

Toshio Seki

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

99
papers

1,412
citations

19
h-index

34
g-index

109
ext. papers

1,486
ext. citations

2.7
avg, IF

3.95
L-index

#	Paper	IF	Citations
99	Precise and fast secondary ion mass spectrometry depth profiling of polymer materials with large Ar cluster ion beams. <i>Rapid Communications in Mass Spectrometry</i> , 2009 , 23, 1601-6	2.2	174
98	Measurements of secondary ions emitted from organic compounds bombarded with large gas cluster ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 256, 493-496	1.2	140
97	Molecular depth profiling of multilayer structures of organic semiconductor materials by secondary ion mass spectrometry with large argon cluster ion beams. <i>Rapid Communications in Mass Spectrometry</i> , 2009 , 23, 3264-8	2.2	86
96	Nano-processing with gas cluster ion beams. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2000 , 164-165, 944-959	1.2	73
95	A new secondary ion mass spectrometry (SIMS) system with high-intensity cluster ion source. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004 , 219-220, 463-467	1.2	55
94	A fragment-free ionization technique for organic mass spectrometry with large Ar cluster ions. <i>Applied Surface Science</i> , 2008 , 255, 1588-1590	6.7	54
93	Matrix-free high-resolution imaging mass spectrometry with high-energy ion projectiles. <i>Journal of Mass Spectrometry</i> , 2009 , 44, 128-36	2.2	44
92	What size of cluster is most appropriate for SIMS?. <i>Applied Surface Science</i> , 2008 , 255, 1235-1238	6.7	41
91	Molecular dynamics simulations for gas cluster ion beam processes. <i>Vacuum</i> , 2010 , 84, 994-998	3.7	35
90	Cluster size dependence of the impact process on a carbon substrate. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1999 , 153, 264-269	1.2	35
89	Cold ablation driven by localized forces in alkali halides. <i>Nature Communications</i> , 2014 , 5, 3863	17.4	33
88	Novel SIMS system with focused massive cluster ion source for mass imaging spectrometry with high lateral resolution. <i>Applied Physics Express</i> , 2014 , 7, 056602	2.4	32
87	Analysis of organic semiconductor multilayers with Ar cluster secondary ion mass spectrometry. <i>Surface and Interface Analysis</i> , 2011 , 43, 95-98	1.5	32
86	SIMS with highly excited primary beams for molecular depth profiling and imaging of organic and biological materials. <i>Surface and Interface Analysis</i> , 2010 , 42, 1612-1615	1.5	31
85	Cluster ion bombardment on atomically flat Au(111) solid surfaces. <i>Materials Chemistry and Physics</i> , 1998 , 54, 76-79	4.4	30
84	Energy dependence of a single trace created by C60 ion impact. <i>Materials Chemistry and Physics</i> , 1998 , 54, 143-146	4.4	25
83	The effect of incident cluster ion energy and size on secondary ion yields emitted from Si. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 256, 528-531	1.2	25

82	Selective Reduction Mechanism of Graphene Oxide Driven by the Photon Mode the Thermal Mode. <i>ACS Nano</i> , 2019 , 13, 10103-10112	16.7	21
81	Size effect in cluster collision on solid surfaces. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 257, 627-631	1.2	21
80	The effect of incident energy on molecular depth profiling of polymers with large Ar cluster ion beams. <i>Surface and Interface Analysis</i> , 2011 , 43, 221-224	1.5	19
79	Sidewall polishing with a gas cluster ion beam for photonic device applications. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005 , 241, 622-625	1.2	19
78	Highly sensitive molecular detection with swift heavy ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2011 , 269, 2251-2253	1.2	18
77	MeV-energy probe SIMS imaging of major components in animal cells etched using large gas cluster ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2010 , 268, 1736-1740	1.2	17
76	Peptide dissociation patterns in secondary ion mass spectrometry under large argon cluster ion bombardment. <i>Rapid Communications in Mass Spectrometry</i> , 2013 , 27, 1490-6	2.2	16
75	Polishing of Sidewall Surfaces Using a Gas Cluster Ion Beam. <i>Japanese Journal of Applied Physics</i> , 2004 , 43, L1253-L1255	1.4	14
74	STM observation of surface vacancies created by ion impact. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2000 , 164-165, 650-655	1.2	14
73	Study on the detection limits of a new argon gas cluster ion beam secondary ion mass spectrometry apparatus using lipid compound samples. <i>Rapid Communications in Mass Spectrometry</i> , 2014 , 28, 917-20	2.2	12
72	Evaluation of Damage Layer in an Organic Film with Irradiation of Energetic Ion Beams. <i>Japanese Journal of Applied Physics</i> , 2010 , 49, 036503	1.4	12
71	Study of density effect of large gas cluster impact by molecular dynamics simulations. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009 , 267, 2999-3001	1.2	11
70	MD simulation study of the sputtering process by high-energy gas cluster impact. <i>Applied Surface Science</i> , 2008 , 255, 944-947	6.7	11
69	The emission process of secondary ions from solids bombarded with large gas cluster ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009 , 267, 2601-2604	1.2	10
68	Study of crater formation and sputtering process with large gas cluster impact by molecular dynamics simulations. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009 , 267, 1424-1427	1.2	10
67	Anisotropic Etching Using Reactive Cluster Beams. <i>Applied Physics Express</i> , 2010 , 3, 126501	2.4	10
66	Ion-induced damage evaluation with Ar cluster ion beams. <i>Surface and Interface Analysis</i> , 2013 , 45, 167-170	1.0	9
65	Analysis of liquid materials in low vacuum with Wet-SIMS. <i>Surface and Interface Analysis</i> , 2014 , 46, 1133-1136	1.3	8

64	Atomistic study of cluster collision on solid surfaces. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003 , 206, 838-841	1.2	8
63	Development of ambient SIMS using mega-electron-volt-energy ion probe. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016 , 34, 03H111	1.3	8
62	Solvent-free silver-nanoparticle surface-assisted laser desorption/ionization imaging mass spectrometry of the Irganox 1010 coated on polystyrene. <i>International Journal of Mass Spectrometry</i> , 2016 , 404, 1-7	1.9	8
61	Prolific cluster emission in sputtering of phenylalanine by argon-cluster ion bombardment. <i>International Journal of Mass Spectrometry</i> , 2014 , 360, 54-57	1.9	7
60	Using ellipsometry for the evaluation of surface damage and sputtering yield in organic films with irradiation of argon cluster ion beams. <i>Surface and Interface Analysis</i> , 2011 , 43, 84-87	1.5	7
59	Molecular dynamics simulations of large fluorine cluster impact on silicon with supersonic velocity. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2011 , 269, 1582-1585	1.2	7
58	Secondary ion emission from Si bombarded with large Ar cluster ions under UHV conditions. <i>Applied Surface Science</i> , 2008 , 255, 880-882	6.7	7
57	High-intensity Si cluster ion emission from a silicon target bombarded with large Ar cluster ions. <i>Applied Surface Science</i> , 2006 , 252, 6550-6553	6.7	7
56	High-aspect-ratio patterning by ClF ₃ -Ar neutral cluster etching. <i>Microelectronic Engineering</i> , 2015 , 141, 145-149	2.5	6
55	Yields and images of secondary ions from organic materials by different primary Bi ions in time-of-flight secondary ion mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2016 , 30, 476-82	2.2	6
54	Ambient analysis of liquid materials with Wet-SIMS. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2016 , 371, 189-193	1.2	6
53	Biomaterial imaging with MeV-energy heavy ion beams. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014 , 332, 326-329	1.2	6
52	Molecular dynamics study of crater formation by core-shell structured cluster impact. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012 , 282, 29-32	1.2	6
51	Energy effects on the sputtering yield of Si bombarded with gas cluster ion beams 2011 ,		6
50	High Speed Si Etching with ClF ₃ Cluster Injection 2011 ,		6
49	Reactive etching by ClF ₃ /Ar neutral cluster beam with scanning. <i>Japanese Journal of Applied Physics</i> , 2016 , 55, 06HB01	1.4	5
48	Surface processing with high-energy gas cluster ion beams. <i>Surface and Coatings Technology</i> , 2007 , 201, 8646-8649	4.4	5
47	Molecular dynamics study of monomer and dimer emission processes with high energy gas cluster ion impact. <i>Surface and Coatings Technology</i> , 2007 , 201, 8427-8430	4.4	5

46	Secondary ion measurements for oxygen cluster ion SIMS. <i>Applied Surface Science</i> , 2006 , 252, 7290-72926.7		5
45	Recent Progress in Cluster Ion Beam. <i>Journal of Surface Analysis (Online)</i> , 2008 , 14, 196-203	0.1	5
44	Angled etching of Si by ClF ₃ /Ar gas cluster injection. <i>Japanese Journal of Applied Physics</i> , 2017 , 56, 06HB024		4
43	Molecular cluster emission in sputtering of amino acids by argon gas-cluster ions. <i>International Journal of Mass Spectrometry</i> , 2015 , 383-384, 31-37	1.9	4
42	Ultrafine Particle Removal Using Gas Cluster Ion Beam Technology. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 2013 , 26, 328-334	2.6	4
41	Sputtering yield measurements with size-selected gas cluster ion beams. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1181, 150		4
40	Evaluation of surface damage on organic materials irradiated with Ar cluster ion beam 2011 ,		4
39	Carbon Nanotubes from a Divided Catalyst: the Carbon Transmission Method. <i>Applied Physics Express</i> , 2008 , 1, 034002	2.4	4
38	High-speed Processing with Reactive Cluster Ion Beams. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 843, 3361		4
37	Cationization and fragmentation of molecular ions sputtered from polyethylene glycol under gas cluster bombardment: An analysis by MS and MS/MS. <i>International Journal of Mass Spectrometry</i> , 2018 , 430, 149-157	1.9	4
36	Secondary ion emission from leucine and isoleucine under argon gas-cluster ion bombardment. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016 , 34, 03H102	1.3	3
35	Development of organic SIMS system with Ar-GCIB and IMS-4f. <i>Surface and Interface Analysis</i> , 2014 , 46, 368-371	1.5	3
34	Mass analysis by Ar-GCIB-dynamic SIMS for organic materials. <i>Surface and Interface Analysis</i> , 2014 , 46, 1212-1214	1.5	3
33	Molecular dynamics simulation study of damage formation and sputtering with huge fluorine cluster impact on silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2013 , 303, 170-173	1.2	3
32	Size and energy distribution of gas cluster ion beam measured by energy resolved time of flight mass spectroscopy. <i>Surface and Coatings Technology</i> , 2005 , 196, 198-202	4.4	3
31	STM observation of a Si surface irradiated with a single Ar cluster ion. <i>AIP Conference Proceedings</i> , 2001 ,	0	3
30	UHV-STM study on ion-assisted deposition. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2000 , 161-163, 1007-1010	1.2	3
29	Phonon transport probed at carbon nanotube yarn/sheet boundaries by ultrafast structural dynamics. <i>Carbon</i> , 2020 , 170, 165-173	10.4	3

28	Recent Progress in Cluster Ion Beam Technology. <i>Hyomen Kagaku</i> , 2010 , 31, 564-571		3
27	Molecular dynamics simulations study of nano particle migration by cluster impact. <i>Surface and Coatings Technology</i> , 2016 , 306, 63-68	4-4	3
26	Secondary ion mass spectrometry measurements under ambient and humid conditions using MeV ions. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2020 , 38, 034014 ¹⁻³		2
25	Low Vacuum SIMS Measurements of Higher Alcohols with MeV-energy Heavy Ion Beam. <i>Transactions of the Materials Research Society of Japan</i> , 2014 , 39, 265-268	0.2	2
24	Nano-processing with gas cluster ion beams. <i>Surface and Coatings Technology</i> , 2009 , 203, 2446-2451	4-4	2
23	Low-damage milling of an amino acid thin film with cluster ion beam. <i>Journal of Applied Physics</i> , 2011 , 110, 094701	2.5	2
22	Molecular Dynamics Simulation of Fullerene Cluster Ion Impact. <i>Materials Research Society Symposia Proceedings</i> , 1997 , 504, 81		2
21	High Current Cluster Ion Beam Source. <i>AIP Conference Proceedings</i> , 2003 ,	0	2
20	High-speed Processing with Cluster Ion Beams. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 792, 580		2
19	Cluster ion beam bombardment and Q-ToF-SIMS analysis of large biomolecules. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2019 , 448, 11-18	1.2	1
18	Highly Accurate Lipid Analysis and Imaging Mass Spectrometry with Cluster SIMS. <i>Hyomen Kagaku</i> , 2014 , 35, 351-355		1
17	Lipid compounds analysis with MeV-SIMS apparatus for biological applications. <i>Surface and Interface Analysis</i> , 2014 , 46, 353-356	1.5	1
16	Removal of Ion Implanted Poly Vinyl Phenol using Wet Ozone. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , 2013 , 26, 467-472	0.7	1
15	MD simulation of small boron cluster implantation 2010 ,		1
14	Biomolecular Emission by Swift Heavy Ion Bombardment 2011 ,		1
13	Cluster Ion Implantation - Prospects and Challenges- 2007 ,		1
12	Ar Cluster Ion Bombardment Effects on Semiconductor Surfaces. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 647, 1		1
11	Recent Progress of SIMS Technique from Novel Primary Beams to Advanced Mass Spectrometers. <i>Vacuum and Surface Science</i> , 2018 , 61, 426-434	0	1

10	MeV-SIMS measurement of lithium-containing electrolyte. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2020 , 479, 229-232	1.2	1
9	Optimized Alkali-Metal Cationization in Secondary Ion Mass Spectrometry of Polyethylene Glycol Oligomers with up to / 10000: Dependence on Cation Species and Concentration. <i>Analytical Chemistry</i> , 2020 , 92, 1511-1517	7.8	0
8	Recent Developments of Cluster Ion Beam —From Nano-fabrication to Analysis of Bio-materials—. <i>Journal of the Vacuum Society of Japan</i> , 2016 , 59, 113-120		
7	Quantitative analysis of lipids with argon gas cluster ion beam secondary ion mass spectrometry. <i>Surface and Interface Analysis</i> , 2014 , 46, 1129-1132	1.5	
6	Fast Neutral Ar Penetration during Gas Cluster Ion Beam Irradiation into Magnetic Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 792, 609		
5	DEVELOPMENT OF THE LARGE CURRENT CLUSTER ION BEAM TECHNOLOGY 2005 , 223-226		
4	Threshold Energy for Generating Damage with Cluster Ion Irradiation. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 749, 1		
3	Innovative Technologies in Advanced SIMS Toward Organic and Biological Material Analysis. <i>Vacuum and Surface Science</i> , 2021 , 64, 458-465		0
2	High-Speed Nanoprocessing with Cluster Ion Beams. <i>Transactions of the Materials Research Society of Japan</i> , 2008 , 33, 1019-1022		0.2
1	Development of Atmospheric Pressure MeV-SIMS and Solid-Liquid Interface Analysis. <i>Journal of Surface Analysis (Online)</i> , 2020 , 26, 254-259		0.1