

- [34] "Field Measurement and Correction of the Very Long In-Vacuum X-Ray Undulator at the SPring-8"
 T. Tanaka, T. Seike, X. M. Marechal, T. Bizen, T. Hara, H. Kitamura
Nuclear Instruments and Methods in Physics Research Section A, **467–468**, (2001), 149–152
- [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. S. Lee, D. E. 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

Instrumentation & Technique

Refereed Journals

[1999]

- [1] "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
- [2] "A Multiple CCD X-Ray Detector and Its First Operation with Synchrotron Radiation X-Ray Beam"
 M. Suzuki, M. Yamamoto, T. Kumakawa, 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
- [3] "A Multiple-CCD X-Ray Detector and Its Basic Characterization"
 M. Suzuki, M. Yamamoto, T. Kumakawa, K. Sato, H. Toyokawa, Ian F. Aries, Paul A. Jerram, D. Gullick, T. Ueki
Journal of Synchrotron Radiation, **6**, (1999), 6–18

[2000]

- [4] "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
- [5] "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
- [6] "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]

- [7] "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
- [8] "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
- [9] "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
- [10] "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
- [11] "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
- [12] "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
- [13] "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
- [14] "X-Ray Absorption Spectroscopy of Diluted System by Undulator Photon Source and Mult-Element Solid-State Detector"
H. Tanida, M. Ishii
Nuclear Instruments and Methods in Physics Research Section A, **467–468**, (2001), 1564–1567
- [15] "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
- [16] "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
- [17] "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
- [18] "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
- [19] "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

- [20] "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]
- [21] "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
- [22] "Fast Multigrid 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
- [23] "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
- [24] "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
- [25] "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
- [26] "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]
- [27] "PILATUS: a Two-Dimensional X-Ray Detector for Macromolecular Crystallography"
E. Eikenberry, Ch. Brönnimann, 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
- [28] "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
- [29] "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
- [30] "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
- [31] "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
- [32] "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), 012201–1–3
- [33] "Thermal Desorption Process of Bromine on Si (111) using High Sensitive Mass Spectroscopy"
T. Shirao
Japanese Journal of Applied Physics, **42**, (2003), 593–596
- [34] "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
- [35] "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

- [36] "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
- [37] "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]
- [38] "Intensity Interferometry for the Study of X-Ray Coherence"
 M. Yabashi, K. Tamasaku, T. Ishikawa
Physical Review A, **69**, (2004), 023813

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, O. Ohtaka, O. Ohtaka
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. Takahasi, T. Inami, Y. Katayama, H. Shiwaku, J. Mizuki
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 392-395
- [9] "Cryogenic Cooling Monochromators for the SPring-8 Undulator Beamlines"
 T. Mochizuki, Y. Kohmura, M. Awaji, Y. Suzuki, A. Q. R. Baron, K. Tamasaku, M. Yabashi, H. Yamazaki, T. Ishikawa
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 647-649
- [10] "Monochromator for a Soft X-Ray Photochemistry Beamline BL27SU of SPring-8"
 H. Ohashi, E. Ishiguro, Y. Tamenori, H. Okumura, A. Hiraya, H. Yoshida, Y. Senba, K. Okada, N. Saito, I. H. Suzuki, K. Ueda, T. Ibuki, S. Nagaoka, I. Koyano, T. Ishikawa
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 533-536
- [11] "Refractive X-Ray lens for High Pressure Experiments at SPring-8"
 Y. Ohishi, A. Q. R. Baron, M. Ishii, T. Ishikawa, O. Shimomura
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 962-965