

Stephen J Valentine

List of Publications by Year in descending order

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100601

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98
times ranked

3187
citing authors

#	ARTICLE	IF	CITATIONS
1	Three-Dimensional Ion Mobility/TOFMS Analysis of Electrosprayed Biomolecules. <i>Analytical Chemistry</i> , 1998, 70, 2236-2242.	3.2	330
2	Recommendations for reporting ion mobility Mass Spectrometry measurements. <i>Mass Spectrometry Reviews</i> , 2019, 38, 291-320.	2.8	315
3	An IMS ⁺ IMS Analogue of MS ⁺ MS. <i>Analytical Chemistry</i> , 2006, 78, 4161-4174.	3.2	251
4	Disulfide-Intact and -Reduced Lysozyme in the Gas Phase: Conformations and Pathways of Folding and Unfolding. <i>Journal of Physical Chemistry B</i> , 1997, 101, 3891-3900.	1.2	224
5	Conformer-dependent proton-transfer reactions of ubiquitin ions. <i>Journal of the American Society for Mass Spectrometry</i> , 1997, 8, 954-961.	1.2	219
6	ESI/Ion Trap/Ion Mobility/Time-of-Flight Mass Spectrometry for Rapid and Sensitive Analysis of Biomolecular Mixtures. <i>Analytical Chemistry</i> , 1999, 71, 291-301.	3.2	193
7	H/D Exchange Levels of Shape-Resolved Cytochrome c Conformers in the Gas Phase. <i>Journal of the American Chemical Society</i> , 1997, 119, 3558-3566.	6.6	192
8	A database of 660 peptide ion cross sections: Use of intrinsic size parameters for bona fide predictions of cross sections. <i>Journal of the American Society for Mass Spectrometry</i> , 1999, 10, 1188-1211.	1.2	191
9	IMS ⁺ IMS and IMS ⁺ IMS ⁺ IMS/MS for Separating Peptide and Protein Fragment Ions. <i>Analytical Chemistry</i> , 2006, 78, 2802-2809.	3.2	183
10	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
11	Number of Solution States of Bradykinin from Ion Mobility and Mass Spectrometry Measurements. <i>Journal of the American Chemical Society</i> , 2011, 133, 13810-13813.	6.6	142
12	High-order structure and dissociation of gaseous peptide aggregates that are hidden in mass spectra. <i>Journal of the American Society for Mass Spectrometry</i> , 1998, 9, 743-759.	1.2	141
13	Toward Plasma Proteome Profiling with Ion Mobility-Mass Spectrometry. <i>Journal of Proteome Research</i> , 2006, 5, 2977-2984.	1.8	139
14	Multidimensional separations of complex peptide mixtures: a combined high-performance liquid chromatography/ion mobility/time-of-flight mass spectrometry approach. <i>International Journal of Mass Spectrometry</i> , 2001, 212, 97-109.	0.7	133
15	Coupling Desorption Electrospray Ionization with Ion Mobility/Mass Spectrometry for Analysis of Protein Structure: Evidence for Desorption of Folded and Denatured States. <i>Journal of Physical Chemistry B</i> , 2006, 110, 5045-5051.	1.2	116
16	An Ion Trap Interface for ESI ⁺ Ion Mobility Experiments. <i>Analytical Chemistry</i> , 1997, 69, 4156-4161.	3.2	112
17	Development of High-Sensitivity Ion Trap Ion Mobility Spectrometry Time-of-Flight Techniques: A High-Throughput Nano-LC-IMS-TOF Separation of Peptides Arising from a <i>Drosophila</i> Protein Extract. <i>Analytical Chemistry</i> , 2003, 75, 5137-5145.	3.2	111
18	Gas-phase separations of protease digests. <i>Journal of the American Society for Mass Spectrometry</i> , 1998, 9, 1213-1216.	1.2	104

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19	Resolving Isomeric Peptide Mixtures: A Combined HPLC/Ion Mobility-TOFMS Analysis of a 4000-Component Combinatorial Library. <i>Analytical Chemistry</i> , 2002, 74, 26-36.	3.2	95
20	Conformation Types of Ubiquitin [M+8H] ⁸⁺ Ions from Water:Methanol Solutions: Evidence for the N and A States in Aqueous Solution. <i>Journal of Physical Chemistry B</i> , 2012, 116, 3344-3352.	1.2	87
21	Evidence for a Quasi-Equilibrium Distribution of States for Bradykinin [M + 3H] ³⁺ Ions in the Gas Phase. <i>Journal of Physical Chemistry B</i> , 2010, 114, 7777-7783.	1.2	84
22	Temperature-dependent H/D exchange of compact and elongated cytochrome c ions in the gas phase. <i>Journal of the American Society for Mass Spectrometry</i> , 2002, 13, 506-517.	1.2	79
23	An Ion Mobility/Ion Trap/Photodissociation Instrument for Characterization of Ion Structure. <i>Journal of the American Society for Mass Spectrometry</i> , 2011, 22, 1477-85.	1.2	72
24	Intrinsic Amino Acid Size Parameters from a Series of 113 Lysine-Terminated Tryptic Digest Peptide Ions. <i>Journal of Physical Chemistry B</i> , 1999, 103, 1203-1207.	1.2	70
25	Overtone mobility spectrometry: Part 1. Experimental observations. <i>Journal of the American Society for Mass Spectrometry</i> , 2009, 20, 729-737.	1.2	70
26	A Split-Field Drift Tube for Separation and Efficient Fragmentation of Biomolecular Ions. <i>Analytical Chemistry</i> , 2003, 75, 6202-6208.	3.2	67
27	Mapping the Proteome of <i>Drosophila melanogaster</i> : Analysis of Embryos and Adult Heads by LC-IMS-MS Methods. <i>Journal of Proteome Research</i> , 2005, 4, 1223-1237.	1.8	65
28	Mannose7 Glycan Isomer Characterization by IMS-MS/MS Analysis. <i>Journal of the American Society for Mass Spectrometry</i> , 2012, 23, 2158-2166.	1.2	63
29	Developing liquid chromatography ion mobility mass spectrometry techniques. <i>Expert Review of Proteomics</i> , 2005, 2, 553-565.	1.3	61
30	Analyzing a mixture of disaccharides by IMS-VUVPD-MS. <i>International Journal of Mass Spectrometry</i> , 2012, 309, 161-167.	0.7	61
31	Using Ion Mobility Data to Improve Peptide Identification: Intrinsic Amino Acid Size Parameters. <i>Journal of Proteome Research</i> , 2011, 10, 2318-2329.	1.8	58
32	Acetylation within the First 17 Residues of Huntingtin Exon 1 Alters Aggregation and Lipid Binding. <i>Biophysical Journal</i> , 2016, 111, 349-362.	0.2	55
33	Peer Reviewed: Injected-Ion Mobility Analysis of Biomolecules. <i>Analytical Chemistry</i> , 1997, 69, 728A-735A.	3.2	45
34	Proteome Profiling for Assessing Diversity: Analysis of Individual Heads of <i>Drosophila melanogaster</i> Using LC-Ion Mobility-MS. <i>Journal of Proteome Research</i> , 2005, 4, 1238-1247.	1.8	45
35	Overtone mobility spectrometry: Part 2. Theoretical considerations of resolving power. <i>Journal of the American Society for Mass Spectrometry</i> , 2009, 20, 738-750.	1.2	44
36	Extracted fragment ion mobility distributions: A new method for complex mixture analysis. <i>International Journal of Mass Spectrometry</i> , 2012, 309, 154-160.	0.7	40

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37	Combining Ion Mobility Spectrometry with Hydrogen-Deuterium Exchange and Top-Down MS for Peptide Ion Structure Analysis. <i>Journal of the American Society for Mass Spectrometry</i> , 2014, 25, 2103-2115.	1.2	39
38	Nanoflow LC/IMS-MS and LC/IMS-CID/MS of protein mixtures. <i>Journal of the American Society for Mass Spectrometry</i> , 2004, 15, 1341-1353.	1.2	38
39	Towards a systems level analysis of health and nutrition. <i>Current Opinion in Biotechnology</i> , 2008, 19, 100-109.	3.3	38
40	A Scanning Frequency Mode for Ion Cyclotron Mobility Spectrometry. <i>Analytical Chemistry</i> , 2010, 82, 8266-8271.	3.2	38
41	Vibrating Sharp-Edge Spray Ionization (VSSI) for voltage-free direct analysis of samples using mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e8232.	0.7	37
42	Developing IMS-IMS for rapid characterization of abundant proteins in human plasma. <i>International Journal of Mass Spectrometry</i> , 2009, 283, 149-160.	0.7	34
43	Capillary Vibrating Sharp-Edge Spray Ionization (cVSSI) for Voltage-Free Liquid Chromatography-Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2019, 30, 824-831.	1.2	33
44	Determination of Cross Sections by Overtone Mobility Spectrometry: Evidence for Loss of Unstable Structures at Higher Overtones. <i>Journal of Physical Chemistry B</i> , 2010, 114, 12406-12415.	1.2	32
45	A New Ion Mobility-Linear Ion Trap Instrument for Complex Mixture Analysis. <i>Analytical Chemistry</i> , 2014, 86, 8121-8128.	3.2	32
46	Gas-phase conformation-specific photofragmentation of proline-containing peptide ions. <i>Journal of the American Society for Mass Spectrometry</i> , 2010, 21, 1455-1465.	1.2	30
47	Controlled Formation of Peptide Bonds in the Gas Phase. <i>Journal of the American Chemical Society</i> , 2011, 133, 15834-15837.	6.6	30
48	Development of high-throughput liquid chromatography injected ion mobility quadrupole time-of-flight techniques for analysis of complex peptide mixtures. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2002, 782, 343-351.	1.2	29
49	Development of Field Modulation in a Split-Field Drift Tube for High-Throughput Multidimensional Separations. <i>Journal of Proteome Research</i> , 2005, 4, 25-35.	1.8	29
50	Huntingtin N-Terminal Monomeric and Multimeric Structures Destabilized by Covalent Modification of Heteroatomic Residues. <i>Biochemistry</i> , 2015, 54, 4285-4296.	1.2	28
51	Advances in ion mobility-mass spectrometry instrumentation and techniques for characterizing structural heterogeneity. <i>Analyst, The</i> , 2015, 140, 6782-6798.	1.7	27
52	Improving the Efficiency of IMS-IMS by a Combing Technique. <i>Analytical Chemistry</i> , 2008, 80, 1918-1927.	3.2	26
53	Treatise on the Measurement of Molecular Masses with Ion Mobility Spectrometry. <i>Analytical Chemistry</i> , 2009, 81, 5876-5880.	3.2	26
54	Ion Mobility Spectrometry-Hydrogen Deuterium Exchange Mass Spectrometry of Anions: Part 1. Peptides to Proteins. <i>Journal of the American Society for Mass Spectrometry</i> , 2015, 26, 564-576.	1.2	24

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55	Facile Improvement of Negative Ion Mode Electrospray Ionization Using Capillary Vibrating Sharp-Edge Spray Ionization. <i>Analytical Chemistry</i> , 2020, 92, 2492-2502.	3.2	23
56	Comprehensive Peptide Ion Structure Studies Using Ion Mobility Techniques: Part 3. Relating Solution-Phase to Gas-Phase Structures. <i>Journal of the American Society for Mass Spectrometry</i> , 2018, 29, 1665-1677.	1.2	20
57	Overtone Mobility Spectrometry: Part 3. On the Origin of Peaks. <i>Journal of the American Society for Mass Spectrometry</i> , 2011, 22, 804-816.	1.2	19
58	A Database of Alkaline-Earth-Coordinated Peptide Cross Sections: Insight into General Aspects of Structure. <i>Journal of the American Society for Mass Spectrometry</i> , 2013, 24, 768-779.	1.2	19
59	Structural Assignments of Sulfur-Containing Compounds in Crude Oil Using Ion Mobility Spectrometry-Mass Spectrometry. <i>Energy & Fuels</i> , 2016, 30, 9150-9161.	2.5	18
60	Comprehensive Peptide Ion Structure Studies Using Ion Mobility Techniques: Part 1. An Advanced Protocol for Molecular Dynamics Simulations and Collision Cross-Section Calculation. <i>Journal of the American Society for Mass Spectrometry</i> , 2017, 28, 947-959.	1.2	18
61	Magnifying ion mobility spectrometry's mass spectrometry measurements for biomolecular structure studies. <i>Current Opinion in Chemical Biology</i> , 2018, 42, 101-110.	2.8	18
62	Lysine residues in the N-terminal huntingtin amphipathic α -helix play a key role in peptide aggregation. <i>Journal of Mass Spectrometry</i> , 2015, 50, 117-126.	0.7	17
63	Protons Are Fast and Smart; Proteins Are Slow and Dumb: On the Relationship of Electrospray Ionization Charge States and Conformations. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 1553-1561.	1.2	17
64	Oscillations of Chiral Preference in Proline Clusters. <i>Journal of Physical Chemistry A</i> , 2013, 117, 1035-1041.	1.1	16
65	Gas-Phase Hydrogen-Deuterium Exchange Labeling of Select Peptide Ion Conformer Types: a Per-Residue Kinetics Analysis. <i>Journal of the American Society for Mass Spectrometry</i> , 2015, 26, 1115-1127.	1.2	16
66	Ion Mobility Spectrometry-Mass Spectrometry Coupled with Gas-Phase Hydrogen/Deuterium Exchange for Metabolomics Analyses. <i>Journal of the American Society for Mass Spectrometry</i> , 2018, 29, 230-241.	1.2	15
67	Lipid headgroups alter huntingtin aggregation on membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2021, 1863, 183497.	1.4	15
68	Nucleation Inhibition of Huntingtin Protein (htt) by Polyproline PPII Helices: A Potential Interaction with the N-Terminal α -Helical Region of Htt. <i>Biochemistry</i> , 2020, 59, 436-449.	1.2	14
69	Comparative plasma proteomic studies of pulmonary TiO ₂ nanoparticle exposure in rats using liquid chromatography tandem mass spectrometry. <i>Journal of Proteomics</i> , 2016, 130, 85-93.	1.2	13
70	Chirality and Packing in Small Proline Clusters. <i>Journal of Physical Chemistry B</i> , 2012, 116, 11442-11446.	1.2	12
71	Hydrogen Peroxide Modifies α -Membrane Interactions with Implications for α -Aggregation. <i>Biochemistry</i> , 2019, 58, 2893-2905.	1.2	12
72	Protein oligomers frozen in time. <i>Nature Chemistry</i> , 2009, 1, 257-258.	6.6	11

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73	Comprehensive Gas-Phase Peptide Ion Structure Studies Using Ion Mobility Techniques: Part 2. Gas-Phase Hydrogen/Deuterium Exchange for Ion Population Estimation. <i>Journal of the American Society for Mass Spectrometry</i> , 2017, 28, 960-970.	1.2	11
74	Rapid Solution-Phase Hydrogen/Deuterium Exchange for Metabolite Compound Identification. <i>Journal of the American Society for Mass Spectrometry</i> , 2019, 30, 1102-1114.	1.2	11
75	Acetylation of A β ⁴⁰ Alters Aggregation in the Presence and Absence of Lipid Membranes. <i>ACS Chemical Neuroscience</i> , 2020, 11, 146-161.	1.7	11
76	Combining Field-Enabled Capillary Vibrating Sharp-Edge Spray Ionization with Microflow Liquid Chromatography and Mass Spectrometry to Enhance α -Omics Analyses. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 473-485.	1.2	11
77	Online Deuterium Hydrogen Exchange and Protein Digestion Coupled with Ion Mobility Spectrometry and Tandem Mass Spectrometry. <i>Analytical Chemistry</i> , 2015, 87, 5247-5254.	3.2	10
78	Ion Mobility Spectrometry-Hydrogen Deuterium Exchange Mass Spectrometry of Anions: Part 3. Estimating Surface Area Exposure by Deuterium Uptake. <i>Journal of the American Society for Mass Spectrometry</i> , 2016, 27, 462-473.	1.2	10
79	Ion Mobility Spectrometry-Hydrogen Deuterium Exchange Mass Spectrometry of Anions: Part 2. Assessing Charge Site Location and Isotope Scrambling. <i>Journal of the American Society for Mass Spectrometry</i> , 2016, 27, 451-461.	1.2	10
80	Investigating the interactions of the first 17 amino acid residues of Huntingtin with lipid vesicles using mass spectrometry and molecular dynamics. <i>Journal of Mass Spectrometry</i> , 2020, 55, e4470.	0.7	10
81	Split-Field Drift Tube/Mass Spectrometry and Isotopic Labeling Techniques for Determination of Single Amino Acid Polymorphisms. <i>Journal of Proteome Research</i> , 2006, 5, 1879-1887.	1.8	9
82	Overtone Mobility Spectrometry: Part 5. Simulations and Analytical Expressions Describing Overtone Limits. <i>Journal of the American Society for Mass Spectrometry</i> , 2013, 24, 615-621.	1.2	9
83	Ion Mobility, Hydrogen/Deuterium Exchange, and Isotope Scrambling: Tools to Aid Compound Identification in α -Omics Mixtures. <i>Analytical Chemistry</i> , 2017, 89, 6399-6407.	3.2	9
84	Comparison of Peptide Ion Conformers Arising from Non-Helical and Helical Peptides Using Ion Mobility Spectrometry and Gas-Phase Hydrogen/Deuterium Exchange. <i>Journal of the American Society for Mass Spectrometry</i> , 2018, 29, 2402-2412.	1.2	8
85	Characterizing Multidevice Capillary Vibrating Sharp-Edge Spray Ionization for <i>In-Droplet</i> Hydrogen/Deuterium Exchange to Enhance Compound Identification. <i>ACS Omega</i> , 2021, 6, 18370-18382.	1.6	8
86	Collisional Activation of [14Pro+2H] ²⁺ Clusters: Chiral Dependence of Evaporation and Fission Processes. <i>Journal of Physical Chemistry B</i> , 2012, 116, 7644-7651.	1.2	7
87	Physicochemical Property Correlations with Ionization Efficiency in Capillary Vibrating Sharp-Edge Spray Ionization (cVSSI). <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 84-94.	1.2	7
88	Physicochemical Properties Altered by the Tail Group of Lipid Membranes Influence Huntingtin Aggregation and Lipid Binding. <i>Journal of Physical Chemistry B</i> , 2022, 126, 3067-3081.	1.2	6
89	Synthetic Small Molecule Characterization and Isomer Discrimination Using Gas-Phase Hydrogen-Deuterium Exchange IMS-MS. <i>Analytical Chemistry</i> , 2019, 91, 6259-6265.	3.2	4
90	Development of cVSSI-APCI for the Improvement of Ion Suppression and Matrix Effects in Complex Mixtures. <i>Analytical Chemistry</i> , 0, , .	3.2	4

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91	Oxidation Promotes Distinct Huntingtin Aggregates in the Presence and Absence of Membranes. <i>Biochemistry</i> , 2022, 61, 1517-1530.	1.2	4
92	Integrated sample desalting, enrichment, and ionization on an omniphobic glass slide for direct mass spectrometry analysis. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e9179.	0.7	3
93	Rapid and flexible on-line desalting using Nafion coated melamine sponge for mass spectrometry analysis. <i>Rapid Communications in Mass Spectrometry</i> , 0, , .	0.7	1
94	Factors Modulating the Interaction of Huntingtin with Lipid Membranes: Implications for Huntington's Disease. <i>Biophysical Journal</i> , 2016, 110, 358a-359a.	0.2	0
95	Huntingtin Aggregation and Lipid Binding are Influenced by Physicochemical Properties of Membranes. <i>Biophysical Journal</i> , 2020, 118, 59a.	0.2	0