

大阪大学超高压電子顕微鏡センター
関係発表論文リスト
(2010年)

1. Structural Stabilities in GaAs Nanocrystals Grown on Si (111) Surface
H. Yasuda, K. Matsumoto, T. Furukawa, M. Imamura, N. Nitta and H. Mori
Materials Science Forum, Vol. 654-656, (2010), pp. 1772-1775
2. 低エネルギー電子励起効果による化合物半導体ナノ粒子の形態および相制御
保田 英洋、森 博太郎
まてりあ, 第49巻, 第7号, (2010), pp. 325-326
3. Electron-irradiation-induced solid-state amorphization caused by thermal relaxation of lattice defects
T. Nagase, K. Takizawa, M. Wakeda, Y. Shibutani and Y. Umakoshi
Intermetallics, Vol. 18, No. 4, (2010), pp. 441-450
4. Temperature dependence of MeV-electron-irradiation-induced nanocrystallization in Zr-Pt metallic glass
T. Nagase, T. Hosokawa and Y. Umakoshi
Intermetallics, Vol. 18, No. 5, (2010), pp. 767-772
5. Temperature dependence in density fluctuation induced crystallization in metallic glass by MeV electron irradiation
T. Nagase and Y. Umakoshi
Intermetallics, Vol. 18, No. 10, (2010), pp. 1803-1808
6. Formation of macroscopic phase-separated dual-layer melt-spun ribbon from Co-Si-B-Cu alloy
T. Nagase and Y. Umakoshi
Journal of Alloys and Compounds, Vol. 505, No. 2, (2010), pp. L43-L46
7. Formation of dual-layer melt-spun ribbon through liquid phase separation
T. Nagase and Y. Umakoshi
Intermetallics, Vol. 18, No. 11, (2010), pp. 2136-2144
8. In-situ TEM observation of glass-to-liquid transition of metallic glass in Fe-Zr-B-Cu alloy
T. Nagase, A. Yokoyama and Y. Umakoshi
Scripta Materialia, Vol. 63, No. 10, (2010), pp. 1020-1023

9. Multi-Scale Crystalline Cu Globule Dispersed Fe-Based Metallic Glass Formation by Multi-Step Liquid Phase Separation
T. Nagase, A. Yokoyama and Y. Umakoshi
Journal of Alloys and Compounds, Vol. 494, No. 1-2, (2010), pp. 295-300
10. Formation of melt-extracted wire of Fe-Cu-Si-B alloy with core-wire/surface-cover-layer structure by arc-melt-type melt-extraction method
T. Nagase and Y. Umakoshi
Journal of Alloys and Compounds, Vol. 495, No. 1, (2010), pp. L1-L4
11. Fabrication of Beta-Ti-Type Ti-Nb-Ta-Zr (TNTZ) Wire with High-Ductility by Arc-Melt-Type Melt-Extraction Method
T. Nagase, T. Nakano, Y. Umakoshi and M. Niinomi
Materials Transactions, Vol. 51, No. 2, (2010), pp. 377-380
12. Preparation of Ti-based and Zr-based bio-metallic wires by arc-melting type melt-extraction method
T. Nagase, K. Kinoshita, T. Nakano, Y. Umakoshi and M. Niinomi
Materials Science Forum, Vol. 638-642, (2010), pp. 2127-2132
13. 良好な曲げ延性を有するベータチタンタイプ Ti-Nb-Ta-Zr(TNTZ)溶融抽出紡糸ワイヤーの構造と機械的性質
永瀬 丈嗣、中野 貴由、馬越 佑吉、新家 光雄
日本金属学会誌, 第 74 卷, 第 8 号, (2010), pp. 515-519
14. アモルファス Fe-Nd-B 合金の電子照射誘起結晶化によるナノ組織制御
永瀬 丈嗣
まてりあ, 第 49 卷, 第 7 号, (2010), pp. 323-324
15. 巻頭言：見えないものを見るように
森 博太郎
顕微鏡, 第 45 卷, 第 4 号, (2010), pp. 205
16. シリコン結晶中ドーパント原子・クラスターの検出
大島 義文、金 秀鉉
顕微鏡, 第 45 卷, 第 4 号, (2010), pp. 268-272

17. In situ observations of crystalline-to-liquid and crystalline-to-gas transitions of substrate-supported Ag nanoparticles
C. L. Chen, J. -G. Lee, K. Arakawa, and H. Mori
APPLIED PHYSICS LETTERS, Vol. 96, No. 25, (2010), pp. 253104 (3pp)
18. Effect of Pt on the electron-irradiation-induced decomposition of sapphire
C.L. Chen, K. Arakawa and H. Mori
Scripta Materialia, Vol. 63 , No. 4, (2010), pp. 355-358
19. Effects of temperature and electron energy on the electron-irradiation-induced decomposition of sapphire
C. L. Chen; H. Furusho; H. Mori
Philosophical Magazine Letters, Vol. 90, No. 10, (2010), pp. 715-721
20. Electron-irradiation-induced phase transformation in alumina
C.L. Chen, K. Arakawa, J. -G. Lee and H. Mori
Scripta Materialia, Vol. 63, No. 10, (2010), pp. 1013-1016
21. Two-dimensional metallic tungsten nanowire network fabricated by electron-beam-induced deposition
C.L. Chen, K. Arakawa and H. Mori
Nanotechnology , Vol. 21, No. 28, (2010), pp. 285304 (4pp)
22. Anisotropic Lattice Coherency in GaAs Nanocrystals Grown on Si (100) Surface
H. Yasuda, H. Mori and H. Maeda
Proc. of the 17th IFSM International Microscopy Congress (IMC 17), Rio de Janeiro, Brazil, 19-24 SEPT, 2010, edited by Guillermo Solorzano and Wanderley de Souza, published by Sociedade Brasileira de Microscopia e Microanalise, paper number M3_39 (on CD). (2010)
23. Evaluation of Activation Energy for Migration of Self-Interstitial Atoms by HVEM
T. Amino, K. Arakawa and H. Mori
Proc. of the 17th IFSM International Microscopy Congress (IMC 17), Rio de Janeiro, Brazil, 19-24 SEPT, 2010, edited by Guillermo Solorzano and Wanderley de Souza, published by Sociedade Brasileira de Microscopia e Microanalise, paper number M8_17 (on CD). (2010)

24. MeV Electron Irradiation Induced Crystallization of Amorphous and Supercooled Liquid Phases in $Zr_{66.7}Cu_{33.3}$ Metallic Glass
T. Nagase, H. Mori and Y. Umakoshi
Proc. of the 17th IFSM International Microscopy Congress (IMC 17), Rio de Janeiro, Brazil, 19-24 SEPT, 2010, edited by Guillermo Solorzano and Wanderley de Souza, published by Sociedade Brasileira de Microscopia e Microanalise, paper number M8_51 (on CD). (2010)
25. Effect of Bonding Characteristics on Electron-irradiation-induced Structural Changes in III-V Compounds
H. Yasuda and H. Mori
Proc. of the 17th IFSM International Microscopy Congress (IMC 17), Rio de Janeiro, Brazil, 19-24 SEPT, 2010, edited by Guillermo Solorzano and Wanderley de Souza, published by Sociedade Brasileira de Microscopia e Microanalise, paper number M10_3 (on CD). (2010)
26. Formation of Electronic-excitation-induced Porous Structures in GaSb Nanoparticles
H. Yasuda and H. Mori
Proc. of the 17th IFSM International Microscopy Congress (IMC 17), Rio de Janeiro, Brazil, 19-24 SEPT, 2010, edited by Guillermo Solorzano and Wanderley de Souza, published by Sociedade Brasileira de Microscopia e Microanalise, paper number M14_12 (on CD). (2010)
27. 3D Observation of Cell Organelle with Ultra-HVEM Tomography - 3D Configuration of Chromosomes in Mitosis -
A. Takaoka
Proc. of the 17th IFSM International Microscopy Congress (IMC 17), Rio de Janeiro, Brazil, 19-24 SEPT, 2010, edited by Guillermo Solorzano and Wanderley de Souza, published by Sociedade Brasileira de Microscopia e Microanalise, paper number I7_17 (on CD). (2010)
28. Design of Auto-Focus System using Image Sharpness for Tomography with the Ultrahigh Voltage Electron Microscope
R. Nishi, S. Isakozawa, H. Mogaki, M. Ozawa, T. Yasuda, K. Yoshida and H. Yasuda
Proc. of the 17th IFSM International Microscopy Congress (IMC 17), Rio de Janeiro, Brazil, 19-24 SEPT, 2010, edited by Guillermo Solorzano and Wanderley de Souza, published by Sociedade Brasileira de Microscopia e Microanalise, paper number I16_13 (on CD). (2010)

29. Improvement of a Remote Control/Observation System for the 3MV Ultrahigh Voltage Electron Microscope
K. Yoshida, H. Yasuda, R. Nishi, H. Mogaki, S. Isakozawa and H. Mori
Proc. of the 17th IFSM International Microscopy Congress (IMC 17), Rio de Janeiro, Brazil, 19-24 SEPT, 2010, edited by Guillermo Solorzano and Wanderley de Souza, published by Sociedade Brasileira de Microscopia e Microanalise, paper number I17_19 (on CD). (2010)
30. Direct synthesis of water-dispersible FePt nanoparticles capped with L-cystein
K. Mori, Y. Kondo and H. Yamashita
Journal of Nanoscience and Nanotechnology, Vol. 10, No. 1, (2010), pp. 222-226
31. Synthesis of nano-sized platinum metal particles on Ti-containing mesoporous silica using microwave-assisted deposition method
S. Shironita, T. Takasaki, T. Kamegawa, K. Mori and H. Yamashita
Topics in Catalysis, Vol. 53, No. 3-4, (2010), pp. 218-223
32. Preparation of highly active platinum nanoparticles on ZSM-5 zeolite including cerium and titanium dioxides as photo-assisted deposition sites
S. Shironita, M. Goto, T. Kamegawa, K. Mori and H. Yamashita
Catalysis Today, Vol. 153, No. 3-4, (2010), pp. 189-192
33. In situ generation of active Pd nanoparticles within a macroreticular acidic resin: efficient catalyst for the direct synthesis of hydrogen peroxide
K. Mori, A. Hanafusa, M. Che and H. Yamashita
Journal of Physical Chemistry Letters, Vol. 1, No. 10, (2010), pp. 1675-1678
34. Synthesis, Characterization, and Catalytic Property of Hollow Fe₂O₃ sphere toward liquid-phase oxidation using hydrogen peroxide
K. Mori, I. Tanimura and H. Yamashita
Bulletin of the Chemical Society of Japan, Vol. 83, No. 9, (2010), pp. 1122-1126
35. Progress in design and architecture of metal nanoparticles for catalytic applications
K. Mori and H. Yamashita
Physical Chemistry Chemical Physics, Vol. 12, No. 43, (2010), pp. 14420-14432

36. Enhancement of the photoinduced oxidation activity of Ru(II) complex anchored onto silica-coated silver nanoparticles by the assist of localized surface plasmon
K. Mori, M. Kawashima, M. Che and H. Yamashita
Angewandte Chemie International Edition, Vol. 49, No. 46, (2010), pp. 8598-8601
37. Distribution and Coordination State of Titanium Oxides in Microstructures Formed by Spinodal Decomposition in Multicomponent Borosilicate Glass
M. Suzuki and T. Tanaka
ISIJ International, Vol. 50, No. 4, (2010), pp. 509-514
38. TiO₂ Nanotubes - Annealing Effects on Detailed Morphology and Structure
S.P. Albu, H. Tsuchiya, S. Fujimoto and P. Schmuki
European Journal of Inorganic Chemistry, Vol. 2010, No. 27, (2010), pp. 4351-4356
39. Supramolecular donor-acceptor assemblies composed of carbon nanodiamond and porphyrin for photoinduced electron transfer and photocurrent generation
M. Ohtani, P.V. Kamat and S. Fukuzumi
Journal of Materials Chemistry, Vol. 20, No. 3, (2010), pp. 582-587
40. Magnetic Cu-Ni (core-shell) nanoparticles in a one-pot reaction under microwave irradiation
T. Yamauchi, Y. Tsukahara, T. Sakata, H. Mori, T. Yanagida, T. Kawai and Y. Wada
Nanoscale, Vol. 2, No. 4, (2010), pp. 515-523
41. The effects of puroindoline b on the ultrastructure of endosperm cells and physicochemical properties of transgenic rice plant
N. Wada, S. Kajiyama, J. A. Cartagena, L. Lin, Y. Akiyama, M. Otani, G. Suzuki, Y. Mukai, N. Aoki and K. Fukui
Journal of Cereal Science, Vol. 51, No. 2, (2010), pp. 182-188
42. Structural change of direct silicon bonding substrates by interfacial oxide out-diffusion annealing
T. Kato, Y. Nakamura, J. Kikkawa, A. Sakai, E. Toyoda, K. Izunome, O. Nakatsuka, S. Zaima, Y. Imai, S. Kimura and O. Sakata
Thin Solid Films, Vol. 518, No. 6, Supp. 1, (2010), pp. S147-S150

43. Apatite containing aspartic acid for selective protein loading.
M.H. Uddin, T. Matsumoto, S. Ishihara, A. Nakahira, M. Okazaki and T. Sohmura.
J Dent Res, Vol. 89, No. 5, (2010), pp. 488-492
44. “診る”技術を支えるための“見る”技術の開発
三浦 治郎
生産と技術, 第 62 卷, 第 2 号, (2010), pp. 78-81
45. Real-Time Nanoscopy by Using Blinking Enhanced Quantum Dots
T. M. Watanabe, S. Fukui, T. Jin, F. Fujii and T. Yanagida
Biophysical Letters, Vol. 99, No. 7, (2010), pp. L50-L52
46. Low Young's modulus of Ti-Nb-Ta-Zr alloys caused by softening in shear moduli c_{11} and c_{44} near lower limit of body-centered cubic phase stability
M. Tane, S. Akita, T. Nakano, K. Hagihara, Y. Umakoshi, M. Niinomi, H. Mori and H. Nakajima
Acta Materialia, Vol. 58, No. 20, (2010), pp. 6790-6798
47. Formation of Hollow and Porous Nanostructures of Iron Oxides via Oxidation of Iron Nanoparticles and Nanowires
R. Nakamura and H. Nakajima
Materials Science Forum, Vol. 658, (2010), pp. 197-200
48. Formation of Oxide Nanotubes and Bamboo-like Structures via Oxidation of Cu, Fe and Ni Nanowires
G. Matsubayashi, R. Nakamura, H. Tsuchiya, S. Fujimoto and H. Nakajima
Materials Science Forum, Vol. 658, (2010), pp. 232-235
49. Electron tomography reveals the endoplasmic reticulum as a membrane source for autophagosome formation
M. Hayashi-Nishino, N. Fujita, T. Noda, A. Yamaguchi, T. Yoshimori and A. Yamamoto
Autophagy, Vol. 6, No. 2, (2010), pp. 301-303
50. 電子線トモグラフィーによるオートファジーの解析
西野-林 美都子
顕微鏡, 第 45 卷, 第 2 号, (2010), pp. 75-77

51. Photochemical fabrication of silver nanostructures at the solid-liquid interface using a recyclable photosensitized reduction process
M. Sakamoto, S. -S. Kim, H. Furusho and T. Majima
Physical Chemistry Chemical Physics, Vol. 12, No. 2, (2010), pp. 365-372
52. Thermal stability of $Zr_{55}Cu_{30}Ni_5Al_{10}$ metallic glass in contact with aluminum
M. Maeda, Y. Takahashi, and A. Inoue
Ceramic Transactions, Vol. 219, (2010), pp. 67-72
53. Formation of Ohmic Contact Layer on n-type Gallium Nitride by Controlling Interfacial Reaction with Titanium
M. Maeda, N. Matsumoto and Y. Takahashi
Materials Science & Technology 2010 Conference & Exhibition (MS&T'10), Oct. 2010, Houston (Texas, USA), Proceedings CD-ROM (2010), pp. 2732-2742
54. Catalytic activity and regeneration property of a Pd nanoparticle encapsulated in a hollow porous carbon sphere for aerobic alcohol oxidation
T. Harada, S. Ikeda, F. Hashimoto, T. Sakata, K. Ikeue, T. Torimoto and M. Matsumura
Langmuir, Vol. 26, No. 22, (2010), pp. 17720-17725
55. Void Formation and Structure Change Induced by Heavy Ion Irradiation in GaSb and InSb
N. Nitta, T. Hasegawa, H. Yasuda, Y. Hayashi, T. Yoshiie, M. Taniwaki and H. Mori
Materials Transactions, Vol. 51, No. 6, (2010), pp. 1059-1063
56. A Model for Nucleation and Growth Processes of Tin Whisker
K. Nakai, T. Sakamoto, S. Kobayashi, K. Arakawa, H. Mori, M. Takamizawa, K. Murakami and M. Hino
Materials Science Forum, Vol. 638-642, (2010), pp. 2688-2693
57. 骨細胞の3次元形態解析
上岡 寛、山城 隆
THE BONE, Vol. 24, No. 1, (2010), pp. 3-7
58. Application of Bioimaging to Osteocyte Biology
H. Kamioka and T. Adachi
Clinical Reviews in Bone and Mineral Metabolism, Vol. 8, No. 4, (2010), pp. 170-178

59. Characterization and photochemical and antibacterial properties of highly stable silver nanoparticles prepared on montmorillonite clay in n-hexanol
H. Miyoshi, H. Ohno, K. Sakai, N. Okamura and H. Kourai
Journal of Colloid and Interface Science, Vol. 345, No. 2, (2010), pp. 433-441
60. Martensite-Austenite Phase Transition and Microstructural Analysis in a Ni-Mn-Ga Ferromagnetic Shape-Memory Alloy
H. Maeda, E. Taguchi, T. Fukuda and T. Kakeshita
Proc. of the 17th IFSM International Microscopy Congress (IMC 17), Rio de Janeiro, Brazil, 19-24 SEPT, 2010, edited by Guillermo Solorzano and Wanderley de Souza, published by Sociedade Brasileira de Microscopia e Microanalise, paper number M6_26 (on CD). (2010)
61. TRPM1 is a component of the retinal ON bipolar cell transduction channel in the mGluR6 cascade
C. Koike, T. Obara, Y. Uriu, T. Numata, R. Sanuki, K. Miyata, T. Koyasu, S. Ueno, K. Funabiki, A. Tani, H. Ueda, M. Kondo, Y. Mori, M. Tachibana and T. Furukawa
Proceedings of the National Academy of Sciences of the United States of America, Vol. 107, No. 1, (2010), pp. 332-337
62. Negative regulation of ciliary length by ciliary male germ cell-associated kinase (Mak) is required for retinal photoreceptor survival
Y. Omori, T. Chaya, K. Katoh, N. Kajimura, S. Sato, K. Muraoka, S. Ueno, T. Koyasu, M. Kondo and T. Furukawa,
Proceedings of the National Academy of Sciences of the United States of America, Vol. 107, No. 52, (2010), pp. 22671-22676
63. Formation and reduction of streak artefacts in electron tomography
M. Cao, H.-B. Zhang, Y. Lu, R. Nishi and A. Takaoka
Journal of Microscopy, Vol. 239, No. 1, (2010), pp.66-71
64. Multiple scattering effects of MeV electrons in very thick amorphous specimens
F. Wang, H.-B. Zhang, M. Cao, R. Nishi and A. Takaoka
Ultramicroscopy, Vol. 110, No. 3, (2010), pp. 259-268

65. Determination of the linear attenuation range of electron transmission through film specimens
F. Wang, H.-B. Zhang, M. Cao, R. Nishi and A. Takaoka
Micron, Vol. 41, No. 7, (2010), pp. 769-774
66. Image quality of microns-thick specimens in the ultra-high voltage electron microscope
F. Wang, H.-B. Zhang, M. Cao, R. Nishi and A. Takaoka
Micron, Vol. 41, No. 5, (2010), pp. 490-497
67. In Situ HREM Study on Sublimation-induced Phase Change in Nanometer-sized Gold and Silver Particles
J.-G. Lee, C. L. Chen, C. J. Choi and H. Mori
Proc. of the 20th Annual Conference of the International Society of Offshore and Polar Engineers Symposium on Nanostructured Materials, held at Beijing, China on June 20-25, 2010, (2010), pp.530-533
68. In-Situ Observation of Melting Point Suppression in Nanometer-Sized Gold Particles
J.-G. Lee, J.-H. Lee, T. Tanaka and H. Mori
Proc. of the 17th IFSM International Microscopy Congress (IMC 17), Rio de Janeiro, Brazil, 19-24 SEPT, 2010, edited by Guillermo Solorzano and Wanderley de Souza, published by Sociedade Brasileira de Microscopia e Microanalise, paper number M1_67 (on CD). (2010)
69. Langevin model for real-time Brownian dynamics of interacting nanodefects in irradiated metals
S. L. Dudarev, M. R. Gilbert, K. Arakawa, H. Mori, Z. Yao, M. L. Jenkins and P. M. Derlet
PHYSICAL REVIEW B, Vol. 81, No. 22, (2010), pp. 224107 (15pp)
70. Mechanisms of Osteocyte Mechanotransduction
A. D. Bakker and J. Klein-Nulend
Clinical Reviews in Bone and Mineral Metabolism, Vol. 8, No. 4, (2010), pp. 163-169