Wei Xu

List of Publications by Citations

66 papers	1,030 citations	18 h-index	29 g-index
70 ext. papers	1,220 ext. citations	5.2 avg, IF	4.51 L-index

#	Paper	IF	Citations
66	Direct analysis of melamine in complex matrices using a handheld mass spectrometer. *Analyst, The*, **2010**, 135, 705-11	5	90
65	Development of a miniature mass spectrometer with continuous atmospheric pressure interface. *Analyst, The*, **2015**, 140, 3406-14	5	81
64	Study of Discontinuous Atmospheric Pressure Interfaces for Mass Spectrometry Instrumentation Development. *Analytical Chemistry*, **2010**, 82, 6584-6592	7.8	51
63	Ion trap mass analysis at high pressure: a theoretical view. *Journal of the American Society for Mass Spectrometry*, **2009**, 20, 2144-53	3.5	50
62	Mini Mass Spectrometer Integrated with a Miniature Ion Funnel. *Analytical Chemistry*, **2017**, 89, 4177-4183	7.8	48
61	Miniaturization of Mass Spectrometry Analysis Systems. *Journal of the Association for Laboratory Automation*, **2010**, 15, 433-439		46
60	Characterization of electrode surface roughness and its impact on ion trap mass analysis. *Journal of Mass Spectrometry*, **2009**, 44, 353-60	2.2	36
59	Development and characterizations of a miniature capillary electrophoresis mass spectrometry system. *Analytical Chemistry*, **2015**, 87, 2236-41	7.8	35
58	The coupling effects of hexapole and octopole fields in quadrupole ion traps: a theoretical study. *Journal of Mass Spectrometry*, **2013**, 48, 937-44	2.2	31
57	A "Brick Mass Spectrometer" Driven by a Sinusoidal Frequency Scanning Technique. *Analytical Chemistry*, **2017**, 89, 5578-5584	7.8	29
56	Ion trap mass analysis at high pressure: an experimental characterization. *Journal of Mass Spectrometry*, **2010**, 45, 26-34	2.2	29
55	Direct Biological Sample Analyses by Laserspray Ionization Miniature Mass Spectrometry. *Analytical Chemistry*, **2018**, 90, 5696-5702	7.8	26
54	Sampling wand for an ion trap mass spectrometer. *Analytical Chemistry*, **2011**, 83, 1857-61	7.8	26
53	Recent developments of miniature ion trap mass spectrometers. *Chinese Chemical Letters*, **2018**, 29, 1578-1584		26
52	An aerodynamic assisted miniature mass spectrometer for enhanced volatile sample analysis. *Analyst, The*, **2016**, 141, 5404-11	5	24
51	Modeling of ion transient response to dipolar AC excitation in a quadrupole ion trap. *International Journal of Mass Spectrometry*, **2011**, 308, 49-55	1.9	21
50	Structural Analysis of Biomolecules through a Combination of Mobility Capillary Electrophoresis and Mass Spectrometry. *ACS Omega*, **2019**, 4, 2377-2386	3.9	20

49	Structure and effective charge characterization of proteins by a mobility capillary electrophoresis based method. *Chemical Science*, **2019**, 10, 7779-7787	9.4	18
48	A pulsed pinhole atmospheric pressure interface for simplified mass spectrometry instrumentation with enhanced sensitivity. *Rapid Communications in Mass Spectrometry*, **2015**, 29, 701-6	2.2	18
47	Improving the Performances of a "Brick Mass Spectrometer" by Quadrupole Enhanced Dipolar Resonance Ejection from the Linear Ion Trap. *Analytical Chemistry*, **2018**, 90, 11671-11679	7.8	16
46	Mini 2000: A Robust Miniature Mass Spectrometer with Continuous Atmospheric Pressure Interface. *Instruments*, **2018**, 2, 2	1.2	14
45	Ion sponge: a 3-dimentional array of quadrupole ion traps for trapping and mass-selectively processing ions in gas phase. *Analytical Chemistry*, **2014**, 86, 4102-9	7.8	14
44	Realistic modeling of ion-neutral collisions in quadrupole ion traps. *Journal of Mass Spectrometry*, **2015**, 50, 95-102	2.2	13
43	Characterization of geometry deviation effects on ion trap mass analysis: A comparison study. *International Journal of Mass Spectrometry*, **2014**, 370, 125-131	1.9	13
42	Reducing Space Charge Effects in a Linear Ion Trap by Rhombic Ion Excitation and Ejection. *Journal of the American Society for Mass Spectrometry*, **2016**, 27, 1256-62	3.5	13
41	Pseudo-Multiple Reaction Monitoring (Pseudo-MRM) Mode on the "Brick" Mass Spectrometer, Using the Grid-SWIFT Waveform. *Analytical Chemistry*, **2019**, 91, 13838-13846	7.8	12
40	Ion collision crosssection measurements in quadrupole ion traps using a time-frequency analysis method. *Analyst, The*, **2014**, 139, 6144-53	5	12
39	Collision cross section measurements for biomolecules within a high-resolution FT-ICR cell: theory. *Physical Chemistry Chemical Physics*, **2015**, 17, 9060-7	3.6	11
38	A two-step method for rapid characterization of electroosmotic flows in capillary electrophoresis. *Electrophoresis*, **2017**, 38, 3130-3135	3.6	11
37	Chemiluminescence Resonance Energy Transfer-Based Mesoporous Silica Nanosensors for the Detection of miRNA. *ACS Sensors*, **2020**, 5, 2800-2805	9.2	11
36	A simple desorption atmospheric pressure chemical ionization method for enhanced non-volatile sample analysis. *Analytica Chimica Acta*, **2018**, 1002, 62-69	6.6	11
35	Extracting biomolecule collision cross sections from the high-resolution FT-ICR mass spectral linewidths. *Physical Chemistry Chemical Physics*, **2016**, 18, 713-7	3.6	10
34	Boosting the Sensitivity and Selectivity of a Miniature Mass Spectrometer Using a Hybrid Ion Funnel. *Analytical Chemistry*, **2019**, 91, 7911-7919	7.8	10
33	Mobility Capillary Electrophoresis-Restrained Modeling Method for Protein Structure Analysis in Mixtures. *Journal of Physical Chemistry B*, **2019**, 123, 2335-2341	3.4	10
32	Ambient ionization coupled with a miniature mass spectrometer for rapid identification of unauthorized adulterants in food. *Journal of Food Composition and Analysis*, **2020**, 85, 103333	4.1	10

31	A dual-source miniature mass spectrometer with improved sensitivity. *International Journal of Mass Spectrometry*, **2017**, 423, 15-19	1.9	9
30	A "Brick" Mass Spectrometer with Photoionization for Direct Analysis of Trace Volatile Compounds. *Journal of the American Society for Mass Spectrometry*, **2020**, 31, 961-968	3.5	9
29	Rapid 3-dimensional shape determination of globular proteins by mobility capillary electrophoresis and native mass spectrometry. *Chemical Science*, **2020**, 11, 4758-4765	9.4	9
28	Study of the efficiency for ion transfer through bent capillaries. *Journal of Mass Spectrometry*, **2012**, 47, 1466-72	2.2	9
27	Rapid screening of explosives in ambient environment by aerodynamic assisted thermo desorption mass spectrometry. *Journal of Mass Spectrometry*, **2017**, 52, 1-6	2.2	8
26	Direct bacteria analysis using laserspray ionization miniature mass spectrometry. *Analytical and Bioanalytical Chemistry*, **2019**, 411, 4031-4040	4.4	8
25	Improving the Performance of the Mini 2000 Mass Spectrometer with a Triboelectric Nanogenerator Electrospray Ionization Source. *ACS Omega*, **2018**, 3, 12229-12234	3.9	8
24	High-Throughput and Direct Sample Screening Using a Laser Spray Ionization Miniature Mass Spectrometer. *Analytical Chemistry*, **2019**, 91, 8808-8813	7.8	7
23	Electro-kinetic assisted electrospray ionization for enhanced complex sample analysis. *Talanta*, **2017**, 164, 45-51	6.2	7
22	The Coupling of Taylor Dispersion Analysis and Mass Spectrometry to Differentiate Protein Conformations. *Analytical Chemistry*, **2020**, 92, 5200-5206	7.8	5
21	Dual-Polarity Ion Trap Mass Spectrometry: Dynamic Monitoring and Controlling Gas-phase Ion-Ion Reactions. *Journal of the American Society for Mass Spectrometry*, **2017**, 28, 1262-1270	3.5	5
20	Ion collision cross section measurements in Fourier transform-based mass analyzers. *Analyst, The*, **2016**, 141, 3554-61	5	5
19	Straight nano-electrospray ionization and its coupling of mobility capillary electrophoresis to mass spectrometry. *Talanta*, **2020**, 206, 120183	6.2	5
18	Instantaneous Response of Bacteria to External Stimuli Monitored by Syringe Spray Mass Spectrometry. *Analytical Chemistry*, **2018**, 90, 11417-11422	7.8	5
17	Toward Nanopore Electrospray Mass Spectrometry: Nanopore Effects in the Analysis of Bacteria. *ACS Central Science*, **2020**, 6, 1001-1008	16.8	4
16	A mini mass spectrometer with a low noise Faraday detector. *Analyst, The*, **2020**, 145, 3892-3898	5	4
15	Rapid determination of bacterial aminoglycoside resistance in environmental samples using membrane electrospray ionization mass spectrometry. *Rapid Communications in Mass Spectrometry*, **2016**, 30 Suppl 1, 202-7	2.2	4
14	Electric modeling and characterization of pulsed high-voltage nanoelectrospray ionization sources by a miniature ion trap mass spectrometer. *Journal of Mass Spectrometry*, **2019**, 54, 583-591	2.2	3

13	Development of a miniature mass spectrometer with in-source desolvation. *International Journal of Mass Spectrometry*, **2016**, 397-398, 1-5	1.9	3
12	Toward high pressure miniature protein mass spectrometer: Theory and initial results. *Journal of Mass Spectrometry*, **2019**, 54, 957-965	2.2	3
11	Qualitative screening of prohibited drugs in dietary supplements using a homemade miniature mass spectrometer. *International Journal of Mass Spectrometry*, **2021**, 462, 116521	1.9	3
10	Rapid characterization of structure-dependency gas-phase ion/ion reaction via accumulative tandem MS. *Talanta*, **2019**, 195, 17-22	6.2	2
9	High ohmic resistor hyphenated gel loading tip nano-electrospray ionization source for mini mass spectrometer. *Talanta*, **2019**, 202, 59-66	6.2	1
8	Extracting biomolecule collision cross sections from FT-ICR mass spectral line shape. *Talanta*, **2019**, 205, 120093	6.2	1
7	Integration of a liquid-phase ion trap with a miniature mass spectrometer.. *Analytica Chimica Acta*, **2022**, 1193, 339315	6.6	1
6	Liquid-Phase Ion Trap for Ion Trapping, Transfer, and Sequential Ejection in Solutions. *Analytical Chemistry*, **2020**, 92, 9065-9071	7.8	1
5	Ion collision cross section analyses in quadrupole ion traps using the filter diagonalization method: a theoretical study. *Physical Chemistry Chemical Physics*, **2016**, 18, 12058-64	3.6	1
4	Coupling handheld liquid microjunction-surface sampling probe (hLMJ-SSP) to the miniature mass spectrometer for automated and in-situ surface analysis.. *Talanta*, **2021**, 242, 123090	6.2	0
3	Development of a miniature protein mass spectrometer capable of analyzing native proteins. *Talanta*, **2021**, 233, 122580	6.2	0
2	A general purpose MALDI matrix for the analyses of small organic, peptide and protein molecules. *Analyst, The*, **2021**, 146, 4080-4086	5	0
1	Coupling of micro solid-phase extraction with electrospray ionization and its potential for complex sample analyses using a miniature mass spectrometer. *International Journal of Mass Spectrometry*, **2021**, 469, 116675	1.9	