

- [35] "Parabolic Undulator and Its Application to Fast Switching of Helicity"
T. Tanaka, H. Kitamura
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 153-156
- [36] "SPECTRA: a Synchrotron Radiation Calculation Code"
T. Tanaka, H. Kitamura
Journal of Synchrotron Radiation, **8**, (2001), 1221-1228
- [37] "Undulator Field Correction by in-situ Sorting"
T. Tanaka, T. Seike, H. Kitamura
Nuclear Instruments and Methods in Physics Research Section A, **465**, (2001), 600-605
[2002]
- [38] "The Brightest X-Ray Source: a Very Long Undulator at SPring-8"
T. Hara, M. Yabashi, T. Tanaka, T. Bizen, S. Goto, Xavier M. Marechal, T. Seike, K. Tamasaku, T. Ishikawa, H. Kitamura
Review of Scientific Instruments, **73**, (2002), 1125-1128
- [39] "Consideration on an Undulator Magnetic Structure for Polarization Control"
T. Tanaka, K. Shirasawa, H. Kitamura
Review of Scientific Instruments, **73**, (2002), 1724-1727
- [40] "Misalignment Effects of Segmented Undulator in Self-Amplified Spontaneous Emission"
T. Tanaka, H. Kitamura, T. Shintake
Physical Review Special Topics - Accelerators and Beams, **5**, (2002), 040701
- [41] "Simple Scheme for Harmonic Suppression by Undulator Segmentation"
T. Tanaka, H. Kitamura
Journal of Synchrotron Radiation, **9**, (2002), 266-269
- [42] "Production of Linear Polarization by Segmentation of Helical Undulator"
T. Tanaka, H. Kitamura
Nuclear Instruments and Methods in Physics Research Section A, **490**, (2002), 583-591
[2003]
- [43] "Baking Effect for NdFeB Magnets against Demagnetization Induced by High-Energy Electrons"
T. Bizen, Y. Asano, T. Hara, X. Marechal, T. Seike, T. Tanaka, H. Lee, D. Kim, C. W. Chung, H. Kitamura
Nuclear Instruments and Methods in Physics Research Section A, **515**, (2003), 850-852
- [44] "Helicity Switching of Circularly Polarized Undulator Radiation by Local Orbit Bumps"
T. Hara, K. Shirasawa, M. Takeuchi, T. Seike, Y. Saito, T. Muro, H. Kitamura
Nuclear Instruments and Methods in Physics Research Section A, **498**, (2003), 496-502
[2004]
- [45] "Cryogenic Permanent Magnet Undulators"
T. Hara, T. Tanaka, H. Kitamura, T. Bizen, X. Maréchal, T. Seike, T. Kohda, Y. Matsuura
Physical Review Special Topics - Accelerators and Beams, **7**, (2004), 050702
- [46] "Application of High-Temperature Superconducting Permanent Magnets to Synchrotron Radiation Sources"
T. Tanaka, T. Hara, H. Kitamura, R. Tsuru, T. Bizen, X. Maréchal, T. Seike
Physical Review Special Topics - Accelerators and Beams, **7**, (2004), 090704
[2005]
- [47] "Scheme for Precise Correction of Orbit Variation Caused by Dipole Error Field of Insertion Device"
T. Nakatani, A. Agui, H. Aoyagi, T. Matsushita, M. Takao, M. Takeuchi, A. Yoshigoe, H. Tanaka
Review of Scientific Instruments, **76**, (2005), 055105

Instrumentation & Technique

Refereed Journals

- [1998]
- [1] "Thermal and Deformation Analyses of Side-Cooled Monochromator Mirrors for the SPring-8/Figure-8 Soft X-Ray Undulator"
N. Kihara, K. Mashima, S. Miura, A. Miyaji, K. Wakamiya, S. Takahashi, M. Kageyama, S. Ichikawa
Journal of Synchrotron Radiation, **5**, (1998), 811-813
[1999]
- [2] "Feasibility Study of Silicon PN Photodiodes as X-Ray Intensity Monitors for High Flux X-Ray Beam with Synchrotron Radiation"
K. Sato
Nuclear Instruments and Methods in Physics Research Section A, **436**, (1999), 285-290

- [3] "A Multiple CCD X-Ray Detector and Its First Operation with Synchrotron Radiation X-Ray Beam"
M. Suzuki, M. Yamamoto, T. Kumasaka, K. Sato, H. Toyokawa, Ian F. Aries, Paul A. Jerram, T. Ueki
Nuclear Instruments and Methods in Physics Research Section A, **436**, (1999), 174-181
- [4] "A Multiple-CCD X-Ray Detector and Its Basic Characterization"
M. Suzuki, M. Yamamoto, T. Kumasaka, K. Sato, H. Toyokawa, Ian F. Aries, Paul A. Jerram, D. Gullick, T. Ueki
Journal of Synchrotron Radiation, **6**, (1999), 6-18
- [5] "Characterization of Diamond Single Crystals for Synchrotron Radiation Monochromators"
Y. Tsusaka, S. Takeda, K. Takai, K. Yokoyama, Y. Kagoshima, J. Matsui, S. Sato, N. Toda, S. Kimura
Japanese Journal of Applied Physics, **38**, (1999), 616-619
[2000]
- [6] "Benchmark Experiment for Radiation Shielding Around the Beam Dump of the SPring-8 Injector"
Y. Asano, N. Sasamoto
Journal of Nuclear Science and Technology, **Suppl. 1**, (2000), 535-539
- [7] "Experiment at SPring-8"
T. Nakano, J. K. Ahn, H. Ejiri, M. Fujiwara, T. Hotta, N. Matsuoka, T. Matsumura, T. Mibe, M. Nomachi, H. Toki, C. W. Wang, S. C. Wang, H. Kawai, T. Ooba, T. Iwata, Y. Miyachi, T. Toyama, A. Wakai, K. Hicks, H. Akimune, Y. Asano, Y. Sugaya, S. Date, N. Kumagai, Y. Ohashi, H. Toyokawa, K. Imai, M. Yosoi, A. Ichikawa, T. Kishimoto, A. Sakaguchi, M. Sumihama, S. Makino, H. Shimizu
Nuclear Physics A, **670**, (2000), 332c-339c
- [8] "X-Ray Microbeam with Sputtered-Sliced Fresnel Zone Plate at SPring-8 Undulator Beamline"
Y. Suzuki, M. Awaji, Y. Kohmura, A. Takeuchi, N. Kamijo, S. Tamura, K. Handa
X-Ray Microscopy: Proceedings of the Sixth International Conference (AIP Conference Proceedings 507), **CP507**, (2000), 535-538
- [9] "Timing Control of an Intense Picosecond Pulse Laser to the SPring-8 Synchrotron Radiation Pulses"
Y. Tanaka, T. Hara, H. Kitamura, T. Ishikawa
Review of Scientific Instruments, **71**, (2000), 1268-1274
[2001]
- [10] "High Resolution X-Ray Fluorescence Measurements Using a Flat Analyzer Crystal and an X-Ray CCD"
S. Hayakawa, Y. Kagoshima, Y. Tsusaka, J. Matsui, T. Hirokawa
Journal of Trace and Microprobe Techniques, **19**, (2001), 615-621
- [11] "Characterization of the Sputtered-Sliced Zone Plate for High Energy X-Rays"
N. Kamijo, Y. Suzuki, M. Awaji, A. Takeuchi, K. Uesugi, M. Yasumoto, S. Tamura, Y. Kohmura, A. Duevel, D. Rudolph, G. Schmahl
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 868-871
- [12] "Improvement of a High Pressure Cell with Diamond Windows for Solution X-Ray Scattering of Proteins"
Y. Nishikawa, T. Fujisawa, Y. Inoko, M. Moritoki
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 1384-1387
- [13] "Background Noise in a Cauchois-Type High-Resolution Compton Scattering Spectrometer at SPring-8"
Y. Sakurai, N. Hiraoka, M. Itou, M. Mizumaki, T. Ohata, A. Deb, H. Toyokawa, M. Suzuki, N. Sakai
Journal of Physics and Chemistry of Solids, **62**, (2001), 2099-2102
- [14] "Tuning of X-Ray Phase Retarder for Magnetic EXAFS Spectroscopy in Helicity Modulation Mode"
M. Suzuki, N. Kawamura, T. Ishikawa
Journal of Synchrotron Radiation, **8**, (2001), 357-359
- [15] "Diffraction-Limited Microbeam with Fresnel Zone Plate Optics in Hard X-Ray Regions"
Y. Suzuki, A. Takeuchi, H. Takano, T. Ohigashi, H. Takenaka
Japanese Journal of Applied Physics, **40**, (2001), 1508-1510

- [16] "A YAP(Ce) Imager Operated in High Energy X-Ray Region"
M. Suzuki, H. Toyokawa, M. Mizumaki, Y. Ohashi, N. Yagi, H. Kamitsubo, K. Kuroda, A. Gorin, I. Manuilov, A. Riazantsuev, M. Nomachi, M. Yosoi, T. Ishikawa, K. Morimoto, F. Tokanai
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 1121-1124
- [17] "Hard X-Ray Microtomography Using X-Ray Imaging Optics"
A. Takeuchi, K. Uesugi, Y. Suzuki, S. Aoki
Japanese Journal of Applied Physics, **40**, (2001), 1499-1503
- [18] "Synchronization of Picosecond Laser Pulses to the Target X-Ray Pulses at SPring-8"
Y. Tanaka, T. Hara, H. Kitamura, T. Ishikawa
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 1451-1454
- [19] "X-Ray Absorption Spectroscopy of Diluted System by Undulator Photon Source and Multielement Solid-State Detector"
H. Tanida, M. Ishii
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 1564-1567
- [20] "Development of a One-Dimensional Microstrip Germanium Detector for Compton Scattering Experiment at SPring-8"
H. Toyokawa, M. Itou, M. Mizumaki, Y. Sakurai, M. Suzuki, N. Hiraoka, N. Sakai
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 1132-1135
- [21] "Performance of a Micro-Strip Gas Chamber in Solution X-Ray Scattering"
H. Toyokawa, T. Fujisawa, Y. Inoko, T. Nagayoshi, Y. Nishi, Y. Nishikawa, A. Ochi, M. Suzuki, T. Tanimori
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 1144-1147
- [22] "Synchrotron Radiation Microangiography System for Observation of Blood Flow in Murine Tumor Vasculature"
K. Umetani, S. Itasaka, M. Ogura, H. Kimura, M. Hiraoka
Bioimages, **9**, (2001), 97-106
- [23] "Synchrotron Radiation Microangiography for Real-Time Observation of Angiogenic Vessels in Cancer"
K. Umetani, T. Yamashita, N. Maehara, S. Imai, Y. Kajihara
Analytical Sciences, **17.Supplement**, (2001), i531-i534
- [24] "Nuclear Resonant Scattering Beamline at SPring-8"
Y. Yoda, M. Yabashi, K. Izumi, X. W. Zhang, S. Kishimoto, S. Kitao, M. Seto, T. Mitsui, T. Harami, Y. Imai, S. Kikuta
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 715-718
- [25] "EPR Spectrometer Installed in a Soft X-Ray Beamline at SPring-8 for Biophysical Studies"
A. Yokoya, K. Akamatsu
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 1333-1337
[2002]
- [26] "Use of a MicroStrip Gas Chamber Conductive Capillary Plate for Time-Resolved X-Ray Area Detection"
A. Ochi, T. Tanimori, Y. Nishi, Y. Nishi, T. Nagayoshi, Y. Ohashi, H. Uekusa, H. Toyokawa
Nuclear Instruments and Methods in Physics Research Section A, **477**, (2002), 48-54
- [27] "Fast Multigrad Fluorescent Ion Chamber with 0.1 ms Time Response"
M. Suzuki, N. Kawamura, Farrel W. Lytle, T. Ishikawa
Journal of Synchrotron Radiation, **9**, (2002), 99-102
- [28] "X-Ray Refraction-Enhanced Imaging and a Method for Phase Retrieval for a Simple Object"
Y. Suzuki, N. Yagi, K. Uesugi
Journal of Synchrotron Radiation, **9**, (2002), 160-165
- [29] "Optical Switching of X-Rays Using Laser-Induced Lattice Expansion"
Y. Tanaka, T. Hara, H. Yamazaki, H. Kitamura, T. Ishikawa
Journal of Synchrotron Radiation, **9**, (2002), 96-98
- [30] "Synchrotron Radiation Microangiography Using X-Ray SATICON for Observation of Tumor"
K. Umetani, T. Yamashita, N. Maehara, S. Imai
映像情報メディア学会誌 (The Journal of the Institute of Image Information and Television Engineers), **56**, (2002), 492-494
- [31] "X-Ray SATICON Based Direct-Sensing Detector for Small-Field Angiographic Imaging"
K. Umetani, T. Yamashita, N. Maehara, S. Imai, Y. Kajihara
Proceedings of Joint Symposium on Bio-Sensing and Bio-Imaging 2001, , (2002), 101-104

[2003]

- [32] "PILATUS: a Two-Dimensional X-Ray Detector for Macromolecular Crystallography"
E. Eikenberry, Ch. Bronnimann, G. Hulsen, H. Toyokawa, R. Horisberger, B. Schmitt, C. Schulze-Briese, T. Tomizaki
Nuclear Instruments and Methods in Physics Research Section A, **501**, (2003), 260-266
- [33] "Fundamental Properties of YAP Imager"
A. Gorin, K. Kuroda, I. Manuilov, A. Riazantsev, T. Ishikawa, H. Kamikubo, M. Suzuki, H. Toyokawa
Nuclear Instruments and Methods in Physics Research Section A, **510**, (2003), 76-82
- [34] "High Resolution-High Energy X-Ray Photoelectron Spectroscopy Using Third-Generation Synchrotron Radiation Source, and Its Application to Si-High k Insulator Systems"
K. Kobayashi, M. Yabashi, Y. Takata, T. Tokushima, S. Shin, K. Tamasaku, D. Miwa, T. Ishikawa, H. Nohira, T. Hattori, Y. Sugita, O. Nakatsuka, A. Sakai, S. Zaima
Applied Physics Letters, **83**, (2003), 1005-1007
- [35] "Phase Retrieval of Diffraction Patterns from Noncrystalline Samples Using the Oversampling Method"
J. Miao, T. Ishikawa, Erik H. Anderson, Keith O. Hodgson
Physical Review B, **67**, (2003), 174104
- [36] "Direct Determination of the Absolute Electron Density of Nanostructured and Disordered Materials at Sub-10nm Resolution"
J. Miao, James E. Amonette, Y. Nishino, T. Ishikawa, Keith O. Hodgson
Physical Review B, **68**, (2003), 012201
- [37] "Thermal Desorption Process of Bromide on Si (111) Studied by High Sensitive Mass Spectroscopy"
T. Shirao, K. Shudo, Y. Tanaka, T. Nakajima, T. Ishikawa, M. Tanaka
Japanese Journal of Applied Physics, **42**, (2003), 593-596
- [38] "Thermal Effect of Picosecond-Pulsed Laser Irradiation on Cl-Adsorbed Si (111) Surface"
T. Shirao, K. Shudo, Y. Tanaka, T. Ishikawa, M. Tanaka
Japanese Journal of Applied Physics, **42**, (2003), L386-L388
- [39] "Unambiguous X-Ray Phase Retrieval from Small Angle Scattering Data"
Karen K.-W. Siu, Andrei Y. Nikulin, P. Wells, E. Harvey, T. Bigault, Andreas K. Freund, T. Ishikawa
Journal of Applied Physics, **93**, (2003), 5161-5166
- [40] "Application of Phase-Retrieval X-Ray Diffractometry to Carbon Doped SiGe(C)/Si(C)"
Karen K.-W. Siu, Andrei Y. Nikulin, P. Zaumsei, H. Yamazaki, T. Ishikawa
Journal of Applied Physics, **94**, (2003), 1007-1012
- [41] "A 128-Channel Microstrip Germanium Detector for Compton Scattering Experiments at SPring-8 Facility"
M. Suzuki, H. Toyokawa, K. Hirota, M. Itou, M. Mizumaki, Y. Sakurai, N. Hiraoka, N. Sakai
Nuclear Instruments and Methods in Physics Research Section A, **510**, (2003), 63-75
- [2004]
- [42] "The Design and Performance of Beamline BL16XU at SPring-8"
Y. Hirai, S. Yasuami, A. Kobayashi, Y. Hirai, J. Nishino, M. Shibata, K. Yamaguchi, K. Liu, S. Kawado, T. Yamamoto, S. Noguchi, M. Takahashi, I. Konomi, S. Kimura, M. Hasegawa, N. Awaji, S. Komiya, T. Hirose, S. Ozaki, T. Okajima, T. Ishikawa, H. Kitamura
Nuclear Instruments and Methods in Physics Research Section A, **521**, (2004), 538-548
- [43] "Infrared Microspectroscopy Station at BL43IR of SPring-8"
Y. Ikemoto, T. Moriwaki, T. Hirono, S. Kimura, K. Shinoda, M. Matsunami, N. Nagai, T. Nanba, K. Kobayashi, H. Kimura
Infrared Physics and Technology, **45**, (2004), 369-373
- [44] "An X-ray BBB Michelson Interferometer"
John P. Sutter, T. Ishikawa, U. Kuetgens, G. Materlik, Y. Nishino, A. Rostomyan, K. Tamasaku, M. Yabashi
Journal of Synchrotron Radiation, **11**, (2004), 378-385
- [45] "Intensity Interferometry for the Study of X-Ray Coherence"
M. Yabashi, K. Tamasaku, T. Ishikawa
Physical Review A, **69**, (2004), 023813
- [46] "A Large-Area CMOS Imager as an X-ray Detector for Synchrotron Radiation Experiments"
N. Yagi, M. Yamamoto, K. Uesugi, K. Inoue
Journal of Synchrotron Radiation, **11**, (2004), 347-352

- [2005]
- [47] "Introduction of Spectroscopic Photoemission and Low Energy Electron Microscope in SPring-8"
F. Guo, K. Kobayashi, T. Kinoshita
表面科学 (Journal of the Surface Science Society of Japan), **26**, (2005), 20-27
- [48] "X-ray Diffraction Experiments under Pulsed Magnetic Fields above 30T"
T. Inami, K. Ohwada, Y. Matsuda, Y. Ueda, H. Nojiri, Y. Murakami, T. Arima, H. Ohta, W. Zhang, K. Yoshimura
Nuclear Instruments and Methods in Physics Research Section B, **238**, (2005), 233-236
- [49] "Three-Dimensional Atomic-Image Reconstruction from a Single Energy Si Photoelectron Hologram"
T. Matsushita, A. Agui, A. Yoshigoe
Journal of Electron Spectroscopy and Related Phenomena, **144-147**, (2005), 1175-1177
- [50] "Examination of Bragg Backscattering from Crystalline Quartz"
John P. Sutter, Alfred Q.R. Baron, T. Ishikawa, H. Yamazaki
Journal of Physics and Chemistry of Solids, **66**, (2005), 2306-2309
- [51] "Development of Hard X-ray Photoelectron Spectroscopy at BL29XU in SPring-8"
Y. Takata, M. Yabashi, K. Tamasaku, Y. Nishino, D. Miwa, T. Ishikawa, E. Ikenaga, K. Horiba, S. Shin, M. Arita, K. Shimada, H. Namatame, M. Taniguchi, H. Nohira, T. Hattori, S. Södergren, B. Wannberg, K. Kobayashi
Nuclear Instruments and Methods in Physics Research Section A, **547**, (2005), 50-55
- [2006]
- [52] "Acoustic Pulse Echoes Probed with Time-Resolved X-ray Triple-Crystal Diffractometry"
Y. Hayashi, Y. Tanaka, T. Kirimura, N. Tsukuda, E. Kuramoto, T. Ishikawa
Physical Review Letters, **96**, (2006), 115505
- [53] "Nearly Perfect Large-Area Quartz: 4 meV Resolution for 10 keV Photons over 10 cm²"
John P. Sutter, Alfred Q. R. Baron, D. Miwa, Y. Nishino, K. Tamasaku, T. Ishikawa
Journal of Synchrotron Radiation, **13**, (2006), 278-280

Optics

Refereed Journals

- [1998]
- [1] "Position of Exit X-Rays from Rotated-Inclined Double Crystal Monochromators"
Y. Kashihara, H. Yamazaki, K. Tamasaku, T. Ishikawa
Journal of Synchrotron Radiation, **5**, (1998), 679-681
- [2] "Fabrication of Silicon Crystals for Pin-Post Water-Cooling System at SPring-8"
M. Kuroda, H. Yamazaki, M. Suzuki, H. Kimura, I. Kagaya, C. Yamashita, T. Ishikawa
Journal of Synchrotron Radiation, **5**, (1998), 1211-1214
- [3] "Helicity-Modulation Technique Using Diffractive Phase Retarder for Measurements of X-Ray Magnetic Circular Dichroism"
M. Suzuki, N. Kawamura, M. Mizumaki, A. Urata, H. Maruyama, S. Goto, T. Ishikawa
Japanese Journal of Applied Physics, **37**, (1998), L1488-L1490
- [4] "Focusing and Reflection by a Bent Crystal for High-Energy Synchrotron Radiation"
H. Yamaoka, K. Ohtomo, T. Ishikawa
Journal of Synchrotron Radiation, **5**, (1998), 687-689
- [5] "Bent-Crystal Monochromators for High-Energy Synchrotron Radiation"
H. Yamaoka, T. Mochizuki, Y. Sakurai, H. Kawata
Journal of Synchrotron Radiation, **5**, (1998), 699-701
- [1999]
- [6] "Polarization-Modulation Technique with Diamond Phase Retarder to Improve the Accuracy of XMCD Measurements"
M. Suzuki, N. Kawamura, M. Mizumaki, A. Urata, H. Maruyama, S. Goto, T. Ishikawa
Journal of Synchrotron Radiation, **6**, (1999), 190-192
- [2001]
- [7] "A Compact Optical Design for Bragg Reflections Near Backscattering"
Alfred Q. R. Baron, Y. Tanaka, D. Ishikawa, D. Miwa, M. Yabashi, T. Ishikawa
Journal of Synchrotron Radiation, **8**, (2001), 1127-1130
- [8] "Diamond Double-Crystal Monochromator in Bragg Geometry Installed on BL-11XU at SPring-8"
M. Marushita, T. Mitsui, T. Fukuda, M. Takahashi, T. Inami, Y. Katayama, H. Shiwaku, J. Mizuki
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 392-395