Hiroshi Nonami

List of Publications by Year
in descending order

110	3,266	136950 32	175258 52
papers	citations	h-index	g-index

112	112	112	2541
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Plant water relations and control of cell elongation at low water potentials. Journal of Plant Research, 1998, 111, 373-382.	2.4	151
2	Primary Events Regulating Stem Growth at Low Water Potentials. Plant Physiology, 1990, 93, 1601-1609.	4.8	136
3	Turgor and Growth at Low Water Potentials. Plant Physiology, 1989, 89, 798-804.	4.8	129
4	Wall Extensibility and Cell Hydraulic Conductivity Decrease in Enlarging Stem Tissues at Low Water Potentials. Plant Physiology, 1990, 93, 1610-1619.	4.8	120
5	Diamond, Titanium Dioxide, Titanium Silicon Oxide, and Barium Strontium Titanium Oxide Nanoparticles as Matrixes for Direct Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry Analysis of Carbohydrates in Plant Tissues. Analytical Chemistry, 2010, 82, 5518-5526.	6.5	116
6	Sugar Accumulation Enhanced by Osmoregulation in Satsuma Mandarin Fruit. Journal of the American Society for Horticultural Science, 1996, 121, 466-472.	1.0	112
7	Î²-Carboline alkaloids as matrices for UV-matrix-assisted laser desorption/ionization time-of-flight mass spectrometry in positive and negative ion modes. Analysis of proteins of high molecular mass, and of cyclic and acyclic oligosaccharides. , 1998, 12, 285-296.		104
8	Sugar Accumulation and Partitioning in Satsuma Mandarin Tree Tissues and Fruit in Response to Drought Stress. Journal of the American Society for Horticultural Science, 1998, 123, 719-726.	1.0	102
9	Effect of Low Root Temperature on Hydraulic Conductivity of Rice Plants and the Possible Role of Aquaporins. Plant and Cell Physiology, 2008, 49, 1294-1305.	3.1	101
10	Î²-Carboline Alkaloids as Matrices for Matrix-assisted Ultraviolet Laser Desorption Time-of-flight Mass Spectrometry of Proteins and Sulfated Oligosaccharides: a Comparative Study Using Phenylcarbonyl Compounds, Carbazoles and Classical Matrices. Journal of Mass Spectrometry, 1997, 32, 287-296.	1.6	100
11	Single-Cell Metabolite Profiling of Stalk and Glandular Cells of Intact Trichomes with Internal Electrode Capillary Pressure Probe Electrospray Ionization Mass Spectrometry. Analytical Chemistry, 2016, 88, 3049-3057.	6.5	90
12	Cagelike Precursors of High-Molar-Mass Silsesquioxanes Formed by the Hydrolytic Condensation of Trialkoxysilanes. Macromolecules, 2000, 33, 1940-1947.	4.8	87
13	Origin of Growth-Induced Water Potential. Plant Physiology, 1987, 83, 596-601.	4.8	84
14	Cell water potential, osmotic potential, and turgor in the epidermis and mesophyll of transpiring leaves. Planta, 1989, 177, 35-46.	3.2	83
15	One-Step Synthesis of Polyhedral Silsesquioxanes Bearing Bulky Substituents:Â UV-MALDI-TOF and ESI-TOF Mass Spectrometry Characterization of Reaction Products. Macromolecules, 2001, 34, 3534-3539.	4.8	80
16	Silsesquioxanes Derived from the Bulk Polycondensation of [3-(Methacryloxy)propyl]trimethoxysilane with Concentrated Formic Acid:Â Evolution of Molar Mass Distributions and Fraction of Intramolecular Cycles. Macromolecules, 2002, 35, 1160-1174.	4.8	61
17	Pressure Probe and Isopiestic Psychrometer Measure Similar Turgor. Plant Physiology, 1987, 83, 592-595.	4.8	59
18	Direct profiling of phytochemicals in tulip tissues and in vivo monitoring of the change of carbohydrate content in tulip bulbs by probe electrospray ionization mass spectrometry. Journal of the American Society for Mass Spectrometry, 2009, 20, 2304-2311.	2.8	59

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19	Multiple strategies for heat adaptation to prevent chalkiness in the rice endosperm. Journal of Experimental Botany, 2019, 70, 1299-1311.	4.8	50
20	Application of Probe Electrospray Ionization Mass Spectrometry (PESI-MS) to Clinical Diagnosis: Solvent Effect on Lipid Analysis. Journal of the American Society for Mass Spectrometry, 2012, 23, 2043-2047.	2.8	49
21	Structural analysis of the N-glycans of the major cysteine proteinase of Trypanosoma cruzi. FEBS Journal, 2005, 272, 3803-3815.	4.7	46
22	Poly(silsesquioxanes) derived from the hydrolytic condensation of organotrialkoxysilanes containing hydroxyl groups. Journal of Organometallic Chemistry, 2003, 686, 42-51.	1.8	45
23	Mechanisms of stomatal movement in response to air humidity, irradiance and xylem water potential. Planta, 1991, 183, 57-64.	3.2	44
24	Evaluation of pyridoindoles, pyridylindoles and pyridylpyridoindoles as matrices for ultraviolet matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Rapid Communications in Mass Spectrometry, 2001, 15, 2354-2373.	1.5	44
25	Detection of protein from detergent solutions by probe electrospray ionization mass spectrometry (PESIâ€MS). Journal of Mass Spectrometry, 2011, 46, 967-975.	1.6	44
26	Realâ€time reaction monitoring by probe electrospray ionization mass spectrometry. Rapid Communications in Mass Spectrometry, 2010, 24, 1507-1513.	1.5	43
27	Living cell manipulation, manageable sampling, and shotgun picoliter electrospray mass spectrometry for profiling metabolites. Analytical Biochemistry, 2013, 433, 70-78.	2.4	43
28	UV-MALDI-TOF and ESI-TOF Mass Spectrometry Characterization of Silsesquioxanes Obtained by the Hydrolytic Condensation of (3-Glycidoxypropyl)- trimethoxysilane in an Epoxidized Solvent. Macromolecular Chemistry and Physics, 2001, 202, 2425-2433.	2.2	41
29	Biomolecular analysis and cancer diagnostics by negative mode probe electrospray ionization. Analyst, The, 2013, 138, 1682.	3.5	37
30	Rice Chalky Ring Formation Caused by Temporal Reduction in Starch Biosynthesis during Osmotic Adjustment under Foehn-Induced Dry Wind. PLoS ONE, 2014, 9, e110374.	2.5	35
31	Matrix-assisted ultraviolet laser-desorption ionization and electrospray-ionization time-of-flight mass spectrometry of sulfated neocarrabiose oligosaccharides. Carbohydrate Research, 2002, 337, 1553-1562.	2.3	34
32	Glycosphingolipids in Plasmodium falciparum. FEBS Journal, 2004, 271, 2204-2214.	0.2	34
33	The effect of temperature on the stability of compounds used as UVâ€MALDIâ€MS matrix: 2,5â€dihydroxybenzoic acid, 2,4,6â€trihydroxyacetophenone, Î±â€cyanoâ€4â€hydroxycinnamic acid, 3,5â€dimethoxyâ€4â€hydroxycinnamic acid, norâ€harmane and harmane. Journal of Mass Spectrometry, 2009, 44, 260-277.	1.6	33
34	Direct analysis of anabolic steroids in urine using Leidenfrost phenomenon assisted thermal desorption-dielectric barrier discharge ionization mass spectrometry. Analytica Chimica Acta, 2014, 839, 1-7.	5.4	32
35	On-site single pollen metabolomics reveals varietal differences in phosphatidylinositol synthesis under heat stress conditions in rice. Scientific Reports, 2020, 10, 2013.	3.3	31
36	Piezoelectric inkjet assisted rapid electrospray ionization mass spectrometric analysis of metabolites in plant single cells via a direct sampling probe. Analyst, The, 2014, 139, 5734-5739.	3.5	30

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37	Title is missing!. Biotechnology Letters, 1999, 13, 923-926.	0.5	29
38	Solid probe assisted nanoelectrospray ionization mass spectrometry for biological tissue diagnostics. Analyst, The, 2012, 137, 4658.	3.5	29
39	Lipase-catalyzed synthesis and characterization of copolymers from ethyl acrylate as the only monomer starting material. Polymer, 2007, 48, 1517-1525.	3.8	27
40	In situ analysis of plant tissue underivatized carbohydrates and on-probe enzymatic degraded starch by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry by using carbon nanotubes as matrix. Analytical Biochemistry, 2008, 383, 159-167.	2.4	27
41	Alternative Processing of Arabidopsis Hsp70 Precursors during Protein Import into Chloroplasts. Bioscience, Biotechnology and Biochemistry, 2008, 72, 2926-2935.	1.3	27
42	Application of Pressure Probe and UV-MALDI-TOF MS for Direct Analysis of Plant Underivatized Carbohydrates in Subpicoliter Single-Cell Cytoplasm Extract. Journal of the American Society for Mass Spectrometry, 2008, 19, 1841-1848.	2.8	23
43	Development of Sheath-Flow Probe Electrospray Ionization Mass Spectrometry and Its Application to Real Time Pesticide Analysis. Journal of Agricultural and Food Chemistry, 2013, 61, 7889-7895.	5.2	23
44	Development of sheathâ€flow probe electrospray ionization (SFâ€PESI). Journal of Mass Spectrometry, 2013, 48, 823-829.	1.6	23
45	Matrix-assisted ultraviolet laser-desorption ionization time-of-flight mass spectrometry of sulfated mannans from the red seaweed Nothogenia fastigiata. Carbohydrate Research, 2000, 329, 157-167.	2.3	22
46	Synthesis of Chiral Polyhydroxy Polyamides Having Chains of Defined Regio and Stereoregularity. Macromolecules, 2001, 34, 687-695.	4.8	22
47	Increased Ringâ€Shaped Chalkiness and Osmotic Adjustment when Growing Rice Grains under Foehnâ€Induced Dry Wind Condition. Crop Science, 2011, 51, 1703-1715.	1.8	22
48	Mass spectrometry of rhenium complexes: a comparative study by using LDIâ€MS, MALDIâ€MS, PESIâ€MS and ESIâ€MS. Journal of Mass Spectrometry, 2012, 47, 313-321.	1.6	22
49	Turgor-responsive starch phosphorylation in Oryza sativa stems: A primary event of starch degradation associated with grain-filling ability. PLoS ONE, 2017, 12, e0181272.	2.5	22
50	Silsesquioxane functionalized with methacrylate and amine groups as a crosslinker/co-initiator for the synthesis of hydrogels by visible-light photopolymerization. Polymer, 2008, 49, 3648-3653.	3.8	21
51	Lipase-catalyzed synthesis and characterization of a novel linear polyamidoamine oligomer. Polymer, 2010, 51, 2998-3005.	3.8	20
52	Photosensitized electron transfer within a self-assembled norharmaneâ€“2â€²-deoxyadenosine 5â€²-monophosphate (dAMP) complex. Organic and Biomolecular Chemistry, 2012, 10, 9359.	2.8	20
53	Online Electrospray Ionization Mass Spectrometric Monitoring of Protease-Catalyzed Reactions in Real Time. Journal of the American Society for Mass Spectrometry, 2012, 23, 728-735.	2.8	19
54	Epoxy Networks Modified by a New Class of Oligomeric Silsesquioxanes Bearing Multiple Intramolecular Rings Formed through Sïï£¿Oï£¿C Bonds. Macromolecular Materials and Engineering, 2004, 289, 315-323.	3.6	18

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55	Plasmodium falciparum biosynthesizes sulfoglycosphingolipids. Molecular and Biochemical Parasitology, 2007, 154, 22-29.	1.1	17
56	Probe Electrospray Ionization (PESI) and Its Modified Versions: Dipping PESI (dPESI), Sheath-Flow PESI (sfPESI) and Adjustable sfPESI (ad-sfPESI). Mass Spectrometry, 2020, 9, A0092-A0092.	0.6	17
57	Dipping probe electrospray ionization/mass spectrometry for direct on-site and low-invasive food analysis. Food Chemistry, 2018, 260, 53-60.	8.2	16
58	Matrix-assisted ultraviolet laser desorption/ionization time-of-flight mass spectrometry of ?-(1 ? 3), ?-(1) Tj ETQq0 0 0 rgBT /Overlock 10 Spectrometry, 2005, 19, 349-358.	1.5	15
59	Matrix-assisted laser desorption/ionization time-of-flight (MALDI-TOF) mass spectrometry analysis of oligosaccharides and oligosaccharide alditols obtained by hydrolysis of agaroses and carrageenans, two important types of red seaweed polysaccharides. Carbohydrate Research, 2010, 345, 275-283.	2.3	14
60	In Situ Pressure Probe Sampling and UV-MALDI MS for Profiling Metabolites in Living Single Cells. Mass Spectrometry, 2012, 1, A0003-A0003.	0.6	14
61	Remote sampling mass spectrometry for dry samples: Sheathâ€flow probe electrospray ionization (PESI) using a gelâ€loading tip inserted with an acupuncture needle. Rapid Communications in Mass Spectrometry, 2018, 32, 407-413.	1.5	14
62	Effects of Water Flow from the Xylem on the Growth-induced Water Potential and the Growth-effective Turgor Associated with Enlarging Tomato Fruit. Environmental Control in Biology, 2010, 48, 101-116.	0.7	14
63	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.	5.2	12
64	Nor-Harmane (9H-Pyrido[3,4-b]indole) as Outstanding Matrix for UV-Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry Analysis of Synthetic and Bio-Polymers.. Seibutsu Kankyo Chosetsu [Environment Control in Biology, 2002, 40, 55-73.	0.2	11
65	A matrix-assisted laser desorption/ionization mass spectrometry approach to the lipid A fromMesorhizobium loti. Rapid Communications in Mass Spectrometry, 2006, 20, 2175-2182.	1.5	11
66	Evidence for preservation of vacuolar compartments during foehn-induced chalky ring formation of Oryza sativa L.. Planta, 2018, 248, 1263-1275.	3.2	11
67	Hydraulic Conductance in Tepal Growth and Extension of Vase Life with Trehalose in Cut Tulip Flowers. Journal of the American Society for Horticultural Science, 2005, 130, 275-286.	1.0	11
68	UV-Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry analysis of synthetic polymers by using nor-harmane as matrix. Arkivoc, 2003, 2003, 517-537.	0.5	11
69	Trehalose Changes Hydraulic Conductance of Tissue-cultured Soybean Embryos.. Plant Biotechnology, 2000, 17, 119-125.	1.0	11
70	In situ analysis of soybeans and nuts by probe electrospray ionization mass spectrometry. Journal of Mass Spectrometry, 2015, 50, 676-682.	1.6	10
71	Mass spectrometric monitoring of oxidation of aliphatic C6â€“C8 hydrocarbons and ethanol in low pressure oxygen and air plasmas. Journal of Mass Spectrometry, 2016, 51, 1187-1195.	1.6	10
72	Non-proximate mass spectrometry using a heated 1-m long PTFE tube and an air-tight APCI ion source. Analytica Chimica Acta, 2017, 973, 59-67.	5.4	10

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73	Desorption in Mass Spectrometry. Mass Spectrometry, 2017, 6, S0059-S0059.	0.6	9
74	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.	5.2	9
75	Direct evidence for dynamics of cell heterogeneity in watercored apples: turgor-associated metabolic modifications and within-fruit water potential gradient unveiled by single-cell analyses. Horticulture Research, 2021, 8, 187.	6.3	8
76	OVERVIEW OF CURRENT MEASUREMENT TECHNIQUES FROM ASPECTS OF PLANT SCIENCE. , 1990, , 7-24.		8
77	Pulsed probe electrospray and nano-electrospray: the temporal profiles of ion formation from the Taylor cone. Analytical Methods, 2017, 9, 4958-4963.	2.7	7
78	Endosperm cell size reduction caused by osmotic adjustment during nighttime warming in rice. Scientific Reports, 2021, 11, 4447.	3.3	7
79	Water Potential Associated with Cell Elongation and Cell Division of Tissue-Cultured Carnation Plants.. Plant Biotechnology, 1999, 16, 115-121.	1.0	7
80	UV-MALDI-TOF MS Analysis of Carbohydrates. Reviewing Comparative Studies Performed Using nor-Harmane and Classical UV-MALDI Matrices. Environmental Control in Biology, 2008, 46, 65-90.	0.7	6
81	Nitrogen incorporation in saturated aliphatic C6â€“C8 hydrocarbons and ethanol in lowâ€pressure nitrogen plasma generated by a hollow cathode discharge ion source. Journal of Mass Spectrometry, 2016, 51, 446-452.	1.6	6
82	Blossom End Rot Tomato Fruit Diagnosis for <i>In Situ</i> Cell Analyses with Real Time Pico-Pressure Probe Ionization Mass Spectrometry. Environmental Control in Biology, 2017, 55, 41-51.	0.7	6
83	WATER POTENTIAL AND ITS COMPONENTS IN GROWING TISSUES. , 1990, , 101-112.		5
84	Electrospray Generated from the Tip-Sealed Fine Glass Capillary Inserted with an Acupuncture Needle Electrode. Journal of the American Society for Mass Spectrometry, 2018, 29, 2297-2304.	2.8	5
85	Metabolic coordination of rice seed development to nighttime warming: In-situ determination of cellular redox states using picolitre pressure-probe electrospray-ionization mass spectrometry. Environmental and Experimental Botany, 2021, 188, 104515.	4.2	5
86	Development and optimization of an in vitro chloroplastic protein import assay using recombinant proteins. Plant Physiology and Biochemistry, 2008, 46, 541-549.	5.8	4
87	Robotic sheath-flow probe electrospray ionization/mass spectrometry (sfPESI/MS): development of a touch sensor for samples in a multiwell plastic plate. Analytical Methods, 2020, 12, 2812-2819.	2.7	4
88	GROWTH REGULATION IN PLANT FACTORIES AND GREENHOUSES FROM A PHYSIOLOGICAL VIEWPOINT. , 1993, , 303-331.		4
89	Superposition of the Transpiration-induced Water Potential and the Growth-induced Water Potential Associated with Expanding Tomato Leaves. Environmental Control in Biology, 2010, 48, 117-125.	0.7	4
90	Growth-induced Water Potential Regulates Growth of Tissue-cultured Plantlets under Environmental Stresses.. Seibutsu Kankyo Chosetsu [Environment Control in Biology, 1996, 34, 141-146.	0.2	4

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91	Hydraulic Conductance Associated with Growth of Flower Stalks, Leaves and Roots in Tulip Plants. Seibutsu Kankyo Chosetsu [Environment Control in Biology, 2004, 42, 193-203.	0.2	4
92	Water Status Measurements in Soil and Roots, Leaves and Stems or Crop Plants. Japanese Journal of Crop Science, 2001, 70, 151-163.	0.2	3
93	Matrix-assisted ultraviolet laser desorption/ionization time-of-flight (UV-MALDI-TOF) mass spectra of N-acylated and N,O-acylated glycosylamines. Carbohydrate Research, 2007, 342, 2567-2574.	2.3	3
94	Direct Measurements of Cell Turgor and Hydraulic Conductance in Expanding Tulip Tepals. Seibutsu Kankyo Chosetsu [Environment Control in Biology, 2004, 42, 205-215.	0.2	3
95	Growth Promotion with Osmotic Adjustment at Low Water Potentials after H2O2 Pretreatment in Soybean Seeds. Environmental Control in Biology, 2012, 50, 263-276.	0.7	2
96	Detection of Pesticides on Tomato Fruit Surface by Ultraviolet Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry. Environmental Control in Biology, 2012, 50, 107-116.	0.7	2
97	Phase Changes in Arrhenius Plots on NMR Relaxation Times for Various Organs of Crop Plants Exposed to Temperature Stresses. Seibutsu Kankyo Chosetsu [Environment Control in Biology, 2004, 42, 5-19.	0.2	2
98	The Water Status Measurements Associated with Plant Growth. Environmental Control in Biology, 2007, 45, 201-214.	0.7	1
99	Direct UV-MALDI-TOF MS Analysis of (Glyco)proteins of Fractions of Bovine Seminal Plasma. Environmental Control in Biology, 2007, 45, 267-290.	0.7	1
100	Supporting Expert System for Tomato Cultivation Based on Inference Using Fact Data Base.. Seibutsu Kankyo Chosetsu [Environment Control in Biology, 1992, 30, 185-191.	0.2	1
101	Measurement Techniques and Environmental Control in Plant Science.. Seibutsu Kankyo Chosetsu [Environment Control in Biology, 1994, 32, 203-217.	0.2	1
102	Dynamics and stabilization mechanism of mitochondrial cristae morphofunction associated with turgor-driven cardiolipin biosynthesis under salt stress conditions. Scientific Reports, 2022, 12, .	3.3	1
103	Ethylenediaminetetraacetic acid (EDTA) as an auxiliary tool in the electrospray ionization mass spectrometry analysis of native and derivatized Î²-cyclodextrins, maltoses, and fructans contaminated with Ca and/or Mg. Journal of the American Society for Mass Spectrometry, 2010, 21, 1526-1529.	2.8	0
104	Nanoparticles Applied to Mass Spectrometry MetabolomicsÂand Pesticide Residue Analysis. , 2015, , 289-303.		0
105	A Study of Measurement Techniques in Plant-Water Relationships. Seibutsu Kankyo Chosetsu [Environment Control in Biology, 2001, 39, 325-328.	0.2	0
106	Water Relations in Tissue-cultured Soybean Plants. Environmental Control in Biology, 2007, 45, 215-222.	0.7	0
107	Hydraulic Properties in Tissue-cultured Soybean Roots are Affected by Salt, Sugar and Heavy Metals. Environmental Control in Biology, 2013, 51, 165-172.	0.7	0
108	Report of IFAC/ISHS Workshop on Mathematical and Control Applications in Agriculture and Horticulture. Seibutsu Kankyo Chosetsu [Environment Control in Biology, 1992, 30, 45-47.	0.2	0

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109	Changes in Activities of .BETA.-N-Acetylhexosaminidase and Chitobiase Developed in Kidney Beans during Maturation and Germination.. Seibutsu Kankyo Chosetsu [Environment Control in Biology, 1997, 35, 1-7.	0.2	0
110	Measurement Techniques for Water Stress Analyses. Shokubutsu Kankyo Kogaku, 2019, 31, 73-78.	0.1	0