

[2008]

- [70] "Atomic Structure of a Thallium Nanodot Lattice Formed on the Si(111)-7×7 Surface"
N. Kim, C. Hwang, J. Chung, Y. Kim, T. Kim, D. Noh, K. Sumitani, H. Tajiri, O. Sakata
Surface Science, **602**, (2008), 369-374
- [71] "Early Detection of Nanoparticle Growth from X-ray Reciprocal Space Mapping"
N. Zatsepin, R. Dilanian, A. Nikulin
Applied Physics Letters, **92**, (2008), 034101

BL19B2

Refereed Journals

[2003]

- [1] "Local Structure of Rare-Earth-Doped Diluted Magnetic Semiconductor GaGdN"
M. Hashimoto, S. Emura, R. Asano, H. Tanaka, N. Teraguchi, A. Suzuki, T. Honma, N. Umesaki, Y. Nanishi, H. Asahi
Physica Status Solidi C, **0**, (2003), 2650-2653
- [2] "The Study on the Materials for the All Solid Lithium Secondary Battery"
Y. Kobayashi
Doctor Thesis (Tohoku University), (2003)
- [3] "5 V Class All-Solid-State Composite Lithium Battery with Li₃PO₄ Coated LiNi_{0.5}Mn_{1.5}O₄"
Y. Kobayashi, H. Miyashiro, K. Kakei, H. Shigemura, M. Tabushi, H. Kageyama, T. Iwahori
Journal of the Electrochemical Society, **150**, (2003), A1577-A1582
- [4] "Estimation of Spalling Stress in Thermal Barrier Coatings Using High-Energy X-Rays from a Synchrotron Source"
K. Suzuki, K. Tanaka, Y. Akinawa
Proceedings of International Conference on Advanced Technology in Experimental Mechanics 2003, **1**, (2003), 1-6
- [5] "Applications on High-Energy X-Rays to Stress Measurements of Thermal Barrier Coatings"
K. Suzuki, K. Tanaka
Textures and Microstructures, **35**, (2003), 207-217
- [6] "Magnetic Properties of the Rare-Earth-Doped Semiconductor GaEuN"
H. Tanaka, M. Hashimoto, S. Emura, R. Asano, Y. Zhou, T. Honma, N. Umesaki, A. Yanase, K. Akimoto, H. Asahi
Physica Status Solidi C, **0**, (2003), 2864-2868

[2004]

- [7] "Local Structural Change in GaCrN Grown by Radio Frequency Plasma-Assisted Molecular-Beam Epitaxy"
M. Hashimoto, S. Emura, H. Tanaka, M. Kim, Y. Zhou, T. Honma, N. Umesaki
Journal of Crystal Growth, **273**, (2004), 149-155
- [8] "Crystallization Behavior of Linear Low Density Polyethylene in Its Blend with a Rubber Polymer as Revealed by Synchrotron SAXS/WAXS/Hv-SALS Simultaneous Measurements"
K. Hayashi, Y. Ejima, T. Shimizu, S. Kizaki, S. Hara, K. Yamamoto, S. Okamoto, S. Sakurai
日本レオロジー学会誌 (Journal of the Society of Rheology, Japan), **32**, (2004), 179-187
- [9] "Grazing Incidence X-ray Scattering to Characterize the Thin Amorphous SiOx Film on Silicon Substrate"
I. Hirosawa, Y. Uehara, M. Sato, N. Umesaki
日本セラミックス協会学術論文誌 (Journal of the Ceramic Society of Japan), **112**, (2004), S1476-S1478
- [10] "Oxidation of Doped Europium in BaMgAl₁₀O₁₇ by Annealing Studied by X-ray Absorption Fine-Structure Measurements"
I. Hirosawa, T. Honma, K. Kato, N. Kijima, Y. Shimomura
Journal of the Society for Information Display, **12**, (2004), 269-273
- [11] "X-ray Diffraction Study for Mg₄Pd Crystalline and Amorphous Alloys Using Synchrotron Radiation"
S. Nakano, S. Yamaura, A. Kitano, M. Sato, S. Uchinashi, T. Hamada, N. Umesaki, H. Kimura, A. Inoue
Materials Transactions, **45**, (2004), 3232-3234
- [12] "Structural Analysis by Synchrotron XRD of a Ag₅₂Sn₄₈ Nanocomposite Electrode for Advanced Li-Ion Batteries"
E. Rönnebro, T. Sakai, J. Yin, M. Wada, S. Tanase, A. Kitano
Journal of the Electrochemical Society, **151**, (2004), A1738-A1744
- [13] "Transparent Ferromagnetic Semiconductor Fe-Zn-O Heterogranular Films"
T. Shinagawa, M. Izaki, Y. Matsumura, K. Murase, Y. Awakura
Electrochemical and Solid-State Letters, **7**, (2004), G235-G237

- [14] "Estimation of Spalling Stress in Thermal Barrier Coating using High Energy X-rays from Synchrotron"
K. Suzuki, K. Tanaka, Y. Akiniwa, M. Kawamura, K. Nishio, H. Okado
日本機械学会論文集 A編 (Transactions of the Japan Society of Mechanical Engineers, Series A), **70**, (2004), 724-739
- [15] "Oxidation of Thermal Barrier Coatings and Spalling Stress Analyzed with Synchrotron X-Rays"
K. Suzuki, T. Kubo, K. Tanaka, Y. Akiniwa, H. Okado
材料 (Journal of the Society of Materials Science, Japan), **53**, (2004), 734-739
- [16] "Estimation Spalling Stress in Thermal Barrier Coatings Using Hard Synchrotron X-rays"
K. Suzuki, K. Tanaka, Y. Akiniwa
JSME International Journal Series A, **47**, (2004), 318-323
- [17] "Structure Analysis of Ferrite in Deformed Pearlitic Steel by Means of X-ray Diffraction Method with Synchrotron Radiation"
A. Taniyama, T. Takayama, M. Arai, T. Hamada
Scripta Materialia, **51**, (2004), 53-58
- [18] "In-situ Observation of Growth Behavior of Fe-Zn Intermetallic Compounds at Initial Stage of Galvannealing Process"
A. Taniyama, M. Arai, T. Takayama, M. Sato
Materials Transactions, **45**, (2004), 2326-2331
- [19] "Stress Depth Profile in Ceramic Films on Different Interfacial Layers"
S. Tsuchiya, T. Oshika, F. Tsushima, A. Nishiyama
Transactions of the Materials Research Society of Japan, **29**, (2004), 425-428
- [20] "Evaluation of Residual Stresses in a SOFC Stack"
H. Yakabe, Y. Baba, T. Sakurai, M. Satoh, I. Hirosawa, Y. Yoda
Journal of Power Sources, **131**, (2004), 278-284
[2005]
- [21] "Hydrogen Sites Analysed X-ray Synchrotron Diffraction in Mg₇TiH₁₃₋₁₆ Made at Gigapascal High-Pressures"
R. Ewa, D. Kyoi, A. Kitano, Y. Kitano, T. Sakai
Journal of Alloys and Compounds, **404-406**, (2005), 68-72
- [22] "Characterization of Amorphous Hafnium Silicate and Hafnium Aluminate Films by Grazing-Incidence X-ray Scattering"
I. Hirosawa, H. Kitajima, K. Torii
Transactions of the Materials Research Society of Japan, **30**, (2005), 221-224
- [23] "Influence of X-ray Irradiation on Doped Europium in BaMgAl₁₀O₁₇ Studied by X-ray Absorption Fine Structure and X-ray Diffraction"
I. Hirosawa, T. Honma, K. Kato, N. Kijima, Y. Shimomura
Journal of the Society for Information Display, **13**, (2005), 673-678
- [24] "XAFS Analyses of Zinc Compound in Corrosion Product for Magnesium Alloy of Super Plastic Processing"
T. Honma, H. Mori, K. Higashi, H. Okado, K. Maehara, I. Hirosawa, N. Umesaki
Physica Scripta, **T115**, (2005), 567-569
- [25] "Effect on Deoxidation of Doped Europium in Oxidized BaMgAl₁₀O₁₇"
T. Honma, I. Hirosawa, N. Kijima, Y. Shimomura, H. Yamamoto
Journal of the Society for Information Display, **13**, (2005), 679-683
- [26] "In-situ X-ray Diffraction Measurement of Electrodeposition Process in Molten Salts"
A. Kajinami, S. Deki, N. Umesaki, M. Sato, M. Myochin
Materials Science Forum, **502**, (2005), 335-338
- [27] "Hydration Process for Calcium-Aluminate Cement within EVA Emulsion by SPring-8 Synchrotron Radiation X-ray Diffraction Method"
M. Kotera, I. Matsuda, K. Miyashita, N. Adachi, H. Tamura
材料 (Journal of the Society of Materials Science, Japan), **54**, (2005), 780-784
- [28] "Short Range Structure of Lanthanum Chloride / Oxychloride Determined by EXAFS"
H. Matsuura, S. Watanabe, T. Kanuma, H. Akatsuka, T. Honma, N. Umesaki, A. Kajinami, A. Adya, R. Fujita
Physica Scripta, **T115**, (2005), 294-296
- [29] "Guidelines for Developing Amide-Based Hydrogen Storage Materials"
Y. Nakamori, G. Kitahara, A. Ninomiya, M. Aoki, T. Noritake, S. Towata, S. Orimo
Materials Transactions, **46**, (2005), 2093-2097
- [30] "Structural Analysis of Melt-Spun Mg_xPd_{100-x} (x=70, 80, 85 and 90) Amorphous Alloys"
S. Nakano, S. Yamaura, A. Kitano, M. Sato, N. Umesaki, S. Uchinashi, H. Kimura, A. Inoue
Materials Transactions, **46**, (2005), 379-381

- [31] "Reaction Mechanism of a $\text{Ag}_{36.4}\text{Sb}_{15.6}\text{Sn}_{48}$ Nanocomposite Electrode for Advanced Li-Ion Batteries"
E. Rönnebro, J. Yin, A. Kitano, M. Wada, S. Tanase, T. Sakai
Journal of the Electrochemical Society, **152**, (2005), A152-A157
- [32] "Aerodynamic Levitation Apparatus for Structure Study of High Temperature Materials Coupled with Debye-Scherrer Camera at BL19B2 of SPring-8"
I. Sakai, K. Murai, L. Jiang, N. Umesaki, T. Honma, A. Kitano
Journal of Electron Spectroscopy and Related Phenomena, **144-147**, (2005), 1011-1013
- [33] "Characterization of Transparent Ferromagnetic Fe:ZnO Semiconductor Films Chemically Prepared from Aqueous Solutions"
T. Shinagawa, M. Izaki, H. Inui, K. Murase, Y. Awakura
Journal of the Electrochemical Society, **152**, (2005), G736-G741
- [34] "Spalling Stress in Oxidized Thermal Barrier Coatings Evaluated by X-ray Diffraction Method"
K. Suzuki, K. Tanaka
Materials Science Forum, **490-491**, (2005), 631-636
- [35] "Analysis on Residual Stress Distribution in Oxidized Thermal Barrier Coatings"
K. Suzuki, T. Kubo, K. Tanaka, Y. Akiniwa
材料 (Journal of the Society of Materials Science, Japan), **54**, (2005), 679-684
- [36] "Analysis on Residual Stress in Electron Beam-Physical Vapor Deposited Thermal Barrier Coating using Hard Synchrotron X-ray"
K. Suzuki, T. Kubo, S. Machiya, K. Tanaka, Y. Akiniwa
日本機械学会論文集 A編 (Transactions of the Japan Society of Mechanical Engineers, Series A), **71**, (2005), 1523-1529
- [37] "Measurement of Residual Stress Distribution by Strain Scanning Method using High Energy X-rays from Synchrotron Source"
K. Suzuki, S. Machiya, Y. Akiniwa, K. Tanaka, T. Kurimura, H. Oguma
日本機械学会論文集 A編 (Transactions of the Japan Society of Mechanical Engineers, Series A), **71**, (2005), 1531-1537
- [38] "XAFS Analysis of the Local Environment of Zinc in Dentine Treated with Zinc Compounds"
T. Takatsuka, J. Hirano, H. Matsumoto, T. Honma
European Journal of Oral Sciences, **113**, (2005), 180-183
- [39] "Bubble Visualization and Electrolyte Dependency of Dissolving Hydrogen in Electrolyzed Water using Solid-Polymer-Electrolyte"
Y. Tanaka, K. Kikuchi, Y. Saibara, Z. Ogumi
Electrochimica Acta, **50**, (2005), 5229-5236
- [40] "XAFS Study of Europium Chloride at High Temperatures"
S. Watanabe, A. Adya, L. Rycerz, Adrian C. Barnes, M. Gaune-Escard, Y. Okamoto, H. Akatsuka, H. Matsuura
Progress in Nuclear Energy, **47**, (2005), 632-638
[2006]
- [41] "Site of Doped Eu in $\text{BaMgAl}_{10}\text{O}_{17}$ Studied by X-ray Absorption Fine Structure"
I. Hirosawa, T. Honma, K. Kato, Y. Shimomura, N. Kijima
IEICE Transactions on Electronics, **E89-C**, (2006), 1413-1417
- [42] "Synthesis and Hydriding Properties of Light Metal Hydrides with Amorphous and Perovskite-Related Structures"
K. Ikeda
Doctor Thesis (Tohoku University), (2006)
- [43] "Hydrogen Storage Properties of Lithium-Nitrogen-Hydrogen System"
S. Isobe
Doctor Thesis (Hiroshima University), (2006)
- [44] "Short-Range Structure of Molten CeCl_3 and NdCl_3 Determined by XAFS"
H. Matsuura, S. Watanabe, T. Sakamoto, T. Kanuma, K. Naoi, M. Hatcho, N. Kitamura, H. Akatsuka, A. Adya, T. Honma, T. Uruga, N. Umesaki
Journal of Alloys and Compounds, **408-412**, (2006), 80-83
- [45] "Ce and Y Local Structures of High-performance ZrO_2 Composites Codoped with Ce and Y for Implant Applications"
A. Nakahira, T. Murakami, M. Ota, T. Honma, T. Kudou
Chemistry Letters, **35**, (2006), 874-875
- [46] "Fabrication and Evaluation of High Performance $12\text{Ce-ZrO}_2/3\text{Y-ZrO}_2$ Composites for an Implant"
A. Nakahira, T. Murakami, T. Kudo, T. Matsushita, T. Honma
日本セラミックス協会学術論文誌 (Journal of the Ceramics Society of Japan), **114**, (2006), 1076-1080

- [47] "Crystal Structure Analysis of Novel Complex Hydrides Formed by the Combination of LiBH₄ and LiNH₂"
T. Noritake, M. Aoki, S. Towata, A. Ninomiya, Y. Nakamori, S. Orimo
Applied Physics A, **83**, (2006), 277-279
- [48] "Laser Peening without Coating as a Surface Enhancement Technology"
Y. Sano, K. Akita, K. Masaki, Y. Ochi, I. Altenberger, B. Scholtes
Journal of Laser Micro/Nanoengineering, **1**, (2006), 162-166
- [49] "Novel Interstitial Mg-TM(TM=Ti,Zr,Hf,V,Nb and Ta) Hydrides with an FCC Structure and CaNiH₃ with a Perovskite Structure"
T. Sato
Doctor Thesis (Stockholm University), (2006)
- [50] "Structural Investigations of Two New Ternary Magnesium-Niobium Hydrides, Mg_{6.5}NbH₁₄ and MgNb₂H₄"
T. Sato, D. Kyoui, R. Ewa, N. Kitamura, T. Sakai, N. Dag
Journal of Alloys and Compounds, **417**, (2006), 230-234
- [51] "Thermal Phase Transformation of ZnO-Based Transparent Ferromagnetic Composite Films and the Change in Magnetic Characteristics"
T. Shinagawa, M. Izaki, Y. Matsumura, T. Uruga, T. Nakamura, K. Murase, Y. Awakura
Journal of the Electrochemical Society, **153**, (2006), G168-G174
- [52] "Quantitative Analysis of Inclusions in High-strength Steels by X-ray Computed Tomography Using Ultra-bright Synchrotron Radiation"
D. Shiozawa, Y. Nakai, Y. Morikage, H. Tanaka, H. Okado, T. Miyashita
日本機械学会論文集 A編 (Transactions of the Japan Society of Mechanical Engineers, Series A), **72**, (2006), 1846-1852
- [53] "Residual Stress in EB-PVD Thermal Barrier Coatings"
K. Suzuki, K. Tanaka, T. Shoubu
Materials Science Forum, **524-525**, (2006), 879-884
- [54] "Small Angle X-ray Scattering Measurements of Porous Low-*k* Films using Synchrotron Radiation"
T. Suzuki, K. Omote, Y. Ito, I. Hirosawa, Y. Nakata, I. Sugiura, N. Shimizu, T. Nakamura
Thin Solid Films, **515**, (2006), 2410-2414
- [55] "Structural Study of Amorphous In₂O₃ Film by Grazing Incidence X-ray Scattering (GIXS) with Synchrotron Radiation"
F. Utsuno, H. Inoue, I. Yasui, Y. Shimane, S. Tomai, S. Matsuzaki, K. Inoue, I. Hirosawa, M. Sato, T. Honma
Thin Solid Films, **496**, (2006), 95-98
- [56] "Local Structural Analyses on Divalent or Trivalent Metal Fluoride Systems at High Temperature"
S. Watanabe
Doctor Thesis (Tokyo Institute of Technology), (2006), 1-183
- [57] "X-ray Absorption Fine Structure Study of the Local Structures of Activator Atoms in Gadolinium(3+) Oxy-Orthosilicate Single Crystal"
Y. Yagi, T. Usui, S. Shimizu, K. Kurashige, H. Ishibashi, K. Susa, T. Honma
Japanese Journal of Applied Physics, **45**, (2006), 5960-5965
- [58] "Luminescent Properties of Tb-activated Rare-earth Oxyapatite Silicate MLn₄Si₃O₁₃ (M = Ca, Sr, Ln = La, Gd)"
A. Yamane, T. Kunimoto, K. Ohmi, T. Honma, H. Kobayashi
Physica Status Solidi C, **3**, (2006), 2705-2708
[2007]
- [59] "Synchrotron XRD Analysis of Local Position in Laminated Heavy Rust Layer Formed on Weathering Steel Bridge"
S. Hara, M. Yamashita, T. Kamimura, M. Sato
日本金属学会誌 (Journal of Japan Institute of Metals), **71**, (2007), 346-353
- [60] "Study on X-ray Absorption Near Edge Structure of Eu Centers in CaAl₂O₄:Eu Phosphor Thin Films Prepared by Pulsed Laser Deposition"
T. Kunimoto, T. Honma, A. Yamane, K. Ohmi, Y. Shao, K. Kakehi, H. Kobayashi
Japanese Journal of Applied Physics, **46**, (2007), 5874-5878
- [61] "Synthesis and Evaluation of Magnetic Active Charcoals For Removal of Environmental Endocrine Disrupter and Heavy Metal Ion"
A. Nakahira, H. Nagata, M. Takimura, K. Fukunishi
Journal of Applied Physics, **101**, (2007), 09J114
- [62] "Effect of Application of a High Magnetic Field on the Microstructure of Fe Substituted LDH Clay for a Magnetic Application"
A. Nakahira, H. Murase, H. Yasuda
Journal of Applied Physics, **101**, (2007), 09N516

- [63] "Synthesis of LDH-type Clay Substituted with Fe and Ni Ion for Arsenic Removal and Its Application to Magnetic Separation"
A. Nakahira, T. Kubo, H. Murase
IEEE Transactions on Magnetics, **43**, (2007), 2442-2444
- [64] "Increased Crystal Porosity and Enhanced Gas Adsorption by Intracolumnar Gliding for Broadband Gas Detection"
P. Naumov, K. Sakurai, A. Nukui, M. Tanaka
Chemical Communications, (2007), 347-349
- [65] "Photoluminescence and Crystal Structure of Green-Emitting $\text{Ca}_3\text{Sc}_2\text{Si}_3\text{O}_{12}\text{:Ce}^{3+}$ Phosphor for White Light Emitting Diodes"
Y. Shimomura, T. Honma, M. Shigeiwa, T. Akai, K. Okamoto, N. Kijima
Journal of the Electrochemical Society, **154**, (2007), J35-J38
- [66] "Ultrasound-Induced Gelation of Organic Fluids with Metalated Peptides"
H. Takaya, K. Isozaki, T. Naota
Angewandte Chemie International Edition, **46**, (2007), 2855-2857
- [67] "X-ray Diffraction Analysis of Rust Layer on a Weathering Steel Bridge with Surface Treatment Using Synchrotron Radiation"
M. Yamashita, S. Hara, T. Kamimura, H. Miyuki, M. Sato
Materials Transactions, **48**, (2007), 579-583
[2008]
- [68] "The First Detection of Photomodulation by both DC and in-phase AC Susceptibility for Organic/Inorganic Hybrid Materials Containing Cyano-Bridged Gd Cr Complex and Azobenzene"
T. Akitsu, J. Nishijo
Journal of Magnetism and Magnetic Materials, **320**, (2008), 1586-1590
- [69] "Hemoglobin Pyropolymer Used as a Precursor of a Noble-Metal-Free Fuel Cell Cathode Catalyst"
J. Maruyama, J. Okamura, K. Miyazaki, Y. Uchimoto, I. Abe
The Journal of Physical Chemistry C, **112**, (2008), 2784-2790
- [70] "N-type Field-Effect Transistor Based on a Fluorinated-Graphene"
T. Mori, Y. Kikuzawa, H. Takeuchi
Organic Electronics, **9**, (2008), 328-332
- [71] "Ba-Substitution Effect on Luminescent Properties and Thermal Degradation of $\text{Sr}_3\text{MgSi}_2\text{O}_8\text{:Eu}^{2+}$ Blue Phosphor Under Vacuum-UV-Light Excitation"
S. Okamoto, Y. Nanba, T. Honma, H. Yamamoto
Electrochemical and Solid-State Letters, **11**, (2008), J47-J49
- [72] "Distribution of Residual Stresses in EB-PVD Thermal Barrier Coatings"
K. Suzuki, T. Shobu, K. Tanaka
Materials Science Forum, **571-572**, (2008), 333-338
- [73] "A Structural Study of Amorphous $\text{In}_2\text{O}_3\text{-ZnO}$ Films by Grazing Incidence X-ray Scattering (GIXS) with Synchrotron Radiation"
F. Utsuno, H. Inoue, T. Shibuya, K. Inoue, K. Yano, I. Hirosawa, T. Honma
Thin Solid Films, **516**, (2008), 5818-5821

BL20B2

Refereed Journals

[2000]

- [1] "Intramycardial Influences on Blood Flow Distributions in the Myocardial Wall"
F. Kajiyama, T. Yada, T. Matsumoto, M. Goto, Y. Ogasawara
Annals of Biomedical Engineering, **28**, (2000), 897-902
- [2] "Comparative Study between Heart and Kidney Microcirculations Microvisualization Approach"
F. Kajiyama
Materials Science and Engineering: C, **13**, (2000), 3-6
- [3] "X-Ray Imaging Microscopy Using a Micro Capillary X-Ray Refractive Lens"
Y. Kohmura, K. Okada, M. Awaji, Y. Suzuki, T. Ishikawa, Yu I. Dudchik, N. N. Kolchevsky, F. F. Komarov
X-Ray Microscopy: Proceedings of the Sixth International Conference (AIP Conference Proceedings 507), **CP507**, (2000), 566-570
- [4] "A New Trend for Visualizing Coronary Atherosclerosis"
Y. Nakajima, E. Tanaka, A. Tanaka, W. Kobayashi, E. Sato, K. Ban, N. Hattan, H. Mori
呼吸と循環 (Respiratory and Circulation), **48**, (2000), 1041-1047
- [5] "放射光による造影法と臨床応用"
Y. Nakajima, E. Tanaka, K. Ban, N. Hattan, H. Kasahara, E. Sato, A. Tanaka, Y. Shinozaki, H. Mori
循環器科 (Cardioangiology), **48**, (2000), 374-382