A.Ito  
Chemical Mapping of Sulfur-Containing Molecules in  
Human Hair using Soft X-Ray Microscopy  
*J. Soc. Cosmet. Chem. Jpn.*, **44** (2010) 223. (*in  
Japanese*).

K.Asakura, H.Niimi and M.Kato  
Energy Filtered X-Ray Photoemission Electron  
Microscopy  
*Advances in Imaging and Electron Physics*, **162** (2010)  
1.

### 11C

T.Sakurai, S.Toyoshima, H.Kitazume, S.Masuda, H.Kato  
and K.Akimoto  
Influence of Gap States on Electrical Properties at  
Interface between Bathocuproine and Various Types of  
Metals  
*J. Appl. Phys.*, **107** (2010) 043707.

### 11D

K.Ozawa and K.Mase  
Angle-Resolved Photoelectron Spectroscopy Study of  
Hydrogen Adsorption on ZnO(10 $\bar{1}$ 0)  
*Phys. Stat. Sol. (a)*, **207** (2010) 277.

K.Ozawa and K.Mase  
Metallization of ZnO(10 $\bar{1}$ 0) by Adsorption of Hydrogen,  
Methanol, and Water: Angle-Resolved Photoelectron  
Spectroscopy  
*Phys. Rev. B*, **81** (2010) 205322.

## 12A

S.Kitamoto, H.Murakami, Y.Shishido, N.Gotoh, T.Shibata, K.Saito, T.Watanabe, J.Kanai, E.Takenaka, K.Nagasaki, M.Yoshida, D.Takei and M.Morii  
X-Ray Polarimeter with a Transmission Multilayer  
Rev. Sci. Instrum., **81** (2010) 023105.

T.Ejima, F.Ishida, H.Murata, M.Toyoda, T.Harada, T.Tsuru, T.Hatano, M.Yanagihara, M.Yamamoto and H.Mizutani  
High Throughput and Wide Field of View EUV Microscope for Blur-Free One-Shot Imaging of Living Organisms  
Optics Express, **18** (2010) 7203.

T.Tsuru, Y.Sakai, T.Hatano and M.Yamamoto  
Area-Selected Ion Milling for Reflection Wavefront Error Correction of Soft X-Ray Multilayer Mirrors  
AIP Conf. Proc., **1234** (2010) 772.

H.Umetsu, Y.Sakai, T.Tsuru and M.Yamamoto  
Evaluation of Ion Milled Soft X-Ray Multilayer Mirrors for Reflection Wavefront Correction  
J. Vac. Soc. Jpn., **53** (2010) 368. (*in Japanese*).

T.Ejima, S.Ogasawara, T.Hatano, M.Yanagihara and M.Yamamoto  
Two-Dimensional Detector for High Resolution Soft X-Ray Imaging  
AIP Conf. Proc., **1234** (2010) 811.

H.Kumagai and M.Yanagihara  
Recent Progress on Fabrication Technology of Short-Wavelength Soft X-Ray Multilayers and their Application to Microscopy  
The Review of Laser Engineering, **38** (2010) 976. (*in Japanese*).

T.Tsuru, T.Hatano, T.Harada, M.Toyoda, T.Ejima, M.Yanagihara and M.Yamamoto  
Development of Wavefront Error Corrected Soft X-Ray Multilayer Mirrors for Ultra-High Definition Bio-Imaging  
Jpn. J. Optics, **39** (2010) 219. (*in Japanese*).

T.Tsuru, T.Hatano, T.Harada, and M.Yamamoto  
Development of High Throughput and Wavefront Error Corrected Soft X-Ray Multilayer Imaging Optics  
J. Jpn. Soc. Synchrotron Rad. Res., **23** (2010) 181. (*in Japanese*).

## 12C

M.Hatayama, K.Shinoda and C.Inoue  
Investigation of Arsenic Accumulation and Senescence by Measuring Possible Indicators of Arsenic Stress in *Pteris vittata*  
The 4th International Conference on Bioinformatics and Biomedical Engineering, (2010)

K.Oka, Y.Shibata, T.Itoi and Y.Izumi  
Synthesis and Site Structure of a Replica Platinum-Carbon Composite Formed Utilizing Ordered Mesopores of Aluminum-MCM-41 for Catalysis in Fuel Cells  
J. Phys. Chem. C, **114** (2010) 1260.

E.M.Opiso, T.Sato, K.Morimoto, A.Asai, S.Anraku, C.Numako and T.Yoneda  
Incorporation of Arsenic during the Formation of Mg-Bearing Minerals at Alkaline Condition  
Minerals Engineering, **23** (2010) 230.

L.Wang, Y.-F.Li, L.Zhou, Y.Liu, L.Meng, K.Zhang, X.Wu, L.Zhang, B.Li and C.Chen  
Characterization of Gold Nanorods in vivo by Integrated Analytical Techniques: Their Uptake, Retention, and Chemical Forms  
Anal. Bioanal. Chem., **396** (2010) 1105.

Y.-F.Li, X.Wang, L.Wang, B.Li, Y.Gao and C.Chen  
Direct Quantitative Speciation of Selenium in Selenium-Enriched Yeast and Yeast-Based Products by X-Ray Absorption Spectroscopy Confirmed by HPLC-ICP-MS  
J. Anal. At. Spectrom., **25** (2010) 426.

T.Kashiwabara, S.Mitsuo, A.Hokura, N.Kitajima, T.Abe and I.Nakai  
*In vivo* Micro X-Ray Analysis Utilizing Synchrotron Radiation of the Gametophytes of Three Arsenic Accumulating Ferns, *Pteris vittata* L., *Pteris cretia* L. and *Athyrium yokoscense*, in Different Growth Stages  
Metallomics, **2** (2010) 261.

Y.Fujimoto  
Local Structure of Infrared Bismuth Luminescent Center in Bismuth-Doped Silica Glass  
J. Am. Ceram. Soc., **93** (2010) 581.

S.Mitsunobu, Y.Takahashi and Y.Terada  
 $\mu$ -XANES Evidence for the Reduction of Sb(V) to Sb(III) in Soil from Sb Mine Tailing  
Environ. Sci. Technol., **44** (2010) 1281.

M.Ishikawa, M.Sekine, T.Usuki and T.Nasu  
Ionic Conduction and Local Structure in AgI-As<sub>2</sub>Se<sub>3</sub> Glasses  
J. Phys. Soc. Jpn., **79** (2010) 137.

D.Shigeoka, H.Katayanagi, Y.Moro, S.Kimura, T.Hiroki, T.Mashino and Y.Ichiyanagi  
Production of Co-Ti Ferrite Nanoparticles for Use as Agents in Hyperthermia Treatment  
J. Phys.: Conf. Ser., **200** (2010) 122002.

Y.Ichiyanagi, Y.Moro, H.Katayanagi, S.Kimura, D.Shigeoka, T.Hiroki and T.Mashino  
Magnetic and thermal analysis of MFe<sub>2</sub>O<sub>4</sub> (M = Co, Mn, Zn) Nanoparticles  
J. Therm. Anal. Calorim., **99** (2010) 83.

- K.Tanaka, Y.Takahashi, K.Horie, H.Shimizu and T.Murakami  
Determination of the Oxidation State of Radiogenic Pb in Natural Zircon using X-Ray Absorption Near-Edge Structure  
Phys. Chem. Minerals, **37** (2010) 249.
- D.N.Lobo, K.R.Priolkar, P.A.Bhobe, D.Krishnamurthy and S.Emura  
Correlation between Local Structural Distortions and Martensitic Transformation in Ni-Mn-In Alloys  
Appl. Phys. Lett., **96** (2010) 232508.
- M.Uo, K.Asakura, K.Watanabe and F.Watari  
XAFS Analysis of the Bronchoalveolar Lavage Fluid of a Tungsten Carbide Pneumoconiosis Patient  
Chem. Lett., **39** (2010) 852.
- T.A.Yamamoto, T.Nakagawa, S.Seino and H.Nitani  
Bimetallic Nanoparticles of PtCu and PtNi; Synthesis and CO Oxidation Catalysis  
2009 MRS Fall Meeting Symposium Y proc., **1217** (2010)
- T.Itai, Y.Takahashi, A.A.Seddique, T.Maruoka and M.Mitamura  
Variations in the Redox State of As and Fe Measured by X-Ray Absorption Spectroscopy in Aquifers of Bangladesh and their Effect on As Adsorption  
Applied Geochemistry, **25** (2010) 34.
- H.Nagatani, H.Tanida, M.Harada, M.Asada and T.Sagara  
Polarized Total-Reflection X-Ray Absorption Fine Structure of Zinc(II) Porphyrin at the Heptane-Water Interface  
J. Phys. Chem. C, **114** (2010) 18583.
- M.Tada, Y.Uemura, R.Bal, Y.Inada, M.Nomura and Y.Iwasawa  
*In situ* Time-Resolved DXAFS for the Determination of Kinetics of Structural Changes of H-ZSM-5-Supported Active Re-Cluster Catalyst in the Direct Phenol Synthesis from Benzen and O<sub>2</sub>  
Phys. Chem. Chem. Phys., **12** (2010) 5701.
- S.Hayakawa, Y.Kubouchi, T.Hayashi, T.Onakado, H.Namatame and T.Hirokawa  
X-Ray Absorption Near Edge Structure Study on Valence Changes of Ni and Co in Li<sub>1-x</sub>Ni<sub>0.82</sub>Co<sub>0.15</sub>M<sub>0.03</sub>O<sub>2</sub> (M = Nb, Ti) Cathode Materials  
Electrochemistry, **78** (2010) 454.
- K.Tanaka, Y.Tani, Y.Takahashi, M.Tanimizu, Y.Suzuki, N.Kozai and T.Ohnuki  
A Specific Ce Oxidation Process during Sorption of Rare Earth Elements on Biogenic Mn Oxide Produced by *Acremonium* sp. Strain KR21-2  
Geochim. Cosmochim. Acta, **74** (2010) 5463.
- K.Maeda, D.Lu, K.Teramura and K.Domen  
Simultaneous Photodeposition of Rhodium-Chromium Nanoparticles on a Semiconductor Powder: Structural Characterization and Application to Photocatalytic Overall Water Splitting  
Energy Environ. Sci., **3** (2010) 471.
- K.Maeda, N.Sakamoto, T.Ikeda, H.Ohtsuka, A.Xiong, D.Lu, M.Kanehara, T.Teranishi and K.Domen  
Preparation of Core-Shell-Structured Nanoparticles (with a Noble-Metal or Metal Oxide Core and a Chromia Shell) and their Application in Water Splitting by Means of Visible Light  
Chem. Eur. J., **16** (2010) 7750.
- Y.Moro, H.Katayanagi, S.Kimura, D.Shigeoka, T.Hiroki, T.Mashino and Y.Ichiyanagi  
Size Control of Mn-Zn Ferrite Nanoparticles and their XAFS Spectra  
Surf. Inter. Anal., **42** (2010) 1655.
- P.S.R.Murthy, K.R.Priolkar, P.A.Bhobe, A.Das, P.R.Sarode and A.K.Nigam  
Disorder Induced Negative Magnetization in LaSrCoRuO<sub>6</sub>  
J. Magn. Magn. Mater., **322** (2010) 3704.
- Y.Takahashi, M.Yamamoto, Y.Yamamoto and K.Tanaka  
EXAFS Study on the Cause of Enrichment of Heavy REEs on Bacterial Cell Surfaces  
Geochim. Cosmochim. Acta, **74** (2010) 5443.
- M.Uo, K.Asakura, E.Watanabe, I.Hayashi, T.Yanagi, H.Shimizu and F.Watari  
A Study of Zinc Contained in Yellow and Black Discolored Nails by X-Ray Fluorescence and X-Ray Absorption Fine Structure Analyses  
Nano Biomedicine, **2** (2010) 103.
- Y.Huang, M.Hatayama and C.Inoue  
Characterization of Pteris vittata Rhizosphere during Treatment of Arsenite in Hydroponics  
Proc. 2010 International Conference on Chemical Engineering (ICCCE 2010), (2010) 296.
- W.Nakbanpote, N.Panitlertumpai, K.Sukadeetad, O.Meesungneon and W.Noisa-Nguan  
Advances in Phytoremediation Research: A Case Study of *Gynura pseudochina* (L.) DC.  
Advanced Knowledge Application in Practice, (2010) 353.
- N.Kawasaki, S.Hamanaka, H.Wang, T.Yokoyama, H.Yoshikawa and K.Awaga  
Fabrication of Molecular Cluster-Nanocarbon Hybrid Materials and their Applications to Cathode Materials  
The Bulletin of the Nano Science and Technology, **9** (2010) 27. (*in Japanese*).

T.Kashiwabara, Y.Takahashi, T.Uruga, H.Tanida, Y.Terada, Y.Niwa and M.Nomura  
Speciation of Tungsten in Natural Ferromanganese Oxides using Wavelength Dispersive XAFS  
Chem. Lett., **39** (2010) 870.

K.Fukumi, A.Chayahara, H.Kageyama, N.Kitamura, J.Nishii, K.Handa, J.Ide and K.Kadono  
Structure of Br Ions in Br-Ion-Implanted Silica Glass  
Trans. Mater. Res. Soc. Jpn., **35** (2010) 769.

Y.Idemoto, H.Kotani and N.Kitamura  
Crystal and Electronic Structures of  $\text{Bi}_4(\text{Ti,Si})_3\text{O}_{12}$  Ferroelectrics  
J. Jpn. Soc. Powder Powder Metallurgy, **57** (2010) 191.  
(*in Japanese*).

M.Tada  
Surface-Mediated Design and Catalytic Properties of Active Metal Complexes for Advanced Catalysis Creation  
Bull. Chem. Soc. Jpn., **83** (2010) 855.

### Former 13A

T.Kubo, T.Kondo, A.Shimajuku, T.Kuwabara, T.Kato, T.Kikegawa, N.Hirao and Y.Ohishi  
Time-Resolved Two-Dimensional X-Ray Diffraction Measurements of Kinetic Properties in Polycrystalline High-Pressure Ices  
J. Phys. Conf. Ser., **215** (2010) 012022.

S.Ono  
The Equation of State of B2-Type NaCl  
J. Phys.: Conf. Ser., **215** (2010) 012196.

S.Ono and K.Mibe  
Magnetic Transition of Iron Carbide at High Pressures  
Phys. Earth Planet. Inter., **180** (2010) 1.

D.Nishio-Hamane, A.Shimizu, R.Nakahira, K.Niwa, A.Sano-Furukawa, T.Okada, T.Yagi and T.Kikegawa  
The Stability and Equation of State for the Cotunnite Phase of  $\text{TiO}_2$  up to 70 GPa  
Phys. Chem. Minerals, **37** (2010) 129.

K.N.Matsukage, S.Kikuchi, S.Ono, Y.Nishihara and T.Kikegawa  
Density and Seismic Velocities of Chromitite Body in Oceanic Mantle Peridotite  
Am. Mineral., **95** (2010) 1422.

### 13A

K.Mase, A.Toyoshima, T.Kikuchi, H.Tanaka, K.Amemiya and K.Ito  
Construction of a New VUV/Soft X-Ray Undulator Beamline BL-13A in the Photon Factory for Study of Organic Thin Films and Biomolecules Adsorbed on Surfaces  
AIP Conf. Proc., **1234** (2010) 703.

K.Mase, T.Kikuchi, H.Tanaka, A.Toyoshima and F.Watanabe  
Development of One-Body Type Water- and Air-Cooling Fixed Masks Made of Forged 0.2% Beryllium Copper Alloy  
J. Vac. Soc. Jpn., **53** (2010) 454.

T.Kikuchi, H.Tanaka, A.Toyoshima and K.Mase  
Construction of Simple Non-Evaporable Getter Assemblies using St707 Strips  
J. Vac. Soc. Jpn., **53** (2010) 533.

T.Okada, T.Yagi, K.Niwa and T.Kikegawa  
Lattice-Preferred Orientations in Post-Perovskite-Type  $\text{MgGeO}_3$  Formed by Transformations from Different Pre-Phases  
Physics of the Earth and Planetary Interiors, **180** (2010) 195.

### Former 13B1

C.J.Zhang, H.Oyanagi, Z.H.Sun, Y.Kamihara and H.Hosono  
Electronic and Lattice Structures in  $\text{SmFeAsO}_{1-x}\text{F}_x$  Probed by X-Ray Absorption Spectroscopy  
Phys. Rev. B, **81** (2010) 094516.

Z.H.Sun, H.Oyanagi, H.Nakamura, Y.Jiang, L.Zhang, M.Uehara, K.Yamashita, A.Fukano and H.Maeda  
Ligand Effects of Amine on the Initial Nucleation and Growth Processes of CdSe Nanocrystals  
J. Phys. Chem. C, **114** (2010) 10126.

### Former 13C

F.Esaka, H.Yamamoto, N.Matsubayashi, Y.Yamada, M.Sasase, K.Yamaguchi, S.Shamoto, M.Magara and T.Kimura  
X-Ray Photoelectron and X-Ray Absorption Spectroscopic Study on  $\beta\text{-FeSi}_2$  Thin Films Fabricated by Ion Beam Sputter Deposition  
Appl. Surf. Sci., **256** (2010) 3155.

P.-L.Girard-Lauriault, I.Retzko, S.Swaraj, N.Matsubayashi, T.Gross, R.Mix and W.E.S.Unger  
Non-Destructive Sub-Surface Chemical Characterization of Air-Exposed Plasma Polymers by Energy-Resolved XPS  
Plasma Process. Polym., **7** (2010) 474.

Y.Mera, S.Liang, T.Fujiwara, K.Ishizaki, T.Kakiuchi, K.Mase, E.Kobayashi, K.Okudaira and K.Maeda  
Hydrogen Ion Desorption from Amorphous Carbon Films Induced by Resonant Core Electron Excitations  
Nucl. Instrum. Meth. Phys. Res. B, **268** (2010) 127.

Y.Mera, T.Fujiwara, K.Ishizaki, R.Xiang, J.Shiomi, S.Maruyama, T.Kakiuchi, K.Mase and K.Maeda  
Ion Desorption from Single-Walled Carbon Nanotubes Induced by Soft X-Ray Illumination  
Jpn. J. Appl. Phys., **49** (2010) 105104.

### 14A

N.Ishizawa, M.Kamoshita, K.Fukuda, K.Shioi and N.Hirosaki  
 $\text{Sr}_3(\text{Al}_{3+x}\text{Si}_{13-x})(\text{N}_{21-x}\text{O}_{2+x})\text{:Eu}^{2+}$  ( $x \sim 0$ ): a  
 Monoclinic Modification of Sr-Sialon  
 Acta Cryst. E, **66** (2010) i14.

J.Wang, N.Ishizawa, K.Mochizuki and S.Kawaminami  
 Thermal Expansion of the CZ-Grown  $\text{LaAlO}_3$  Single  
 Crystal at High Temperatures  
 J. Flux Growth, **5** (2010) 2.

R.Haruki, K.Shibuya, F.Nishikido, M.Koshimizu,  
 Y.Yoda and S.Kishimoto  
 Investigation on New Scintillators for Subnanosecond  
 Time-Resolved X-Ray Measurements  
 J. Phys.: Conf. Ser., **217** (2010) 012007.

S.Kishimoto, T.Taniguchi, M.Tanaka, T.Mitsui and  
 M.Seto  
 A Si-APD Array Detector for Nuclear Resonant  
 Scattering using Synchrotron X-Rays and its Fast-Pulse  
 Processing  
 Nucl. Instrum. Meth. Phys. Res. A, **623** (2010) 608.

S.Kishimoto, T.Taniguchi and M.Tanaka  
 500-MHz X-Ray Counting with a Si-APD and a Fast-  
 Pulse Processing System  
 AIP Conf. Proc., **1234** (2010) 819.

S.Kishimoto  
 Measurement of Nuclear Resonant Scattering using  
 Synchrotron Radiation with a Fast Scintillator  
 Houshasen, **35** (2010) 269. (*in Japanese*).

K.Asakura  
 Atomic Aspects on Surface Chemical Reactions  
 Catal. Today, **157** (2010) 2.

#### 14C

A.Momose and W.Yashiro  
 X-Ray Phase Measurements with Talbot Interferometry  
 and Its Applications  
 AIP Conf. Proc., **1236** (2010) 195.

A.Momose, W.Yashiro, S.Huang, H.Kuwabara and  
 K.Kawabata  
 High-Speed X-Ray Phase Imaging with Grating  
 Interferometer and White Synchrotron Light  
 AIP Conf. Proc., **1234** (2010) 441.

S.Takeya, A.Yoneyama, J.Miyamoto, Y.Gotoh, K.Ueda,  
 K.Hyodo and T.Takeda  
 Phase-Contrast X-Ray Imaging of the Gas Diffusion  
 Layer of Fuel Cells  
 J. Synchrotron Rad., **17** (2010) 813.

A.Momose, W.Yashiro, S.Harasse, H.Kuwabara and  
 K.Kawabata  
 Four-Dimensional X-Ray Phase Tomography with Talbot  
 Interferometer and White Synchrotron Light  
 Proc. SPIE, **7804** (2010) 780405.

M.Ando and Q.Huo  
 Feasibility Study towards Synchrotron Radiation  
 Mammography and X-Ray Pathology: View from X-Ray  
 Optics  
 Med. Imag. Tech., **28** (2010) 90. (*in Japanese*).

N.Sunaguchi, T.Yuasa, Q.Huo, S.Ichihara and M.Ando  
 X-Ray Refraction-Contrast Computed Tomography  
 Images using Dark-Field Imaging Optics  
 Appl. Phys. Lett., **97** (2010) 153701.

S.Ichihara, K.Mori, T.Yuasa, M.Ando and A.Maximenko  
 Visualizing 3D Structure of High-Grade Ductal  
 Carcinoma in situ of the Breast using Refraction-  
 Based X-Ray CT  
 Med. Imag. Tech., **28** (2010) 102. (*in Japanese*).

#### 14C1

Y.Kirihara, Y.Namito, H.Iwase and H.Hirayama  
 Monte Carlo Simulation of Tabata's Electron  
 Backscattering Experiments  
 Nucl. Instrum. Meth. Phys. Res. B, **268** (2010) 2384.

W.Yashiro, Y.Terui, K.Kawabata and A.Momose  
 On the Origin of Visibility Contrast in X-Ray Talbot  
 Interferometry  
 Optics Express, **18** (2010) 16890.

N.Sunaguchi and T.Yuasa  
 Computed Tomography Based on Refraction Contrast  
 Med. Imag. Tech., **28** (2010) 96. (*in Japanese*).

#### 14C2

T.Kubo, M.Kimura, T.Kato, M.Nishi, A.Tominaga,  
 T.Kikegawa and K.Funakoshi  
 Plagioclase Breakdown as an Indicator for Shock  
 Conditions of Meteorites  
 Nature Geoscience, **3** (2010) 41.

H.Terasaki, K.Nishida, Y.Shibazaki, T.Sakamaki,  
 A.Suzuki, E.Ohtani and T.Kikegawa  
 Density Measurement of  $\text{Fe}_3\text{C}$  Liquid using X-Ray  
 Absorption Image up to 10 GPa and Effect of Light  
 Elements on Compressibility of Liquid Iron  
 J. Geophys. Res., **115** (2010) B06207.

T.Sato and N.Funamori  
 High-Pressure Structural Transformation of  $\text{SiO}_2$  Glass  
 up to 100 GPa  
 Phys. Rev. B, **82** (2010) 184102.

T.Sato, N.Funamori and T.Kikegawa  
 High-Pressure *in situ* Structure Measurement of Low-Z  
 Noncrystalline Materials with a Diamond-Anvil Cell by  
 an X-Ray Diffraction Method  
 Rev. Sci. Instrum., **81** (2010) 043906.

#### 15A

- T.Matsuo, Y.Ueno, Y.Takezawa, Y.Sugimoto, T.Oda and K.Wakabayashi  
X-Ray Fiber Diffraction Modeling of Structural Changes of the Thin Filament upon Activation of Live Vertebrate Skeletal Muscles  
BIOPHYSICS, **6** (2010) 13.
- H.Watanabe, Y.Obata, Y.Onuki, K.Ishida and K.Takayama  
Novel Preparation of Intercellular Lipid Models of the Stratum Corneum Containing Stereoactive Ceramide  
Chem. Pharm. Bull., **58** (2010) 312.
- K.Wakabayashi, Y.Sugimoto, Y.Takezawa, K.Oshima, T.Matsuo, Y.Ueno and T.C.Irving  
Muscle Contraction Mechanism: Use of Synchrotron X-Ray Diffraction  
Encyclopedia of Life Sciences(ELS). J.Wiley and Sons, Ltd: Chichester, (2010) 1.
- T.Morita, E.Tanaka, Y.Inagaki, H.Hotta, R.Shingai, Y.Hatakeyama, K.Nishikawa, H.Murai, H.Nakano and K.Hino  
Aspect-Ratio Dependence on Formation Process of Gold Nanorods Studied by Time-Resolved Distance Distribution Functions  
J. Phys. Chem. C, **114** (2010) 3804.
- Y.Kezuka, M.Kojima, R.Mizuno, K.Suzuki, T.Watanabe and T.Nonaka  
Structure of Full-Length Class I Chitinase from Rice Revealed by X-Ray Crystallography and Small-Angle X-Ray Scattering  
Proteins, **78** (2010) 2295.
- A.Noro, Y.Sageshima, S.Arai and Y.Matsushita  
Preparation and Morphology Control of Block Copolymer/Metal Salt Hybrids via Solvent-Casting by Using a Solvent with Coordination Ability  
Macromolecules, **43** (2010) 5358.
- Y.Kosaka, M.Ito, Y.Kawabata and T.Kato  
Lamellar-to-Onion Transition with Increasing Temperature under Shear Flow in a Nonionic Surfactant/Water System  
Langmuir, **26** (2010) 3835.
- H.Takagi, K.Yamamoto, S.Okamoto and S.Sakurai  
Characteristic Phase Behavior of Polybutadiene-*block*-Poly( $\epsilon$ -Caprolactone)/Polybutadiene Blend after Melting Crystalline-Amorphous Alternating Lamellar Structure  
Polymer, **51** (2010) 4160.
- H.Mori, S.Kutsumizu, K.Saito, K.Yamamoto, S.Sakurai and K.Sakajiri  
Temperature-Jump Time-Resolved X-Ray Diffraction Study of Cubic-Cubic Phase-Transition Kinetics in Thermotropic Cubic Mesogen 1,2-Bis(4'-n-Alkoxybenzoyl)Hydrazines (BABH-n)  
Langmuir, **26** (2010) 11605.
- S.Kutsumizu and K.Saito  
The Aggregation Structures of Ia3d and Im3m Cubic Phases Formed by Rod-Shaped Mesogens ANBC and BABH  
Proc. SPIE, **7775** (2010) 777506.
- M.Kinoshita, K.Ito and S.Kato  
Kinetics for the Subgel Phase Formation in DPPC/DOPC Mixed Bilayers  
Chem. Phys. Lipids, **163** (2010) 712.
- H.Takagi, Y.Sugino, S.Hara, K.Yamamoto, S.Okamoto, S.Shimada and S.Sakurai  
Small Angle X-Ray Scattering Study on Phase Transition Behavior from Crystalline-Amorphous Alternative Lamellar Structure to Gyroid Phase of Semicrystalline Block Copolymer Polybutadiene-*block*-Poly( $\epsilon$ -Caprolactone)  
Kobunshi Ronbunshu, **67** (2010) 521. (*in Japanese*).
- Y.Matsumura, M.Shinjo, A.Mahajan, M.-D.Tsai and H.Kihara  
 $\alpha$ -Helical Burst on the Folding Pathway of FHA Domains from Rad53 and Ki67  
Biochimie, **92** (2010) 1031.
- H.Okuda, M.Kato, K.Kuno, S.Ochiai, N.Usami, K.Nakajima and O.Sakata  
A Grazing Incidence Small-Angle X-Ray Scattering Analysis on Capped Ge Nanodots in Layer Structures  
J. Phys.: Condens. Matter, **22** (2010) 474003.
- K.Yamamoto, N.Umegaki, T.Matsutani, H.Takagi, E.Ito and S.Sakurai  
Microphase Separated Structures of Block Copolymer Thin Film with Non-Volatile Selective Solvent  
IOP Conf. Ser.: Materials Science and Engineering, **14** (2010) 012002.
- H.Watanabe, Y.Obata, Y.Onuki, K.Ishida and K.Takayama  
Different Effects of *l*- and *d*-Menthol on the Microstructure of Ceramide 5/Cholesterol/Palmitic Acid Bilayers  
International Journal of Pharmaceutics, **402** (2010) 146.
- Y.Suganuma, M.Imai, T.Kato, U.Olsson and T.Takahashi  
Order-Disorder Transition of Nonionic Onions under Shear Flow  
Langmuir, **26** (2010) 7988.

## 15B1

- M.Terabe, K.Inoue, H.Okamoto and K.Koshida  
Coherent Scatter Tomography using a Sliding Detector System  
Proc. SPIE, **7622** (2010) 76224I.

W.Voegeli, T.Takayama, T.Shirasawa, M.Abe, K.Kubo, T.Takahashi, K.Akimoto and H.Sugiyama  
Structure of the Quasi-One-Dimensional Si(553)-Au Surface: Gold Dimer Row and Silicon Honeycomb Chain  
Phys. Rev. B, **82** (2010) 075426.

### 15B2

W.Voegeli, T.Takayama, T.Shirasawa, M.Abe, K.Kubo, T.Takahashi, K.Akimoto and H.Sugiyama  
Structure of the Quasi-One-Dimensional Si(553)-Au Surface: Gold Dimer Row and Silicon Honeycomb Chain  
Phys. Rev. B, **82** (2010) 075426.

### 15C

T.Fukamachi, M.Tohyama, K.Hirano, M.Yoshizawa, R.Negishi, D.Ju, K.Hirano and T.Kawamura  
Interference Fringes in Multiple Bragg-Laue Mode and Mirage Fringes from Bent Crystals  
Acta Cryst. A, **66** (2010) 421.

H.Yamaguchi and H.Matsuhata  
Threading Screw Dislocations in 4H-SiC Wafer Observed by the Weak-Beam Method in Bragg-Case X-Ray Topography  
J. Electron. Mater., **39** (2010) 715.

T.Matsushita, E.Arakawa, T.Harada, T.Hatano, Y.Higashi, Y.F.Yano, Y.Niwa, Y.Inada, S.Nagano and T.Seki  
Time-Resolved X-Ray Reflectometry in the Multiwavelength Dispersive Geometry  
AIP Conf. Proc., **1234** (2010) 927.

T.Hatano, T.Harada, T.Matsushita, E.Arakawa and Y.Higashi  
Fabrication and Characterization of Elliptically-Curved, Laterally-Graded Multilayers for Focusing X-Ray Polychromator Applications  
AIP Conf. Proc., **1234** (2010) 669.

K.Akimoto and T.Emoto  
Quantitative Strain Analysis of Surfaces and Interfaces using Extremely Asymmetric X-Ray Diffraction  
J. Phys.: Condens. Matter, **22** (2010) 473001.

### 16A

K.Amemiya, A.Toyoshima, T.Kikuchi, T.Kosuge, K.Nigorikawa, R.Sumii and K.Ito  
Commissioning of a Soft X-Ray Beamline PF-BL-16A with a Variable-Included-Angle Varied-Line-Spacing Grating Monochromator  
AIP Conf. Proc., **1234** (2010) 295.

Y.Hikosaka, P.Lablanquie, F.Penent, E.Shigemasa, J.H.D.Eland and K.Ito  
Two-Electron Emissions on Atomic Photoabsorption Studied by Multi-Electron Coincidence Spectroscopy  
J. Elec. Spec. Relat. Phenom., **181** (2010) 121.

D.Asakura, T.Koide, S.Yamamoto, K.Tsuchiya, T.Shioya, K.Amemiya, V.R.Singh, T.Kataoka, Y.Yamazaki, Y.Sakamoto, A.Fujimori, T.Taira and M.Yamamoto  
Magnetic States of Mn and Co Atoms at Co<sub>2</sub>MnGe/MgO Interfaces Seen via Soft X-Ray Magnetic Circular Dichroism  
Phys. Rev. B, **82** (2010) 184419.

### Former 16A1

K.Sakurai and M.Mizusawa  
Rapid X-Ray Diffraction Imaging of Anatase and Rutile  
Anal. Chem., **82** (2010) 3519.

### Former 16B

S.Sheinerman, P.Lablanquie, F.Penent, Y.Hikosaka, T.Kaneyasu, E.Shigemasa and K.Ito  
PCI Effects in Argon 2p Double Auger Decay Probed by Multielectron Coincidence Methods  
J. Phys. B, **43** (2010) 115001.

### 17A

Z.Li, B.Zhao, P.Wang, F.Chen, Z.Dong, H.Yang, K.-L.Guan and Y.Xu  
Structural Insights into the YAP and TEAD Complex Genes and Development, **24** (2010) 235.

M.Hidaka, S.Fushinobu, Y.Honda, T.Wakagi, H.Shoun and M.Kitaoka  
Structural Explanation for the Acquisition of Glycosynthase Activity  
J. Biochem., **147** (2010) 237.

M.Miyata, T.Sato, M.Mizuguchi, T.Nakamura, S.Ikemizu, Y.Nabeshima, S.Susuki, Y.Suwa, H.Morioka, Y.Ando, M.A.Suico, T.Shuto, T.Koga, Y.Yamagata and H.Kai  
Role of the Glutamic Acid 54 Residue in Transthyretin Stability and Thyroxine Binding  
Biochemistry, **49** (2010) 114.

Z.Li, K.Zhang, Y.Zhai, Q.Zhou, Y.Geng and F.Sun  
Cloning, Expression, Purification and Preliminary Crystallographic Analysis of Enoyl-CoA Hydratase  
Acta Biophys. Sinica, **26** (2010) 37. (*in Chinese*).

H.S.Kim, H.L.Kim, K.H.Kim, D.J.Kim, S.J.Lee, J.Y.Yoon, H.J.Yoon, H.Y.Lee, S.B.Park, S.-J.Kim, J.Y.Lee and S.W.Suh  
Crystal Structure of Tpa1 from *Saccharomyces cerevisiae*, a Component of the Messenger Ribonucleoprotein Complex  
Nucl. Acids Res., **38** (2010) 2099.

N.Yasui, T.Nogi and J.Takagi  
Structural Basis for Specific Recognition of Reelin by its Receptors  
Structure, **18** (2010) 320.



- S.J.Li, Q.Zhao, Q.Zhou, H.Unno, Y.Zhai and F.Sun  
The Role and Structure of the Carboxyl-Terminal Domain of the Human Voltage-Gated Proton Channel Hv1  
*J. Biol. Chem.*, **285** (2010) 12047.
- H.Yoshida, M.Yamaji, T.Ishii, K.Izumori and S.Kamitori  
Catalytic Reaction Mechanism of *Pseudomonas stutzeri* L-Rhamnose Isomerase Deduced from X-Ray Structures  
*FEBS J.*, **277** (2010) 1045.
- K.Hara, H.Hashimoto, Y.Murakumo, S.Kobayashi, T.Kogame, S.Unzai, S.Akashi, S.Takeda, T.Shimizu and M.Sato  
Crystal Structure of Human REV7 in Complex with a Human REV3 Fragment and Structural Implication of the Interaction between DNA Polymerase  $\zeta$  and REV1  
*J. Biol. Chem.*, **285** (2010) 12299.
- K.Fujiwara, N.Maita, H.Hosaka, K.Okamura-Ikeda, A.Nakagawa and H.Taniguchi  
Global Conformational Change Associated with the Two-Step Reaction Catalyzed by *Escherichia coli* Lipote-Protein Ligase A  
*J. Biol. Chem.*, **285** (2010) 9971.
- Y.Hirano, M.Higuchi, C.Azai, H.Oh-oka, K.Miki and Z.-Y.Wang  
Crystal Structure of the Electron Carrier Domain of the Reaction Center Cytochrome  $c_2$  Subunit from Green Photosynthetic Bacterium *Chlorobium tepidum*  
*J. Mol. Biol.*, **397** (2010) 1175.
- F.Kawai, T.B.Clarke, D.I.Roper, G.-J.Han, K.Y.Hwang, S.Unzai, E.Obayashi, S.-Y.Park and J.R.H.Tame  
Crystal Structures of Penicillin-Binding Proteins 4 and 5 from *Haemophilus influenzae*  
*J. Mol. Biol.*, **396** (2010) 634.
- N.Sekiyama, K.Arita, Y.Ikeda, K.Hashiguchi, M.Ariyoshi, H.Tochio and M.Shirakawa  
Structural Basis for Regulation of Poly-SUMO Chain by a SUMO-Like Domain of Nip45  
*Proteins*, **78** (2010) 1491.
- Y.Kido, T.Shiba, D.K.Inaoka, K.Sakamoto, T.Nara, T.Aoki, T.Honma, A.Tanaka, M.Inoue, S.Matsuoka, A.Moore, S.Harada and K.Kita  
Crystallization and Preliminary Crystallographic Analysis of Cyanide-Insensitive Alternative Oxidase from *Trypanosoma brucei brucei*  
*Acta Cryst. F*, **66** (2010) 275.
- N.Shibata, H.Tamagaki, S.Ohtsuki, N.Hieda, K.Akita, H.Komori, Y.Shomura, S.Terawaki, T.Toraya, N.Yasuoka and Y.Higuchi  
Expression, Crystallization and Preliminary X-Ray Crystallographic Study of Ethanolamine Ammonia-Lyase from *Escherichia coli*  
*Acta Cryst. F*, **66** (2010) 709.
- N.Shibata, H.Tamagaki, N.Hieda, K.Akita, H.Komori, Y.Shomura, S.Terawaki, K.Mori, N.Yasuoka, Y.Higuchi and T.Toraya  
Crystal Structures of Ethanolamine Ammonia-Lyase Complexed with Coenzyme B<sub>12</sub> Analogs and Substrates  
*J. Biol. Chem.*, **285** (2010) 26484.
- H.Sakuraba, K.Yokono, K.Yoneda, A.Watanabe, Y.Asada, T.Satomura, T.Yabutani, J.Motonaka and T.Ohshima  
Catalytic Properties and Crystal Structure of Quinoprotein Aldose Sugar Dehydrogenase from Hyperthermophilic Archaeon *Pyrobaculum aerophilum*  
*Archives of Biochemistry and Biophysics*, **502** (2010) 81.
- D.Takeshita and K.Tomita  
Assembly of Q $\beta$  Viral RNA Polymerase with Host Translational Elongation Factors EF-Tu and -Ts  
*Proc. Natl. Acad. Sci. USA*, **107** (2010) 15733.
- K.Tanaka, N.Umeki, T.Mitsui, Z.Fujimoto and S.Maruta  
Crystallographic Analysis Reveals a Unique Conformation of the ADP-Bound Novel Rice Kinesin K16  
*Biochem. Biophys. Res. Commun.*, **401** (2010) 251.
- Z.Fujimoto, H.Ichinose, T.Maehara, M.Honda, M.Kitaoka and S.Kaneko  
Crystal Structure of an Exo-1,5- $\alpha$ -L-arabinofuranosidase from *Streptomyces avermitilis* Provides Insights into the Mechanism of Substrate Discrimination between Exo- and Endo-Type Enzymes in Glycoside Hydrolase Family 43  
*J. Biol. Chem.*, **285** (2010) 34134.
- E.Yoshida, M.Hidaka, S.Fushinobu, T.Koyanagi, H.Minami, H.Tamaki, M.Kitaoka, T.Katayama and H.Kumagai  
Role of a PA14 Domain in Determining Substrate Specificity of a Glycoside Hydrolase Family 3  $\beta$ -Glucosidase from *Kluyveromyces marxianus*  
*Biochem. J.*, **431** (2010) 39.
- H.Itou, N.Watanabe, M.Yao, Y.Shirakihara and I.Tanaka  
Crystal Structures of the Multidrug Binding Repressor *Corynebacterium glutamicum* CgmR in Complex with Inducers and with an Operator  
*J. Mol. Biol.*, **403** (2010) 174.
- Y.Sakamoto, M.Ike, N.Tanaka, Y.Suzuki, W.Ogasawara, H.Okada, T.Nonaka, Y.Morikawa and K.T.Nakamura  
Crystallization and Preliminary X-Ray Crystallographic Studies of an Exo- $\beta$ -D-Glucosaminidase from *Trichoderma reesei*  
*Acta Cryst. F*, **66** (2010) 309.
- A.Takano, N.Suetsugu, M.Wada and D.Kohda  
Crystallographic and Functional Analyses of J-Domain of JAC1 Essential for Chloroplast Photorelocation Movement in *Arabidopsis thaliana*  
*Plant Cell Physiol.*, **51** (2010) 1372.

- R.Suzuki, T.Katayama, B.-J.Kim, T.Wakagi, H.Shoun, H.Ashida, K.Yamamoto and S.Fushinobu  
Crystal Structures of Phosphoketolase: Thiamine Diphosphate-Dependent Dehydration Mechanism  
*J. Biol. Chem.*, **285** (2010) 34279.
- S.Chiba, Y.Itoh, S.Sekine and S.Yokoyama  
Structural Basis for the Major Role of *O*-Phosphoseryl-tRNA Kinase in the UGA-Specific Encoding of Selenocysteine  
*Molecular Cell*, **39** (2010) 410.
- J.Ding, X.Wang, D.-F.Li, Y.Hu, Y.Zhang and D.-C.Wang  
Crystal Structure of Human Programmed Cell Death 10 Complexed with Inositol-(1,3,4,5)-Tetrakisphosphate: A Novel Adaptor Protein Involved in Human Cerebral Cavernous Malformation  
*Biochem. Biophys. Res. Commun.*, **399** (2010) 587.
- Y.Yasutake, Y.Fujii, T.Nishioka, W.-K.Cheon, A.Arisawa and T.Tamura  
Structural Evidence for Enhancement of Sequential Vitamin D<sub>3</sub> Hydroxylation Activities by Directed Evolution of Cytochrome P450 Vitamin D<sub>3</sub> Hydroxylase  
*J. Biol. Chem.*, **285** (2010) 31193.
- W.Lai, H.Chen, T.Matsui, K.Omori, M.Unno, M.Ikeda-Saito and S.Shaik  
Enzymatic Ring-Opening Mechanism of Verdoheme by the Heme Oxygenase: A Combined X-Ray Crystallography and QM/MM Study  
*J. Am. Chem. Soc.*, **132** (2010) 12960.
- A.J.Oakley, S.Barrett, T.S.Peat, J.Newman, V.A.Streltsov, L.Waddington, T.Saito, M.Tashiro and J.L.McKimm-Breschkin  
Structural and Functional Basis of Resistance to Neuraminidase Inhibitors of Influenza B Viruses  
*J. Med. Chem.*, **53** (2010) 6421.
- S.-S.Cha, Y.J.An, C.R.Lee, H.S.Lee, Y.-G.Kim, S.J.Kim, K.K.Kwon, G.M.D.Donatis, J.-H.Lee, M.R.Maurizi and S.G.Kang  
Crystal Structure of Lon Protease: Molecular Architecture of Gated Entry to a Sequestered Degradation Chamber  
*EMBO J.*, **29** (2010) 3520.
- T.Nogi, N.Yasui, E.Mihara, Y.Matsunaga, M.Noda, N.Yamashita, T.Toyofuku, S.Uchiyama, Y.Goshima, A.Kumanogoh and J.Takagi  
Structural Basis for Semaphorin Signalling through the Plexin Receptor  
*Nature*, **467** (2010) 1123.
- E.O.Balogun, D.K.Inaoka, Y.Kido, T.Shiba, T.Nara, T.Aoki, T.Honma, A.Tanaka, M.Inoue, S.Matsuoka, P.A.M.Michels, S.Harada and K.Kita  
Overproduction, Purification, Crystallization and Preliminary X-Ray Diffraction Analysis of *Trypanosoma brucei gambiense* Glycerol Kinase  
*Acta Cryst. F*, **66** (2010) 304.
- K.Matoba, T.Shiba, T.Takeuchi, L.D.Sibley, M.Seiki, F.Kikyo, T.Horiuchi, T.Asai and S.Harada  
Crystallization and Preliminary X-Ray Structural Analysis of Nucleoside Triphosphate Hydrolases from *Neospora caninum* and *Toxoplasma gondii*  
*Acta Cryst. F*, **66** (2010) 1445.
- H.Suzuki, S.Noguchi, H.Arakawa, T.Tokida, M.Hashimoto and Y.Satou  
Purification, Crystallization and Preliminary X-Ray Crystallographic Analysis of the Human Heat-Shock Protein 40 Hdj1 and its C-Terminal Peptide-Binding Domain  
*Acta Cryst. F*, **66** (2010) 1591.
- L.Feng, H.Sun, Y.Zhang, D.-F.Li and D.-C.Wang  
Structural Insights into the Recognition Mechanism between an Antitumor Galectin AAL and the Thomsen-Friedenreich Antigen  
*FASEB J.*, **24** (2010) 3861.
- N.Kuwabara, H.Hashimoto, N.Yamada, S.Unzai, M.Ikeguchi, M.Sato, Y.Murayama, H.Iwasaki and T.Shimizu  
Expression, Purification and Crystallization of Swi5 and the Swi5-Sfr1 Complex from Fission Yeast  
*Acta Cryst. F*, **66** (2010) 1124.
- C.J.C.Whitehouse, W.Yang, J.A.Yorke, B.C.Rowlatt, A.J.F.Strong, C.F.Blanford, S.G.Bell, M.Bartlam, L.-L.Wong and Z.Rao  
Structural Basis for the Properties of Two Single-Site Proline Mutants of CYP102A1 (P450<sub>BM3</sub>)  
*ChemBioChem*, **11** (2010) 2549.
- S.Fu, X.Tong, C.Cai, Y.Zhao, Y.Wu, Y.Li, J.Xu, X.C.Zhang, L.Xu, W.Chen and Z.Rao  
The Structure of Tumor Endothelial Marker 8 (TEM8) Extracellular Domain and Implications for its Receptor Function for Recognizing Anthrax Toxin  
*PLoS ONE*, **5** (2010) e11203.
- F.Xue, Y.Sun, L.Yan, C.Zhao, J.Chen, M.Bartlam, X.Li, Z.Lou and Z.Rao  
The Crystal Structure of Porcine Reproductive and Respiratory Syndrome Virus Nonstructural Protein Nsp1 $\beta$  Reveals a Novel Metal-Dependent Nuclease  
*J. Virology*, **84** (2010) 6461.
- B.Huang, H.Wu, N.Hao, F.Blombach, J.v Oost, X.Li, X.C.Zhang and Z.Rao  
Functional Study on GTP Hydrolysis by the GTP-Binding Protein from *Sulfolobus solfataricus*, a Member of the HflX Family  
*J. Biochem.*, **148** (2010) 103.

- X.Zhou, Z.Lou, S.Fu, A.Yang, H.Shen, Z.Li, Y.Feng, M.Bartlam, H.Wang and Z.Rao  
Crystal Structure of ArgP from *Mycobacterium tuberculosis* Confirms Two Distinct Conformations of Full-Length LysR Transcriptional Regulators and Reveals its Function in DNA Binding and Transcriptional Regulation  
J. Mol. Biol., **396** (2010) 1012.
- H.Wu, L.Sun, F.Blombach, S.J.J.Brouns, A.P.L.Snijders, K.Lorenzen, R.H.H.v Heuvel, A.J.R.Heck, S.Fu, X.Li, X.C.Zhang, Z.Rao and J.v Oost  
Structure of the Ribosome Associating GTPase HflX  
Proteins, **78** (2010) 705.
- L.M.G.Chavas, R.Kato, N.Suzuki, M.von Itzstein, M.C.Mann, R.J.Thomson, J.C.Dyason, J.McKimm-Breschkin, P.Fusi, C.Tringali, B.Venerando, G.Tettamanti, E.Monti and S.Wakatsuki  
Complexity in Influenza Virus Targeted Drug Design: Interaction with Human Sialidases  
J. Med. Chem., **53** (2010) 2998.
- T.Umeda, J.Katsuki, Y.Ashikawa, Y.Usami, K.Inoue, H.Noguchi, Z.Fujimoto, H.Yamane and H.Nojiri  
Crystallization and Preliminary X-Ray Diffraction Studies of a Ferredoxin Reductase Component of Carbazole 1,9a-Dioxygenase from *Novosphingobium* sp. KA1  
Acta Cryst. F, **66** (2010) 712.
- T.Umeda, J.Katsuki, Y.Ashikawa, Y.Usami, K.Inoue, H.Noguchi, Z.Fujimoto, H.Yamane and H.Nojiri  
Crystallization and Preliminary X-Ray Diffraction Studies of a Terminal Oxygenase of Carbazole 1,9a-Dioxygenase from *Novosphingobium* sp. KA1  
Acta Cryst. F, **66** (2010) 1480.
- N.Muraki, J.Nomata, K.Ebata, T.Mizoguchi, T.Shiba, H.Tamiaki, G.Kurisu and Y.Fujita  
X-Ray Crystal Structure of the Light-Independent Protochlorophyllide Reductase  
Nature, **465** (2010) 110.
- X.Dong, M.Zhou, C.Zhong, B.Yang, N.Shen and J.Ding  
Crystal Structure of *Pyrococcus horikoshii* Tryptophanyl-tRNA Synthetase and Structure-Based Phylogenetic Analysis Suggest an Archaeal Origin of Tryptophanyl-tRNA Synthetase  
Nucl. Acids Res., **38** (2010) 1401.
- S.Fushinobu  
Unique Sugar Metabolic Pathways of Bifidobacteria  
Biosci. Biotechnol. Biochem., **74** (2010) 2374.
- H.Yoshida, K.Takeda, K.Izumori and S.Kamitori  
Elucidation of the Role of Ser329 and the C-Terminal Region in the Catalytic Activity of *Pseudomonas stutzeri* L-Rhamnose Isomerase  
Protein Eng. Design and Selection, **23** (2010) 919.
- S.Yanaka, M.Kudou, Y.Tanaka, T.Sasaki, S.Takemoto, A.Sakata, Y.Hattori, T.Koshi, S.Futaki, K.Tsumoto and T.Nakashima  
Contribution of the Flexible Loop Region to the Function of Staphylococcal Enterotoxin B  
Protein Eng. Design & Selection, **23** (2010) 415.
- Z.Prokop, Y.Sato, J.Brezovsky, T.Mozga, R.Chaloupkova, T.Koudelakova, P.Jerabek, V.Stepankova, R.Natsume, J.G.E.van Leeuwen, D.B.Janssen, J.Florian, Y.Nagata, T.Senda and J.Damborsky  
Enantioselectivity of Haloalkane Dehalogenase and its Modulation by Surface Loop Engineering  
Angew. Chem. Int. Ed., **49** (2010) 6111.
- H.H.Lee, J.Y.Jang, H.J.Yoon, S.J.Kim and S.W.Suh  
Crystal Structures of Two Archaeal Pelotas Reveal Inter-Domain Structural Plasticity  
Biochem. Biophys. Res. Commun., **399** (2010) 600.
- H.H.Lee and S.W.Suh  
Overexpression, Crystallization and Preliminary X-Ray Crystallographic Analysis of *Pseudomonas aeruginosa* MnmE, a GTPase Involved in tRNA Modification  
Acta Cryst. F, **66** (2010) 905.
- D.J.Kim, K.S.Park, J.H.Kim, S.H.Yang, J.Y.Yoon, B.G.Han, H.S.Kim, S.J.Lee, J.Y.Jang, K.H.Kim, M.J.Kim, J.S.Song, H.J.Kim, C.M.Park, S.K.Lee, B.I.Lee and S.W.Suh  
*Helicobacter pylori* Proinflammatory Protein Up-Regulates NF- $\kappa$ B as a Cell-Translocating Ser/Thr Kinase  
Proc. Natl. Acad. Sci. USA, **107** (2010) 21418.
- T.Uejima, K.Ihara, T.Goh, E.Ito, M.Sunada, T.Ueda, A.Nakano and S.Wakatsuki  
GDP-Bound and Nucleotide-Free Intermediates of the Guanine Nucleotide Exchange in the Rab5-Vps9 System  
J. Biol. Chem., **285** (2010) 36689.
- T.Ohnuma, T.Numata, T.Osawa and T.Fukamizo  
Crystallization and Preliminary X-Ray Diffraction Analysis of a Class V Chitinase from *Nicotiana Tabacum*  
Acta Cryst. F, **66** (2010) 1599.

## 18A

- K.He, Y.Takeichi, M.Ogawa, T.Okuda, P.Moras, D.Topwal, A.Harasawa, T.Hirahara, C.Carbone, A.Kakizaki and I.Matsuda  
Direct Spectroscopic Evidence of Spin-Dependent Hybridization between Rashba-Split Surface States and Quantum-Well States  
Phys. Rev. Lett., **104** (2010) 156805.
- I.Mochizuki, R.Negishi and Y.Shigeta  
Strain Induced Modification of Quasi-Two-Dimensional Electron Gas State on  $\sqrt{3} \times \sqrt{3}$ -Ag Structure  
J. Appl. Phys., **107** (2010) 084317.

T.Hirahara, Y.Sakamoto, Y.Saisyu, H.Miyazaki, S.Kimura, T.Okuda, I.Matsuda, S.Murakami and S.Hasegawa

Topological Metal at the Surface of an Ultrathin  $\text{Bi}_{1-x}\text{Sb}_x$  Alloy Film

Phys. Rev. B, **81** (2010) 165422.

Y.Takeichi, K.He, T.Okuda, T.Hirahara, A.Kakizaki and I.Matsuda

Spin-Split Quantum-Well States Induced by Hybridization with Rashba-Split Surface States

J. Surf. Sci. Soc. Jpn., **31** (2010) 493. (*in Japanese*).

T.Okuda, K.Miyamaoto, Y.Takeichi, H.Miyahara, M.Ogawa, A.Harasawa, A.Kimura, I.Matsuda, A.Kakizaki, T.Shishidou and T.Oguchi

Large Out-of-Plane Spin Polarization in a Spin-Splitting One-Dimensional Metallic Surface State on  $\text{Si}(557)\text{-Au}$

Phys. Rev. B, **82** (2010) 161410.

Y.Tanaka, K.Takahashi, T.Kuzumaki, Y.Yamamoto, K.Hotta, A.Harasawa, Y.Miyoshi, H.Yoshikawa, Y.Ouchi, N.Ueno, K.Seki, K.Awaga and K.Sakamoto

Intermolecular Band Dispersion in a Self-Assembled Phthalocyanine Derivative Film: The Case of Tetrakis(thiadiazole)porphyrine

Phys. Rev. B, **82** (2010) 073408.

T.Kataoka, M.Kobayashi, Y.Sakamoto, G.S.Song, A.Fujimori, F.-H.Chang, H.-J.Lin, D.J.Huang, C.T.Chen, T.Ohkochi, Y.Takeda, T.Okane, Y.Saitoh, H.Yamagami, A.Tanaka, S.K.Mandal, T.K.Nath, D.Karmakar and I.Dasgupta

Electronic Structure and Magnetism of the Diluted Magnetic Semiconductor Fe-Doped ZnO Nanoparticles

J. Appl. Phys., **107** (2010) 033718.

R.Friedlein, Y.Wang, A.Fleurence, F.Bussolotti, Y.Ogata and Y.Yamada-Takamura

Stacks of Nucleic Acids as Molecular Wires: Direct Measurement of the Intermolecular Band Dispersion in Multilayer Guanine Assemblies

J. Am. Chem. Soc., **132** (2010) 12808.

### Former 18B

T.Nakamura, S.Meshitsuka, S.Kitagawa, N.Abe, J.Yamada, T.Ishino, H.Nakano, T.Tsuzuki, T.Doi, Y.Kobayashi, S.Fujii, M.Sekiguchi and Y.Yamagata

Structural and Dynamic Features of the MutT Protein in the Recognition of Nucleotides with the Mutagenic 8-Oxoguanine Base

J. Biol. Chem., **285** (2010) 444.

### 18C

S.Machida, H.Hirai, H.Gotou, T.Sakakibara and T.Yagi

Development of Loading System for Liquid Hydrogen into Diamond-Anvil Cells under Low Temperature

Rev. Sci. Instrum., **81** (2010) 033901.

H.Takahashi, H.Okada, Y.Kamihara, S.Matsuishi, M.Hirano, H.Hosono, K.Matsubayashi and Y.Uwatoko

Pressure Effect of Superconducting Oxypnictide  $\text{LaFeAsO}_{1-x}\text{F}_x$  and Related Materials

J. Phys. Conf. Ser., **215** (2010) 012037.

I.Mukhopadhyay, Y.Suzuki, T.Kawashita, Y.Yoshida and S.Kawasaki

Studies on Surface Functionalized Single Wall Carbon Nanotube for Electrochemical Double Layer Capacitor Application

J. Nanosci. Nanotechnol., **10** (2010) 4089.

Y.Ishii, Y.Kanamori, T.Kawashita, I.Mukhopadhyay and S.Kawasaki

Mesoporous Carbon-Titania Nanocomposites for High-Power Li-Ion Battery Anode Material

J. Phys. Chem. Solids, **71** (2010) 511.

K.Matsui, J.Hayashi, K.Akahira, K.Ito, K.Takeda and C.Sekine

Pressure-Induced Irreversible Isosymmetric Transition of  $\text{TSb}_3$  (T=Co, Rh and Ir)

J. Phys.: Conf. Ser., **215** (2010) 012005.

J.Hayashi, K.Akahira, K.Matsui, H.Ando, Y.Sugiuchi, K.Takeda, C.Sekine, I.Shirotnani and T.Yagi

Bulk Moduli of Superconducting Skutterudites  $\text{YT}_4\text{P}_{12}$  (T = Fe, Ru and Os)

J. Phys.: Conf. Ser., **215** (2010) 012142.

K.Takeda, T.Sasaki, J.Hayashi, S.Kagami, I.Shirotnani and K.Yakushi

X-Ray and Optical Studies of One-Dimensional Bis(dimethylglyoximate) $\text{Pd(II)}$ ,  $\text{Pd(dmg)}_2$  at High Pressures

J. Phys.: Conf. Ser., **215** (2010) 012065.

K.Takeda, N.Hoshi, J.Hayashi, C.Sekine, S.Kagami, I.Shirotnani and T.Yagi

Structural and Electrical Properties of New Filled Skutterudite Compound  $\text{BaRu}_4\text{As}_{12}$  Prepared at High Pressure

J. Phys.: Conf. Ser., **215** (2010) 012130.

T.Sato and N.Funamori

High-Pressure Structural Transformation of  $\text{SiO}_2$  Glass up to 100 GPa

Phys. Rev. B, **82** (2010) 184102.

W.Xiao, D.Tan, X.Xiong, J.Liu and J.Xu

Large Volume Collapse Observed in the Phase Transition in Cubic  $\text{PbCrO}_3$  Perovskite

Proc. Natl. Acad. Sci. USA, **107** (2010) 14026.

K.Sowa, T.Watanabe, S.Motai, Y.Seto and T.Nagai

Mineral Phase of COCs and Fibers in Coral Skeletons

Proc. of the 11th International Coral Reef Symposium, **1** (2010) 71.

K.He, Y.Takeichi, M.Ogawa, T.Okuda, P.Moras, D.Topwal, A.Harasawa, T.Hirahara, C.Carbone, A.Kakizaki and I.Matsuda  
Direct Spectroscopic Evidence of Spin-Dependent Hybridization between Rashba-Split Surface States and Quantum-Well States  
Phys. Rev. Lett., **104** (2010) 156805.

A.Nishide, Y.Takeichi, T.Okuda, A.A.Taskin, T.Hirahara, K.Nakatsuji, F.Komori, A.Kakizaki, Y.Ando and I.Matsuda  
Spin-Polarized Surface Bands of a Three-Dimensional Topological Insulator Studied by High-Resolution Spin- and Angle-Resolved Photoemission Spectroscopy  
New J. Physics, **12** (2010) 065011.

Y.Takeichi, K.He, T.Okuda, T.Hirahara, A.Kakizaki and I.Matsuda  
Spin-Split Quantum-Well States Induced by Hybridization with Rashba-Split Surface States  
J. Surf. Sci. Soc. Jpn., **31** (2010) 493. (*in Japanese*).

T.Hirahara, Y.Sakamoto, Y.Takeichi, H.Miyazaki, S.Kimura, I.Matsuda, A.Kakizaki and S.Hasegawa  
Anomalous Transport in an *n*-Type Topological Insulator Ultrathin Bi<sub>2</sub>Se<sub>3</sub> Film  
Phys. Rev. B, **82** (2010) 155309.

T.Okuda, K.Miyamaoto, Y.Takeichi, H.Miyahara, M.Ogawa, A.Harasawa, A.Kimura, I.Matsuda, A.Kakizaki, T.Shishidou and T.Oguchi  
Large Out-of-Plane Spin Polarization in a Spin-Splitting One-Dimensional Metallic Surface State on Si(557)-Au  
Phys. Rev. B, **82** (2010) 161410.

### 19B

Y.Nagao, J.Liu, F.Iguchi, T.Higuchi, N.Sata and H.Yugami  
Electronic Structure of Sr-Doped LaScO<sub>3</sub> Single Crystal Annealed under Different Atmospheres  
Jpn. J. Appl. Phys., **49** (2010) 010208.

### 20A

T.Odagiri, Y.Kumagai, T.Tanabe, M.Nakano, I.H.Suzuki, M.Kitajima and N.Kouchi  
A New Spectroscopic Method for Resolving the Electronic Symmetry Properties of the Highly Excited Molecules Produced in Photoexcitation  
Rev. Sci. Instrum., **81** (2010) 063108.

M.Nakano, T.Odagiri, T.Tanabe, K.Funatsu, I.H.Suzuki, M.Kitajima and N.Kouchi  
Doubly Excited States Resulting in H(2p) Formation in the Photoexcitation of Water  
J. Phys. B, **43** (2010) 215206.

T.Tanabe, T.Odagiri, M.Nakano, Y.Kumagai, I.H.Suzuki, M.Kitajima and N.Kouchi  
Effect of Entanglement on the Decay Dynamics of a Pair of H(2p) Atoms due to Spontaneous Emission  
Phys. Rev. A, **82** (2010) 040101.

T.Odagiri and N.Kouchi  
Multiply Excited Molecules in Electron Collisions as Probed by Energy and Angle-Resolved Coincidence Measurements between a Scattered Electron and a Photon from a Fragment Atom  
J. Phys.: Conf. Ser., **212** (2010) 012026.

M.Kurokawa, M.Kitajima, K.Toyoshima, T.Odagiri, H.Kato, H.Kawahara, M.Hoshino, H.Tanaka and K.Ito  
Threshold Photoelectron Source for the Study of Low-Energy Electron Scattering: Total Cross Section for Electron Scattering from Krypton in the Energy Range from 14 meV to 20 eV  
Phys. Rev. A, **82** (2010) 062707.

### 20B

W.K.Pang, I.M.Low and J.V.Hanna  
Characterisation of Amorphous Silica in Air-Oxidised Ti<sub>3</sub>SiC<sub>2</sub> at 500-1000°C using Secondary-Ion Mass Spectrometry, Nuclear Magnetic Resonance and Transmission Electron Microscopy  
Mater. Chem. Phys., **121** (2010) 453.

C.T.Chantler, C.Q.Tran and Z.Barnea  
X-Ray Absorption Fine Structure for Single Crystals  
J. Appl. Cryst., **43** (2010) 64.

N.A.Rae, C.T.Chantler and Z.Barnea  
X-Ray Mass Attenuation Coefficients and Imaginary Components of the Atomic Form Factor of Zinc over the Energy Range of 7.2-15.2 keV  
Phys. Rev. A, **81** (2010) 022904.

J.L.Glover, C.T.Chantler, Z.Barnea, N.A.Rae and C.Q.Tran  
Measurement of the X-Ray Mass-Attenuation Coefficients of Gold, Derived Quantities between 14 keV and 21 keV and Determination of the Bond Lengths of Gold  
J. Phys. B, **43** (2010) 085001.

M.T.Islam, N.A.Rae, J.L.Glover, Z.Barnea and C.T.Chantler  
Micrometry Combined with Profile Mapping for the Absolute Measurement of Integrated Column Density (ICD) and for Accurate X-Ray Mass Attenuation Coefficients using XERT  
Nucl. Instrum. Meth. Phys. Res. A, **619** (2010) 44.

N.A.Rae, J.L.Glover and C.T.Chantler  
An Improvement to the Full-Foil Mapping Technique for High Accuracy Measurement of X-Ray Mass Attenuation Coefficients  
Nucl. Instrum. Meth. Phys. Res. A, **619** (2010) 47.

### 27A

N.Usami, K.Kobayashi, R.Hirayama, Y.Furusawa, E.Porcel, S.Lacombe and C.Le Sech  
Comparison of DNA Breaks at Entrance Channel and Bragg Peak Induced by Fast C<sup>6+</sup> Ions -Influence of the Addition of Platinum Atoms on DNA-  
J. Radiat. Res., **51** (2010) 21.

- E.Porcel, S.Liehn, H.Remita, N.Usami, K.Kobayashi, Y.Furusawa, C.Le Sech and S.Lacombe  
Platinum Nanoparticles: a Promising Material for Future Cancer Therapy?  
*Nanotechnology*, **21** (2010) 085103.
- F.Esaka, H.Yamamoto, N.Matsubayashi, Y.Yamada, M.Sasase, K.Yamaguchi, S.Shamoto, M.Magara and T.Kimura  
X-Ray Photoelectron and X-Ray Absorption Spectroscopic Study on  $\beta$ -FeSi<sub>2</sub> Thin Films Fabricated by Ion Beam Sputter Deposition  
*Appl. Surf. Sci.*, **256** (2010) 3155.
- T.Osawa  
Quantitative Estimation Methods for Concentrations and Layer Thicknesses of Elements using Edge-Jump Ratios of X-Ray Absorption Spectra  
*Phys. Rev. Lett.*, **26** (2010) 281.
- K.Kobayashi, N.Usami, E.Porcel, S.Lacombe and C.LeSech  
Enhancement of Radiation Effect by Heavy Elements  
*Mutation Research*, **704** (2010) 123.
- Md.A.Mannan, H.Noguchi, T.Kida, M.Nagano, N.Hirao and Y.Baba  
Growth and Characterization of Stoichiometric BCN Films on Highly Oriented Pyrolytic Graphite by Radiofrequency Plasma Enhanced Chemical Vapor Deposition  
*Thin Solid Films*, **518** (2010) 4163.
- H.Kanatani, T.Matsui, N.Hirao, H.Yamamoto, Y.Baba, H.Kume and A.Iwase  
Effect of Film Thickness on Structural and Magnetic Properties of Single Crystalline Ba(Fe<sub>0.2</sub>Zr<sub>0.8</sub>)O<sub>3- $\delta$</sub>  Thin Films on (001)SrTiO<sub>3</sub> Substrates  
*J. Appl. Phys.*, **107** (2010) 09E312.
- Md.A.Mannan, Y.Baba, T.Sekiguchi, I.Shimoyama, N.Hirao, A.Narita, M.Nagano and H.Noguchi  
Self-Ordering of Silicon Polymer Thin Film Grown on Indium Tin Oxide Surface Investigated by X-Ray Absorption Spectroscopy  
*J. Elec. Spec. Relat. Phenom.*, **181** (2010) 242.
- H.Ikeura-Sekiguchi and T.Sekiguchi  
Femto- and Attosecond Electron Dynamics in 5'-Guanosine Monophosphate Interface as Probed by Resonant Auger Spectroscopy  
*Surf. Inter. Anal.*, **42** (2010) 1085.
- N.Hirao, Y.Baba, T.Sekiguchi, I.Shimoyama and M.Honda  
Chemical-State-Selective Mapping at Nanometer Scale using Synchrotron Radiation and Photoelectron Emission Microscopy  
*Anal. Sci.*, **26** (2010) 835.
- M.Tomita, M.Maeda, H.Maezawa, N.Usami and K.Kobayashi  
Bystander Cell Killing in Normal Human Fibroblasts is Induced by Synchrotron X-Ray Microbeams  
*Radiat. Res.*, **173** (2010) 380.
- K.Kobayashi, N.Usami, E.Porcel, S.Lacombe and C.LeSech  
Enhancement of Radiation Effect by Heavy Elements  
*Mutation Research*, **704** (2010) 123.
- T.Nishi, M.Nakada, C.Suzuki, H.Shibata, A.Itoh, M.Akabori and M.Hirata  
Local and Electronic Structure of Am<sub>2</sub>O<sub>3</sub> and AmO<sub>2</sub> with XAFS Spectroscopy  
*J. Nucl. Mater.*, **401** (2010) 138.
- O.Pauvert, D.Zanghi, M.Salanne, C.Simon, A.Rakhmatullin, H.Matsuura, Y.Okamoto, F.Vivet and C.Bessada  
In situ Experimental Evidence for a Nonmonotonous Structural Evolution with Composition in the Molten LiF-ZrF<sub>4</sub> System  
*J. Phys. Chem. B*, **114** (2010) 6472.
- M.Maeda, M.Tomita, N.Usami and K.Kobayashi  
Bystander Cell Death is Modified by Sites of Energy Deposition within Cells Irradiated with a Synchrotron X-Ray Microbeam  
*Radiat. Res.*, **174** (2010) 37.
- M.Numakura, Y.Okamoto, T.Yaita, H.Shiwaku, H.Akatsuka, A.Nezu, K.Tajima, Y.Shimohara, C.Bessada, O.Pauvert, D.Zanghi, P.Chamelot and H.Matsuura  
Local Structural Analyses on Molten Terbium Fluoride in Lithium Fluoride and Lithium-Calcium Fluoride Mixtures  
*J. Fluorine Chem.*, **131** (2010) 1039.
- T.Suzuki, M.Nomura, Y.Fujii, A.Ikeda-Ohno, T.Tanaka and K.Oguma  
Zinc Isotope Fractionation in Anion Exchange in Hydrochloric Acid Solution  
*J. Ion Exchange*, **21** (2010) 328.
- A.Ishii, A.Iwase, Y.Fukumoto, Y.Yokoyama, T.J.Konno and F.Hori  
Effect of Thermal Annealing on the Local Structure in ZrCuAl Bulk Metallic Glass  
*J. Alloys and Compounds*, **504** (2010) 230.
- H.Yamaoka, I.Jarrige, A.Ikeda-Ohno, S.Tsutsui, J.-F.Lin, N.Takeshita, K.Miyazawa, A.Iyo, H.Kito, H.Eisaki, N.Hiraoka, H.Ishii and K.-D.Tsuei  
Hybridization and Suppression of Superconductivity in CeFeAsO<sub>1-y</sub>: Pressure and Temperature Dependence of the Electronic Structure  
*Phys. Rev. B*, **82** (2010) 125123.

M.Jiang, T.Ohnuki, N.Kozai, K.Tanaka, Y.Suzuki, F.Sakamoto, E.Kamiishi and S.Utsunomiya  
Biological Nano-Mineralization of Ce Phosphate by *Saccharomyces cerevisiae*  
Chemical Geology, **277** (2010) 61.

Y.Suzuki, K.Tanaka, N.Kozai and T.Ohnuki  
Effect of Citrate, NTA, and EDTA on Reduction of U(VI) by *Shewanella putrefaciens*  
Geomicrobiol. J., **27** (2010) 245.

## 28A

K.Yoshimatsu, T.Okabe, H.Kumigashira, S.Okamoto, S.Aizaki, A.Fujimori and M.Oshima  
Dimensional-Crossover-Driven Metal-Insulator Transition in SrVO<sub>3</sub> Ultrathin Films  
Phys. Rev. Lett., **104** (2010) 147601.

S.Ideta, K.Takahashi, M.Hashimoto, T.Yoshida, A.Fujimori, H.Anzai, T.Fujita, Y.Nakashima, A.Ino, M.Arita, H.Namatame, M.Taniguchi, K.Ono, M.Kubota, D.H.Lu, Z.-X.Shen, K.M.Kojima and S.Uchida  
Enhanced Superconducting Gaps in the Trilayer High-Temperature Bi<sub>2</sub>Sr<sub>2</sub>Ca<sub>2</sub>Cu<sub>3</sub>O<sub>10+δ</sub> Cuprate Superconductor  
Phys. Rev. Lett., **104** (2010) 227001.

T.Yoshida, M.Hashimoto, T.Takizawa, A.Fujimori, M.Kubota, K.Ono and H.Eisaki  
Mass Renormalization in the Bandwidth-Controlled Mott-Hubbard Systems SrVO<sub>3</sub> and CaVO<sub>3</sub> Studied by Angle-Resolved Photoemission Spectroscopy  
Phys. Rev. B, **82** (2010) 085119.

K.Nakayama, T.Sato, P.Richard, T.Kawahara, Y.Sekiba, T.Qian, G.F.Chen, J.L.Luo, N.L.Wang, H.Ding and T.Takahashi  
Angle-Resolved Photoemission Spectroscopy of the Iron-Chalcogenide Superconductor Fe<sub>1.03</sub>Te<sub>0.7</sub>Se<sub>0.3</sub>: Strong Coupling Behavior and the Universality of Interband Scattering  
Phys. Rev. Lett., **105** (2010) 197001.

Y.Sekiba, T.Sato, K.Nakayama, K.Terashima, P.Richard, J.H.Bowen, H.Ding, Y.-M.Xu, L.J.Li, G.H.Cao, Z.-A.Xu and T.Takahashi  
Angle-Resolved Photoemission Study of Heavily Electron-Doped BaFe<sub>2-x</sub>Co<sub>x</sub>As<sub>2</sub>  
Physica C, **470** (2010) 394.

T.Arakane, T.Sato, T.Takahashi, T.Fujii and A.Asamitsu  
Evidence for the Transition of Fermi Surface Topology in Highly-Doped Na<sub>x</sub>CoO<sub>2</sub>  
Phys. Rev. B, **81** (2010) 115132.

H.Usui, H.Iwasawa, M.Hirose, Y.Maeda, T.Saitoh, H.Osada, T.Kyomen, M.Hanaya, Y.Aiura, Y.Kotani, M.Kubota and K.Ono  
Electronic Structure of K<sub>0.5</sub>CoO<sub>2</sub> Studied by Angle-Resolved Photoemission Spectroscopy  
Physica C, **470** (2010) S758.

## Fomer NE1A

A.Agui, H.Sakurai, T.Tamura, T.Kurachi, M.Tanaka, H.Adachi and H.Kawata  
Application of Magnetic Compton Scattering for Spin-Specific Magnetic Hysteresis Measurement  
J. Synchrotron Rad., **17** (2010) 321.

## NE1A

S.Ono, T.Kikegawa, N.Hirao and K.Mibe  
High-Pressure Magnetic Transition in hcp-Fe  
Am. Mineral., **95** (2010) 880.

D.Nishio-Hamane, T.Yagi, M.Ohshiro, K.Niwa, T.Okada and Y.Seto  
Decomposition of Perovskite FeTiO<sub>3</sub> into Wüstite Fe<sub>1-x</sub>Ti<sub>0.5x</sub>O and Orthorhombic FeTi<sub>3</sub>O<sub>7</sub> at High Pressure  
Phys. Rev. B, **82** (2010) 092103.

T.Okada, T.Yagi, K.Niwa and T.Kikegawa  
Lattice-Preferred Orientations in Post-Perovskite-Type MgGeO<sub>3</sub> Formed by Transformations from Different Pre-Phases  
Physics of the Earth and Planetary Interiors, **180** (2010) 195.

W.Xiao, D.Tan, X.Xiong, J.Liu and J.Xu  
Large Volume Collapse Observed in the Phase Transition in Cubic PbCrO<sub>3</sub> Perovskite  
Proc. Natl. Acad. Sci. USA, **107** (2010) 14026.

## NE3A

K.Tsukimoto, R.Takada, Y.Araki, K.Suzuki, S.Karita, T.Wakagi, H.Shoun, T.Watanabe and S.Fushinobu  
Recognition of Cellooligosaccharides by a Family 28 Carbohydrate-Binding Module  
FEBS Lett., **584** (2010) 1205.

L.Yu, Y.Wang, S.Huang, J.Wang, Z.Deng, Q.Zhang, W.Wu, X.Zhang, Z.Liu, W.Gong and Z.Chen  
Structural Insights into a Novel Histone Demethylase PHF8  
Cell Res., **20** (2010) 166.

R.Suzuki, B.-J.Kim, T.Shibata, Y.Iwamoto, T.Katayama, H.Ashida, T.Wakagi, H.Shoun, S.Fushinobu and K.Yamamoto  
Overexpression, Crystallization and Preliminary X-Ray Analysis of Xylulose-5-Phosphate/Fructose-6-Phosphate Phosphoketolase from *Bifidobacterium breve*  
Acta Cryst. F, **66** (2010) 941.

N.Suzuki, M.Hiraki, Y.Yamada, N.Matsugaki, N.Igarashi, R.Kato, I.Dikic, D.Drew, S.Iwata, S.Wakatsuki and M.Kawasaki  
Crystallization of Small Proteins Assisted by Green Fluorescent Protein  
Acta Cryst. D, **66** (2010) 1059.

- Y.Yasutake, Y.Fujii, T.Nishioka, W.-K.Cheon, A.Arisawa and T.Tamura  
Structural Evidence for Enhancement of Sequential Vitamin D<sub>3</sub> Hydroxylation Activities by Directed Evolution of Cytochrome P450 Vitamin D<sub>3</sub> Hydroxylase  
*J. Biol. Chem.*, **285** (2010) 31193.
- T.Matsumoto, T.Kinoshita, Y.Kirii, K.Yokota, K.Hamada and T.Tada  
Crystal Structures of MKK4 Kinase Domain Reveals that Substrate Peptide Binds to an Allosteric Site and Induces an Auto-Inhibition State  
*Biochem. Biophys. Res. Commun.*, **400** (2010) 369.
- T.Ito and S.Yokoyama  
Two Enzymes Bound to One Transfer RNA Assume Alternative Conformations for Consecutive Reactions  
*Nature*, **467** (2010) 612.
- M.Sahlan, T.Zako, P.T.Tai, A.Ohtaki, K.Noguchi, M.Maeda, H.Miyatake, N.Dohmae and M.Yohda  
Thermodynamic Characterization of the Interaction between Prefoldin and Group II Chaperonin  
*J. Mol. Biol.*, **399** (2010) 628.
- M.Sahlan, T.Kanzaki, T.Zako, M.Maeda and M.Yohda  
Analysis of the Interaction Mode between Hyperthermophilic Archaeal Group II Chaperonin and Prefoldin using a Platform of Chaperonin Oligomers of Various Subunit Arrangements  
*Biochim. Biophys. Acta*, **1804** (2010) 1810.
- T.Satoh, Y.Chen, D.Hu, S.Hanashima, K.Yamamoto and Y.Yamaguchi  
Structural Basis for Oligosaccharide Recognition of Misfolded Glycoproteins by OS-9 in ER-Associated Degradation  
*Molecular Cell*, **40** (2010) 905.
- K.Ito, S.Ito, T.Shimamura, T.Kawarasaki, K.Abe, T.Misaka, T.Kobayashi and S.Iwata  
Crystallization and Preliminary X-Ray Analysis of a Glucansucrase from the Dental Caries Pathogen *Streptococcus mutans*  
*Acta Cryst. F*, **66** (2010) 1086.
- S.Fushinobu  
Unique Sugar Metabolic Pathways of Bifidobacteria  
*Biosci. Biotechnol. Biochem.*, **74** (2010) 2374.
- T.Ohnuma, T.Numata, T.Osawa and T.Fukamizo  
Crystallization and Preliminary X-Ray Diffraction Analysis of a Class V Chitinase from *Nicotiana Tabacum*  
*Acta Cryst. F*, **66** (2010) 1599.
- T.Kubo, M.Kimura, T.Kato, M.Nishi, A.Tominaga, T.Kikegawa and K.Funakoshi  
Plagioclase Breakdown as an Indicator for Shock Conditions of Meteorites  
*Nature Geoscience*, **3** (2010) 41.
- R.Murao, M.Kikuchi, T.Atou, K.Kusaba, K.Fukuoka, K.Sugiyama, Y.Syono and T.Kikegawa  
Superconducting Phase Prepared from Ta<sub>3</sub>Si under High Pressure  
*J. Phys.: Conf. Ser.*, **215** (2010) 012139.
- N.Hamaya, F.Matsuura, Y.Yamagata, K.Fuchizaki, T.Hase, T.Sakagami, A.Miyauchi and T.Kikegawa  
Structural Change in Liquid SnI<sub>4</sub> under High Pressure  
*J. Phys.: Conf. Ser.*, **215** (2010) 012079.
- A.Chiba, M.Tomomasa, T.Hayakawa, A.Hinzmann, R.Takahashi, J.Nakamura, T.Tsukatani, T.Kumazawa and K.Tsuji  
Relationship between Peierls Distortion and Medium-Range Order in Liquid Group-V Elements and Liquid Group-IV-VI Compounds  
*J. Phys.: Conf. Ser.*, **215** (2010) 012077.
- T.Tsukatani, A.Chiba and K.Tsuji  
Pressure-Induced Structural Change in Liquid *Ge*<sub>0.15</sub>*Te*<sub>0.85</sub> alloy  
*J. Phys.: Conf. Ser.*, **215** (2010) 012076.
- C.Sekine, T.Kachi, T.Yoshida, R.Abe, T.Namiki, K.Akahira and K.Ito  
In-situ Observation of Crystallization of *T*Sb<sub>3</sub> (*T*=Co, Rh and Ir) under High Temperatures and High Pressures  
*J. Phys.: Conf. Ser.*, **215** (2010) 012141.
- S.Kawasaki, T.Hara, Y.Iwai, Y.Kanamori and A.Iwata  
Structural Analyses of High-Pressure and High-Temperature Treated Double-Walled Carbon Nanotubes  
*J. Nanosci. Nanotech.*, **10** (2010) 3994.
- J.Nakamura, A.Chiba and K.Tsuji  
Pressure-Induced Structural Changes in Liquid *Ge*<sub>33</sub>*Te*<sub>67</sub> and Liquid *Ge*<sub>15</sub>*Te*<sub>85</sub>  
*J. Phys. Soc. Jpn.*, **79** (2010) 064604.
- K.Kusaba, T.Yagi, J.Yamaura, H.Gotou and T.Kikegawa  
Structural Consideration of Phase Transitions in Zn(OH)<sub>2</sub> under High Pressure  
*J. Phys: Conf. Ser.*, **215** (2010) 012001.

## NE7A

## NE5C

- M.Matsushita, T.Inoue, I.Yoshimi, E.Yamaoka, T.Irifune, F.Ono, H.Ogiyama and T.Kikegawa  
Pressure-Volume-Temperature Relationship of Fe<sub>72</sub>Pt<sub>28</sub> Alloy under High Pressure and Temperature  
*J. Phys. Conf. Ser.*, **215** (2010) 012014.

- H.Terasaki, K.Nishida, Y.Shibazaki, T.Sakamaki, A.Suzuki, E.Ohtani and T.Kikegawa  
Density Measurement of Fe<sub>3</sub>C Liquid using X-Ray Absorption Image up to 10 GPa and Effect of Light Elements on Compressibility of Liquid Iron  
*J. Geophys. Res.*, **115** (2010) B06207.



T.Matsushita, E.Arakawa, T.Harada, T.Hatano, Y.Higashi, Y.F.Yano, Y.Niwa, Y.Inada, S.Nagano and T.Seki  
Time-Resolved X-Ray Reflectometry in the Multiwavelength Dispersive Geometry  
AIP Conf. Proc., **1234** (2010) 927.

T.Hatano, T.Harada, T.Matsushita, E.Arakawa and Y.Higashi  
Fabrication and Characterization of Elliptically-Curved, Laterally-Graded Multilayers for Focusing X-Ray Polychromator Applications  
AIP Conf. Proc., **1234** (2010) 669.

## NW2A

K.Suzuki, S.Sato and M.Fujita  
Template Synthesis of Precisely Monodisperse Silica Nanoparticles within Self-Assembled Organometallic Spheres  
Nature Chem., **2** (2010) 25.

S.Ikegami, K.Kani, T.Ozeki and A.Yagasaki  
Methylated Molybdoplatinate - Its Unexpected Ability to Absorb Methanol  
Chem. Comm., **46** (2010) 785.

K.Ohara, M.Kawano, Y.Inokuma and M.Fujita  
A Porous Coordination Network Catalyzes an Olefin Isomerization Reaction in the Pore  
J. Am. Chem. Soc., **132** (2010) 30.

T.Kawamichi, Y.Inokuma, M.Kawano and M.Fujita  
Regioselective Huisgen Cycloaddition within Porous Coordination Networks  
Angew. Chem. Int. Ed., **49** (2010) 2375.

Q.-F.Sun, J.Iwasa, D.Ogawa, Y.Ishido, S.Sato, T.Ozeki, Y.Sei, K.Yamaguchi and M.Fujita  
Self-Assembled  $M_{24}L_{48}$  Polyhedra and their Sharp Structural Switch upon Subtle Ligand Variation  
Science, **328** (2010) 1144.

A.Kobayashi, H.Hara, S.Noro and M.Kato  
Multifunctional Sensing Ability of a New Pt/Zn-Based Luminescent Coordination Polymer  
Dalton Trans., **39** (2010) 3400.

T.Ito, K.Mikurube, Y.Abe, T.Koroki, M.Saito, J.Iijima, H.Naruke and T.Ozeki  
Hybrid Inorganic-Organic Crystals Composed of Octamolybdate Isomers and Pyridinium Surfactant  
Chem. Lett., **39** (2010) 1323.

M.Tada  
Surface-Mediated Design and Catalytic Properties of Active Metal Complexes for Advanced Catalysis Creation  
Bull. Chem. Soc. Jpn., **83** (2010) 855.

## NW10A

N.Rinaldi, T.Kubota and Y.Okamoto  
Effect of Citric Acid Addition on the Hydrodesulfurization Activity of  $MoO_3/Al_2O_3$  Catalysts  
Appl. Catal. A, **374** (2010) 228.

Y.Mitani, K.Oka, Y.Shibata, K.Konishi, D.M.Obaid, E.Ishikawa, Y.Izumi and T.Yamase  
Monitoring of Photochemical Self-Assembly of  $[Mo_7O_{24}]^{6-}$  to  $\{Mo_{142}\}$  -Blue Nanoring by using Mo K-Edge XAFS  
Chem. Lett., **39** (2010) 132.

K.Shimura, S.Kato, T.Yoshida, H.Itoh, T.Hattori and H.Yoshida  
Photocatalytic Steam Reforming of Methane over Sodium Tantalate  
J. Phys. Chem. C, **114** (2010) 3493.

M.Ishikawa, M.Sekine, T.Usuki and T.Nasu  
Ionic Conduction and Local Structure in  $AgI-As_2Se_3$  Glasses  
J. Phys. Soc. Jpn., **79** (2010) 137.

T.Miyamoto, H.Niimi, Y.Kitajima, T.Naito and K.Asakura  
Ag  $L_3$ -Edge X-Ray Absorption Near-Edge Structure of  $4d^{10}$  ( $Ag^+$ ) Compounds: Origin of the Edge Peak and its Chemical Relevance  
J. Phys. Chem. A, **114** (2010) 4093.

N.Koizumi, Y.Hamabe, S.Jung, Y.Suzuki, S.Yoshida and M.Yamada  
In-situ Observation of Ni-Mo-S Phase Formed on  $NiMo/Al_2O_3$  Catalyst Sulfided at High Pressure by Means of Ni and Mo K-Edge EXAFS Spectroscopy  
J. Synchrotron Rad., **17** (2010) 414.

M.Tada, S.Muratsugu, M.Kinoshita, T.Sasaki and Y.Iwasawa  
Alternative Selective Oxidation Pathways for Aldehyde Oxidation and Alkene Epoxidation on a  $SiO_2$ -Supported Ru-Monomer Complex Catalyst  
J. Am. Chem. Soc., **132** (2010) 713.

R.Sumii, M.Sakamaki, Y.Matsumoto, K.Amemiya, K.Kanai and K.Seki  
Observation of Intermolecular N-I Interaction during the Growth of a 4-Cyano-4'-Iodobiphenyl Molecular Crystal on  $GeS(001)$   
Surf. Sci., **604** (2010) 1100.

S.Sugiyama, H.Tanaka, T.Kikumoto, K.Nakagawa, K.Sotowa, K.Maehara and W.Ninomiya  
Application of Heavy-Metal-Free Pd/C Catalyst for the Oxidative Dehydrogenation of Sodium Lactate to Pyruvate in an Aqueous Phase under Pressurized Oxygen  
J. Chemical Engineering of Jpn., **43** (2010) 514.

T.Yao, Z.Sun, Y.Li, Z.Pan, H.Wei, Y.Xie, M.Nomura, Y.Niwa, W.Yan, Z.Wu, Y.Jiang, Q.Liu and S.Wei  
Insights into Initial Kinetic Nucleation of Gold Nanocrystals  
J. Am. Chem. Soc., **132** (2010) 7696.

- K.Ikeue, S.Shiiba and M.Machida  
Novel Visible-Light-Driven Photocatalyst Based on Mn-Cd-S for Efficient H<sub>2</sub> Evolution  
Chem. Mater., **22** (2010) 743.
- T.A.Yamamoto, T.Nakagawa, S.Seino and H.Nitani  
Bimetallic Nanoparticles of PtCu and PtNi; Synthesis and CO Oxidation Catalysis  
2009 MRS Fall Meeting Symposium Y proc., **1217** (2010)
- H.Torigoe, T.Mori, K.Fujie, T.Ohkubo, A.Itadani, K.Gotoh, H.Ishida, H.Yamashita, T.Yumura, H.Kobayashi and Y.Kuroda  
Direct Information on Structure and Energetic Features of Cu<sup>+</sup>-Xe Species Formed in MFI-Type Zeolite at Room Temperature  
J. Phys. Chem. Lett., **1** (2010) 2642.
- A.Itadani, M.Tanaka, T.Mori, H.Torigoe, H.Kobayashi and Y.Kuroda  
Potential for Fixation of N<sub>2</sub> at Room Temperature Utilizing a Copper-Ion-Exchanged MFI-Type Zeolite as an Adsorbent: Evaluation of the Bond Dissociation Energy of Adsorbed NN and the Bond Strength of the Cu<sup>+</sup>-N(N) Species  
J. Phys. Chem. Lett., **1** (2010) 2385.
- A.Itadani, T.Yumura, T.Ohkubo, H.Kobayashi and Y.Kuroda  
Existence of Dual Species Composed of Cu<sup>+</sup> in CuMFI Being Bridged by C<sub>2</sub>H<sub>2</sub>  
Phys. Chem. Chem. Phys., **12** (2010) 6455.
- K.Shimura, T.Yoshida and H.Yoshida  
Photocatalytic Activation of Water and Methane over Modified Gallium Oxide for Hydrogen Production  
J. Phys. Chem. C, **144** (2010) 11466.
- A.Yamaguchi, N.Hiyoshi, O.Sato, M.Osada and M.Shirai  
Lignin Gasification over Charcoal-Supported Palladium and Nickel Bimetal Catalysts in Supercritical Water  
Chem. Lett., **39** (2010) 1251.
- K.Maeda, N.Sakamoto, T.Ikeda, H.Ohtsuka, A.Xiong, D.Lu, M.Kanehara, T.Teranishi and K.Domen  
Preparation of Core-Shell-Structured Nanoparticles (with a Noble-Metal or Metal Oxide Core and a Chromia Shell) and their Application in Water Splitting by Means of Visible Light  
Chem. Eur. J., **16** (2010) 7750.
- F.Zhang, K.Maeda, T.Takata and K.Domen  
Modification of Oxysulfides with Two Nanoparticulate Cocatalysts to Achieve Enhanced Hydrogen Production from Water with Visible Light  
Chem. Comm., **46** (2010) 7313.
- Y.Hamabe, S.Jung, H.Suzuki, N.Koizumi and M.Yamada  
Quasi *in situ* Ni K-Edge EXAFS Investigation of the Spent NiMo Catalyst from Ultra-Deep Hydrodesulfurization of Gas Oil in a Commercial Plant  
J. Synchrotron Rad., **17** (2010) 530.
- S.Hinokuma, H.Fujii, M.Okamoto, K.Ikeue and M.Machida  
Metallic Pd Nanoparticles Formed by Pd-O-Ce Interaction: A Reason for Sintering-Induced Activation for CO Oxidation  
Chem. Mater., **22** (2010) 6183.
- K.Asakura  
Atomic Aspects on Surface Chemical Reactions  
Catal. Today, **157** (2010) 2.
- V.Diacomanolis, J.C.Ng, R.Sadler, M.Nomura, B.N.Noller and H.H.Harris  
Consistent Chemical Form of Cd in Liver and Kidney Tissues in Rats Dosed with a Range of Cd Treatments: XAS of Intact Tissues  
Chem. Res. Toxicol., **23** (2010) 1647.
- O.Haruyama, T.Makimura, T.Miyakawa and K.Sugiyama  
A Study on Chemical Short Range Ordering in Pd<sub>40</sub>Ni<sub>40</sub>P<sub>20</sub> Bulk Metallic Glass by Anomalous X-Ray Scattering  
High Temp. Mater. Proc., **29** (2010) 381.
- N.Kawasaki, S.Hamanaka, H.Wang, T.Yokoyama, H.Yoshikawa and K.Awaga  
Fabrication of Molecular Cluster-Nanocarbon Hybrid Materials and their Applications to Cathode Materials  
The Bulletin of the Nano Science and Technology, **9** (2010) 27. (*in Japanese*).
- T.Ariake, S.Takenaka, H.Matsune and M.Kishida  
Improvement in the Durability of Carbon Nanotube-Supported Ruthenium Catalysts by Coverage with Silica Layers  
Bull. Chem. Soc. Jpn., **83** (2010) 953.
- S.Takenaka, N.Susuki, H.Miyamoto, E.Tanabe, H.Matsune and M.Kishida  
Highly Durable Pd Metal Catalysts for the Oxygen Reduction Reaction in Fuel Cells; Coverage of Pd Metal with Silica  
Chem. Comm., **46** (2010) 8950.
- M.Tada  
Surface-Mediated Design and Catalytic Properties of Active Metal Complexes for Advanced Catalysis Creation  
Bull. Chem. Soc. Jpn., **83** (2010) 855.
- Y.Ohashi, T.Motohashi, Y.Masubuchi and S.Kikkawa  
Crystal Structure and Superconductive Characteristics of Nb<sub>0.89</sub>Al<sub>0.11</sub> Oxynitrides  
J. Solid State Chem., **183** (2010) 1710.
- S.T.Oyama, J.Gaudet, W.Zhang, D.Su and K.K.Bando  
Platinum-Like Catalytic Behavior of Au<sup>+</sup>  
ChemCatChem, **2** (2010) 1582.

K.Chen, S.Koso, T.Kubota, Y.Nakagawa and K.Tomishige  
Chemoselective Hydrogenolysis of Tetrahydropyran-2-methanol to 1,6-Hexanediol over Rhenium-Modified Carbon-Supported Rhodium Catalysts  
*ChemCatChem*, **2** (2010) 547.

Y.Shinmi, S.Koso, T.Kubota, Y.Nakagawa and K.Tomishige  
Modification of Rh/SiO<sub>2</sub> Catalyst for the Hydrogenolysis of Glycerol in Water  
*Appl. Catal. B*, **94** (2010) 318.

## NW12A

T.Tsukada, M.Takahashi, T.Takemoto, O.Kanno, T.Yamane, S.Kawamura and T.Nishi  
Structure-Based Drug Design of Tricyclic 8H-Indeno[1,2-d][1,3]Thiazoles as Potent FBPase Inhibitors  
*Bioorg. Med. Chem. Lett.*, **20** (2010) 1004.

K.Yoshimune, Y.Shirakihara, M.Wakayama and I.Yumoto  
Crystal Structure of Salt-Tolerant Glutaminase from *Micrococcus luteus* K-3 in the Presence and Absence of its Product L-Glutamate and its Activator Tris  
*FEBS J.*, **277** (2010) 738.

H.Nishii, T.Chiba, K.Morikami, T.A.Fukami, H.Sakamoto, K.Ko and H.Koyano  
Discovery of 6-Benzoyloxyquinolines as c-MET Selective Kinase Inhibitors  
*Bioorg. Med. Chem. Lett.*, **20** (2010) 1405.

M.Hidaka, S.Fushinobu, Y.Honda, T.Wakagi, H.Shoun and M.Kitaoka  
Structural Explanation for the Acquisition of Glycosynthase Activity  
*J. Biochem.*, **147** (2010) 237.

T.Okada, T.Tomita, A.P.Wulandari, T.Kuzuyama and M.Nishiyama  
Mechanism of Substrate Recognition and Insight into Feedback Inhibition of Homocitrate Synthase from *Thermus thermophilus*  
*J. Biol. Chem.*, **285** (2010) 4195.

M.Miyata, T.Sato, M.Mizuguchi, T.Nakamura, S.Ikemizu, Y.Nabeshima, S.Susuki, Y.Suwa, H.Morioka, Y.Ando, M.A.Suico, T.Shuto, T.Koga, Y.Yamagata and H.Kai  
Role of the Glutamic Acid 54 Residue in Transthyretin Stability and Thyroxine Binding  
*Biochemistry*, **49** (2010) 114.

A.Yamagata, H.Mimura, Y.Sato, M.Yamashita, A.Yoshikawa and S.Fukai  
Structural Insight into the Membrane Insertion of Tail-Anchored Proteins by Get3  
*Genes to Cells*, **15** (2010) 29.

M.Yamashita, K.Kurokawa, Y.Sato, A.Yamagata, H.Mimura, A.Yoshikawa, K.Sato, A.Nakano and S.Fukai  
Structural Basis for the Rho- and Phosphoinositide-Dependent Localization of the Exocyst Subunit Sec3  
*Nature Structural Molecular Biology*, **17** (2010) 180.

S.Mori, K.Shibayama, J.Wachino and Y.Arakawa  
Crystallization and Preliminary X-Ray Analysis of the Diadenosine 5',5''-P<sup>1</sup>, P<sup>4</sup>-tetrakisphosphate Phosphorylase from *Mycobacterium tuberculosis* H37Rv  
*Acta Cryst. F*, **66** (2010) 279.

H.S.Kim, H.L.Kim, K.H.Kim, D.J.Kim, S.J.Lee, J.Y.Yoon, H.J.Yoon, H.Y.Lee, S.B.Park, S.-J.Kim, J.Y.Lee and S.W.Suh  
Crystal Structure of Tpa1 from *Saccharomyces cerevisiae*, a Component of the Messenger Ribonucleoprotein Complex  
*Nucl. Acids Res.*, **38** (2010) 2099.

T.Matsui, M.Iwasaki, R.Sugiyama, M.Unno and M.Ikeda-Saito  
Dioxygen Activation for the Self-Degradation of Heme: Reaction Mechanism and Regulation of Heme Oxygenase  
*Inorg. Chem.*, **49** (2010) 3602.

Y.Liu, M.Yoshida, Y.Kurakata, T.Miyazaki, K.Igarashi, M.Samejima, K.Fukuda, A.Nishikawa and T.Tonozuka  
Crystal Structure of a Glycoside Hydrolase Family 6 Enzyme, CcCel6C, a Cellulase Constitutively Produced by *Coprinopsis cinerea*  
*FEBS J.*, **277** (2010) 1532.

E.Y.Park, O.-B.Kwon, B.-C.Jeong, J.-S.Yi, C.S.Lee, Y.-G.Ko and H.K.Song  
Crystal Structure of PRY-SPRY Domain of Human TRIM72  
*Proteins*, **78** (2010) 790.

B.-G.Lee, E.Y.Park, K.-E.Lee, H.Jeon, K.H.Sung, H.Paulsen, H.Rübsamen-Schaeff, H.Brötz-Oesterhelt and H.K.Song  
Structures of ClpP in Complex with Acyldepsipeptide Antibiotics Reveal its Activation Mechanism  
*Nature Structural Molecular Biology*, **17** (2010) 471.

M.Komatsu, H.Kurokawa, S.Waguri, K.Taguchi, A.Kobayashi, Y.Ichimura, Y.-S.Sou, I.Ueno, A.Sakamoto, K.I.Tong, M.Kim, Y.Nishito, S.Iemura, T.Natsume, T.Ueno, E.Kominami, H.Motohashi, K.Tanaka and M.Yamamoto  
The Selective Autophagy Substrate P62 Activates the Stress Responsive Transcription Factor Nrf2 through Inactivation of Keap1  
*Nature Cell Biology*, **12** (2010) 213.

N.Maita, J.Nyirenda, M.Igura, J.Kamishikiryo and D.Kohda  
Comparative Structural Biology of Eubacterial and Archaeal Oligosaccharyltransferases  
*J. Biol. Chem.*, **285** (2010) 4941.

- N.Kudo, K.Kumagai, R.Matsubara, S.Kobayashi, K.Hanada, S.Wakatsuki and R.Kato  
Crystal Structures of the CERT START Domain with Inhibitors Provide Insights into the Mechanism of Ceramide Transfer  
*J. Mol. Biol.*, **396** (2010) 245.
- A.Nakamura, K.Takumi and K.Miki  
Crystal Structure of a Thermophilic GrpE Protein: Insight into Thermosensing Function for the DnaK Chaperone System  
*J. Mol. Biol.*, **396** (2010) 1000.
- K.Takeda, H.Yoshida, K.Izumori and S.Kamitori  
X-Ray Structures of *Bacillus pallidus* D-Arabinose Isomerase and its Complex with L-Fucitol  
*Biochem. Biophys. Acta*, **1804** (2010) 1359.
- K.Hara, H.Hashimoto, Y.Murakumo, S.Kobayashi, T.Kogame, S.Unzai, S.Akashi, S.Takeda, T.Shimizu and M.Sato  
Crystal Structure of Human REV7 in Complex with a Human REV3 Fragment and Structural Implication of the Interaction between DNA Polymerase  $\zeta$  and REV1  
*J. Biol. Chem.*, **285** (2010) 12299.
- M.Takenoya, A.Ohtaki, K.Noguchi, K.Endo, Y.Sasaki, K.Ohsawa, S.Yajima and M.Yohda  
Crystal Structure of 1-Deoxy-D-Xylulose 5-Phosphate Reductoisomerase from the Hyperthermophile *Thermotoga maritima* for Insights into the Coordination of Conformational Changes and an Inhibitor Binding  
*J. Struct. Biol.*, **170** (2010) 532.
- Y.Hirano, M.Higuchi, C.Azai, H.Oh-oka, K.Miki and Z.-Y.Wang  
Crystal Structure of the Electron Carrier Domain of the Reaction Center Cytochrome  $c_z$  Subunit from Green Photosynthetic Bacterium *Chlorobium tepidum*  
*J. Mol. Biol.*, **397** (2010) 1175.
- M.Z.Jia, S.Horita, K.Nagata and M.Tanokura  
An Archaeal Dim2-Like Protein, aDim2p, Forms a Ternary Complex with a/eIF2 $\alpha$  and the 3' End Fragment of 16S rRNA  
*J. Mol. Biol.*, **398** (2010) 774.
- M.Senda, T.Hatta, K.Kimbara and T.Senda  
Crystallization and Preliminary Crystallographic Analysis of Manganese(II)-Dependent 2,3-Dihydroxybiphenyl 1,2-Dioxygenase from *Bacillus* sp. JF8  
*Acta Cryst. F*, **66** (2010) 282.
- Y.Akai, N.Adachi, Y.Hayashi, M.Eitoku, N.Sano, R.Natsume, N.Kudo, M.Tanokura, T.Senda and M.Horikoshi  
Structure of the Histone Chaperone CIA/ASF1-Double Bromodomain Complex Linking Histone Modification and Site-Specific Histone Eviction  
*Proc. Natl. Acad. Sci. USA*, **107** (2010) 8153.
- N.Sekiyama, K.Arita, Y.Ikeda, K.Hashiguchi, M.Ariyoshi, H.Tochio and M.Shirakawa  
Structural Basis for Regulation of Poly-SUMO Chain by a SUMO-Like Domain of Nip45  
*Proteins*, **78** (2010) 1491.
- N.Nuemket, Y.Tanaka, K.Tsukamoto, T.Tsuji, K.Nakamura, S.Kozaki, M.Yao and I.Tanaka  
Preliminary X-Ray Crystallographic Study of the Receptor-Binding Domain of the D/C Mosaic Neurotoxin from *Clostridium Botulinum*  
*Acta Cryst. F*, **66** (2010) 608.
- L.-H.Xu, S.Fushinobu, S.Takamatsu, T.Wakagi, H.Ikeda and H.Shoun  
Regio- and Stereospecificity of Filipin Hydroxylation Sites Revealed by Crystal Structures of Cytochrome P450 105P1 and 105D6 from *Streptomyces avermitilis*  
*J. Biol. Chem.*, **285** (2010) 16844.
- Y.Kido, T.Shiba, D.K.Inaoka, K.Sakamoto, T.Nara, T.Aoki, T.Honma, A.Tanaka, M.Inoue, S.Matsuoka, A.Moore, S.Harada and K.Kita  
Crystallization and Preliminary Crystallographic Analysis of Cyanide-Insensitive Alternative Oxidase from *Trypanosoma brucei brucei*  
*Acta Cryst. F*, **66** (2010) 275.
- T.Satoh, E.Sakata, S.Yamamoto, Y.Yamaguchi, A.Sumiyoshi, S.Wakatsuki and K.Kato  
Crystal Structure of Cyclic Lys48-Linked Tetraubiquitin  
*Biochem. Biophys. Res. Commun.*, **400** (2010) 329.
- K.Tanaka, N.Umeki, T.Mitsui, Z.Fujimoto and S.Maruta  
Crystallographic Analysis Reveals a Unique Conformation of the ADP-Bound Novel Rice Kinesin K16  
*Biochem. Biophys. Res. Commun.*, **401** (2010) 251.
- Z.Fujimoto, H.Ichinose, T.Maehara, M.Honda, M.Kitaoka and S.Kaneko  
Crystal Structure of an Exo-1,5- $\alpha$ -L-arabinofuranosidase from *Streptomyces avermitilis* Provides Insights into the Mechanism of Substrate Discrimination between Exo- and Endo-Type Enzymes in Glycoside Hydrolase Family 43  
*J. Biol. Chem.*, **285** (2010) 34134.
- H.Itou, N.Watanabe, M.Yao, Y.Shirakihara and I.Tanaka  
Crystal Structures of the Multidrug Binding Repressor *Corynebacterium glutamicum* CgmR in Complex with Inducers and with an Operator  
*J. Mol. Biol.*, **403** (2010) 174.
- Y.Sakamoto, M.Ike, N.Tanaka, Y.Suzuki, W.Ogasawara, H.Okada, T.Nonaka, Y.Morikawa and K.T.Nakamura  
Crystallization and Preliminary X-Ray Crystallographic Studies of an Exo- $\beta$ -D-Glucosaminidase from *Trichoderma reesei*  
*Acta Cryst. F*, **66** (2010) 309.

- K.Kobayashi, I.Kikuno, K.Kuroha, K.Saito, K.Ito, R.Ishitani, T.Inada and O.Nureki  
Structural Basis for mRNA Surveillance by Archaeal Pelota and GTP-Bound EF1 $\alpha$  Complex  
Proc. Natl. Acad. Sci. USA, **107** (2010) 17575.
- N.Suzuki, M.Hiraki, Y.Yamada, N.Matsugaki, N.Igarashi, R.Kato, I.Dikic, D.Drew, S.Iwata, S.Wakatsuki and M.Kawasaki  
Crystallization of Small Proteins Assisted by Green Fluorescent Protein  
Acta Cryst. D, **66** (2010) 1059.
- A.Takano, N.Suetsugu, M.Wada and D.Kohda  
Crystallographic and Functional Analyses of J-Domain of JAC1 Essential for Chloroplast Photorelocation Movement in *Arabidopsis thaliana*  
Plant Cell Physiol., **51** (2010) 1372.
- R.Suzuki, T.Katayama, B.-J.Kim, T.Wakagi, H.Shoun, H.Ashida, K.Yamamoto and S.Fushinobu  
Crystal Structures of Phosphoketolase: Thiamine Diphosphate-Dependent Dehydration Mechanism  
J. Biol. Chem., **285** (2010) 34279.
- S.Chiba, Y.Itoh, S.Sekine and S.Yokoyama  
Structural Basis for the Major Role of *O*-Phosphoseryl-tRNA Kinase in the UGA-Specific Encoding of Selenocysteine  
Molecular Cell, **39** (2010) 410.
- Y.Yasutake, Y.Fujii, T.Nishioka, W.-K.Cheon, A.Arisawa and T.Tamura  
Structural Evidence for Enhancement of Sequential Vitamin D<sub>3</sub> Hydroxylation Activities by Directed Evolution of Cytochrome P450 Vitamin D<sub>3</sub> Hydroxylase  
J. Biol. Chem., **285** (2010) 31193.
- W.-L.Huang, Y.-R.Wang, T.-P.Ko, C.-Y.Chia, K.-F.Huang and A.H.-J.Wang  
Crystal Structure and Functional Analysis of the Glutaminyl Cyclase from *Xanthomonas campestris*  
J. Mol. Biol., **401** (2010) 374.
- B.Yang, C.Zhong, Y.Peng, Z.Lai and J.Ding  
Molecular Mechanisms of "Off-On Switch" of Activities of Human IDH1 by Tumor-Associated Mutation R132H  
Cell Research, **20** (2010) 1188.
- W.S.Choi, B.-C.Jeong, Y.J.Joo, M.-R.Lee, J.Kim, M.J.Eck and H.K.Song  
Structural Basis for the Recognition of N-End Rule Substrates by the UBR Box of Ubiquitin Ligases  
Nature Structural Molecular Biology, **17** (2010) 1175.
- T.Ito, N.Kiyasu, R.Matsunaga, S.Takahashi and S.Yokoyama  
Structure of Nondiscriminating Glutamyl-tRNA Synthetase from *Thermotoga maritima*  
Acta Cryst. D, **66** (2010) 813.
- E.O.Balogun, D.K.Inaoka, Y.Kido, T.Shiba, T.Nara, T.Aoki, T.Honma, A.Tanaka, M.Inoue, S.Matsuoka, P.A.M.Michels, S.Harada and K.Kita  
Overproduction, Purification, Crystallization and Preliminary X-Ray Diffraction Analysis of *Trypanosoma brucei gambiense* Glycerol Kinase  
Acta Cryst. F, **66** (2010) 304.
- H.Hashimoto, K.Hara, A.Hishiki, S.Kawaguchi, N.Shichijo, K.Nakamura, S.Unzai, Y.Tamaru, T.Shimizu and M.Sato  
Crystal Structure of Zinc-Finger Domain of Nanos and its Functional Implications  
EMBO Reports, **11** (2010) 848.
- K.Matoba, T.Shiba, T.Takeuchi, L.D.Sibley, M.Seiki, F.Kikyo, T.Horiuchi, T.Asai and S.Harada  
Crystallization and Preliminary X-Ray Structural Analysis of Nucleoside Triphosphate Hydrolases from *Neospora caninum* and *Toxoplasma gondii*  
Acta Cryst. F, **66** (2010) 1445.
- S.Maruoka, S.Horita, W.C.Lee, K.Nagata and M.Tanokura  
Crystal Structure of the ATPase Subunit and its Substrates-Dependent Association with the GATase Subunit: A Novel Regulatory Mechanism for a Two-Subunit-Type GMP Synthase from *Pyrococcus horikoshii* OT3  
J. Mol. Biol., **395** (2010) 417.
- T.Ebisawa, A.Yamamura, Y.Kameda, K.Hayakawa, K.Nagata and M.Tanokura  
The Structure of mAG, a Monomeric Mutant of the Green Fluorescent Protein Azami-Green, Reveals the Structural Basis of its Stable Green Emission  
Acta Cryst. F, **66** (2010) 485.
- K.Miyazono, Y.Zhi, Y.Takamura, K.Nagata, K.Saigo, T.Kojima and M.Tanokura  
Cooperative DNA-Binding and Sequence-Recognition Mechanism of Aristaless and Clawless  
EMBO J., **29** (2010) 1613.
- A.Okada, K.Sano, K.Nagata, S.Yasumasu, J.Ohtsuka, A.Yamamura, K.Kubota, I.Iuchi and M.Tanokura  
Crystal Structure of Zebrafish Hatching Enzyme 1 from the Zebrafish *Danio rerio*  
J. Mol. Biol., **402** (2010) 865.
- M.Sahlan, T.Zako, P.T.Tai, A.Ohtaki, K.Noguchi, M.Maeda, H.Miyatake, N.Dohmae and M.Yohda  
Thermodynamic Characterization of the Interaction between Prefoldin and Group II Chaperonin  
J. Mol. Biol., **399** (2010) 628.
- Y.Yamanaka, K.Hashimoto, A.Ohtaki, K.Noguchi, M.Yohda and M.Odaka  
Kinetic and Structural Studies on Roles of the Serine Ligand and a Strictly Conserved Tyrosine Residue in Nitrile Hydratase  
J. Biol. Inorg. Chem., **15** (2010) 655.

- M.Sahlan, T.Kanzaki, T.Zako, M.Maeda and M.Yohda  
Analysis of the Interaction Mode between Hyperthermophilic Archaeal Group II Chaperonin and Prefoldin using a Platform of Chaperonin Oligomers of Various Subunit Arrangements  
*Biochim. Biophys. Acta*, **1804** (2010) 1810.
- H.Yoshida, M.Teraoka, N.Nishi, S.Nakakita, T.Nakamura, M.Hirashima and S.Kamitori  
X-Ray Structures of Human Galectin-9 C-Terminal Domain in Complexes with a Biantennary Oligosaccharide and Sialyllactose  
*J. Biol. Chem.*, **285** (2010) 36969.
- N.Kuwabara, H.Hashimoto, N.Yamada, S.Unzai, M.Ikeguchi, M.Sato, Y.Murayama, H.Iwasaki and T.Shimizu  
Expression, Purification and Crystallization of Swi5 and the Swi5-Sfr1 Complex from Fission Yeast  
*Acta Cryst. F*, **66** (2010) 1124.
- L.M.G.Chavas, R.Kato, N.Suzuki, M.von Itzstein, M.C.Mann, R.J.Thomson, J.C.Dyason, J.McKimm-Breschkin, P.Fusi, C.Tringali, B.Venerando, G.Tettamanti, E.Monti and S.Wakatsuki  
Complexity in Influenza Virus Targeted Drug Design: Interaction with Human Sialidases  
*J. Med. Chem.*, **53** (2010) 2998.
- T.Umeda, J.Katsuki, Y.Ashikawa, Y.Usami, K.Inoue, H.Noguchi, Z.Fujimoto, H.Yamane and H.Nojiri  
Crystallization and Preliminary X-Ray Diffraction Studies of a Ferredoxin Reductase Component of Carbazole 1,9a-Dioxygenase from *Novosphingobium* sp. KA1  
*Acta Cryst. F*, **66** (2010) 712.
- T.Umeda, J.Katsuki, Y.Ashikawa, Y.Usami, K.Inoue, H.Noguchi, Z.Fujimoto, H.Yamane and H.Nojiri  
Crystallization and Preliminary X-Ray Diffraction Studies of a Terminal Oxygenase of Carbazole 1,9a-Dioxygenase from *Novosphingobium* sp. KA1  
*Acta Cryst. F*, **66** (2010) 1480.
- O.Nureki, P.O'Donoghue, N.Watanabe, A.Ohmori, H.Oshikane, Y.Araiso, K.Sheppard, D.Soll and R.Ishitani  
Structure of an Archaeal Non-Discriminating Glutamyl-tRNA Synthetase: a Missing Link in the Evolution of Gln-tRNA<sub>Gln</sub> Formation  
*Nucl. Acids Res.*, **38** (2010) 7286.
- K.Saito, K.Kobayashi, M.Wada, I.Kikuno, A.Takusagawa, M.Mochizuki, T.Uchiumi, R.Ishitani, O.Nureki and K.Ito  
Omnipotent Role of Archaeal Elongation Factor 1 Alpha (EF1 $\alpha$ ) in Translational Elongation and Termination, and Quality Control of Protein Synthesis  
*Proc. Natl. Acad. Sci. USA*, **107** (2010) 19242.
- N.Muraki, J.Nomata, K.Ebata, T.Mizoguchi, T.Shiba, H.Tamiaki, G.Kurusu and Y.Fujita  
X-Ray Crystal Structure of the Light-Independent Protochlorophyllide Reductase  
*Nature*, **465** (2010) 110.
- M.Miyata, T.Sato, M.Kugimiya, M.Sho, T.Nakamura, S.Ikemizu, M.Chirifu, M.Mizuguchi, Y.Nabeshima, Y.Suwa, H.Morioka, T.Arimori, M.A.Suico, T.Shuto, Y.Sako, M.Momohara, T.Koga, S.Morino-Koga, Y.Yamagata and H.Kai  
The Crystal Structure of the Green Tea Polyphenol (-)-Epigallocatechin Gallate-Transthyretin Complex Reveals a Novel Binding Site Distinct from the Thyroxine Binding Site  
*Biochemistry*, **49** (2010) 6104.
- S.Fushinobu  
Unique Sugar Metabolic Pathways of Bifidobacteria  
*Biosci. Biotechnol. Biochem.*, **74** (2010) 2374.
- T.Inuzuka, H.Suzuki, M.Kawasaki, H.Shibata, S.Wakatsuki and M.Maki  
Molecular Basis for Defect in Alix-Binding by Alternatively Spliced Isoform of ALG-2 (ALG-2 $\Delta^{GF122}$ ) and Structural Roles of F122 in Target Recognition  
*BMC Structural Biology*, **10** (2010) 25.
- Y.Nishitani, S.Yoshida, M.Fujihashi, K.Kitagawa, T.Doi, H.Atomi, T.Imanaka and K.Miki  
Structure-Based Catalytic Optimization of a Type III Rubisco from a Hyperthermophile  
*J. Biol. Chem.*, **285** (2010) 39339.
- H.Yoshida, K.Takeda, K.Izumori and S.Kamitori  
Elucidation of the Role of Ser329 and the C-Terminal Region in the Catalytic Activity of *Pseudomonas stutzeri* L-Rhamnose Isomerase  
*Protein Eng. Design and Selection*, **23** (2010) 919.
- Z.Prokop, Y.Sato, J.Brezovsky, T.Mozga, R.Chaloupkova, T.Koudelakova, P.Jerabek, V.Stepankova, R.Natsume, J.G.E.van Leeuwen, D.B.Janssen, J.Florian, Y.Nagata, T.Senda and J.Damborsky  
Enantioselectivity of Haloalkane Dehalogenase and its Modulation by Surface Loop Engineering  
*Angew. Chem. Int. Ed.*, **49** (2010) 6111.
- H.H.Lee, J.Y.Jang, H.J.Yoon, S.J.Kim and S.W.Suh  
Crystal Structures of Two Archaeal Pelotas Reveal Inter-Domain Structural Plasticity  
*Biochem. Biophys. Res. Commun.*, **399** (2010) 600.
- H.H.Lee and S.W.Suh  
Overexpression, Crystallization and Preliminary X-Ray Crystallographic Analysis of *Pseudomonas aeruginosa* MnmE, a GTPase Involved in tRNA Modification  
*Acta Cryst. F*, **66** (2010) 905.

D.J.Kim, K.S.Park, J.H.Kim, S.H.Yang, J.Y.Yoon, B.G.Han, H.S.Kim, S.J.Lee, J.Y.Jang, K.H.Kim, M.J.Kim, J.S.Song, H.J.Kim, C.M.Park, S.K.Lee, B.I.Lee and S.W.Suh

*Helicobacter pylori* Proinflammatory Protein Up-Regulates NF- $\kappa$ B as a Cell-Translocating Ser/Thr Kinase

Proc. Natl. Acad. Sci. USA, **107** (2010) 21418.

T.Uejima, K.Ihara, T.Goh, E.Ito, M.Sunada, T.Ueda, A.Nakano and S.Wakatsuki

GDP-Bound and Nucleotide-Free Intermediates of the Guanine Nucleotide Exchange in the Rab5-Vps9 System  
J. Biol. Chem., **285** (2010) 36689.

T.-P.Ko, W.-Y.Jeng, C.-I.Liu, M.-D.Lai, C.-L.Wu, W.-J.Chang, H.-L.Shr, T.-J.Lu and A.H.-J.Wang

Structures of Human MST3 Kinase in Complex with Adenine, ADP and Mn<sup>2+</sup>

Acta Cryst. D, **66** (2010) 145.

D.Kim, B.H.San, S.H.Moh, H.Park, D.Y.Kim, S.Lee and K.K.Kim

Structural Basis for the Substrate Specificity of PepA from *Streptococcus pneumoniae*, A Dodecameric Tetrahedral Protease.

Biochem. Biophys. Res. Commun., **391** (2010) 431.

H.M.Ta, G.T.Nguyen, H.M.Jin, J.Choi, H.Park, N.Kim, H.Y.Hwang and K.K.Kim

Structure-Based Development of a Receptor Activator of Nuclear Factor- $\kappa$ B Ligand (RANKL) Inhibitor Peptide and Molecular Basis for Osteopetrosis

Proc. Natl. Acad. Sci. USA, **107** (2010) 20281.

H.M.Ta and K.K.Kim

Crystal Structure of *Streptococcus pneumoniae* Sp1610, a Putative tRNA Methyltransferase, in Complex with S-adenosyl-L-methionine (p NA)

Protein Sci., **19** (2010) 617.

T.Ohnuma, T.Numata, T.Osawa and T.Fukamizo

Crystallization and Preliminary X-Ray Diffraction Analysis of a Class V Chitinase from *Nicotiana glauca*  
Acta Cryst. F, **66** (2010) 1599.

A.Furukawa, T.Arita, S.Satoh, K.Wakabayashi, S.Hayashi, Y.Matsui, K.Araki, M.Kuroha and J.Ohsumi  
Discovery of a Novel Selective PPAR $\gamma$  Modulator from (-)-Cercosporamide Derivatives

Bioorg. Med. Chem. Lett., **20** (2010) 2095.

## NW14A

S.Noizawa, T.Sato, M.Chollet, K.Ichiyanagi, A.Tomita, H.Fujii, S.Adachi and S.Koshihara

Direct Probing of Spin State Dynamics Coupled with Electronic and Structural Modifications by Picosecond Time-Resolved XAFS

J. Am. Chem. Soc., **132** (2010) 61.

A.Tomita, T.Sato, S.Noizawa, S.Koshihara and S.Adachi  
Tracking Ligand-Migration Pathways of Carbonmonoxy Myoglobin in Crystals at Cryogenic Temperatures  
Acta Cryst. A, **66** (2010) 220.

A.Tomita, U.Kreutzer, S.Adachi, S.Koshihara and T.Jue

'It's Hollow': The Function of Pores within Myoglobin

J. Exp. Biol., **213** (2010) 2748.

S.Noizawa, T.Sato, S.Adachi and S.Koshihara

Detecting Ultrafast Switching of Molecular Magnetism and Structural Change by Pulsed Synchrotron X-Ray  
Miraizairyu, **10** (2010) 6. (*in Japanese*).

L.Guerin, J.Hebert, M.B.Cointe, S.Adachi, S.Koshihara, H.Cailleau and E.Collet

Capturing One-Dimensional Precursors of a Photoinduced Transformation in a Material

Phys. Rev. Lett., **105** (2010) 246101.

## SPF

T.Tachibana, K.Michishio, H.Terabe, K.Wada, T.Hyodo, T.Kurihara, A.Yagishita and Y.Nagashima

Production of Positronium Negative Ions using a Pulsed Low-Energy Positron Beam at the KEK-PF Slow Positron Facility

Nucl. Instrum. Meth. Phys. Res. A, **621** (2010) 670.

## Synchrotron Radiation Science Division

K.Ohwada, K.Namikawa, S.Shimomura, H.Nakao, H.Mimura, K.Yamauchi, M.Matsushita and J.Mizuki

X-Ray Intensity Fluctuation Spectroscopy using Nanofocused Hard X-Rays: Its Application to Study of Relaxor Ferroelectrics

Jpn. J. Appl. Phys., **49** (2010) 020216.

H.Nakao, K.Ohwada, S.Shimomura, A.Ochiai, K.Namikawa, J.Mizuki, H.Mimura, K.Yamauchi and Y.Murakami

X-Ray Photon Correlation Spectroscopy Study in Valence Fluctuation Compound Eu<sub>3</sub>S<sub>4</sub>

AIP Conf. Proc., **1234** (2010) 935.

T.Kawauchi, H.Yonemura, S.Kishimoto and K.Fukutani

Influence of Hydrogen Impurity on the Characteristic of a Semiconductor Device

Proc. 23th Workshop on the Tandem Accelerator and Related Technics, (2010) 176. (*in Japanese*).

J.Laverock, S.B.Dugdale, M.A.Alam, M.V.Roussanova, J.R.Wensley, J.Kwiatkowska and N.Shiotani

Fermi Surface of an Important Nanosized Metastable Phase: Al<sub>3</sub>Li

Phys. Rev. Lett., **105** (2010) 236401.

## Light Source Division

M.Sawamura, T.Furuya, H.Sasaki, T.Takahashi, K.Umemori and K.Shinoe

Eccentric-Fluted Beam Pipes to Damp Quadrupole Higher-Order Modes

Phys. Rev. ST Accel. Beams, **13** (2010) 022003.

H.Takaki, N.Nakamura, Y.Kobayashi, K.Harada,  
T.Miyajima, A.Ueda, S.Nagahashi, M.Shimada, T.Obina  
and T.Honda

Beam Injection with a Pulsed Sextupole Magnet in an  
Electron Storage Ring  
Phys. Rev. ST Accel. Beams, **13** (2010) 020705.

R.Nagai, R.Hajima, N.Nishimori, T.Muto,  
M.Yamamoto, Y.Honda, T.Miyajima, H.Iijima,  
M.Kuriki, M.Kuwahara, S.Okumi and T.Nakanishi

High-Voltage Testing of a 500-kV DC Photocathode  
Electron Gun  
Rev. Sci. Instrum., **81** (2010) 033304.

Y.Tanimoto, T.Honda, T.Uchiyama and T.Nogami  
Sudden Lifetime Drop Phenomena and their Effective  
Cures in PF-Ring and PF-AR  
AIP Conf. Proc., **1234** (2010) 595.

Y.Tanimoto, T.Honda, S.Sakanaka, T.Uchiyama and  
T.Nogami

Recent Progress in Dust-Trapping Research at the  
Photon Factory Advanced Ring  
J. Particle Accelerator Soc. Jpn., **7** (2010) 42. (*in  
Japanese*).

H.Miyauchi

Recent Progress at the Photon Factory Storage Ring  
AIP Conf. Proc., **1234** (2010) 281.

H.Miyauchi, T.Tahara and S.Asaoka

Beamline Front-End for Minipole Undulator at the  
Photon Factory Storage Ring  
AIP Conf. Proc., **1234** (2010) 713.

The articles of the experiments utilizing multiple beamlines  
are simultaneously printed here in each section.