

## Publications 2014-2013

### 2014

1. T. Seki, M. Fujii, M. Kusakari, S. Nakagawa, T. Aoki, J. Matsuo,  
"Analysis of liquid materials in low vacuum with Wet-SIMS"  
Surface and Interface Analysis. Vol.46, pp.1133-1136(2014) new
2. M. Kusakari, M. Fujii, T. Seki, T. Aoki, J. Matsuo,  
"Low Vacuum SIMS Measurements of Higher Alcohols with MeV-energy Heavy Ion Beam",  
Transactions of the Materials Research Society of Japan. Vol.39, Issue:3, pp.265-268(2014) new
3. M. Suzuki, M. Nojima, M. Fujii, T. Seki, J. Matsuo,  
"Mass analysis by Ar-GCIB-dynamic SIMS for organic materials"  
Surface and Interface Analysis. Vol.46, pp.1212-1214(2014) new
4. M. Nojima, M. Suzuki, M. Fujii, T. Seki, J. Matsuo,  
"Development of organic SIMS system with Ar-GCIB and IMS-4f"  
Surface and Interface Analysis. Vol.46, pp.368-371(2014) new
5. H. Yamamoto, T. Seki, J. Matsuo, K. Koike, T. Kozawa,  
"High-aspect-ratio patterning by ClF3-Ar neutral cluster etching"  
Microelectronic Engineering. Vol.141, pp.145-149(2015) new
6. 藤井麻樹子, 宮戸理恵, 烏居聰太, 中川駿一郎, 濱木利夫, 青木学聰, 鈴木茂, 松尾二郎  
"クラスターSIMS 法による脂質分子の高感度検出とイメージングへの応用"  
表面科学, Vol. 35, No. 7, pp. 351-355 (2014)
7. M. Hada, D. Zhang, K. Pichugin, J. Hirscht, M. A. Kochman, S. A. Hayes, S. Manz, R. Y. N. Gengler, D. A. Wann, T. Seki, G. Moriena, C. A. Morrison, J. Matsuo, G. Sciaiani & R. J. D. Miller  
"Cold ablation driven by localized forces in alkali halides"  
Nature Communications 5, Article number 3863 (2014) (doi: 10.1038/ncomms4863)
8. J. Matsuo, S. Torii, K. Yamauchi, K. Wakamoto, M. Kusakari, S. Nakagawa, M. Fujii, T. Aoki and T. Seki  
"Novel SIMS system with focused massive cluster ion source for mass imaging spectrometry with high lateral resolution"  
Applied Physics Express Vo.7, No.5, 056602 (2014) (doi:10.7567/APEX.7.056602)
9. M. Fujii, M. Kusakari, K. Matsuda, N. Man, T. Seki, T. Aoki and J. Matsuo  
"Lipid compounds analysis with MeV-SIMS apparatus for biological applications"  
Surface and Interface Analysis (2014) (doi: 10.1002/sia.5524)
10. M. Fujii, S. Nakagawa, T. Seki, T. Aoki and J. Matsuo  
"Quantitative analysis of lipids with argon gas cluster ion beam secondary ion mass spectrometry"  
Surface and Interface Analysis (2014) (doi: 10.1002/sia.5518)
11. M. Fujii, S. Nakagawa, K. Matsuda, N. Man, T. Seki, T. Aoki and J. Matsuo  
"Study on the detection limits of a new argon gas cluster ion beam secondary ion mass spectrometry apparatus using lipid compound samples"  
Rapid Commun. Mass Spectrom., Vol. 28, pp. 917-920 (2014) (doi: 10.1002/rcm.6867)
12. 松尾二郎  
"クラスターイオンビームを用いる表面分析技術の新展開"  
応用物理, 83巻(2014), 5号, 371-375  
(doi: 10.11470/ouutsu.83.5\_371)

# 2013

1. T. Seki, Y. Wakamatsu, S. Nakagawa, T. Aoki, A. Ishihara and J. Matsuo  
"Biomaterial imaging with MeV-energy heavy ion beams"  
Nuclear Instruments and Methods in Physics Research B (2014) (doi: org/10.1016/j.nimb.2014.02.088)
2. T. Tadic, I. B. Radovic, Z. Siketic, D. D. Cosic, N. Skukan, M. Jaksic, and J. Matsuo  
"Development of a TOF SIMS setup at the Zagreb Heavy Ion Microbeam Facility"  
Nuclear Instruments and Methods in Physics Research B, (2014) ( doi:10.1016/j.nimb.2014.02.068)
3. H. Gnaser, M. Fujii, S. Nakagawa, T. Seki, T. Aoki, J. Matsuo  
"Prolific cluster emission in sputtering of phenylalanine by argon-cluster ion bombardment"  
International Journal of Mass Spectrometry, Vol. 360, pp. 54-57 (2014) (doi: 10.1016/j.ijms.2013.12.024)
4. T. Seki, S. Shitomoto, S. Nakagawa, T. Aoki and J. Matsuo  
"An electrostatic quadrupole doublet focusing system for MeV heavy ions in MeV-SIMS"  
Nuclear Instruments and Methods in Physics Research B, Vol. 315, pp. 356-359 (2013)  
(doi:10.1016/j.nimb.2013.05.069)
5. T. Aoki, T. Seki and J. Matsuo  
"Molecular dynamics simulation study of damage formation and sputtering with huge fluorine cluster impact on silicon"  
Nuclear Instruments and Methods in Physics Research B, Vol. 303 pp. 170-173 (2013) (doi: 10.1016/j.nimb.2012.10.040)
6. H. Gnaser, M. Fujii, S. Nakagawa, T. Seki, T. Aoki and J. Matsuo  
"Peptide dissociation patterns in secondary ion mass spectrometry under large argon cluster ion bombardment"  
Rapid Commun. Mass Spectrom., Vol.27, pp. 1490-1496 (2013)(doi: 10.1002/rcm.6599)
7. K. Ichiki, J. Tamura, T. Seki, T. Aoki, J. Matsuo  
"Development of gas cluster ion beam irradiation system with an orthogonal acceleration TOF instrument"  
Surface and Interface Analysis, Vol. 45, Issue: 1, pp. 522-524 (2013) (doi: 10.1002/sia.5092)
8. Y. Goto, Y.Angata, M.Yamamoto, T. Seki, J. Matsuo, H. Horibe  
"Removal of Ion Implanted Poly Vinyl Phenol using Wet Ozone"  
Journal of Photopolymer Science and Technology, 23 卷 (2013), 4 号 , p.467-472 (doi: 10.2494/photopolymer.26.467)
9. K. Dobashi, K. Inai, M. Saito, T. Seki, T. Aoki, J. Matsuo  
"Ultrafine Particle Removal Using Gas Cluster Ion Beam Technology"  
IEEE Transactions on Semiconductor Manufacturing, Volume 26, Issue 3, Aug. 2013, Published 18 June 2013  
(doi:10.1109/TSM.2013.2268871)