

Sarah Trimpin

List of Publications by Year in descending order

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88
papers

3,642
citations

94269

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91
all docs

91
docs citations

91
times ranked

1876
citing authors

#	ARTICLE	IF	CITATIONS
1	Mapping the human plasma proteome by SCX-LC-IMS-MS. <i>Journal of the American Society for Mass Spectrometry</i> , 2007, 18, 1249-1264.	1.2	171
2	Ion Mobility Spectrometry/Mass Spectrometry Snapshots for Assessing the Molecular Compositions of Complex Polymeric Systems. <i>Analytical Chemistry</i> , 2008, 80, 9073-9083.	3.2	162
3	Resolving Oligomers from Fully Grown Polymers with IMS-MS. <i>Analytical Chemistry</i> , 2007, 79, 7965-7974.	3.2	135
4	Laserspray Ionization, a New Atmospheric Pressure MALDI Method for Producing Highly Charged Gas-phase Ions of Peptides and Proteins Directly from Solid Solutions. <i>Molecular and Cellular Proteomics</i> , 2010, 9, 362-367.	2.5	127
5	A Mechanism for Ionization of Nonvolatile Compounds in Mass Spectrometry: Considerations from MALDI and Inlet Ionization. <i>Journal of the American Society for Mass Spectrometry</i> , 2012, 23, 1644-1660.	1.2	110
6	Mass Spectrometry of Synthetic Polymers. <i>Analytical Chemistry</i> , 2010, 82, 4811-4829.	3.2	109
7	New Paradigm in Ionization: Multiply Charged Ion Formation from a Solid Matrix without a Laser or Voltage. <i>Analytical Chemistry</i> , 2010, 82, 9164-9168.	3.2	94
8	Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry Method for Selectively Producing Either Singly or Multiply Charged Molecular Ions. <i>Analytical Chemistry</i> , 2010, 82, 11-15.	3.2	92
9	Advances in Ionization for Mass Spectrometry. <i>Analytical Chemistry</i> , 2017, 89, 372-388.	3.2	90
10	Mass Spectrometry of Synthetic Polymers. <i>Analytical Chemistry</i> , 2008, 80, 4349-4361.	3.2	88
11	Architectural Differentiation of Linear and Cyclic Polymeric Isomers by Ion Mobility Spectrometry-Mass Spectrometry. <i>Macromolecules</i> , 2011, 44, 6915-6918.	2.2	87
12	Matrix Assisted Ionization in Vacuum, a Sensitive and Widely Applicable Ionization Method for Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2013, 24, 722-732.	1.2	87
13	Matrix Assisted Ionization Vacuum (MAIV), a New Ionization Method for Biological Materials Analysis Using Mass Spectrometry. <i>Molecular and Cellular Proteomics</i> , 2013, 12, 792-796.	2.5	77
14	Automated Solvent-Free Matrix Deposition for Tissue Imaging by Mass Spectrometry. <i>Analytical Chemistry</i> , 2010, 82, 359-367.	3.2	62
15	"Magic" Ionization Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2016, 27, 4-21.	1.2	62
16	Rapid methods of polymer and polymer additives identification: Multi-sample solvent-free MALDI, pyrolysis at atmospheric pressure, and atmospheric solids analysis probe mass spectrometry. <i>Analytica Chimica Acta</i> , 2009, 654, 20-25.	2.6	61
17	Imaging mass spectrometry in transmission geometry. <i>Rapid Communications in Mass Spectrometry</i> , 2011, 25, 815-820.	0.7	61
18	Matrix Assisted Ionization: New Aromatic and Nonaromatic Matrix Compounds Producing Multiply Charged Lipid, Peptide, and Protein Ions in the Positive and Negative Mode Observed Directly from Surfaces. <i>Journal of the American Society for Mass Spectrometry</i> , 2012, 23, 1625-1643.	1.2	61

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19	Laserspray Ionization, a New Method for Protein Analysis Directly from Tissue at Atmospheric Pressure with Ultrahigh Mass Resolution and Electron Transfer Dissociation. <i>Molecular and Cellular Proteomics</i> , 2011, 10, S1-S8.	2.5	59
20	Charge-remote fragmentation of lithiated fatty acids on a TOF-TOF instrument using matrix-ionization. <i>Journal of the American Society for Mass Spectrometry</i> , 2007, 18, 1967-1972.	1.2	57
21	Laserspray Ionization on a Commercial Atmospheric Pressure-MALDI Mass Spectrometer Ion Source: Selecting Singly or Multiply Charged Ions. <i>Analytical Chemistry</i> , 2010, 82, 4998-5001.	3.2	57
22	Field-free transmission geometry atmospheric pressure matrix-assisted laser desorption/ionization for rapid analysis of unadulterated tissue samples. <i>Rapid Communications in Mass Spectrometry</i> , 2009, 23, 3023-3027.	0.7	56
23	Profiling of phospholipids and related lipid structures using multidimensional ion mobility spectrometry-mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2009, 287, 58-69.	0.7	56
24	Inlet Ionization: A New Highly Sensitive Approach for Liquid Chromatography/Mass Spectrometry of Small and Large Molecules. <i>Analytical Chemistry</i> , 2011, 83, 7591-7594.	3.2	55
25	Laserspray ionization (LSI) ion mobility spectrometry (IMS) mass spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2010, 21, 1260-1264.	1.2	52
26	Commercial Intermediate Pressure MALDI Ion Mobility Spectrometry Mass Spectrometer Capable of Producing Highly Charged Laserspray Ionization Ions. <i>Analytical Chemistry</i> , 2011, 83, 678-684.	3.2	52
27	Extending the Laserspray Ionization Concept to Produce Highly Charged Ions at High Vacuum on a Time-of-Flight Mass Analyzer. <i>Analytical Chemistry</i> , 2011, 83, 5469-5475.	3.2	51
28	Fractionation and Solvent-Free MALDI-MS Analysis of Polymers Using Liquid Adsorption Chromatography at Critical Conditions in Combination with a Multisample On-Target Homogenization/Transfer Sample Preparation Method. <i>Analytical Chemistry</i> , 2007, 79, 7565-7570.	3.2	49
29	Laserspray Ionization-Ion Mobility Spectrometry~Mass Spectrometry: Baseline Separation of Isomeric Amyloids without the Use of Solvents Desorbed and Ionized Directly from a Surface. <i>Journal of Proteome Research</i> , 2010, 9, 6077-6081.	1.8	49
30	New Ionization Method for Analysis on Atmospheric Pressure Ionization Mass Spectrometers Requiring Only Vacuum and Matrix Assistance. <i>Analytical Chemistry</i> , 2013, 85, 2005-2009.	3.2	49
31	Solvent-Free MALDI-MS for the Analysis of a Membrane Protein via the Mini Ball Mill Approach: A Case Study of Bacteriorhodopsin. <i>Analytical Chemistry</i> , 2007, 79, 71-78.	3.2	44
32	Magic matrices for ionization in mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2015, 377, 532-545.	0.7	43
33	Solvent-free MALDI-MS for the analysis of β^2 -amyloid peptides via the mini-ball mill approach: Qualitative and quantitative advances. <i>Journal of the American Society for Mass Spectrometry</i> , 2007, 18, 1533-1543.	1.2	42
34	Matrix-Assisted Ionization on a Portable Mass Spectrometer: Analysis Directly from Biological and Synthetic Materials. <i>Analytical Chemistry</i> , 2016, 88, 10831-10836.	3.2	42
35	A New Matrix Assisted Ionization Method for the Analysis of Volatile and Nonvolatile Compounds by Atmospheric Probe Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2013, 24, 1102-1107.	1.2	41
36	An alternative ionization paradigm for atmospheric pressure mass spectrometry: Flying elephants from Trojan horses. <i>International Journal of Mass Spectrometry</i> , 2011, 300, 167-172.	0.7	40

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37	Laserspray Ionization Imaging of Multiply Charged Ions Using a Commercial Vacuum MALDI Ion Source. <i>Analytical Chemistry</i> , 2012, 84, 9079-9084.	3.2	40
38	Solvent-free MALDI-MS for the analysis of biological samples via a mini-ball mill approach. <i>Journal of the American Society for Mass Spectrometry</i> , 2005, 16, 542-547.	1.2	39
39	Multisample preparation methods for the solvent-free MALDI-MS analysis of synthetic polymers. <i>Journal of the American Society for Mass Spectrometry</i> , 2007, 18, 377-381.	1.2	36
40	Localization and imaging of gangliosides in mouse brain tissue sections by laserspray ionization inlet. <i>Journal of Lipid Research</i> , 2012, 53, 1390-1398.	2.0	36
41	The potential for clinical applications using a new ionization method combined with ion mobility spectrometry-mass spectrometry. <i>International Journal for Ion Mobility Spectrometry</i> , 2013, 16, 145-159.	1.4	33
42	A perspective on MALDI alternativesâ€”total solventâ€”free analysis and electron transfer dissociation of highly charged ions by laserspray ionization. <i>Journal of Mass Spectrometry</i> , 2010, 45, 471-485.	0.7	32
43	Novel Approach to Ladder-Type Polymers: Polydithiathianthrene via the Intramolecular Acid-Induced Cyclization of Methylsulfinyl-Substituted Poly(meta-phenylene sulfide). <i>Macromolecular Chemistry and Physics</i> , 2001, 202, 2832-2842.	1.1	31
44	Analysis of insoluble proteins. <i>BioTechniques</i> , 2009, 46, 409-419.	0.8	31
45	New ionization processes and applications for use in mass spectrometry. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2013, 48, 409-429.	2.3	31
46	High-Throughput Characterization of Small and Large Molecules Using Only a Matrix and the Vacuum of a Mass Spectrometer. <i>Analytical Chemistry</i> , 2015, 87, 4667-4674.	3.2	31
47	High-Throughput Solvent Assisted Ionization <i>Inlet</i> for Use in Mass Spectrometry. <i>Analytical Chemistry</i> , 2014, 86, 1000-1006.	3.2	30
48	Use of Ion Mobility Spectrometryâ€”Mass Spectrometry to Elucidate Architectural Dispersity within Star Polymers. <i>ACS Macro Letters</i> , 2015, 4, 778-782.	2.3	30
49	Inlet ionization: protein analyses from the solid state without the use of a voltage or a laser producing up to 67 charges on the 66 kDa BSA protein. <i>Rapid Communications in Mass Spectrometry</i> , 2011, 25, 3453-3456.	0.7	29
50	A New Approach to High Sensitivity Liquid Chromatography-Mass Spectrometry of Peptides using Nanoflow Solvent Assisted Inlet Ionization. <i>Journal of the American Society for Mass Spectrometry</i> , 2012, 23, 442-445.	1.2	29
51	Laserspray and Matrix-Assisted Ionization Inlet Coupled to High-Field FT-ICR Mass Spectrometry for Peptide and Protein Analysis. <i>Journal of the American Society for Mass Spectrometry</i> , 2013, 24, 320-328.	1.2	28
52	1000-Fold Preconcentration of Per- and Polyfluorinated Alkyl Substances within 10 Minutes via Electrochemical Aerosol Formation. <i>Analytical Chemistry</i> , 2019, 91, 14352-14358.	3.2	28
53	Matrix-Assisted Ionization Vacuum for High-Resolution Fourier Transform Ion Cyclotron Resonance Mass Spectrometers. <i>Analytical Chemistry</i> , 2014, 86, 6792-6796.	3.2	27
54	Spontaneous Charge Separation and Sublimation Processes are Ubiquitous in Nature and in Ionization Processes in Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2018, 29, 304-315.	1.2	26

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55	Novel ionization processes for use in mass spectrometry: "Squeezing"™ nonvolatile analyte ions from crystals and droplets. <i>Rapid Communications in Mass Spectrometry</i> , 2019, 33, 96-120.	0.7	26
56	Reproducibility and Quantification of Illicit Drugs Using Matrix-Assisted Ionization (MAI) Mass Spectrometry. <i>Analytical Chemistry</i> , 2015, 87, 8301-8306.	3.2	25
57	Simplifying the ion source for mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2016, 30, 2568-2572.	0.7	22
58	Producing Highly Charged Ions without Solvent Using Laserspray Ionization: A Total Solvent-Free Analysis Approach at Atmospheric Pressure. <i>Analytical Chemistry</i> , 2011, 83, 4076-4084.	3.2	21
59	Rapid high mass resolution mass spectrometry using matrix-assisted ionization. <i>Methods</i> , 2016, 104, 63-68.	1.9	21
60	Drug Detection and Quantification Directly from Tissue Using Novel Ionization Methods for Mass Spectrometry. <i>European Journal of Mass Spectrometry</i> , 2015, 21, 201-210.	0.5	20
61	Vacuum Matrix-Assisted Ionization Source Offering Simplicity, Sensitivity, and Exceptional Robustness in Mass Spectrometry. <i>Analytical Chemistry</i> , 2018, 90, 11188-11192.	3.2	20
62	Gas-Phase Ions Produced by Freezing Water or Methanol for Analysis Using Mass Spectrometry. <i>Analytical Chemistry</i> , 2014, 86, 7343-7350.	3.2	19
63	A broad-based study on hyphenating new ionization technologies with MS/MS for PTMs and tissue characterization. <i>Proteomics</i> , 2016, 16, 1695-1706.	1.3	19
64	High-throughput analysis of peptides and proteins by laserspray ionization mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2011, 25, 247-250.	0.7	17
65	Characterizing synthetic polymers and additives using new ionization methods for mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2014, 28, 1175-1184.	0.7	17
66	Fundamental Studies of New Ionization Technologies and Insights from IMS-MS. <i>Journal of the American Society for Mass Spectrometry</i> , 2019, 30, 1133-1147.	1.2	17
67	Laserspray Ionization Using an Atmospheric Solids Analysis Probe for Sample Introduction. <i>Journal of the American Society for Mass Spectrometry</i> , 2010, 21, 1889-92.	1.2	16
68	Transmission Geometry Laserspray Ionization <i>Vacuum</i> Using an Atmospheric Pressure Inlet. <i>Analytical Chemistry</i> , 2014, 86, 6208-6213.	3.2	16
69	An LC/MS Method Providing Improved Sensitivity: Electrospray Ionization Inlet. <i>Analytical Chemistry</i> , 2017, 89, 4798-4802.	3.2	16
70	Unprecedented Ionization Processes in Mass Spectrometry Provide Missing Link between ESI and MALDI. <i>ChemPhysChem</i> , 2018, 19, 581-589.	1.0	16
71	Matrix-Assisted Ionization-Ion Mobility Spectrometry-Mass Spectrometry: Selective Analysis of a Europium-PEG Complex in a Crude Mixture. <i>Journal of the American Society for Mass Spectrometry</i> , 2015, 26, 2086-2095.	1.2	14
72	Development of an easily adaptable, high sensitivity source for inlet ionization. <i>Analytical Methods</i> , 2017, 9, 4971-4978.	1.3	14

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73	Toward understanding the ionization mechanism of matrix-assisted ionization using mass spectrometry experiment and theory. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e8382.	0.7	13
74	Toward high spatial resolution sampling and characterization of biological tissue surfaces using mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 4053-4061.	1.9	12
75	Expression and <i>In Vivo</i> Characterization of the Antimicrobial Peptide Oncocin and Variants Binding to Ribosomes. <i>Biochemistry</i> , 2020, 59, 3380-3391.	1.2	12
76	An overview of biological applications and fundamentals of new <i>inlet</i> and <i>vacuum</i> ionization technologies. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e8829.	0.7	9
77	Development of a robotics platform for automated multi-ionization mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e8449.	0.7	9
78	Sublimation Driven Ionization for Use in Mass Spectrometry: Mechanistic Implications. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 114-123.	1.2	9
79	Myelin-targeted, texaphyrin-based multimodal imaging agent for magnetic resonance and optical imaging. <i>Contrast Media and Molecular Imaging</i> , 2016, 11, 492-505.	0.4	8
80	Matrix-assisted ionization mass spectrometry in targeted protein analysis – An initial evaluation. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e8437.	0.7	8
81	Resolving Isomers of Star-Branched Poly(Ethylene Glycols) by IMS-MS Using Multiply Charged Ions. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 21-32.	1.2	6
82	A Combination MAI and MALDI Vacuum Source Operational from Atmospheric Pressure for Fast, Robust, and Sensitive Analyses. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 124-132.	1.2	6
83	Applications of vacuum MAI on a portable mass spectrometer. <i>International Journal of Mass Spectrometry</i> , 2022, 474, 116798.	0.7	5
84	Inlet and Vacuum Ionization from Ambient Conditions. <i>New Developments in Mass Spectrometry</i> , 2014, , 423-444.	0.2	4
85	Analysis of insoluble proteins. <i>BioTechniques</i> , 2009, 46, 321-326.	0.8	3
86	Comparison of gaseous ubiquitin ion structures obtained from a solid and solution matrix using ion mobility spectrometry/mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e8793.	0.7	3
87	New mass spectrometry concepts for characterization of synthetic polymers and additives. <i>Rapid Communications in Mass Spectrometry</i> , 2020, 34, e8768.	0.7	1
88	Unprecedented Ionization Processes in Mass Spectrometry Provide Missing Link between ESI and MALDI. <i>ChemPhysChem</i> , 2018, 19, 550-550.	1.0	0