

- [45] "Direct Observation of Low-Energy Sm Phonon in SmRu<sub>4</sub>P<sub>12</sub>"  
S. Tsutsui, H. Kobayashi, D. Ishikawa, J. Sutter, A. Baron, T. Hasegawa, N. Ogita, M. Udagawa, Y. Yoda, H. Onodera, D. Kikuchi, H. Sugawara, C. Sekine, I. Shirotnani, H. Sato  
Journal of the Physical Society of Japan, **77**, (2008), 033601
- [46] "Investigation of the Anharmonic Guest Modes in Filled Skutterudites Using Inelastic X-ray Scattering Techniques"  
S. Tsutsui, H. Kobayashi, J. Sutter, H. Uchiyama, A. Baron, Y. Yoda, D. Kikuchi, H. Sugawara, C. Sekine, I. Shirotnani, A. Ochiai, H. Sato  
Journal of the Physical Society of Japan, **77**, (2008), 275-259

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**Refereed Journals**

- [2003]
- [1] "Development of a New Holographic Method with Resonant X-ray Scattering"  
Y. Takahashi, K. Hayashi, E. Matsubara  
Science and Technology of Advanced Materials, **4**, (2003), 409-414
- [2004]
- [2] "Quadrupole Transition in the Dy  $L_3$  Edge Observed by Lifetime-Broadening-Suppressed XANES Spectroscopy"  
H. Hayashi, R. Takeda, M. Kawata, Y. Udagawa, N. Kawamura, Y. Watanabe, S. Nanao  
Physical Review B, **70**, (2004), 155113
- [3] "X-ray Fluorescence Holography Study on Si<sub>1-x</sub>Ge<sub>x</sub> Single Crystal"  
K. Hayashi, Y. Takahashi, I. Yonenaga, E. Matsubara  
Materials Transactions, **45**, (2004), 1994-1997
- [4] "Properties of Individual Asian Dust Storm Particles Collected at Kosan, Korea during ACE-Asia"  
C. Ma, S. Tohno, M. Kasahara, S. Hayakawa  
Atmospheric Environment, **38**, (2004), 1133-1143
- [5] "Determination of the Chemical Properties of Residues Retained in Individual Cloud Droplets by XRF Microprobe at SPring-8"  
C. Ma, S. Tohno, M. Kasahara, S. Hayakawa  
Nuclear Instruments and Methods in Physics Research Section B, **217**, (2004), 657-665
- [6] "The Nature of Individual Solid Particles Retained in Size-Resolved Raindrops Fallen in Asian Dust Storm Event during ACE-Asia"  
C. Ma, S. Tohno, M. Kasahara, S. Hayakawa  
Atmospheric Environment, **38**, (2004), 2951-2964
- [7] "Properties of the Size-Resolved and Individual Cloud Droplets Collected in the Western Japan during Asian Dust Storm Event"  
C. Ma, S. Tohno, M. Kasahara, S. Hayakawa  
Atmospheric Environment, **38**, (2004), 4519-4529
- [8] "Direct Speciation of Tin Compounds in Environmental Samples using Sn K-edge XANES"  
N. Sakakibara, Y. Takahashi, Y. Yamagushi, K. Shibata, T. Uruga  
Chemistry Letters, **33**, (2004), 264-265
- [9] "Surface X-ray Diffraction in Transmission Geometry"  
H. Tajiri, O. Sakata, T. Takahashi  
Applied Surface Science, **234**, (2004), 403-408
- [10] "Study of Advanced X-ray Fluorescence Holography Method"  
Y. Takahashi  
Doctor Thesis (Tohoku University), (2004), 1-157
- [11] "Development and Application of Laboratory X-ray Fluorescence Holography Equipment"  
Y. Takahashi, K. Hayashi, E. Matsubara  
Powder Diffraction, **19**, (2004), 77-80
- [12] "Distribution of Chemical Elements and Chemical States of Sulfur on Kosa Particles Fallen in Asian Industrialized Cities"  
T. Tanabe, Y. Tanaka, D. Tanaka, Y. Taniguchi, M. Toyoda, J. Kawai, H. Ishii, C. Riu, Y. Yilixiati, S. Hayakawa, Y. Kitajima, Y. Terada  
分析化学 (Bunseki Kagaku), **53**, (2004), 1411-1418
- [13] "X-ray Analysis of a Single Aerosol Particle with Combination of Scanning Electron Microscope and Synchrotron Radiation X-ray Microscope"  
M. Toyoda, K. Kaibuchi, M. Nagasono, Y. Terada, T. Tanabe, S. Hayakawa, J. Kawai  
Spectrochimica Acta Part B, **59**, (2004), 1311-1315

- [2005]
- [14] "X-Ray Fluorescence Holography of 0.078 wt% Copper in Silicon Steel"  
K. Hayashi, T. Hayashi, Y. Takahashi, E. Matsubara, S. Suzuki  
Nuclear Instruments and Methods in Physics Research Section B, **238**, (2005), 192-195
- [15] "Three-Dimensional Atomic Image around Mn Atoms in Diluted Magnetic Semiconductor  $Zn_{0.4}Mn_{0.6}Te$  Obtained by X-Ray Fluorescence Holography"  
S. Hosokawa, N. Happo, K. Hayashi, Y. Takahashi, T. Ozaki, K. Horii, E. Matsubara  
Japanese Journal of Applied Physics, **44**, (2005), 1011-1012
- [16] "X-ray Absorption Fine Structure Combined with X-ray Fluorescence Spectrometry. Improvement of Spectral Resolution at the Absorption Edges of 9 - 29 keV"  
Y. Izumi, H. Nagamori, F. Kiyotaki, D. Masih, T. Minato, E. Roisin, J. Candy, H. Tanida, T. Uruga  
Analytical Chemistry, **77**, (2005), 6969-6975
- [17] "Nondestructive Analysis of Silver in Gold Foil Using Synchrotron Radiation X-ray Fluorescence Spectrometry"  
M. Kasamatsu, Y. Suzuki, T. Nakanishi, O. Shimoda, Y. Nishiwaki, N. Miyamoto, S. Suzuki  
Analytical Sciences, **21**, (2005), 785-787
- [18] "Differentiation, Distribution, and Chemical State of Intracellular Trace Elements in LAD2 Mast Cell Line"  
K. Nakashima, T. Shirakawa, T. Takeuchi  
Biological Trace Element Research, **108**, (2005), 105-114
- [19] "Atomic Imaging in EBCO Superconductor Films by an X-ray Holography System using a Toroidally Bent Graphite Analyzer"  
T. Sekioka, K. Hayashi, E. Matsubara, Y. Takahashi, T. Hayashi, M. Terasawa, T. Mitamura, A. Iwase, O. Michikami  
Journal of Synchrotron Radiation, **12**, (2005), 530-533
- [20] "Forensic Discrimination of Sheet Glass by a Refractive-Index Measurement and Elemental Analysis with Synchrotron Radiation X-ray Fluorescence Spectrometry"  
Y. Suzuki, M. Kasamatsu, S. Suzuki, T. Nakanishi, M. Takatsu, S. Muratsu, O. Shimoda, S. Watanabe, Y. Nishiwaki, N. Miyamoto  
Analytical Sciences, **21**, (2005), 855-859
- [21] "Elemental Identification of a Three-Dimensional Environment by Complex X-ray Holography"  
Y. Takahashi, K. Hayashi, E. Matsubara  
Physical Review B, **71**, (2005), 134107
- [22] "Reconstruction of Atomic Images from Multiple-Energy X-ray Holograms of FePt Films by the Scattering Pattern Matrix Method"  
Y. Takahashi, E. Matsubara, Y. Kawazoe, K. Takanashi, T. Shima  
Applied Physics Letters, **87**, (2005), 234104
- [23] "Tin Accumulation in Spermatozoa of the Rats Exposed to Tributyltin Chloride by Synchrotron Radiation X-ray Fluorescence (SR-XRF) Analysis with Microprobe"  
S. Takeda, Y. Nishimura, Y. Terada, S. Ueno, Y. Watanabe, M. Yukawa  
Nuclear Instruments and Methods in Physics Research Section B, **231**, (2005), 333-337
- [24] "Investigation of Individual Micrometer-Size Kosa Particle with On-Site Combination of Electron Microscope and Synchrotron X-ray Microscope"  
Y. Tanaka, Y. Taniguchi, D. Tanaka, M. Toyoda, H. Ishii, T. Tanabe, Y. Terada, S. Hayakawa, J. Kawai  
Analytical Sciences, **21**, (2005), 839-843
- [2006]
- [25] "Study on Defects and Impurities in Cast-Grown Polycrystalline Silicon Substrate for Solar Cells"  
K. Arafune, T. Sasaki, F. Wakabayashi, Y. Terada, Y. Ohshita, M. Yamaguchi  
Physica B, **376-377**, (2006), 236-239
- [26] "Measurement of Incident Beam Angular Dependence of X-Ray Luminescence Intensity and Possibility of New Atom Resolved Holography"  
K. Hayashi, E. Matsubara, T. Hayashi, H. Makino, T. Shishido, T. Yao  
分析化学 (Bunseki Kagaku), **55**, (2006), 441-446
- [27] "2-D X-ray Fluorescence Imaging of Cadmium Hyperaccumulating Plants by Using High-energy Synchrotron Radiation X-ray Microbeam"  
A. Hokura, R. Onuma, N. Kitajima, Y. Terada, H. Saito, T. Abe, S. Yoshida, I. Nakai  
Chemistry Letters, **35**, (2006), 1246-1247
- [28] "Determination of  $As^{III}/As^V$  Ratio in Alluvial Sediments of the Bengal Basin Using X-ray Absorption Near-edge Structure"  
T. Itai, H. Masuda, Y. Takahashi, M. Mitamura, M. Kusakabe  
Chemistry Letters, **35**, (2006), 866-867

- [29] "Elemental Distribution in Individual Rain Droplets Determined by a Combination of the Replication Method and the Synchrotron Radiation X-ray Fluorescence Microprobe Technique"  
C. Ma, S. Tohno, M. Kasahara, S. Hayakawa  
Analytical Sciences, **22**, (2006), 415-419
- [30] "Understanding of Working Mechanism of Iron-based Materials for the Arsenic Removal and Surface Environmental Catalysts by Selective Spectroscopy"  
D. Masih  
Doctor Thesis (Tokyo Institute of Technology), (2006), 1-176
- [31] "Electron Ion-Coincidence Measurements for K-Shell Excited Free Krypton Clusters"  
K. Nagaya, M. Yao, Y. Ohmasa, A. Mori, H. Murakami, H. Kajikawa  
Journal of the Physical Society of Japan, **75**, (2006), 114801
- [32] "Application of Synchrotron Radiation High-energy X-ray Fluorescence Spectrometry to Discrimination of Glass Fragments"  
T. Nakanishi, Y. Nishiwaki, N. Miyamoto, O. Shimoda, S. Watanabe, S. Muratsu, M. Takatsu, Y. Terada  
日本法科学技術学会誌 (Japanese Journal of Forensic Science and Technology), **11**, (2006), 177-183
- [33] "Application of X-ray Absorption Near-Edge Structure (XANES) using Bent Crystal Analyzer to Speciation of Trace Os in Iron Meteorites"  
Y. Takahashi, T. Uruga, H. Tanida, Y. Terada, S. Nakai, H. Shimizu  
Analytica Chimica Acta, **558**, (2006), 332-336  
[2007]
- [34] "Coulomb Explosion of K-shell Ionized Krypton Clusters Studied by Multiple-ion Coincidence Momentum Imaging"  
H. Iwayama, K. Nagaya, H. Murakami, Y. Ohmasa, M. Yao  
The Journal of Chemical Physics, **126**, (2007), 024305
- [35] "X-ray Absorption Fine Structure Combined with X-ray Fluorescence Spectrometry. Part 18. Tin Site Structure of Pt-Sn Catalyst"  
Y. Izumi, D. Masih, E. Roisin, J. Candy, H. Tanida, T. Uruga  
Materials Letters, **61**, (2007), 3833-3836
- [36] "State-sensitive Monitoring of Active and Promoter Sites. Applications to Au/titania and Pt-Sn/silica Catalysts by XAFS Combined with X-ray Fluorescence Spectrometry"  
Y. Izumi, D. Masih, J. Candy, H. Yoshitake, Y. Terada, H. Tanida, T. Uruga  
AIP Conference Proceedings, **882**, (2007), 588-590
- [37] "Bioreductive Deposition of Platinum Nanoparticles on the Bacterium *Shewanella algae*"  
Y. Konishi, K. Ohno, N. Saito, T. Nomura, S. Nagamine, H. Hishida, Y. Takahashi, T. Uruga  
Journal of Biotechnology, **128**, (2007), 648-653
- [38] "Direct Determination of Oxidation State of Gold Deposits in Metal-Reducing Bacterium *Shewanella algae* Using X-Ray Absorption Near-Edge Structure Spectroscopy (XANES)"  
Y. Konishi, T. Tukiya, N. Saito, Y. Takahashi, T. Uruga  
Journal of Bioscience and Bioengineering, **103**, (2007), 568-571
- [39] "Microbial Deposition of Gold Nanoparticles by the Metal-Reducing Bacterium *Shewanella algae*"  
Y. Konishi, T. Tsukiyama, T. Tachimi, N. Saito  
Electrochimica Acta, **53**, (2007), 186-192
- [40] "Electron-Ion-Coincidence Spectra of K-shell Excited Ne, Ar, and Kr Clusters"  
H. Murakami, K. Nagaya, Y. Ohmasa, H. Iwayama, M. Yao  
The Journal of Chemical Physics, **126**, (2007), 054306
- [41] "Spectrometer for Lanthanides' K X-ray Fluorescence"  
K. Sakurai, T. Mizusawa, Y. Terada  
Review of Scientific Instruments, **78**, (2007), 066108
- [42] "Chemical and Structural Control of the Partitioning of Co, Ce, and Pb in Marine Ferromanganese Oxides"  
Y. Takahashi, A. Manceau, N. Geoffroy, M. Marcus, A. Usui  
Geochimica et Cosmochimica Acta, **71**, (2007), 984-1008
- [43] "An Atomic Level Study of Rhenium and Radiogenic Osmium in Molybdenite"  
Y. Takahashi, H. Tanida, T. Uruga, Y. Terada, K. Suzuki  
Geochimica et Cosmochimica Acta, **71**, (2007), 5180-5190
- [44] "X-ray Reflection from a Water Surface Investigated by a New Liquid Interface Reflectometer at SPring-8"  
Y. Yano, T. Uruga, H. Tanida, H. Toyokawa, Y. Terada, M. Takagaki  
Journal of Physics: Conference Series, **83**, (2007), 012024

- [45] [2008]  
"State-sensitive Monitoring of Gold Nanoparticle Sites on Titania and the Interaction of the Positive Au site with O<sub>2</sub> by Au L  $\alpha_1$ -selecting X-ray Absorption Fine Structure"  
Y. Izumi, D. Obaid, K. Konishi, D. Masih, M. Takagaki, Y. Terada, H. Tanida, T. Uruga  
*Inorganica Chimica Acta*, **361**, (2008), 1149-1156
- [46] "Observation of Arsenic Transfer in Leaf Tissue of Hyperaccumulator Fern by Utilizing Synchrotron Radiation Micro-XRF Imaging"  
N. Kitajima, T. Kasiwabara, N. Fukuda, S. Endou, A. Hokura, Y. Terada, I. Nakai  
*Chemistry Letters*, **37**, (2008), 32-33

BL38B1

## Refereed Journals

- [1] [2001]  
"Chemical Analysis for Fe in LiCoO<sub>2</sub> by XAFS Analysis"  
H. Ohzono, M. Kouno, H. Miyake, H. Ohyama  
*Analytical Sciences*, **17.Supplement**, (2001), i135-i137
- [2] [2002]  
"Determinants of the Inhibition of a Taiwan Habu Venom Metalloproteinase by Its Endogenous Inhibitors Revealed by X-ray Crystallography and Synthetic Inhibitor Analogues"  
K. Huang, S. Chiou, T. Ko, Andrew H.-J. Wang  
*European Journal of Biochemistry*, **269**, (2002), 3047-3056
- [3] "Relationship between the Li Ionic Conduction and the Local Structures in B-Site Substituted Perovskite Compounds, (Li<sub>0.1</sub>La<sub>0.3</sub>)<sub>1+x</sub>M<sub>x</sub>Nb<sub>1-x</sub>O<sub>3</sub> (M=Zr, Ti; x=0, 0.05)"  
M. Nakayama, H. Ikuta, Y. Uchimoto, M. Wakihara, Y. Terada  
*Applied Physics Letters*, **81**, (2002), 2977-2979
- [4] "Local Structure around Mn in Ferromagnetic GaMnN Film Studied by X-Ray Absorption Fine Structure"  
M. Sato, H. Tanida, K. Kato, T. Sasaki, Y. Yamamoto, S. Sonoda, S. Shimizu, H. Hori  
*Japanese Journal of Applied Physics*, **41**, (2002), 4513-4514
- [5] "Crystal Structure of the RuvA-RuvB Complex: A Structural Basis for the Holliday Junction Migrating Motor Machinery"  
K. Yamada, T. Miyata, D. Tsuchiya, T. Oyama, Y. Fujiwara, T. Ohnishi, H. Iwasaki, H. Shinagawa, M. Ariyoshi, K. Mayanagi, K. Morikawa  
*Molecular Cell*, **10**, (2002), 671-681
- [6] [2003]  
"YAP Imager and Its Application with High-Energy X-Ray Beams up to 150 keV"  
K. Hirota, H. Toyokawa, M. Suzuki, T. Kubo, M. Nomachi, Y. Sugaya, M. Yosoi, A. Gorin, I. Manuilov, A. Riazantsev, K. Kuroda  
*Nuclear Instruments and Methods in Physics Research Section A*, **510**, (2003), 83-91
- [7] "A Fast Position Encoding System for a High-Energy X-Ray YAP Imager"  
K. Hirota, H. Toyokawa, M. Suzuki, T. Kudo, M. Nomachi, Y. Sugaya, M. Yosoi  
*Nuclear Instruments and Methods in Physics Research Section A*, **513**, (2003), 187-192
- [8] "Crystal Structure of *Escherichia coli* Thioesterase I/Protease I/Lysophospholipase L<sub>1</sub>: Consensus Sequence Blocks Constitute the Catalytic Center of SGNH-hydrolases through a Conserved Hydrogen Bond Network"  
Y. Lo, S. Lin, J. Shaw, Y. Liaw  
*Journal of Molecular Biology*, **330**, (2003), 539-551
- [9] "Structural and Electronic Investigation of TbPdAl by Means of EXAFS and XANES Measurements"  
M. Mizumaki, K. Yoshii, H. Kitazawa, H. Tanida  
*Journal of Solid State Chemistry*, **171**, (2003), 291-294
- [10] "Changes in Local Structure during Electrochemical Li Insetion into A-Site Deficient Perovskite Oxides, La<sub>1/3</sub>NbO<sub>3</sub>"  
M. Nakayama, H. Ikuta, Y. Uchimoto, M. Wakihara, Y. Terada, T. Miyanaga, I. Watanabe  
*The Journal of Physical Chemistry B*, **107**, (2003), 10715-10721
- [11] "X-Ray and Biochemical Anatomy of an Archaeal XPF/RAD1/Mus81 Family Nuclease: Similarity between Its Endonuclease Domain and Restriction Enzyme"  
T. Nishino, K. Komori, Y. Ishino, K. Morikawa  
*Structure*, **11**, (2003), 445-457
- [12] "Preparation and Crystallization of Human Flap Endonuclease FEN-1 in Complex with Proliferating-Cell Nuclear Antigen, PCNA"  
S. Sakurai, K. Kitano, K. Okada, K. Hamada, H. Morioka, T. Hakoshima  
*Acta Crystallographica Section D*, **59**, (2003), 933-935