

Brian H Clowers

List of Publications by Year in descending order

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papers

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citations

109321

35
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102487

66
g-index

100
all docs

100
docs citations

100
times ranked

4152
citing authors

#	ARTICLE	IF	CITATIONS
1	A Strategy for Annotating the Human Milk Glycome. <i>Journal of Agricultural and Food Chemistry</i> , 2006, 54, 7471-7480.	5.2	427
2	Recommendations for reporting ion mobility Mass Spectrometry measurements. <i>Mass Spectrometry Reviews</i> , 2019, 38, 291-320.	5.4	315
3	Signature-Discovery Approach for Sample Matching of a Nerve-Agent Precursor Using Liquid Chromatography ^{MS} Mass Spectrometry, XCMS, and Chemometrics. <i>Analytical Chemistry</i> , 2010, 82, 4165-4173.	6.5	300
4	Gas-Phase Chiral Separations by Ion Mobility Spectrometry. <i>Analytical Chemistry</i> , 2006, 78, 8200-8206.	6.5	246
5	A Serum Glycomics Approach to Breast Cancer Biomarkers. <i>Molecular and Cellular Proteomics</i> , 2007, 6, 43-55.	3.8	207
6	Detection of a Chemical Warfare Agent Simulant in Various Aerosol Matrixes by Ion Mobility Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 2005, 77, 4792-4799.	6.5	201
7	Rapid resolution of carbohydrate isomers by electrospray ionization ambient pressure ion mobility spectrometry-time-of-flight mass spectrometry (ESI-APIMS-TOFMS). <i>Journal of the American Society for Mass Spectrometry</i> , 2007, 18, 1163-1175.	2.8	160
8	Separation of sodiated isobaric disaccharides and trisaccharides using electrospray ionization-atmospheric pressure ion mobility-time of flight mass spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2005, 16, 660-669.	2.8	158
9	Profile of native N-linked glycan structures from human serum using high performance liquid chromatography on a microfluidic chip and time-of-flight mass spectrometry. <i>Proteomics</i> , 2009, 9, 1939-1951.	2.2	131
10	Ion mobility spectrometry ^{MS} mass spectrometry performance using electrodynamic ion funnels and elevated drift gas pressures. <i>Journal of the American Society for Mass Spectrometry</i> , 2007, 18, 1176-1187.	2.8	128
11	Hadamard Transform Ion Mobility Spectrometry. <i>Analytical Chemistry</i> , 2006, 78, 44-51.	6.5	125
12	Enhanced Ion Utilization Efficiency Using an Electrodynamic Ion Funnel Trap as an Injection Mechanism for Ion Mobility Spectrometry. <i>Analytical Chemistry</i> , 2008, 80, 612-623.	6.5	104
13	Secondary Ionization of Chemical Warfare Agent Simulants: Atmospheric Pressure Ion Mobility Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 2003, 75, 6068-6076.	6.5	103
14	Ion mobility-mass spectrometry analysis of isomeric carbohydrate precursor ions. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 394, 1853-1867.	3.7	99
15	Rapid Screening of Aqueous Chemical Warfare Agent Degradation Products: Ambient Pressure Ion Mobility Mass Spectrometry. <i>Analytical Chemistry</i> , 2002, 74, 4343-4352.	6.5	97
16	Vaporized Cannabis Extracts Have Reinforcing Properties and Support Conditioned Drug-Seeking Behavior in Rats. <i>Journal of Neuroscience</i> , 2020, 40, 1897-1908.	3.6	83
17	Mass Analysis of Mobility-Selected Ion Populations Using Dual Gate, Ion Mobility, Quadrupole Ion Trap Mass Spectrometry. <i>Analytical Chemistry</i> , 2005, 77, 5877-5885.	6.5	79
18	Factors That Influence Fragmentation Behavior of N-Linked Glycopeptide Ions. <i>Analytical Chemistry</i> , 2008, 80, 3684-3692.	6.5	74

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19	Dynamically Multiplexed Ion Mobility Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 2008, 80, 5873-5883.	6.5	70
20	Electrospray ionization with ambient pressure ion mobility separation and mass analysis by orthogonal time-of-flight mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2001, 15, 2221-2226.	1.5	66
21	Analytical Performance of Immobilized Pronase for Glycopeptide Footprinting and Implications for Surpassing Reductionist Glycoproteomics. <i>Journal of Proteome Research</i> , 2009, 8, 502-512.	3.7	65
22	Site Determination of Protein Glycosylation Based on Digestion with Immobilized Nonspecific Proteases and Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. <i>Journal of Proteome Research</i> , 2007, 6, 4032-4040.	3.7	64
23	Cannabidiol- δ^9 -tetrahydrocannabinol interactions on acute pain and locomotor activity. <i>Drug and Alcohol Dependence</i> , 2017, 175, 187-197.	3.2	62
24	Direct Real-Time Detection of RDX Vapors Under Ambient Conditions. <i>Analytical Chemistry</i> , 2013, 85, 389-397.	6.5	61
25	Fourier Transform-Ion Mobility-Orbitrap Mass Spectrometer: A Next-Generation Instrument for Native Mass Spectrometry. <i>Analytical Chemistry</i> , 2018, 90, 10472-10478.	6.5	59
26	Augmenting Ion Trap Mass Spectrometers Using a Frequency Modulated Drift Tube Ion Mobility Spectrometer. <i>Analytical Chemistry</i> , 2016, 88, 3121-3129.	6.5	52
27	Influence of cation adduction on the separation characteristics of flavonoid diglycoside isomers using dual gate-ion mobility-quadrupole ion trap mass spectrometry. <i>Journal of Mass Spectrometry</i> , 2006, 41, 339-351.	1.6	49
28	On-line Digestion System for Protein Characterization and Proteome Analysis. <i>Analytical Chemistry</i> , 2008, 80, 8930-8936.	6.5	49
29	Implementation of a flexible, open-source platform for ion mobility spectrometry. <i>HardwareX</i> , 2018, 4, e00030.	2.2	47
30	Pseudorandom Sequence Modifications for Ion Mobility Orthogonal Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 2008, 80, 2464-2473.	6.5	46
31	Nano-LC-MS/MS of Glycopeptides Produced by Nonspecific Proteolysis Enables Rapid and Extensive Site-Specific Glycosylation Determination. <i>Analytical Chemistry</i> , 2011, 83, 5541-5547.	6.5	46
32	Atmospheric pressure matrix-assisted laser desorption/ionization with analysis by ion mobility time-of-flight mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2004, 18, 882-888.	1.5	45
33	Coulombic Effects in Ion Mobility Spectrometry. <i>Analytical Chemistry</i> , 2009, 81, 4778-4787.	6.5	44
34	Detecting and Removing Data Artifacts in Hadamard Transform Ion Mobility-Mass Spectrometry Measurements. <i>Journal of the American Society for Mass Spectrometry</i> , 2014, 25, 2020-2027.	2.8	42
35	Dual polarity accurate mass calibration for electrospray ionization and matrix-assisted laser desorption/ionization mass spectrometry using maltooligosaccharides. <i>Analytical Biochemistry</i> , 2008, 381, 205-213.	2.4	36
36	Second-Generation Tunable pH-Sensitive Phosphoramidate-Based Linkers for Controlled Release. <i>Bioconjugate Chemistry</i> , 2016, 27, 2206-2213.	3.6	35

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37	Direct Real-Time Detection of Vapors from Explosive Compounds. <i>Analytical Chemistry</i> , 2013, 85, 10977-10983.	6.5	33
38	Atmospheric Pressure Drift Tube Ion Mobility Orbitrap Mass Spectrometry: Initial Performance Characterization. <i>Analytical Chemistry</i> , 2017, 89, 11301-11309.	6.5	30
39	Correlation ion mobility spectrometry. <i>Analyst, The</i> , 2017, 142, 292-301.	3.5	29
40	Contemporary glycomic approaches using ion mobility mass spectrometry. <i>Current Opinion in Chemical Biology</i> , 2018, 42, 119-129.	6.1	28
41	Ion multiplexing: Maximizing throughput and signal to noise ratio for ion mobility spectrometry. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 116, 340-345.	11.4	28
42	Differential Fragmentation of Mobility-Selected Glycans via Ultraviolet Photodissociation and Ion Mobility-Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2017, 28, 1236-1241.	2.8	27
43	An open source ion gate pulser for ion mobility spectrometry. <i>International Journal for Ion Mobility Spectrometry</i> , 2017, 20, 87-93.	1.4	25
44	Tuning Mobility Separation Factors of Chemical Warfare Agent Degradation Products via Selective Ion-Neutral Clustering. <i>Analytical Chemistry</i> , 2017, 89, 12416-12424.	6.5	25
45	Validation of Calibration Parameters for Trapped Ion Mobility Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2019, 30, 2152-2162.	2.8	25
46	Enhanced Mixture Separations of Metal Adducted Tetrasaccharides Using Frequency Encoded Ion Mobility Separations and Tandem Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2017, 28, 664-677.	2.8	24
47	Cannabidiol modulation of antinociceptive tolerance to δ^9 -tetrahydrocannabinol. <i>Psychopharmacology</i> , 2018, 235, 3289-3302.	3.1	24
48	Increased ion throughput using tristate ion-gate multiplexing. <i>Analyst, The</i> , 2019, 144, 6660-6670.	3.5	24
49	Evaluation of sulfonylurea herbicides using high resolution electrospray ionization ion mobility quadrupole mass spectrometry. <i>Field Analytical Chemistry and Technology</i> , 2001, 5, 302-312.	0.8	23
50	A two-phase approach to fourier transform ion mobility time-of-flight mass spectrometry. <i>Analyst, The</i> , 2015, 140, 6862-6870.	3.5	23
51	Fundamentals and applications of incorporating chromatographic separations with ion mobility-mass spectrometry. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 119, 115625.	11.4	22
52	Age-related differences in δ^1 -tetrahydrocannabinol-induced antinociception in female and male rats.. <i>Experimental and Clinical Psychopharmacology</i> , 2019, 27, 338-347.	1.8	20
53	Determination of Gas-Phase Ion Mobility Coefficients Using Voltage Sweep Multiplexing. <i>Journal of the American Society for Mass Spectrometry</i> , 2019, 30, 977-986.	2.8	19
54	Systematic characterization of high mass accuracy influence on false discovery and probability scoring in peptide mass fingerprinting. <i>Analytical Biochemistry</i> , 2008, 372, 156-166.	2.4	18

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55	Investigation of <i>Yersinia pestis</i> Laboratory Adaptation through a Combined Genomics and Proteomics Approach. <i>PLoS ONE</i> , 2015, 10, e0142997.	2.5	17
56	An efficient data format for mass spectrometry-based proteomics. <i>Journal of the American Society for Mass Spectrometry</i> , 2010, 21, 1784-1788.	2.8	16
57	Assessing the Impact of Drift Gas Polarizability in Polyatomic Ion Mobility Experiments. <i>Analytical Chemistry</i> , 2020, 92, 4226-4234.	6.5	16
58	The Infrared Spectra of Bacillus Bacteria Part I: Vegetative Bacillus versus Sporulated Cells and the Contributions of Phospholipids to Vegetative Infrared Spectra. <i>Applied Spectroscopy</i> , 2009, 63, 899-907.	2.2	15
59	Characterization of Residual Medium Peptides from <i>Yersinia pestis</i> Cultures. <i>Analytical Chemistry</i> , 2013, 85, 3933-3939.	6.5	15
60	Digital mass filter analysis in stability zones A and B. <i>Journal of Mass Spectrometry</i> , 2018, 53, 1155-1168.	1.6	15
61	Deducing Proton-Bound Heterodimer Association Energies from Shifts in Ion Mobility Arrival Time Distributions. <i>Journal of Physical Chemistry A</i> , 2019, 123, 2957-2965.	2.5	15
62	A comparison based digital waveform generator for high resolution duty cycle. <i>Review of Scientific Instruments</i> , 2018, 89, 084101.	1.3	14
63	Evaluation of Trapped Ion Mobility Spectrometry Source Conditions Using Benzylammonium Thermometer Ions. <i>Journal of the American Society for Mass Spectrometry</i> , 2020, 31, 1593-1602.	2.8	14
64	Absorption Mode Fourier Transform Ion Mobility Mass Spectrometry Multiplexing Combined with Half-Window Apodization Windows Improves Resolution and Shortens Acquisition Times. <i>Analytical Chemistry</i> , 2021, 93, 9513-9520.	6.5	12
65	Rapid separation of phenylthiohydantoin amino acids: ambient pressure ion-mobility mass spectrometry (IMMS). <i>Analytical and Bioanalytical Chemistry</i> , 2003, 375, 99-102.	3.7	11
66	Ambient Pressure Inverse Ion Mobility Spectrometry Coupled to Mass Spectrometry. <i>Analytical Chemistry</i> , 2017, 89, 2800-2806.	6.5	11
67	Ion Mobility Spectrometry Characterization of the Intermediate Hydrogen-Containing Gold Cluster $\text{Au}_7(\text{PPh}_3)_3\text{H}_5^{2+}$. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2502-2508.	4.6	11
68	Development of Untargeted Metabolomics Methods for the Rapid Detection of Pathogenic <i>Naegleria fowleri</i> . <i>Environmental Science & Technology</i> , 2017, 51, 4210-4219.	10.0	10
69	Optimized Reconstruction Techniques for Multiplexed Dual-Gate Ion Mobility Mass Spectrometry Experiments. <i>Analytical Chemistry</i> , 2019, 91, 1432-1440.	6.5	10
70	Non-contact vapor detection of illicit drugs via atmospheric flow tube-mass spectrometry. <i>Analyst</i> , 2020, 145, 6485-6492.	3.5	10
71	Masked Multiplexed Separations to Enhance Duty Cycle for Structures for Lossless Ion Manipulations. <i>Analytical Chemistry</i> , 2021, 93, 5727-5734.	6.5	10
72	Liquid-sheath-flow electrospray ionization feasibility study of direct water analysis with the use of high-resolution ion-mobility spectrometry. <i>Field Analytical Chemistry and Technology</i> , 2001, 5, 91-96.	0.8	8

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73	Evaluation of micro-electrospray ionization with ion mobility spectrometry/mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2002, 213, 191-202.	1.5	8
74	Comprehensive software suite for the operation, maintenance, and evaluation of an ion mobility spectrometer. <i>International Journal for Ion Mobility Spectrometry</i> , 2011, 14, 117.	1.4	8
75	Leveraging spectral sparsity to realize enhanced separation of gas-phase ion populations. <i>International Journal of Mass Spectrometry</i> , 2018, 427, 141-150.	1.5	8
76	Stabilization of gas-phase uranyl complexes enables rapid speciation using electrospray ionization and ion mobility-mass spectrometry. <i>Talanta</i> , 2018, 176, 140-150.	5.5	8
77	Assessment of Dimeric Metal-Glycan Adducts via Isotopic Labeling and Ion Mobility-Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2018, 29, 1638-1649.	2.8	8
78	Effects of bacterial inactivation methods on downstream proteomic analysis. <i>Journal of Microbiological Methods</i> , 2015, 112, 3-10.	1.6	7
79	Probing Gas-Phase-Clustering Thermodynamics with Ion Mobility- ² Mass Spectrometry: Association Energies of Phenylalanine Ions with Gas-Phase Alcohols. <i>Journal of the American Society for Mass Spectrometry</i> , 2020, 31, 1803-1814.	2.8	7
80	Reevaluating the Role of Polarizability in Ion Mobility Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 618-627.	2.8	7
81	Separations of Carbohydrates with Noncovalent Shift Reagents by Frequency-Modulated Ion Mobility-Orbitrap Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 2472-2480.	2.8	7
82	Forensic proteomics of poxvirus production. <i>Analyst, The</i> , 2013, 138, 6385.	3.5	6
83	Using Digital Waveforms to Mitigate Solvent Clustering During Mass Filter Analysis of Proteins. <i>Journal of the American Society for Mass Spectrometry</i> , 2018, 29, 2081-2085.	2.8	6
84	Synchronized Stepped Frequency Modulation for Multiplexed Ion Mobility Measurements. <i>Journal of the American Society for Mass Spectrometry</i> , 2022, 33, 557-564.	2.8	6
85	Impact of injection potential on measured ion response for digitally driven mass filters. <i>International Journal of Mass Spectrometry</i> , 2018, 434, 1-6.	1.5	5
86	Ambient vapor sampling and selective cluster formation for the trace detection of tributyl phosphate via atmospheric flow tube mass spectrometry. <i>Talanta</i> , 2019, 195, 683-690.	5.5	5
87	Accelerating prototyping experiments for traveling wave structures for lossless ion manipulations. <i>Talanta</i> , 2022, 244, 123446.	5.5	5
88	Application of untargeted metabolomics for the detection of pathogenic <i>Naegleria fowleri</i> in an operational drinking water distribution system. <i>Water Research</i> , 2018, 145, 678-686.	11.3	4
89	Characterization of alkylphosphonic acid vapors using atmospheric flow tube- ² ion trap mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2018, 32, 1363-1371.	1.5	4
90	Comparative metabolite profiling of a metastatic and primary melanoma cell line using untargeted metabolomics: A case study. <i>Clinical Mass Spectrometry</i> , 2018, 10, 16-24.	1.9	4

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91	Enabling resolution of isomeric peptides using tri-state ion gating and Fourier-transform ion mobility spectrometry. <i>International Journal for Ion Mobility Spectrometry</i> , 2020, 23, 133-142.	1.4	4
92	Separation and Collision Cross Section Measurements of Protein Complexes Afforded by a Modular Drift Tube Coupled to an Orbitrap Mass Spectrometer. <i>Analytical Chemistry</i> , 2022, 94, 9434-9441.	6.5	4
93	Acceleration of metal-ligand complexation kinetics by electrospray ionization. <i>Analyst, The</i> , 2017, 142, 4468-4475.	3.5	3
94	Interrogating Proton Affinities of Organophosphonate Species Via Atmospheric Flow Tube Mass Spectrometry and Computational Methods. <i>Journal of the American Society for Mass Spectrometry</i> , 2019, 30, 1308-1320.	2.8	3
95	Optical and mass spectral characterization of the electrospray ionization/corona discharge ionization interface. <i>Talanta</i> , 2021, 224, 121870.	5.5	1
96	Non-contact detection of thiodiglycol vapors and associated degradation products using atmospheric flow tube mass spectrometry. <i>Analyst, The</i> , 2021, 146, 3263-3272.	3.5	1
97	Condensable Vapor Sorption by Low Charge State Protein Ions. <i>Analytical Chemistry</i> , 2022, 94, 7050-7059.	6.5	1
98	Implications of Blanc's Law for Use in Trapped Ion Mobility Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 2241-2250.	2.8	0
99	Metabolomic signatures of <i>Naegleria fowleri</i> colonization in drinking water distribution systems in rural Western Australia. , 2022, , 323-336.		0