Stanislav S Rubakhin

List of Publications by Year
in descending order

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		53794	79698
131	6,281	45	73
papers	citations	h-index	g-index

132	132	132	5478
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhancing the Throughput of FT Mass Spectrometry Imaging Using Joint Compressed Sensing and Subspace Modeling. Analytical Chemistry, 2022, 94, 5335-5343.	6.5	12
2	Characterizing RNA Modifications in Single Neurons Using Mass Spectrometry. Journal of Visualized Experiments, 2022, , .	0.3	1
3	Profiling 26,000 Aplysia californica neurons by single cell mass spectrometry reveals neuronal populations with distinct neuropeptide profiles. Journal of Biological Chemistry, 2022, 298, 102254.	3.4	12
4	3D Particleâ€Free Printing of Biocompatible Conductive Hydrogel Platforms for Neuron Growth and Electrophysiological Recording. Advanced Functional Materials, 2021, 31, 2010246.	14.9	38
5	Droplet Microfluidics with MALDI-MS Detection: The Effects of Oil Phases in GABA Analysis. ACS Measurement Science Au, 2021, 1, 147-156.	4.4	16
6	Image-guided MALDI mass spectrometry for high-throughput single-organelle characterization. Nature Methods, 2021, 18, 1233-1238.	19.0	51
7	Spatiotemporal biodistribution of Î±-tocopherol is impacted by the source of 13C-labeled Î±-tocopherol in mice following a single oral dose. Nutrition Research, 2021, 93, 79-86.	2.9	0
8	Single-Neuron RNA Modification Analysis by Mass Spectrometry: Characterizing RNA Modification Patterns and Dynamics with Single-Cell Resolution. Analytical Chemistry, 2021, 93, 14537-14544.	6.5	12
9	Removing Formaldehydeâ€Induced Peptidyl Crosslinks Enables Mass Spectrometry Imaging of Peptide Hormone Distributions from Formalinâ€Fixed Paraffinâ€Embedded Tissues. Angewandte Chemie - International Edition, 2020, 59, 22584-22590.	13.8	8
10	Removing Formaldehydeâ€Induced Peptidyl Crosslinks Enables Mass Spectrometry Imaging of Peptide Hormone Distributions from Formalinâ€Fixed Paraffinâ€Embedded Tissues. Angewandte Chemie, 2020, 132, 22773-22779.	2.0	0
11	Single-Cell Classification Using Mass Spectrometry through Interpretable Machine Learning. Analytical Chemistry, 2020, 92, 9338-9347.	6.5	51
12	Quantitative Imprint Mass Spectrometry Imaging of Endogenous Ceramides in Rat Brain Tissue with Kinetic Calibration. Analytical Chemistry, 2020, 92, 6613-6621.	6.5	17
13	Enhanced single-cell metabolomics by capillary electrophoresis electrospray ionization-mass spectrometry with field amplified sample injection. Analytica Chimica Acta, 2020, 1118, 36-43.	5.4	33
14	Multidimensional Top-Down Proteomics of Brain-Region-Specific Mouse Brain Proteoforms Responsive to Cocaine and Estradiol. Journal of Proteome Research, 2019, 18, 3999-4012.	3.7	12
15	Lipid Analysis of 30â€¯000 Individual Rodent Cerebellar Cells Using High-Resolution Mass Spectrometry. Analytical Chemistry, 2019, 91, 7871-7878.	6.5	46
16	Lipid Heterogeneity between Astrocytes and Neurons Revealed by Singleâ€Cell MALDIâ€MS Combined with Immunocytochemical Classification. Angewandte Chemie, 2019, 131, 5971-5975.	2.0	23
17	Lipid Heterogeneity between Astrocytes and Neurons Revealed by Singleâ€Cell MALDIâ€MS Combined with Immunocytochemical Classification. Angewandte Chemie - International Edition, 2019, 58, 5910-5914.	13.8	79
18	PACAP and Other Neuropeptide Targets Link Chronic Migraine and Opioid-induced Hyperalgesia in Mouse Models*. Molecular and Cellular Proteomics, 2019, 18, 2447-2458.	3.8	30

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19	13C-lutein is differentially distributed in tissues of an adult female rhesus macaque following a single oral administration: a pilot study. Nutrition Research, 2019, 61, 102-108.	2.9	4
20	Top-Down Proteomics Enables Comparative Analysis of Brain Proteoforms Between Mouse Strains. Analytical Chemistry, 2018, 90, 3802-3810.	6.5	27
21	Neuropeptidomics of the Rat Habenular Nuclei. Journal of Proteome Research, 2018, 17, 1463-1473.	3.7	20
22	Expired Epinephrine Maintains Chemical Concentration and Sterility. Prehospital Emergency Care, 2018, 22, 414-418.	1.8	4
23	Optically Guided Single Cell Mass Spectrometry of Rat Dorsal Root Ganglia to Profile Lipids, Peptides and Proteins. ChemPhysChem, 2018, 19, 1180-1191.	2.1	37
24	Gene Network Dysregulation in the Trigeminal Ganglia and Nucleus Accumbens of a Model of Chronic Migraine-Associated Hyperalgesia. Frontiers in Systems Neuroscience, 2018, 12, 63.	2.5	27
25	Multimodal Chemical Analysis of the Brain by High Mass Resolution Mass Spectrometry and Infrared Spectroscopic Imaging. Analytical Chemistry, 2018, 90, 11572-11580.	6.5	53
26	Categorizing Cells on the Basis of their Chemical Profiles: Progress in Single-Cell Mass Spectrometry. Journal of the American Chemical Society, 2017, 139, 3920-3929.	13.7	168
27	Single Cell Profiling Using Ionic Liquid Matrix-Enhanced Secondary Ion Mass Spectrometry for Neuronal Cell Type Differentiation. Analytical Chemistry, 2017, 89, 3078-3086.	6.5	60
28	Quantitative Reflection Imaging for the Morphology and Dynamics of LiveAplysia californicaPedal Ganglion Neurons Cultured on Nanostructured Plasmonic Crystals. Langmuir, 2017, 33, 8640-8650.	3.5	3
29	A unique combination of micronutrients rejuvenates cognitive performance in aged mice. Behavioural Brain Research, 2017, 320, 97-112.	2.2	12
30	MALDI MS Guided Liquid Microjunction Extraction for Capillary Electrophoresisâ€“Electrospray Ionization MS Analysis of Single Pancreatic Islet Cells. Analytical Chemistry, 2017, 89, 7765-7772.	6.5	57
31	Carrot solution culture bioproduction of uniformly labeled ¹³C-lutein and inÂvivo dosing in non-human primates. Experimental Biology and Medicine, 2017, 242, 305-315.	2.4	4
32	Dopamine-modified TiO₂ monolith-assisted LDI MS imaging for simultaneous localization of small metabolites and lipids in mouse brain tissue with enhanced detection selectivity and sensitivity. Chemical Science, 2017, 8, 3926-3938.	7.4	72
33	Three-dimensional mesostructures as high-temperature growth templates, electronic cellular scaffolds, and self-propelled microrobots. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E9455-E9464.	7.1	129
34	Improved identification and quantitation of mature endogenous peptides in the rodent hypothalamus using a rapid conductive sample heating system. Analyst, The, 2017, 142, 4476-4485.	3.5	18
35	Chiral Measurement of Aspartate and Glutamate in Single Neurons by Large-Volume Sample Stacking Capillary Electrophoresis. Analytical Chemistry, 2017, 89, 12375-12382.	6.5	45
36	Deterministic Integration of Biological and Soft Materials onto 3D Microscale Cellular Frameworks. Advanced Biology, 2017, 1, 1700068.	3.0	18

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37	3D-Printed pHEMA Materials for Topographical and Biochemical Modulation of Dorsal Root Ganglion Cell Response. ACS Applied Materials & Interfaces, 2017, 9, 30318-30328.	8.0	32
38	On-Tissue Derivatization via Electrospray Deposition for Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry Imaging of Endogenous Fatty Acids in Rat Brain Tissues. Analytical Chemistry, 2016, 88, 5988-5995.	6.5	93
39	Single Cell Peptide Heterogeneity of Rat Islets of Langerhans. ACS Chemical Biology, 2016, 11, 2588-2595.	3.4	73
40	A neuron-in-capillary platform for facile collection and mass spectrometric characterization of a secreted neuropeptide. Scientific Reports, 2016, 6, 26940.	3.3	15
41	Effects of exercise and dietary epigallocatechin gallate and Î²-alanine on skeletal muscle in aged mice. Applied Physiology, Nutrition and Metabolism, 2016, 41, 181-190.	1.9	17
42	Free d-Aspartate in Nonmammalian Animals: Detection, Localization, Metabolism, and Function. , 2016, , 173-197.		0
43	Differential peptidomics assessment of strain and age differences in mice in response to acute cocaine administration. Journal of Neurochemistry, 2015, 135, 1038-1048.	3.9	15
44	Lutein and Brain Function. Foods, 2015, 4, 547-564.	4.3	81
45	Mass spectrometry-based characterization of endogenous peptides and metabolites in small volume samples. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 732-740.	2.3	20
46	Classification of Large Cellular Populations and Discovery of Rare Cells Using Single Cell Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry. Analytical Chemistry, 2015, 87, 7036-7042.	6.5	78
47	Mass Spectrometry Imaging and GC-MS Profiling of the Mammalian Peripheral Sensory-Motor Circuit. Journal of the American Society for Mass Spectrometry, 2015, 26, 958-966.	2.8	10
48	Peptidomics and Secretomics of the Mammalian Peripheral Sensory-Motor System. Journal of the American Society for Mass Spectrometry, 2015, 26, 2051-2061.	2.8	14
49	Analysis of endogenous nucleotides by single cell capillary electrophoresis-mass spectrometry. Analyst, The, 2014, 139, 5835-5842.	3.5	73
50	Biomolecular Imaging with a C60-SIMS/MALDI Dual Ion Source Hybrid Mass Spectrometer: Instrumentation, Matrix Enhancement, and Single Cell Analysis. Journal of the American Society for Mass Spectrometry, 2014, 25, 1897-1907.	2.8	61
51	d-Alanine in the islets of Langerhans of rat pancreas. Biochemical and Biophysical Research Communications, 2014, 447, 328-333.	2.1	27
52	Mass Spectrometryâ€“Based Methodologies for Single-Cell Metabolite Detection and Identification. , 2013, , 119-139.		2
53	Automated method for analysis of tryptophan and tyrosine metabolites using capillary electrophoresis with native fluorescence detection. Analytical and Bioanalytical Chemistry, 2013, 405, 2451-2459.	3.7	24
54	Stimulation and release from neurons via a dual capillary collection device interfaced to mass spectrometry. Analyst, The, 2013, 138, 6337.	3.5	12

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55	Quantitative Reflection Imaging of Fixed Aplysia californica Pedal Ganglion Neurons on Nanostructured Plasmonic Crystals. Journal of Physical Chemistry B, 2013, 117, 13069-13081.	2.6	10
56	Progress toward single cell metabolomics. Current Opinion in Biotechnology, 2013, 24, 95-104.	6.6	124
57	Qualitative and quantitative metabolomic investigation of single neurons by capillary electrophoresis electrospray ionization mass spectrometry. Nature Protocols, 2013, 8, 783-799.	12.0	116
58	Visualizing the proteome: mapping protein changes in disease states with mass spectrometry imaging. Journal of Neurochemistry, 2013, 124, 581-583.	3.9	3
59	Targeted Single-Cell Microchemical Analysis: MS-Based Peptidomics of Individual Paraformaldehyde-Fixed and Immunolabeled Neurons. Chemistry and Biology, 2012, 19, 1010-1019.	6.0	41
60	Secondary Ion Mass Spectrometry Imaging of Molecular Distributions in Cultured Neurons and Their Processes: Comparative Analysis of Sample Preparation. Journal of the American Society for Mass Spectrometry, 2012, 23, 1931-1938.	2.8	34
61	Single-Cell Metabolomics: Changes in the Metabolome of Freshly Isolated and Cultured Neurons. ACS Chemical Neuroscience, 2012, 3, 782-792.	3.5	67
62	Mass spectrometry imaging and profiling of single cells. Journal of Proteomics, 2012, 75, 5036-5051.	2.4	168
63	A hyphenated optical trap capillary electrophoresis laser induced native fluorescence system for single-cell chemical analysis. Analyst, The, 2012, 137, 2965.	3.5	18
64	Mechanical Tension Modulates Local and Global Vesicle Dynamics in Neurons. Cellular and Molecular Bioengineering, 2012, 5, 155-164.	2.1	47
65	The modified-bead stretched sample method: Development and application to MALDI-MS imaging of protein localization in the spinal cord. Chemical Science, 2011, 2, 785.	7.4	27
66	Stretched Tissue Mounting for MALDI Mass Spectrometry Imaging. Analytical Chemistry, 2011, 83, 9181-9185.	6.5	15
67	Collection of Peptides Released from Single Neurons with Particle-Embedded Monolithic Capillaries Followed by Detection with Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry. Analytical Chemistry, 2011, 83, 9557-9563.	6.5	17
68	Profiling metabolites and peptides in single cells. Nature Methods, 2011, 8, S20-S29.	19.0	311
69	Metabolic Differentiation of Neuronal Phenotypes by Single-cell Capillary Electrophoresisâ€“Electrospray Ionization-Mass Spectrometry. Analytical Chemistry, 2011, 83, 6810-6817.	6.5	128
70	MALDI Mass Spectrometry Imaging of Neuronal Cell Cultures. Journal of the American Society for Mass Spectrometry, 2011, 22, 828-36.	2.8	47
71	Synthesis, accumulation, and release of <scp>d</scp>â€aspartate in the Aplysia californica CNS. Journal of Neurochemistry, 2010, 115, 1234-1244.	3.9	20
72	Serotonin and its metabolism in basal deuterostomes: insights fromStrongylocentrotus purpuratusandXenoturbella bocki. Journal of Experimental Biology, 2010, 213, 2647-2654.	1.7	10

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73	Distinct Mechanisms Produce Functionally Complementary Actions of Neuropeptides That Are Structurally Related But Derived from Different Precursors. Journal of Neuroscience, 2010, 30, 131-147.	3.6	50
74	Production of Nitric Oxide within the Aplysia californica Nervous System. ACS Chemical Neuroscience, 2010, 1, 182-193.	3.5	19
75	A Mass Spectrometry Primer for Mass Spectrometry Imaging. Methods in Molecular Biology, 2010, 656, 21-49.	0.9	41
76	Mass Spectrometry Imaging Using the Stretched Sample Approach. Methods in Molecular Biology, 2010, 656, 465-479.	0.9	8
77	Capillary Electrophoresis with Electrospray Ionization Mass Spectrometric Detection for Single-Cell Metabolomics. Analytical Chemistry, 2009, 81, 5858-5864.	6.5	184
78	Characterizing intercellular signaling peptides in drug addiction. Neuropharmacology, 2009, 56, 196-204.	4.1	7
79	MALDI Mass Spectrometric Imaging Using the Stretched Sample Method to Reveal Neuropeptide Distributions in Aplysia Nervous Tissue. Analytical Chemistry, 2009, 81, 9402-9409.	6.5	37
80	SIMS and MALDI MS imaging of the spinal cord. Proteomics, 2008, 8, 3746-3754.	2.2	83
81	Simultaneous nitric oxide and dehydroascorbic acid imaging by combining diaminofluoresceins and diaminorhodamines. Journal of Neuroscience Methods, 2008, 168, 373-382.	2.5	46
82	Detection of nitric oxide in single cells. Analyst, The, 2008, 133, 423.	3.5	77
83	One-Step Sampling, Extraction, and Storage Protocol for Peptidomics Using Dihydroxybenzoic Acid. Analytical Chemistry, 2008, 80, 3379-3386.	6.5	33
84	Chapter 13 Imaging of Cells and Tissues with Mass Spectrometry. Methods in Cell Biology, 2008, 89, 361-390.	1.1	35
85	Neuropeptidomics of the Supraoptic Rat Nucleus. Journal of Proteome Research, 2008, 7, 4992-5003.	3.7	59
86	Quantitative Measurements of Cellâ^'Cell Signaling Peptides with Single-Cell MALDI MS. Analytical Chemistry, 2008, 80, 7128-7136.	6.5	94
87	Mass Spectrometric Imaging of the Nervous System. Current Pharmaceutical Design, 2007, 13, 3325-3334.	1.9	24
88	Serotonin catabolism in the central and enteric nervous systems of rats upon induction of serotonin syndrome. Journal of Neurochemistry, 2007, 103, 070630082917006-???.	3.9	19
89	Transparent triethylamineâ€containing MALDI matrices. Israel Journal of Chemistry, 2007, 47, 185-193.	2.3	0
90	Characterizing peptides in individual mammalian cells using mass spectrometry. Nature Protocols, 2007, 2, 1987-1997.	12.0	79

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91	Measuring Nitric Oxide in Single Neurons by Capillary Electrophoresis with Laser-Induced Fluorescence:Â Use of Ascorbate Oxidase in Diaminofluorescein Measurements. Analytical Chemistry, 2006, 78, 1859-1865.	6.5	45
92	Massively Parallel Sample Preparation for the MALDI MS Analyses of Tissues. Analytical Chemistry, 2006, 78, 6826-6832.	6.5	56
93	Profiling Signaling Peptides in Single Mammalian Cells Using Mass Spectrometry. Analytical Chemistry, 2006, 78, 7267-7272.	6.5	96
94	d-Aspartate as a putative cell-cell signaling molecule in theAplysia californicacentral nervous system. Journal of Neurochemistry, 2006, 97, 595-606.	3.9	30
95	Ubiquitous presence of argininosuccinate at millimolar levels in the central nervous system of Aplysia californica. Journal of Neurochemistry, 2006, 101, 632-640.	3.9	10
96	Self-assembled monolayers of alkanethiols on gold modulate electrophysiological parameters and cellular morphology of cultured neurons. Biomaterials, 2006, 27, 1665-1669.	11.4	37
97	Confirmation of peak assignments in capillary electrophoresis using immunoprecipitation. Journal of Chromatography A, 2006, 1106, 56-60.	3.7	26
98	A multichannel native fluorescence detection system for capillary electrophoretic analysis of neurotransmitters in single neurons. Analytical and Bioanalytical Chemistry, 2006, 387, 97-105.	3.7	69
99	Identification and characterization of homologues of vertebrate Î²-thymosin in the marine molluskAplysia californica. Journal of Mass Spectrometry, 2006, 41, 1030-1040.	1.6	25
100	Serotonin Catabolism and the Formation and Fate of 5-Hydroxyindole Thiazolidine Carboxylic Acid. Journal of Biological Chemistry, 2006, 281, 13463-13470.	3.4	29
101	MALDI-MS imaging of features smaller than the size of the laser beam. Journal of the American Society for Mass Spectrometry, 2005, 16, 1654-1659.	2.8	249
102	Imaging mass spectrometry: fundamentals and applications to drug discovery. Drug Discovery Today, 2005, 10, 823-837.	6.4	187
103	The detection of nitrated tyrosine in neuropeptides: a MALDI matrix-dependent response. Analytical and Bioanalytical Chemistry, 2005, 382, 22-27.	3.7	18
104	Measuring d-amino acid-containing neuropeptides with capillary electrophoresis. Analyst, The, 2005, 130, 1198.	3.5	42
105	Monitoring Activity-Dependent Peptide Release from the CNS Using Single-Bead Solid-Phase Extraction and MALDI TOF MS Detection. Analytical Chemistry, 2005, 77, 1580-1587.	6.5	44
106	Subcellular Analysis ofd-Aspartate. Analytical Chemistry, 2005, 77, 7190-7194.	6.5	66
107	Vitamin E Imaging and Localization in the Neuronal Membrane. Journal of the American Chemical Society, 2005, 127, 12152-12153.	13.7	121
108	Engineering the morphology and electrophysiological parameters of cultured neurons by microfluidic surface patterning. FASEB Journal, 2004, 18, 1267-1269.	0.5	42

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109	Measurement of nitric oxide by 4,5-diaminofluorescein without interferences. Analyst, The, 2004, 129, 1200.	3.5	33
110	Characterization of the Physicochemical Parameters of Dense Core Atrial Gland and Lucent Red Hemiduct Vesicles inAplysiacalifornica. Analytical Chemistry, 2004, 76, 2331-2335.	6.5	11
111	Analysis of serotonin release from single neuron soma using capillary electrophoresis and laser-induced fluorescence with a pulsed deep-UV NeCu laser. Analytical and Bioanalytical Chemistry, 2003, 377, 1007-1013.	3.7	45
112	Spatial Profiling with MALDI MS:Â Distribution of Neuropeptides within Single Neurons. Analytical Chemistry, 2003, 75, 5374-5380.	6.5	157
113	Single-Neuron Analysis Using CE Combined with MALDI MS and Radionuclide Detection. Analytical Chemistry, 2002, 74, 497-503.	6.5	79
114	Anatomical Correlates of Venom Production in Conus californicus. Biological Bulletin, 2002, 203, 27-41.	1.8	52
115	Atomic Force Microscopy as a Tool for the Investigation of Cellular Cytoplasmic Membrane Dynamics. Microscopy and Microanalysis, 2002, 8, 764-765.	0.4	0
116	Cerebrin prohormone processing, distribution and action in Aplysia californica. Journal of Neurochemistry, 2001, 77, 1569-1580.	3.9	45
117	Direct assay ofAplysia tissues and cells with laser desorption/ionization mass spectrometry on porous silicon. Journal of Mass Spectrometry, 2001, 36, 1317-1322.	1.6	73
118	Analysis of cellular release using capillary electrophoresis and matrix assisted laser desorption/ionization-time of flight-mass spectrometry. Electrophoresis, 2001, 22, 3752-3758.	2.4	56
119	Measuring the peptides in individual organelles with mass spectrometry. Nature Biotechnology, 2000, 18, 172-175.	17.5	131
120	Direct cellular assays using off-line capillary electrophoresis with matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Analyst, The, 2000, 125, 555-562.	3.5	33
121	Peptide Profiling of Cells with Multiple Gene Products:Â Combining Immunochemistry and MALDI Mass Spectrometry with On-Plate Microextraction. Analytical Chemistry, 2000, 72, 3867-3874.	6.5	52
122	Insulin Prohormone Processing, Distribution, and Relation to Metabolism inAplysia californica. Journal of Neuroscience, 1999, 19, 7732-7741.	3.6	126
123	Characterization of the Aplysia californicaCerebral Ganglion F Cluster. Journal of Neurophysiology, 1999, 81, 1251-1260.	1.8	38
124	Formation of N-Pyroglutamyl Peptides from N-Glu and N-Gln Precursors in Aplysia Neurons. Journal of Neurochemistry, 1999, 72, 676-681.	3.9	52
125	Independent Optimization of Capillary Electrophoresis Separation and Native Fluorescence Detection Conditions for Indolamine and Catecholamine Measurements. Analytical Chemistry, 1999, 71, 4997-5002.	6.5	99
126	Opposite effects of interleukin-2 and interleukin-4 on GABA-induced inward currents of dialysed Lymnaea neurons. General Pharmacology, 1997, 29, 73-77.	0.7	16

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127	Behavioral changes induced by GABA-receptor agonists in Lymnaea stagnalis L.. General Pharmacology, 1996, 27, 1067-1071.	0.7	15
128	Characterization of the GABA response on identified dialysed Lymnaea neurons. General Pharmacology, 1996, 27, 731-739.	0.7	14
129	Met-enkephalin and morphiceptin modulate a GABA-induced inward current in the CNS of Lymnaea stagnalis L. General Pharmacology, 1996, 27, 1337-1345.	0.7	8
130	Single Cell Mass Spectrometry. , 0, , 109-133.		2
131	Single-Cell Measurements with Mass Spectrometry. , 0, , 269-293.		6