

# Satoshi Ninomiya

## List of Publications by Year in descending order

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96  
papers

1,585  
citations

361296

20  
h-index

345118

36  
g-index

96  
all docs

96  
docs citations

96  
times ranked

904  
citing authors

#	ARTICLE	IF	CITATIONS
1	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, 1601-1606.	0.7	194
2	Measurements of secondary ions emitted from organic compounds bombarded with large gas cluster ions. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2007, 256, 493-496.	0.6	151
3	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, 3264-3268.	0.7	95
4	A fragment-free ionization technique for organic mass spectrometry with large Ar cluster ions. <i>Applied Surface Science</i> , 2008, 255, 1588-1590.	3.1	58
5	Matrix-free high-resolution imaging mass spectrometry with high-energy ion projectiles. <i>Journal of Mass Spectrometry</i> , 2009, 44, 128-136.	0.7	46
6	XPS depth analysis of CuO by electrospray droplet impact. <i>Surface and Interface Analysis</i> , 2012, 44, 938-941.	0.8	45
7	What size of cluster is most appropriate for SIMS?. <i>Applied Surface Science</i> , 2008, 255, 1235-1238.	3.1	44
8	Analysis of organic semiconductor multilayers with Ar cluster secondary ion mass spectrometry. <i>Surface and Interface Analysis</i> , 2011, 43, 95-98.	0.8	36
9	X-ray photoelectron spectroscopy depth analysis of metal oxides by electrospray droplet impact. <i>Surface and Interface Analysis</i> , 2011, 43, 1605-1609.	0.8	36
10	Vacuum electrospray of volatile liquids assisted by infrared laser irradiation. <i>Rapid Communications in Mass Spectrometry</i> , 2012, 26, 863-869.	0.7	35
11	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.	0.8	34
12	Trace Level Detection of Explosives in Solution Using Leidenfrost Phenomenon Assisted Thermal Desorption Ambient Mass Spectrometry. <i>Mass Spectrometry</i> , 2013, 2, S0008-S0008.	0.2	30
13	Piezoelectric inkjet assisted rapid electrospray ionization mass spectrometric analysis of metabolites in plant single cells via a direct sampling probe. <i>Analyst, The</i> , 2014, 139, 5734-5739.	1.7	30
14	Solid probe assisted nanoelectrospray ionization mass spectrometry for biological tissue diagnostics. <i>Analyst, The</i> , 2012, 137, 4658.	1.7	29
15	Flash Desorption/Mass Spectrometry for the Analysis of Less- and Nonvolatile Samples Using a Linearly Driven Heated Metal Filament. <i>Journal of the American Society for Mass Spectrometry</i> , 2013, 24, 1727-1735.	1.2	29
16	The effect of incident cluster ion energy and size on secondary ion yields emitted from Si. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2007, 256, 528-531.	0.6	26
17	Size effect in cluster collision on solid surfaces. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2007, 257, 627-631.	0.6	24
18	Development of double cylindrical dielectric barrier discharge ion source. <i>Analyst, The</i> , 2011, 136, 1210.	1.7	23

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19	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.	0.8	23
20	Development of sheath-flow probe electrospray ionization (SF-PESI). <i>Journal of Mass Spectrometry</i> , 2013, 48, 823-829.	0.7	23
21	Probe Electrospray Ionization Mass Spectrometry with Discontinuous Atmospheric Pressure Interface. <i>European Journal of Mass Spectrometry</i> , 2015, 21, 327-334.	0.5	20
22	Highly sensitive molecular detection with swift heavy ions. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2011, 269, 2251-2253.	0.6	19
23	Alternating current corona discharge/atmospheric pressure chemical ionization for mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2013, 27, 2760-2766.	0.7	18
24	MeV-energy probe SIMS imaging of major components in animal cells etched using large gas cluster ions. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2010, 268, 1736-1740.	0.6	17
25	Desorption Mass Spectrometry for Nonvolatile Compounds Using an Ultrasonic Cutter. <i>Journal of the American Society for Mass Spectrometry</i> , 2014, 25, 1177-1180.	1.2	17
26	Super-atmospheric pressure ionization mass spectrometry and its application to ultrafast online protein digestion analysis. <i>Journal of Mass Spectrometry</i> , 2016, 51, 396-411.	0.7	17
27	Probe Electrospray Ionization (PESI) and Its Modified Versions: Dipping PESI (dPEI), Sheath-Flow PESI (sfPEI) and Adjustable sfPEI (ad-sfPEI). <i>Mass Spectrometry</i> , 2020, 9, A0092-A0092.	0.2	17
28	Dipping probe electrospray ionization/mass spectrometry for direct on-site and low-invasive food analysis. <i>Food Chemistry</i> , 2018, 260, 53-60.	4.2	16
29	Development of a Remote-from-Plasma Dielectric Barrier Discharge Ion Source and Its Application to Explosives. <i>Journal of the Mass Spectrometry Society of Japan</i> , 2010, 58, 215-220.	0.0	15
30	XPS depth analysis of metal/polymer multilayer by vacuum electrospray droplet impact. <i>Surface and Interface Analysis</i> , 2015, 47, 77-81.	0.8	15
31	Secondary ion yields for vacuum-type electrospray droplet beams measured with a triple focus time-of-flight analyzer. <i>Rapid Communications in Mass Spectrometry</i> , 2016, 30, 2279-2284.	0.7	15
32	Secondary ion emission from bio-molecular thin films under ion bombardment. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2007, 256, 489-492.	0.6	14
33	Remote sampling mass spectrometry for dry samples: Sheath-flow probe electrospray ionization (PEI) using a gel-loading tip inserted with an acupuncture needle. <i>Rapid Communications in Mass Spectrometry</i> , 2018, 32, 407-413.	0.7	14
34	Hyphenation of high-temperature liquid chromatography with high-pressure electrospray ionization for subcritical water LC-ESI-MS. <i>Analyst</i> , 2018, 143, 5552-5558.	1.7	14
35	Rapid Online Non-Enzymatic Protein Digestion Analysis with High Pressure Superheated ESI-MS. <i>Journal of the American Society for Mass Spectrometry</i> , 2015, 26, 1085-1091.	1.2	13
36	Anisotropic Etching Using Reactive Cluster Beams. <i>Applied Physics Express</i> , 2010, 3, 126501.	1.1	12

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37	Evaluation of Damage Layer in an Organic Film with Irradiation of Energetic Ion Beams. Japanese Journal of Applied Physics, 2010, 49, 036503.	0.8	12
38	In vivo endoscopic mass spectrometry using a moving string sampling probe. Analyst, The, 2017, 142, 2735-2740.	1.7	12
39	Development of a Vacuum Electrospray Droplet Ion Gun for Secondary Ion Mass Spectrometry. Mass Spectrometry, 2018, 7, A0069-A0069.	0.2	12
40	Component Profiling in Agricultural Applications Using an Adjustable Acupuncture Needle for Sheath-Flow Probe Electrospray Ionization/Mass Spectrometry. Journal of Agricultural and Food Chemistry, 2019, 67, 3275-3283.	2.4	12
41	Material-dependent emission mechanism of secondary atomic ions from solids under MeV-energy heavy ion bombardment. Nuclear Instruments & Methods in Physics Research B, 2002, 193, 745-750.	0.6	11
42	MD simulation study of the sputtering process by high-energy gas cluster impact. Applied Surface Science, 2008, 255, 944-947.	3.1	11
43	Study of crater formation and sputtering process with large gas cluster impact by molecular dynamics simulations. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 1424-1427.	0.6	11
44	Secondary ion emission from Si bombarded with large Ar cluster ions under UHV conditions. Applied Surface Science, 2008, 255, 880-882.	3.1	10
45	The emission process of secondary ions from solids bombarded with large gas cluster ions. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2601-2604.	0.6	10
46	Development of a high-performance electrospray droplet beam source. Surface and Interface Analysis, 2013, 45, 126-130.	0.8	10
47	Relative secondary ion yields produced by vacuum-type electrospray droplet ion beams. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2018, 36, 03F134.	0.6	10
48	Negative-mode mass spectrometric study on dc corona, ac corona and dielectric barrier discharge ionization in ambient air containing H <sub>2</sub> O <sub>2</sub> , 2,4,6-trinitrotoluene (TNT), and 1,3,5-trinitroperhydro-1,3,5-triazine (RDX). International Journal of Mass Spectrometry, 2021, 459, 116440.	0.7	10
49	Using ellipsometry for the evaluation of surface damage and sputtering yield in organic films with irradiation of argon cluster ion beams. Surface and Interface Analysis, 2011, 43, 84-87.	0.8	9
50	Desorption in Mass Spectrometry. Mass Spectrometry, 2017, 6, S0059-S0059.	0.2	9
51	Sheath-flow probe electrospray ionization (sfPESI) mass spectrometry for the rapid forensic analysis of human body fluids. Analytical Methods, 2019, 11, 3633-3640.	1.3	9
52	Point Analysis of Foods by Sheath-Flow Probe Electrospray Ionization/Mass Spectrometry (sfPESI/MS) Coupled with a Touch Sensor. Journal of Agricultural and Food Chemistry, 2020, 68, 418-425.	2.4	9
53	Pulsed Nano-Electrospray Ionization with a High Voltage (4000 V) Pulse Applied to Solutions in the Range of 200 ns to 1 ms. Journal of the American Society for Mass Spectrometry, 2020, 31, 693-699.	1.2	9
54	Emission energy distribution of secondary ions produced through the electronic sputtering process under heavy ion bombardment. Nuclear Instruments & Methods in Physics Research B, 2000, 164-165, 803-808.	0.6	8

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55	Characteristics of Charged Droplet Beams Produced from Vacuum Electrospray. <i>Journal of Surface Analysis (Online)</i> , 2014, 20, 171-176.	0.1	8
56	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.	3.1	7
57	Evaluation of a diode laser-assisted vacuum-type charged droplet beam source. <i>Surface and Interface Analysis</i> , 2014, 46, 364-367.	0.8	7
58	Pulsed probe electrospray and nano-electrospray: the temporal profiles of ion formation from the Taylor cone. <i>Analytical Methods</i> , 2017, 9, 4958-4963.	1.3	7
59	Electrospray ionization source with a rear extractor. <i>Journal of Mass Spectrometry</i> , 2018, 53, 400-407.	0.7	7
60	Secondary ion measurements for oxygen cluster ion SIMS. <i>Applied Surface Science</i> , 2006, 252, 7290-7292.	3.1	6
61	Secondary ions produced by electrospray droplet impact with m/z selection from 103 to 106. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016, 34, 03H116.	0.6	6
62	Real-time analysis of living animals and rapid screening of human fluid samples using remote sampling electrospray ionization mass spectrometry. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2019, 172, 372-378.	1.4	6
63	Recent Progress in Cluster Ion Beam. <i>Journal of Surface Analysis (Online)</i> , 2008, 14, 196-203.	0.1	6
64	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.	2.2	5
65	Development of Remote Sampling ESI Mass Spectrometry for the Rapid and Automatic Analysis of Multiple Samples. <i>Mass Spectrometry</i> , 2017, 5, S0068-S0068.	0.2	5
66	Electrospray Generated from the Tip-Sealed Fine Glass Capillary Inserted with an Acupuncture Needle Electrode. <i>Journal of the American Society for Mass Spectrometry</i> , 2018, 29, 2297-2304.	1.2	5
67	A novel contrast of the reactions of 2,4,6-trinitrotoluene (TNT) in atmospheric-pressure O <sub>2</sub> and N <sub>2</sub> plasma: Experimental and theoretical study. <i>International Journal of Mass Spectrometry</i> , 2020, 450, 116308.	0.7	5
68	Miniaturized String Sampling Probe and Electrospray Extraction/Ionization within the Ion Inlet Tube for Mass Spectrometric Endoscopy. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 606-610.	1.2	5
69	Comparative study of H <sub>3</sub> O <sup>+</sup> (aq) and NH <sub>4</sub> <sup>+</sup> (aq) on electrophoresis, protonating ability, and sodiation of proteins. <i>International Journal of Mass Spectrometry</i> , 2022, 471, 116728.	0.7	5
70	Cluster-ion emission from semiconductive chemical compounds under MeV-energy heavy ion bombardment. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2003, 209, 233-238.	0.6	4
71	Sputtering yield measurements with size-selected gas cluster ion beams. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1181, 150.	0.1	4
72	Threshold behaviour of ion formation for noble metals (Au, Ag, Cu, Pt) irradiated by 4ns 532nm laser. <i>International Journal of Mass Spectrometry</i> , 2013, 341-342, 45-51.	0.7	4

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73	Robotic sheath-flow probe electrospray ionization/mass spectrometry (sfPESI/MS): development of a touch sensor for samples in a multiwell plastic plate. <i>Analytical Methods</i> , 2020, 12, 2812-2819.	1.3	4
74	Development of an Ion Gun Using Vacuum Electrospray. <i>Journal of the Vacuum Society of Japan</i> , 2017, 60, 321-327.	0.3	3
75	Flash desorption of low-volatility compounds deposited on a heated solid substrate (90°C) by dripping liquid methanol. <i>Rapid Communications in Mass Spectrometry</i> , 2020, 34, e8949.	0.7	3
76	Secondary-ion emission from III-V semiconductive materials under MeV-energy heavy-ion bombardment. <i>Physical Review A</i> , 2004, 70, .	1.0	2
77	Total sputtering yields of solids under MeV-energy Si ion bombardment. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2005, 230, 483-488.	0.6	2
78	Secondary neutral and ionized particle measurements under MeV-energy ion bombardment. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2005, 230, 489-494.	0.6	2
79	Low-damage milling of an amino acid thin film with cluster ion beam. <i>Journal of Applied Physics</i> , 2011, 110, 094701.	1.1	2
80	Sputtering properties for polyimide by vacuum electrospray droplet impact (V-EDI) using size-selected cluster ions. <i>Surface and Interface Analysis</i> , 2017, 49, 127-132.	0.8	2
81	Probe electrospray ionization of mixture solutions using metal needles with different tip conditions. <i>Surface and Interface Analysis</i> , 2019, 51, 100-104.	0.8	2
82	Rapid desorption of low-volatility compounds in liquid droplets accompanied by the flash evaporation of solvent below the Leidenfrost temperature. <i>Rapid Communications in Mass Spectrometry</i> , 2020, 34, e8535.	0.7	2
83	Reaction of CO <sub>3</sub> <sup>+</sup> with trinitrotoluene (TNT) in CO <sub>2</sub> plasma: Experimental and theoretical study on the formation of [TNT <sup>+</sup> O] <sup>+</sup> and its fragmentation pathways. <i>International Journal of Mass Spectrometry</i> , 2021, 467, 116622.	0.7	2
84	Secondary Ion Mass Spectrometry Analysis of Renal Cell Carcinoma with Electrospray Droplet Ion Beams. <i>Mass Spectrometry</i> , 2017, 6, A0053-A0053.	0.2	2
85	Towards Practical Endoscopic Mass Spectrometry. <i>Mass Spectrometry</i> , 2017, 6, S0070-S0070.	0.2	2
86	Corona Discharge and Field Electron Emission in Ambient Air Using a Sharp Metal Needle: Formation and Reactivity of CO <sub>3</sub> <sup>+</sup> and O <sub>2</sub> <sup>+</sup> . <i>Mass Spectrometry</i> , 2021, 10, A0100-A0100.	0.2	2
87	Evaluation of Surface Damage of Organic Films due to Irradiation with Energetic Ion Beams. <i>AIP Conference Proceedings</i> , 2011, , .	0.3	1
88	Biomolecular Emission by Swift Heavy Ion Bombardment. , 2011, , .		1
89	A Processing Technique for Cell Surfaces Using Gas Cluster Ions for Imaging Mass Spectrometry. <i>Journal of the Mass Spectrometry Society of Japan</i> , 2009, 57, 117-121.	0.0	1
90	Stress measurement of carbon cluster implanted layers with in-plane diffraction technique. , 2009, , .		0

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91	Processing Techniques of Biomaterials Using Ar Cluster Ion Beam for Imaging Mass Spectrometry. Transactions of the Materials Research Society of Japan, 2010, 35, 793-796.	0.2	0
92	Analysis of fluorene and 9,9-dialkylfluorenes by electrospray droplet impact (EDI)/SIMS. International Journal of Mass Spectrometry, 2017, 419, 29-36.	0.7	0
93	Evaluation of Mass and Charge state of the Droplets Produced by Vacuum Electrospray of Aqueous Solutions. Vacuum and Surface Science, 2018, 61, 286-291.	0.0	0
94	Electrospray based Mass Spectrometry. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2021, 72, 162-168.	0.1	0
95	SIMS Depth Profiling of Organic Materials with Ar Cluster Ion Beam. Transactions of the Materials Research Society of Japan, 2010, 35, 785-788.	0.2	0
96	Development of a Vacuum-type Electrospray Droplet Ion Gun and Its Application to Time-of-flight Secondary Ion Mass Spectrometry. Vacuum and Surface Science, 2018, 61, 440-445.	0.0	0