

Refereed Journals

- [1998]
- [1] "An Additional Axis for the Surface X-Ray Diffractometer"
M. Takahasi, J. Mizuki
Journal of Synchrotron Radiation, **5**, (1998), 893-895
- [2] "SPring-8 Beamlines for High Pressure Science with Multi-Anvil Apparatus"
W. Utsumi, K. Funakoshi, S. Urakawa, M. Yamakata, K. Tsuji, H. Konishi, O. Shimomura
The Review of High Pressure Science and Technology, **7**, (1998), 1484-1486
[2000]
- [3] "A First-Order Liquid-Liquid Phase Transition in Phosphorus"
Y. Katayama, T. Mizutani, W. Utsumi, O. Shimomura, M. Yamakata, K. Funakoshi
Nature, **403**, (2000), 170-173
- [4] "Second-Order Phase Transition of FeS under High Pressure and Temperature"
K. Kusaba, W. Utsumi, M. Yamakata, O. Shimomura, Y. Syono
Journal of Physics and Chemistry of Solids, **61**, (2000), 1483-1487
- [5] "Single Crystal Growth of the High Pressure Phase of $(VO)_2P_2O_7$ at 3 GPa"
T. Saito, T. Terashima, M. Azuma, M. Takano, T. Goto, H. Ohta, W. Utsumi, P. Bordet, D. C. Johnston
Journal of Solid State Chemistry, **153**, (2000), 124-131
- [6] "High Energy X-Ray Study of the Structure of Vitreous B_2O_3 "
K. Suzuya, Y. Yoneda, S. Kohara, N. Umesaki
Physics and Chemistry of Glasses, **41**, (2000), 282-285
[2001]
- [7] "Single Crystal Growth of $CaFeO_3$ at High Pressure"
S. Ishiwata, M. Azuma, T. Saito, S. Kawasaki, M. Takano
粉体および粉末冶金 (Journal of the Japan Society of Powder and Powder Metallurgy), **48**, (2001), 715-718
- [8] "X-Ray Diffraction Study on Structural Change in Liquid Selenium under High Pressure"
Y. Katayama, T. Mizutani, W. Utsumi, O. Shimomura, K. Tsuji
Physica Status Solidi B, **223**, (2001), 401-404
- [9] "High-Energy X-Ray Diffraction Studies of Non-Crystalline Materials"
H. Ohno, S. Kohara, N. Umesaki, K. Suzuya
Journal of Non-Crystalline Solids, **293-295**, (2001), 125-135
- [10] "Structural Changes of Quartz-Type Crystalline and Vitreous GeO_2 under Pressure"
O. Ohtaka, A. Yoshiasa, H. Fukui, K. Murai, M. Okube, Y. Katayama, W. Utsumi, Y. Nishihata
Journal of Synchrotron Radiation, **8**, (2001), 791-793
- [11] "Fixed-Height Exit Bender of Synchrotron X-Rays above 40 keV"
Y. Yoneda, N. Matsumoto, Y. Furukawa, T. Ishikawa
Journal of Synchrotron Radiation, **8**, (2001), 18-21
- [12] "High Energy Synchrotron X-Ray Focusing by Fixed Exit Bender"
Y. Yoneda, N. Matsumoto, Y. Furukawa, T. Ishikawa
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 370-372
[2002]
- [13] "Single-Crystal Growth of Transition Metal Oxides at High Pressures of Several GPa"
M. Azuma, T. Saito, S. Ishiwata, H. Yoshida, M. Takano, Y. Kohsaka, H. Takagi, W. Utsumi
Journal of Physics: Condensed Matter, **14**, (2002), 11321-11324
- [14] "X-Ray Reflectivity and Diffraction Studies on Lipid and Lipopolymer Langmuir-Blodgett Films under Controlled Humidity"
J. Bolze, M. Takahasi, J. Mizuki, T. Baumgart, W. Knoll
Journal of the American Chemical Society, **124**, (2002), 9412-9421
- [15] "In-situ Observation of a First-Order Liquid-Liquid Transition in Phosphorus"
Y. Katayama,
Journal of Non-Crystalline Solids, **312-314**, (2002), 8-14
- [16] "Evidence for the Diffusion of Au Atoms into the Te UPD Layer Formed on a Au(111) Substrate"
H. Kawamura, M. Takahasi, N. Hojo, M. Miyake, K. Murase, K. Tamura, K. Uosaki, Y. Awakura, J. Mizuki, E. Matsubara
Journal of the Electrochemical Society, **149**, (2002), C83-C88

- [17] "Growth of Na-Doped $\text{Ca}_2\text{CuO}_2\text{Cl}_2$ Single Crystals under High Pressures of Several GPa"
Y. Kohsaka, M. Azuma, I. Yamada, T. Sasagawa, T. Hanaguri, M. Takano, H. Takagi
Journal of the American Chemical Society, **124**, (2002), 12275-12278
- [18] "A Novel Spectroelectrochemical Cell for in situ Surface X-ray Scattering Measurements of Single Crystal Disk Electrodes"
T. Kondo, K. Tamura, M. Takahashi, J. Mizuki, K. Uosaki
Electrochimica Acta, **47**, (2002), 3075-3080
- [19] "In situ EXAFS Study on GeS_2 Glass under High-Pressure"
K. Miyauchi, J. Qiu, M. Shojiya, Y. Kawamoto, N. Kitamura, K. Fukumi, Y. Katayama, Y. Nishihata
Solid State Communications, **124**, (2002), 189-193
- [20] "Self-Regeneration of a Pd-Perovskite Catalyst for Automotive Emissions Control"
Y. Nishihata, J. Mizuki, T. Akao, H. Tanaka, M. Uenishi, M. Kimura, T. Okamoto, N. Hamada
Nature, **418**, (2002), 164-167
- [21] "XAFS Study of GeO_2 Glass under Pressure"
O. Ohtaka, A. Yoshiasa, H. Fukui, K. Murai, M. Okube, H. Takebe, Y. Katayama, W. Utsumi
Journal of Physics: Condensed Matter, **14**, (2002), 10521-10524
- [22] "In situ X-Ray Observations of the Decomposition of Brucite and the Graphite-Diamond Conversion in Aqueous Fluid at High Pressure and Temperature"
T. Okada, W. Utsumi, H. Kaneko, M. Yamakata, O. Shimomura
Physics and Chemistry of Minerals, **29**, (2002), 439-445
- [23] "*In situ* X-Ray Observations of the Diamond Formation Process in the $\text{C-H}_2\text{O-MgO}$ System"
T. Okada, W. Utsumi, O. Shimomura
Journal of Physics: Condensed Matter, **14**, (2002), 11331-11335
- [24] "Anharmonicity of Gold under High-Pressure and High-Temperature"
M. Okube, A. Yoshiasa, O. Ohtaka, H. Fukui, Y. Katayama, W. Utsumi
Solid State Communications, **121**, (2002), 235-239
- [25] "Anharmonic Effective Pair Potentials of Gold under High Pressure and High Temperature"
M. Okube, A. Yoshiasa, O. Ohtaka, H. Fukui, Y. Katayama, W. Utsumi
Journal of Physics: Condensed Matter, **14**, (2002), 11511-11515
- [26] "Kinetics of Diamond Spontaneous Crystallization from the Melt of the Fe-Al-C System at 6.5 GPa"
V. Turkevich, T. Okada, W. Utsumi, A. Garan
Diamond and Related Materials, **11**, (2002), 1769-1773
- [27] "High-Pressure Science with a Multi-Anvil Apparatus at SPring-8"
W. Utsumi, K. Funakoshi, Y. Katayama, M. Yamakata, T. Okada, O. Shimomura
Journal of Physics: Condensed Matter, **14**, (2002), 10497-10504
- [28] "Structural Study of Semiconductive CdTe-ZnTe Alloy by High-Energy X-Ray Diffraction"
Y. Yoneda, N. Matsumoto, K. Suzuya, S. Kohara, J. Mizuki
Ferroelectrics, **268**, (2002), 277-282
- [29] [2003]
"Charge-Ordered State in Single-Crystalline CaFeO_3 Thin Film Studied by X-ray Anomalous Diffraction"
T. Akao, Y. Azuma, M. Usuda, Y. Nishihata, J. Mizuki, N. Hamada, N. Hayashi, T. Terashima, M. Takano
Physical Review Letters, **91**, (2003), 156405
- [30] "Single Crystal Growth of $\text{Ca}_{2-x}\text{Na}_x\text{CuO}_2\text{Cl}_2$ and Related Compounds at High Pressures of Several GPa"
M. Azuma, T. Saito, I. Yamada, Y. Kohsaka, H. Takagi, M. Takano
Journal of Low Temperature Physics, **131**, (2003), 671-679
- [31] "Structural Transformations in Liquid, Crystalline, and Glassy B_2O_3 under High Pressure"
V. Brazhkin, Y. Katayama, Y. Inamura, M. V. Kondrin, A. Lyapin, S. V. Popova, R. N. Voloshin
JETP Letters, **78**, (2003), 393-397
- [32] "X-ray Structural Studies on Elemental Liquids under High Pressures"
Y. Katayama, K. Tsuji
Journal of Physics: Condensed Matter, **15**, (2003), 6085-6103
- [33] "Anharmonicity of Platinum under High Pressure and High Temperature"
M. Okube, A. Yoshiasa, O. Ohtaka, Y. Katayama
High Pressure Research, **23**, (2003), 247-251

- [34] "Congruent Melting of Gallium Nitride at 6 GPa and Its Application to Single-Crystal Growth"
W. Utsumi, H. Saitoh, H. Kaneko, T. Watanuki, K. Aoki, O. Shimomura
Nature Materials, **2**, (2003), 735-738
- [35] "Nucleation and Growth in Bulk Metallic Glass under High Pressure Investigated using *in situ* X-ray Diffraction"
W. Wang, P. Wen, D. Zhao, M. Pan, T. Okada, W. Utsumi
Applied Physics Letters, **83**, (2003), 5202-5204
- [36] "Effect of Pressure on Nucleation and Growth in the $Zr_{46.75}Ti_{8.25}Cu_{7.5}Ni_{10}Be_{27.5}$ Bulk Glass Forming Alloy Investigated using *in situ* X-ray Diffraction"
W. Wang, T. Okada, P. Wen, X. L. Wang, M. Pan, W. Utsumi
Physical Review B, **68**, (2003), 184105
- [37] "Formation and Crystallization of CuZrHfTi Bulk Metallic Glass under Ambient and High Pressures"
Z. Wang, D. Zhao, M. Pan, W. Wang, T. Okada, W. Utsumi
Journal of Physics: Condensed Matter, **15**, (2003), 5923-5932
- [38] "Melting and Crystallization of $Nd_{60}Al_{10}Fe_{20}Co_{10}$ Bulk Metallic Glass under High Pressure"
D. Zhao, M. Pan, W. Wang, B. C. Wei, T. Okada, W. Utsumi
Journal of Physics: Condensed Matter, **15**, (2003), L749-L753
[2004]
- [39] "Transformations in the Intermediate-Range Structure of SiO_2 Glass under High Pressure and Temperature"
Y. Inamura, Y. Katayama, W. Utsumi, K. Funakoshi
Physical Review Letters, **93**, (2004), 015501
- [40] "Macroscopic Separation of Dense Fluid Phase and Liquid Phase of Phosphorus"
Y. Katayama, Y. Inamura, T. Mizutani, M. Yamakata, W. Utsumi, O. Shimomura
Science, **306**, (2004), 848-851
- [41] "Pressure-Induced Sharp Coordination Change in Liquid Germanate"
O. Ohtaka, H. Arima, H. Fukui, W. Utsumi, Y. Katayama, A. Yoshiasa
Physical Review Letters, **92**, (2004), 155506
- [42] "Kinetics of the Graphite–Diamond Transformation in Aqueous Fluid Determined by *in-situ* X-ray Diffractions at High Pressures and Temperatures"
T. Okada, W. Utsumi, H. Kaneko, V. Turkevich, N. Hamaya, O. Shimomura
Physics and Chemistry of Minerals, **31**, (2004), 261-268
- [43] "Synthesis of $Al_xGa_{1-x}N$ Alloy by Solid-Phase Reaction under High Pressure"
H. Saitoh, W. Utsumi, H. Kaneko, K. Aoki
Japanese Journal of Applied Physics, **43**, (2004), L981-L983
- [44] "*In situ* X-Ray Diffraction of Graphite-Diamond Transformation using Various Catalysts under High Pressures and High Temperatures"
W. Utsumi, T. Okada, T. Taniguchi, K. Funakoshi, T. Kikegawa, N. Hamaya, O. Shimomura
Journal of Physics: Condensed Matter, **16**, (2004), S1017-S1026
- [45] "High-Pressure Suppression of Crystallization in the Metallic Supercooled Liquid $Zr_{41}Ti_{14}Cu_{12.5}Ni_{10}Be_{22.5}$: Influence of Viscosity"
W. Wang, Z. Wang, D. Zhao, M. B. Tang, W. Utsumi, X.-L. Wang
Physical Review B, **70**, (2004), 092203
- [46] "Crystallization Mechanism of Cu-Based Suppercooled Liquid under Ambient and High Pressure"
Z. Wang, D. Zhao, M. Pan, P. Wen, W. Wang, T. Okada, W. Utsumi
Physical Review B, **69**, (2004), 092202
[2005]
- [47] "Crystallographic Features and Tetragonal Phase Stability of $PbVO_3$, a New Member of $PbTiO_3$ Family"
Alexei A. Belik, M. Azuma, T. Saito, Y. Shimakawa, M. Takano
Chemistry of Materials, **17**, (2005), 269-276
- [48] "High-pressure Induced Structural Changes in Metastable $Ge_2Sb_2Te_5$ Thin Films: An X-ray Absorption Study "
P. Fons, A. Kolobov, T. Junji, K. Yoshinori
Nuclear Instruments and Methods in Physics Research Section B, **238**, (2005), 160-162
- [49] "Structural Studies on Liquids and Glasses under High Pressure and High Temperature"
Y. Katayama, Y. Inamura
Nuclear Instruments and Methods in Physics Research Section B, **238**, (2005), 154-159

- [50] "Self-Regeneration of Palladium-Perovskite Catalysts in Modern Automobiles"
Y. Nishihata, J. Mizuki, H. Tanaka, M. Uenishi, M. Kimura
Journal of Physics and Chemistry of Solids, **66**, (2005), 274-282
- [51] "Structural Kinetics Studies on Phase Transitions of the Bi UPD Layer between the (2 x 2) and ($p \times \sqrt{3}$) Structures Using Surface X-ray Diffraction"
K. Tamura, J. Mizuki
The Journal of Physical Chemistry B, **109**, (2005), 12832-12836
- [52] "Pressure-Temperature-Time-Transition Diagram in a Strong Metallic Supercooled Liquid"
W. Wang, W. Utsumi, X. -L. Wang
Europhysics Letters, **71**, (2005), 611-617
[2006]
- [53] "LaFePdO₃ Perovskite Automotive Catalyst Having a Self-Regenerative Function"
H. Tanaka, I. Tan, M. Uenishi, M. Taniguchi, M. Kimura, Y. Nishihata, J. Mizuki
Journal of Alloys and Compounds, **408-412**, (2006), 1071-1077

BL15XU

Refereed Journals

- [2001]
- [1] "Revolver Undulator for BL15XU at SPring-8"
T. Hara, T. Tanaka, T. Seike, T. Bizen, X. Marechal, A. Nisawa, S. Fukushima, H. Yoshikawa, H. Kitamura
Nuclear Instruments and Methods in Physics Research Section A, **467-468**, (2001), 161-164
- [2] "X-Ray Photoelectron Spectroscopy Studies of La-Doped Bi₂Sr₂CaCu₂O_y Single Crystals"
Y. Yamauchi, S. Kishida, M. Kimura, H. Yoshikawa, S. Fukushima, H. Tokutaka
Physica C, **357-360**, (2001), 410-413
[2002]
- [3] "Synchrotron X-Ray and TOF Neutron Powder Diffraction Study of a Lyonsite-Type Oxide Co_{3.6}Fe_{3.6}(VO₄)₆"
Alexei A. Belik, F. Izumi, T. Ikeda, A. Nisawa, T. Kamiyama, K. Oikawa
Solid State Sciences, **4**, (2002), 515-522
- [4] "The Observation of the Cascade Auger Process by Threshold Excitation"
S. Fukushima, H. Yoshikawa, M. Kimura, A. Tanaka, A. Vlaicu, Y. Kita, K. Watanabe, A. Nisawa, N. Yagi, M. Okui, M. Taguchi, R. Oiwa
Proceedings of International Seminar on Photoionization in Atom, , (2002), 96-101
- [5] "A Trial Fitting on $K \alpha_{1,2}$ Emission Spectra in Transition Elements"
Y. Ito, T. Tochio, N. Shigeoka, H. OoHashi, A. M. Vlaicu, T. Kaneyoshi, M. Motoyama, T. Shoji, S. Fukushima
Proceedings of International Seminar on Photoionization in Atom, , (2002), 66-73
- [6] "Phase Control of Bi₂Sr₂Ca_{n-1}Cu_nO_y Superconducting Sputtered Films Using He Gas"
K. Matsumoto, M. Ogura, K. Katsurahara, S. Kishida, T. Mizutani, H. Yoshikawa, S. Fukushima, H. Tokutaka
Physica C, **378-381**, (2002), 1256-1259
- [7] "Phase Control of Bi₂Sr₂Ca_{n-1}Cu_nO_y Sputtered Films Using He Gas"
K. Matsumoto, M. Ogura, K. Katsurahara, S. Kishida, T. Mizutani, H. Yoshikawa, S. Fukushima, H. Tokutaka
真空 (Journal of the Vacuum Society of Japan), **45**, (2002), 179-182
- [8] "Contribution of Indirect Ionization of Au $L \alpha_2$ Satellites"
H. OoHashi, N. Shigeoka, T. Tochio, Y. Ito, A. Vlaicu, A. Nisawa, H. Yoshikawa, S. Fukushima, M. Watanabe
Proceedings of International Seminar on Photoionization in Atom, , (2002), 85-88
- [9] "The Behavior of Fe $K \alpha$ Satellites around the Threshold"
N. Shigeoka, H. OoHashi, Y. Ito, T. Tochio, A. M. Vlaicu, S. Nisawa, H. Yoshikawa, S. Fukushima, M. Watanabe
Proceedings of International Seminar on Photoionization in Atom, , (2002), 80-84
- [10] "Growth and Characterization of Bi-Based Superconducting Whiskers"
H. Uemoto, S. Kishida, S. Kim, T. Yamashita, H. Yoshikawa, S. Fukushima, N. Ikeda
Singapore Journal of Physics, **18**, (2002), 255-259
- [11] "Photo-Excitation of Multi-Electron Transitions in Heavy Elements by Synchrotron Radiation"
A. M. Vlaicu, Y. Ito, N. Shigeoka, H. OoHashi, S. Fukushima, H. Yoshikawa, A. Nisawa
Proceedings of International Seminar on Photoionization in Atom, , (2002), 62-65