

研究発表／RESULTS

International Conference 2012-2011

2012

1. Y. Hontani¹, M. Hada, T. Seki, T. Aoki and J. Matsuo
"Femtosecond X-ray Diffraction of Photochromic Diarylethenes"
Banff Meeting on Structural Dynamics (Banff, Canada, 2013/2/20, Oral)
2. M. Hada, D. Zhang, R. Gengler, T. Seki, J. Matsuo
"Pauli Driven Cold Explosion in Alkali Halides"
Banff Meeting on Structural Dynamics (Banff, Canada, 2013/2/19, Poster)
3. J. Matsuo
"Sputtering with large cluster ion beams"
Symposium on Surface and Nano Science 2013 (Zao, Japan, 2013/1/16, Invited)
4. J. Matsuo
"Secondary Ion Emission with Cluster Ion Beam: Toward Molecular Imaging of Biological Samples"
Symposium on Advanced Technologies in Mass Spectrometry (Yamanashi, Japan, 2012/12/3, Invited)
5. T. Seki, S. Shitomoto, S. Nakagawa, T. Aoki and J. Matsuo
"An Electrostatic Quadrupole Lens for Focusing Swift Heavy Ions in MeV-SIMS"
25th International Conference on Atomic Collisions in Solids (Kyoto, Japan, 2012/10/23, Poster)
6. J. Matsuo
"Secondary ion emission with energetic cluster beam"
25th International Conference on Atomic Collisions in Solids (Kyoto, Japan, 2012/10/23, Invited)
7. T. Aoki
"Radiation Effects and Applications of Slow Heavy Particles"
Swift Heavy Ions in Materials Engineering and Character (New Delhi, India, 2012/10/11, Invited)
8. Y. Hontani, M. Hada, T. Aoki, T. Seki and J. Matsuo
"Ultrafast Molecule Dymanics of Photochromic Reaction in Diarylethene"
IUMRS-International Conference on Electronic Materials (IUMRS-ICEM 2012) (Yokohama, Japan, 2012/9/23-28, Oral)
9. J. Matsuo, M. Hada, Y. Hontani, T. Seki and T. Aoki
"Photoinduced Ultrafast Phase Transition in VO₂ Crystal: Atomic Motion of Vanadium"
IUMRS-International Conference on Electronic Materials (IUMRS-ICEM 2012) (Yokohama, Japan, 2012/9/23-28, Oral)
10. S. Nakagawa, T. Seki, T. Aoki, and J. Matsuo
"Etching of Si by Methanol Gas Cluster Ion Beam Irradiation"
IUMRS-International Conference on Electronic Materials (IUMRS-ICEM 2012) (Yokohama, Japan, 2012/9/23-28, Poster)
11. S. Shitomoto, T. Seki, T. Aoki, and J. Matsuo
"Development of Electrostatic Quadrupole Lens for MeV-SIMS Imaging"
IUMRS-International Conference on Electronic Materials (IUMRS-ICEM 2012) (Yokohama, Japan, 2012/9/23-28, Poster)
12. T. Seki, Y. Yoshino, T. Senoo, K. Koike, T. Aoki, and J. Matsuo
"High-speed Processing with ClF₃ Cluster Injection"
IUMRS-International Conference on Electronic Materials (IUMRS-ICEM 2012) (Yokohama, Japan, 2012/9/23-28, Oral)

13. S. Shitomoto, T. Seki, T. Aoki and J. Matsuo
"Development of Electrostatic Quadrupole Lens for MeV-SIMS Imaging"
19th International Mass Spectrometry Conference (Kyoto, Japan, 2012/9/15-21, Poster)
14. S. Nakagawa, T. Seki, T. Aoki and J. Matsuo
"Secondary Ion Emission with Methanol Gas Cluster Ion Beam Irradiation"
19th International Mass Spectrometry Conference (Kyoto, Japan, 2012/9/15-21, Poster)
15. J. Matsuo, T. Aoki and T. Seki
"Molecular Imaging of Cells and Tissues with Continuous Cluster Ion Beams"
19th International Mass Spectrometry Conference (Kyoto, Japan, 2012/9/15-21, Oral)
16. T. Seki, S. Shitomoto, S. Nakagawa, T. Aoki and J. Matsuo
"Bio-imaging with Swift Heavy Ion Beams"
19th International Mass Spectrometry Conference (Kyoto, Japan, 2012/9/15-21, Poster)
17. M. Hada, D. Zhang, A. Casandru, R.J.D. Miller, Y. Hontani, J. Matsuo, R.E. Marvel, R.F. Haglund Jr.
"Ultrafast hot electron induced phase transition in VO_{2"}
Electronic States and Phases Induced by Electric or Optical Impacts (Orsay, France, 2012/9/12, Poster)
18. J. Matsuo
"Development of large cluster ion beams: from fundamental aspects to future applications"
8th European Workshop on Secondary Ion Mass Spectrometry (Munster, Germany, 2012/9/10, invited)
19. T. Aoki, T. Seki, and J. Matsuo
"MD simulations of atomic, molecular and cluster impact, from X1 to X1000000"
The 18th International Conference on Ion Beam Modifications of Materials (Qingdao, China, 2012/9/4, oral)
20. J. Matsuo, T. Seki, Y. Yoshino, T. Senoo, K. Koike, and T. Aoki
"Novel material processing with energetic cluster beams"
The 18th International Conference on Ion Beam Modifications of Materials (Qingdao, China, 2012/9/4, oral)
21. T. Seki, S. Shitomoto, S. Nakagawa, T. Aoki and J. Matsuo
"Development of MeV-SIMS imaging system with Electrostatic Quadrupole Lens"
22nd International Conference on the Application of Accelerators in Research & Industry (Fort Worth, USA, 2012/8/5-10, Invited)
22. J. Matsuo, S. Nakagawa, M. Py, T. Aoki and T. Seki
"Molecular Imaging with Focused Cluster Ion Beams"
22nd International Conference on the Application of Accelerators in Research & Industry (Fort Worth, USA, 2012/8/5-10, Invited)
23. T. Seki, S. Shitomoto, S. Nakagawa, T. Aoki and J. Matsuo
"An Electrostatic Quadrupole Lens for Focusing Swift Heavy Ions in MeV-SIMS"
13th International Conference On Nuclear Microprobe Technology & Applications (ICNMTA2012) (Lisbon, Portugal 2012/7/26, Poster)
24. J. Matsuo, S. Shitomoto, S. Nakagawa, T. Aoki and T. Seki
"MeV-SIMS with Swift Heavy Ion Beams toward Molecular"
13th International Conference On Nuclear Microprobe Technology & Applications (ICNMTA2012) (Lisbon, Portugal 2012/7/24, Oral)
25. M. Hada, Y. Hontani, R.E. Marvel, R.F. Haglund Jr., J. Matsuo
"Ultrafast Hot-electron Induced Phase Transitions in Vanadium Dioxide"
Ultrafast Phenomena 2012 (Lausanne, Switzerland, 2012/7/9, poster)
26. T. Aoki, T. Seki and J. Matsuo
"Evaluation of sputtering and damage with huge cluster impact using molecular dynamics simulations"
Computer Simulations of Radiation Effects in Solids (COSIRES2012) (Santa Fe, USA, 2012/6/26, Oral)
27. T. Aoki, T. Seki and J. Matsuo
"Large-scale MD Simulation of Huge Cluster Impact for Surface Process and Analysis"
The International Symposium on SIMS and Related Techniques Based on Ion-Solid Interactions at Seikei University (SISS-14) (Seikei Univ., Tokyo, 2012/6/1, Invited)

28. T. Seki, S. Shitomoto, S. Nakagawa, T. Aoki and J. Matsuo
"An Electrostatic Quadrupole Lens for Focusing Swift Heavy Ions in MeV-SIMS"
The International Symposium on SIMS and Related Techniques Based on Ion-Solid Interactions at Seikei University (SISS-14) (Seikei Univ., Tokyo, 2012/6/1, Oral)
29. M. Py, M. Takeuchi, T. Seki, T. Aoki and J. Matsuo
"Boron concentration measurement in cultivated cells with Nano-SIMS"
The International Symposium on SIMS and Related Techniques Based on Ion-Solid Interactions at Seikei University (SISS-14) (Seikei Univ., Tokyo, 2012/5/31, Poster)
30. J. Matsuo, S. Nakagawa, M. Py, K. Ichiki, T. Aoki and T. Seki
"Mass Imaging with Cluster Ion Beams"
The International Symposium on SIMS and Related Techniques Based on Ion-Solid Interactions at Seikei University (SISS-14) (Seikei Univ., Tokyo, 2012/5/31, Oral)
31. Jiro Matsuo
"MeV SIMS Fundamentals"
Joint IAEA-SPIRIT-Japan Technical Meeting on Development and Utilization of MeV SIMS (Dubrovnik, Croatia, 2012/5/22, invited)
32. Toshio Seki
"Development of MeV SIMS Instrumentation and application at Kyoto"
Joint IAEA-SPIRIT-Japan Technical Meeting on Development and Utilization of MeV SIMS (Dubrovnik, Croatia, 2012/5/23, invited)
33. Takaaki Aoki
"Molecular dynamic simulation"
Joint IAEA-SPIRIT-Japan Technical Meeting on Development and Utilization of MeV SIMS (Dubrovnik, Croatia, 2012/5/23, invited)
34. J. Matsuo
"A New SIMS Imaging System with A Focused Ar Cluster Beam for Molecular Imaging"
24th Annual Workshop on SIMS (USA, 2012/5/17, Oral)
35. J. Matsuo, K. Ichiki, T. Aoki and T. Seki
"A Novel Imaging Technique for Cells and Tissue by Energetic Particle Bombardment"
2012 MRS Spring Meetings (USA, 2012/4/11, Oral)
36. J. Matsuo
"Femtosecond X-Ray Diffraction of VO₂(100): Structural Dynamics during Phase Transition"
2012 MRS Spring Meetings (USA, 2012/4/10, Invited)
37. Y. Hontani, M. Hada, T. Seki, T. Aoki and J. Matsuo
"Real-time Observation of Photo-induced Phase Transition of Diarylethene"
2012 MRS Spring Meetings (USA, 2012/4/10, Oral)

2011

1. Y. Hontani, M. Hada, T. Seki, T. Aoki and J. Matsuo
"Time-resolved Observation of the Photoinduced Phase Transition of Diarylethene"
Banff Meeting on Structural Dynamics Ultrafast Dynamics with Xrays and Electrons (Banff, Canada, 2012/2/19, Poster)
2. M. Hada, J. Hirscht, D. Zhang, K. Pichugin, S. Hayes, G. Moriena, G. Sciaiani, T. Seki, T. Aoki, J. Matsuo and R.J.D. Miller,
"Sample Preparation for Femtosecond Electron Diffraction: Low Damage Milling of Organic Materials with Cluster Ion Beams"
Banff Meeting on Structural Dynamics Ultrafast Dynamics with Xrays and Electrons (Banff, Canada, 2012/2/19, Poster)
3. J. Matsuo
"Residual Surface Damage on Soft Materials with Energetic Particle Bombardment"
The 8th EU-Japan Joint Symposium on Plasma Processing (JSPP2012) (Nara, 2012/1/17, Invited)

4. J. Matsuo, K. Ichiki, S. Nakagawa, T. Seki and T. Aoki
"Depth Profiling Technique and Molecular Imaging with Cluster SIMS -from Organic Thin Films and Single Cells -"
21th MRS-J Symposium (International Session) (Yokohama, Japan, 2011/12/19, Oral)
5. T. Aoki, T. Seki and J. Matsuo
"Large-Scale Molecular Dynamics Simulation of Huge Fluorine Cluster Impact on Silicon"
21th MRS-J Symposium (International Session) (Yokohama, Japan, 2011/12/20, Poster)
6. S. Shitomoto, Y. Wakamatsu, T. Seki, T. Aoki and J. Matsuo
"Development of Electrostatic Quadrupole Lens for Focusing of Swift Heavy Ion"
21th MRS-J Symposium (International Session) (Yokohama, Japan, 2011/12/20, Poster)
7. T. Seki, Y. Yoshino, T. Senoo, K. Koike, T. Aoki and J. Matsuo
"Cluster Beam Generation of Low Vapor Pressure Materials"
21th MRS-J Symposium (International Session) (Yokohama, Japan, 2011/12/20, Poster)
8. J. Matsuo
"Bio-imaging with SIMS"
International Symposium on Surface Science (ISSS-6) (Funabori, Tokyo, 2011/12/13, Invited)
9. T. Seki, K. Ichiki, J. Tamura, T. Aoki and J. Matsuo
"The Effect of Size Variation in Sputtering with Size-Selected Cluster Ion Beams"
11th Workshop on Cluster Ion Beam Technology (Tokyo, Japan, 2011/12/5, Oral)
10. Y. Yoshino, T. Seki, T. Senoo, K. Koike, G. Inoue, T. Aoki and J. Matsuo
"Characteristics of Si Etching Using ClF₃-Ar Cluster Beam"
11th Workshop on Cluster Ion Beam Technology (Tokyo, Japan, 2011/12/5, Oral)
11. T. Aoki, T. Seki and J. Matsuo
"Molecular dynamics simulations of large fluorine cluster impact on silicon with supersonic velocity"
11th Workshop on Cluster Ion Beam Technology (Tokyo, Japan, 2011/12/5, Oral)
12. J. Matsuo, K. Ichiki, T. Yamanobe, Y. Yamamoto, T. Aoki and T. Seki
"Molecular Imaging of Cells and Tissues with Novel Ion Beams"
AVS 58th International Symposium (Nashville, USA, 2011/11/2, Oral)
13. J. Matsuo, K. Ichiki, T. Seki and T. Aoki
"The effect of size variation in sputtering with size-selected cluster ion beams"
18th International Conference on Secondary Ion Mass Spectrometry (SIMS XVIII) (Tretino, Italy, 2011/9/23, Oral)
14. J. Matsuo, K. Ichiki, T. Yamanbe, Y. Yamamoto, T. Seki and T. Aoki
"A focused Ar cluster ion beam for molecular imaging"
18th International Conference on Secondary Ion Mass Spectrometry (SIMS XVIII) (Tretino, Italy, 2011/9/23, Oral)
15. Y. Yamamoto, K. Ichiki, T. Seki, T. Aoki and J. Matsuo
"Ion-induced damage evaluation with Ar cluster ion beams"
18th International Conference on Secondary Ion Mass Spectrometry (SIMS XVIII) (Tretino, Italy, 2011/9/22, Poster)
16. T. Tadic, J. Matsuo, N. Skukan and M. Jaksic
"Development of TOF SIMS setup at the Zagreb Heavy Ion Microbeam Facility"
18th International Conference on Secondary Ion Mass Spectrometry (SIMS XVIII) (Tretino, Italy, 2011/9/22, Poster)
17. J. Matsuo, Y. Wakamatsu, K. Ichiki, T. Yamanobe, Y. Yamamoto, B. Jones, R. Webb, T. Seki and Takaaki Aoki
"Cell and tissue imaging with novel ion beams"
18th International Conference on Secondary Ion Mass Spectrometry (SIMS XVIII) (Tretino, Italy, 2011/9/19, Oral)
18. Jiro Matsuo, Takaaki Aoki, Toshio Seki
"Cluster Ion Implantation for semiconductors -Prospects and Challenging-"
International Workshop on Ion Beam Applications of Functional Materials (Jinan, China, 2011/8/19-22, invited)

19. J. Matsuo, Y. Wakamatsu, T. Seki and T. Aoki
"Secondary ion emission from biomaterials with swift heavy ions: toward a novel application for bio-imaging"
16th International Conference on Radiation Effects in Insulators (REI2011)(Beijing, China, 2011/8/17, Oral)
20. J. Matsuo
"Novel molecular imaging and depth profiling technique -from single cells to organic thin films-"
Workshop on Advanced Plasma Technology for Green Energy and Biochemical Applications (Chiang-Mai, Thailand, 2011/8/11, Invited)
21. J. Matsuo
"Organic and Biological Material Analysis with Cluster Ion Beams"
The International Symposium on SIMS and Related Techniques Based on Ion-Solid Interactions at Seikei University (SISS-13) (Nagakute, Aich, 2011/6/24, Invited)
22. J. Matsuo
"Bio-imaging Technique with Novel Primary Ions"
(Seoul, Korea, 2011/5/23, Invited)
23. J. Matsuo, K. Ichiki, Y. Yamamoto, T. Seki and T. Aoki
"Depth Profiling Analysis with Size-controlled Cluster Ion Beam"
8th International Symposium on Atomic Level Characterizations for New Materials and Devices '11 (Seoul, Korea, 2011/5/24, Poster)
24. J. Matsuo
"Ar Cluster SIMS: What's next?"
23rd Annual Workshop on SIMS (Baltimore, USA, 2011/5/18, invited)
25. Jiro Matsuo
"Structure dynamics study on epitaxial VO₂ film by using femto-second X-ray diffraction"
The 29th International Brand Ritchie Workshop (BRW2011) on Particle Penetration Phenomena and Excitations of Solids? (2011/5/13-15, Shimane, Invited)
26. J. Matsuo, Y. Wakamatsu, T. Aoki and T. Seki
"Secondary Molecular Ion Emission with Swift Heavy Ions:A Novel Imaging Technique for Biological Applications"
E-MRS 2011 Spring Meeting (Nice, France, 2011/5/11, Oral)
27. T. Aoki, T. Seki and J. Matsuo
"Molecular dynamics study of species and structure effect on large cluster impact"
E-MRS 2011 Spring Meeting (Nice, France, 2011/5/9, Poster)
28. T. Seki, Y. Yoshino, T. Senoo, K. Koike, T. Aoki and J. Matsuo
"Si Processing with Energetic Neutral Cluster Beam"
E-MRS 2011 Spring Meeting (Nice, France, 2011/5/9, Poster)
29. K. Ichiki, T. Seki, T. Aoki and J. Matsuo
"The effects of cluster size and energy on sputtering with gas cluster ion beams"
E-MRS 2011 Spring Meeting (Nice, France, 2011/5/9, Poster)
30. J. Matsuo, K. Ichiki, Y. Yamamoto, T. Seki and T. Aoki
"Damage free sputtering with size-controlled cluster ion beam for material analysis"
20th International Conference on Ion Beam Analysis (Itapema, Brazil, 2011/4/13, Poster)
31. J. Matsuo, Y. Wakamatsu, T. Aoki and T. Seki
"Bio-imaging technique with swift heavy ions -from single cells to tissues-"
20th International Conference on Ion Beam Analysis (Itapema, Brazil, 2011/4/15, Oral)