Toshio Seki

List of Publications by Year in Descending Order

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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 1,412 19 34 g-index

109 1,486 2.7 3.95 ext. papers ext. citations avg, IF L-index

#	Paper Paper	IF	Citations
99	Innovative Technologies in Advanced SIMS Toward Organic and Biological Material Analysis. Vacuum and Surface Science, 2021, 64, 458-465	Ο	
98	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, 03401	4 ^{1.3}	2
97	Development of Atmospheric Pressure MeV-SIMS and Solid Liquid Interface Analysis. <i>Journal of Surface Analysis (Online)</i> , 2020 , 26, 254-259	0.1	
96	Phonon transport probed at carbon nanotube yarn/sheet boundaries by ultrafast structural dynamics. <i>Carbon</i> , 2020 , 170, 165-173	10.4	3
95	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	О
94	MeV-SIMS measurement of lithium-containing electrolyte. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2020 , 479, 229-232	1.2	1
93	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
92	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
91	Recent Progress of SIMS Technique from Novel Primary Beams to Advanced Mass Spectrometers. <i>Vacuum and Surface Science</i> , 2018 , 61, 426-434	O	1
90	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
89	Angled etching of Si by ClF3Ar gas cluster injection. <i>Japanese Journal of Applied Physics</i> , 2017 , 56, 06HB	024	4
88	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		
87	Reactive etching by ClF3Ar neutral cluster beam with scanning. <i>Japanese Journal of Applied Physics</i> , 2016 , 55, 06HB01	1.4	5
86	Secondary ion emission from leucine and isoleucine under argon gas-cluster ion bombardment. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016 , 34, 03H102	1.3	3
85	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
84	Ambient analysis of liquid materials with Wet-SIMS. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2016 , 371, 189-193	1.2	6
83	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

(2013-2016)

82	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
81	Molecular dynamics simulations study of nano particle migration by cluster impact. <i>Surface and Coatings Technology</i> , 2016 , 306, 63-68	4.4	3
80	High-aspect-ratio patterning by ClF3-Ar neutral cluster etching. <i>Microelectronic Engineering</i> , 2015 , 141, 145-149	2.5	6
79	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
78	Quantitative analysis of lipids with argon gas cluster ion beam secondary ion mass spectrometry. Surface and Interface Analysis, 2014 , 46, 1129-1132	1.5	
77	Analysis of liquid materials in low vacuum with Wet-SIMS. Surface and Interface Analysis, 2014, 46, 1133-	1:136	8
76	Biomaterial imaging with MeV-energy heavy ion beams. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014 , 332, 326-329	1.2	6
75	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
74	Cold ablation driven by localized forces in alkali halides. <i>Nature Communications</i> , 2014 , 5, 3863	17.4	33
73	Highly Accurate Lipid Analysis and Imaging Mass Spectrometry with Cluster SIMS. <i>Hyomen Kagaku</i> , 2014 , 35, 351-355		1
72	Development of organic SIMS system with Ar-GCIB and IMS-4f. <i>Surface and Interface Analysis</i> , 2014 , 46, 368-371	1.5	3
71	Lipid compounds analysis with MeV-SIMS apparatus for biological applications. <i>Surface and Interface Analysis</i> , 2014 , 46, 353-356	1.5	1
7°	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
69	Mass analysis by Ar-GCIB-dynamic SIMS for organic materials. <i>Surface and Interface Analysis</i> , 2014 , 46, 1212-1214	1.5	3
68	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
67	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
66	Ion-induced damage evaluation with Ar cluster ion beams. Surface and Interface Analysis, 2013, 45, 167-	17.9	9
65	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

64	Ultrafine Particle Removal Using Gas Cluster Ion Beam Technology. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 2013 , 26, 328-334	2.6	4
63	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
62	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
61	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
60	Energy effects on the sputtering yield of Si bombarded with gas cluster ion beams 2011,		6
59	Highly sensitive molecular detection with swift heavy ions. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2011 , 269, 2251-2253	1.2	18
58	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
57	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
56	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
55	Molecular dynamics simulations of large fluorine cluster impact on silicon with supersonic velocity. Nuclear Instruments & Methods in Physics Research B, 2011 , 269, 1582-1585	1.2	7
54	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
53	Biomolecular Emission by Swift Heavy Ion Bombardment 2011 ,		1
52	Evaluation of surface damage on organic materials irradiated with Ar cluster ion beam 2011,		4
51	High Speed Si Etching with ClF3 Cluster Injection 2011 ,		6
50	MD simulation of small boron cluster implantation 2010,		1
49	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
48	Anisotropic Etching Using Reactive Cluster Beams. <i>Applied Physics Express</i> , 2010 , 3, 126501	2.4	10
47	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

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46	Molecular dynamics simulations for gas cluster ion beam processes. <i>Vacuum</i> , 2010 , 84, 994-998	3.7	35
45	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
44	Recent Progress in Cluster Ion Beam Technology. Hyomen Kagaku, 2010, 31, 564-571		3
43	Sputtering yield measurements with size-selected gas cluster ion beams. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1181, 150		4
42	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
41	Nano-processing with gas cluster ion beams. Surface and Coatings Technology, 2009, 203, 2446-2451	4.4	2
40	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
39	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
38	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
37	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
36	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
35	Carbon Nanotubes from a Divided Catalyst: the Carbon Transmission Method. <i>Applied Physics Express</i> , 2008 , 1, 034002	2.4	4
34	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
33	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
32	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
31	What size of cluster is most appropriate for SIMS?. <i>Applied Surface Science</i> , 2008 , 255, 1235-1238	6.7	41
30	Recent Progress in Cluster Ion Beam. Journal of Surface Analysis (Online), 2008, 14, 196-203	0.1	5
29	High-Speed Nanoprocessing with Cluster Ion Beams. <i>Transactions of the Materials Research Society of Japan</i> , 2008 , 33, 1019-1022	0.2	

28	Surface processing with high-energy gas cluster ion beams. <i>Surface and Coatings Technology</i> , 2007 , 201, 8646-8649	4.4	5
27	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
26	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
25	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
24	Size effect in cluster collision on solid surfaces. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 257, 627-631	1.2	21
23	Cluster Ion Implantation - Prospects and Challenges- 2007,		1
22	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
21	Secondary ion measurements for oxygen cluster ion SIMS. <i>Applied Surface Science</i> , 2006 , 252, 7290-729	2 6.7	5
20	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
19	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
18	DEVELOPMENT OF THE LARGE CURRENT CLUSTER ION BEAM TECHNOLOGY 2005 , 223-226		
17	Polishing of Sidewall Surfaces Using a Gas Cluster Ion Beam. <i>Japanese Journal of Applied Physics</i> , 2004 , 43, L1253-L1255	1.4	14
16	High-speed Processing with Reactive Cluster Ion Beams. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 843, 3361		4
15	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
14	High Current Cluster Ion Beam Source. AIP Conference Proceedings, 2003,	О	2
13	Fast Neutral Ar Penetration during Gas Cluster Ion Beam Irradiation into Magnetic Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 792, 609		
12	Atomistic study of cluster collision on solid surfaces. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003 , 206, 838-841	1.2	8
11	High-speed Processing with Cluster Ion Beams. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 792, 580		2

LIST OF PUBLICATIONS

Threshold Energy for Generating Damage with Cluster Ion Irradiation. *Materials Research Society Symposia Proceedings*, **2002**, 749, 1

9	STM observation of a Si surface irradiated with a single Ar cluster ion. <i>AIP Conference Proceedings</i> , 2001 ,	Ο	3
8	Ar Cluster Ion Bombardment Effects on Semiconductor Surfaces. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 647, 1		1
7	UHV-STM study on ion-assisted deposition. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2000 , 161-163, 1007-1010	1.2	3
6	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
5	Nano-processing with gas cluster ion beams. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2000 , 164-165, 944-959	1.2	73
4	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
3	Cluster ion bombardment on atomically flat Au(111) solid surfaces. <i>Materials Chemistry and Physics</i> , 1998 , 54, 76-79	4.4	30
2	Energy dependence of a single trace created by C60 ion impact. <i>Materials Chemistry and Physics</i> , 1998 , 54, 143-146	4.4	25
1	Molecular Dynamics Simulation of Fullerene Cluster Ion Impact. <i>Materials Research Society Symposia</i> Proceedings, 1997 , 504, 81		2