

Publications 2008-2007

2008

1. Y. Nakata, Y. Honda, S. Ninomiya, T. Seki, T. Aoki and J. Matsuo,
"Matrix-free high-resolution imaging mass spectrometry with high-energy ion projectiles"
Journal of Mass Spectrometry 2009, Vol.44, pp128-136 (2009, Mar.)
2. S. Ninomiya, K. Ichiki, H. Yamada, Y. Nakata, T. Seki, T. Aoki and J. Matsuo
"Low Damage Etching of Polymer Materials for Depth Profile Analysis Using Large Ar Cluster Ion Beam"
Journal of Surface Analysis Vol.15, No.3, pp275-278 (2009, Feb.)
3. J. Matsuo, S. Ninomiya, Y. Nakata, Y. Honda, K. Ichiki, T. Seki and T. Aoki
"What size of cluster is most appropriate for SIMS?"
Applied Surface Science 255 (2008, Dec.) 1235-1238
4. T. Aoki, T. Seki, S. Ninomiya and J. Matsuo,
"MD simulation study of the sputtering process by high-energy gas cluster impact"
Applied Surface Science 255 (2008, Dec.) 944-947
5. S. Ninomiya, K. Ichiki, Y. Nakata, Y. Honda, T. Seki, T. Aoki and J. Matsuo
"Secondary ion emission from Si bombarded with large Ar cluster ions under UHV conditions"
Applied Surface Science 255 (2008, Dec.) 880-882
6. K. Ichiki, S. Ninomiya, Y. Nakata, Y. Honda, T. Seki, T. Aoki and J. Matsuo
"High sputtering yields of organic compounds by large gas cluster ions"
Applied Surface Science 255 (2008, Dec.) 1148-1150
7. S. Ninomiya, Y. Nakata, Y. Honda, K. Ichiki, T. Seki, T. Aoki and J. Matsuo,
"A Fragment-free ionization technique for organic mass spectrometry with large Ar cluster ions"
Applied Surface Science 255 (2008, Dec.) 1588-1590
8. Y. Nakata, Y. Honda, S. Ninomiya, T. Seki, T. Aoki and J. Matsuo,
"Yield Enhancement of Molecular Ion with MeV-Ion Induced Electronic Excitation"
Applied Surface Science 255 (2008, Dec.) 1591-1594
9. T. Seki, T. Aoki and J. Matsuo,
"High-Speed Nano-Processing with Cluster Ion Beams"
Transactions of the MRS-J 33 [4], pp.1019-1022 (2008, Dec.)
10. S. Ninomiya, J. Matsuo, K. Ichiki, H. Yamada, Y. Nakata, Y. Honda, T. Seki and T. Aoki
"Low Damage Etching and SIMS Depth Profiling with Large Ar Cluster Ions"
Transactions of the MRS-J 33 [4], pp.1043-1046 (2008, Dec.)
11. Y. Nakata, H. Yamada, Y. Honda, S. Ninomiya, T. Seki, T. Aoki and J. Matsuo
"Imaging Mass Spectrometry with Swift Heavy Ions"
Journal of the Mass Spectrometry Society of Japan, 56(4), 201-208 (2008)
12. Y. Honda, Y. Nakata, S. Ninomiya, T. Seki, T. Aoki and J. Matsuo
"SIMS Analysis of Biological Mixtures with Fast Heavy Ion Irradiation"
Transactions of the MRS-J 33 [4], pp.1039-1041 (2008, Dec.)
13. T. Seki, T. Aoki and J. Matsuo
"Investigation of Damage with Cluster Ion Beam Irradiation Using HR-RBS"
AIP Conf. Proc. Vol. 1066, pp. 423-426 (2008. Nov.) (17th IIT)

14. I. Yamada, J. Matsuo and N. Toyoda
"Summary of Industry-Academia Collaboration Projects on Cluster Ion Beam Process Technology"
AIP Conf. Proc. Vol. 1066, pp. 415 (2008. Nov.)(17th IIT)
 15. T. Aoki, T. Seki and J. Matsuo
"Computer modeling of cluster ion impacts"
IWJT2008 Extended Abstracts art. no. 4540016, pp. 49-54 (2008)
 16. T. Hikata, K. Hayashi, T. Mizukoshi, Y. Sakurai, I. Ishigami, T. Aoki, T. Seki and J. Matsuo
"Carbon Nonotubes from a Divined Catalyst: the Carbon Transmission Method"
Applied Physics Express Vol.3, No.3, 034002 (2008)
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2007

1. J.Matsuo, S. Ninomiya, T. Aoki and T. Seki
"Recent progress in cluster ion beam -Toward Nano-Processing and advanced material analysis"
Journal of Surface Analysis Vol.14, No.3,(2008, March) pp.196-203
2. Y. Nakata, Y. Honda, S. Ninomiya and J. Matsuo
"Ion-Induced Emission of Amino Acid Molecular Ions from Thin Films"
Transactions of the MRS-J 32 [4] (2007)pp.899-901
3. S. Ninomiya, K. Ichiki, Y. Nakata, T. Seki, T. Aoki and J. Matsuo
"The Effect of Incident Cluster Ion Size on Secondary Ion Yields Produced from Si"
Transactions of the MRS-J 32 [4] (2007) pp.895-898
4. T. Aoki and J. Matsuo
"Molecular dynamics study of glancing angle gas cluster irradiation on irregular-structured surfaces"
Nuclear Instruments and Methods in Physics Research B, 261 (2007) pp. 639-642
5. T. Seki and J. Matsuo
"Energy distribution of high-energy cluster ion beams"
Nuclear Instruments and Methods in Physics Research B, 261 (2007) pp. 647-650
6. T. Aoki, T. Seki, S. Ninomiya and J. Matsuo
"Molecular dynamics study of monomer and dimer emission processes with high energy gas cluster ion impact"
Surface & Coatings Technology 201 (2007) pp.8427-8430
7. T. Seki and J. Matsuo
"Surface processing with high-energy gas cluster ion beams"
Surface & Coatings Technology 201 (2007) pp.8646-8649
8. S. Kakuta, S. Sasaki, K. Furusawa, T. Seki, T. Aoki and J. Matsuo
"Low damage smoothing of magnetic materials using off-normal gas cluster ion beam irradiation"
Surface & Coatings Technology 201 (2007) pp.8632-8636
9. T. Seki, J. Matsuo
"High-speed processing with high-energy SF₆ cluster ion beam"
Nuclear Instruments and Methods in Physics Research B, 257 (2007) 666-669
10. J. Matsuo, S. Ninomiya, Y. Nakata, K. Ichiki, T. Aoki, T. Seki
"Size effect in cluster collision on solid surfaces"
Nuclear Instruments and Methods in Physics Research B 257 (2007) 627-631
11. T. Aoki and J. Matsuo
"Molecular dynamics simulations of surface smoothing and sputtering process with glancing angle gas cluster ion beams"
Nuclear Instruments and Methods in Physics Research B, 257 (2007) pp. 645-648
12. A. Suzuki, E. Bourelle, A. Sato, T. Seki and J. Matsuo
"Effect of oblique irradiation of gas cluster ion beam on surface properties of gold mirrors"
Nuclear Instruments and Methods in Physics Research B, 257 (2007) pp. 649-652

13. H. Tokioka, H. Yamarin, T. Fujino, M. Inoue, T. Seki and J. Matsuo
"Low-damage surface smoothing of laser crystallized polycrystalline silicon using gas cluster ion beam"
Nuclear Instruments and Methods in Physics Research B, 257 (2007) pp. 658-661
14. S. Kakuta, S. Sasaki, T. Hirano, K. Ueda, T. Seki, S. Ninomiya, M. Hada and J. Matsuo
"Low damage smoothing of magnetic material films using a gas cluster ion beam"
Nuclear Instruments and Methods in Physics Research B, 257 (2007) pp. 677-682