Haiyang Li

List of Publications by Year
in descending order

93 papers	1,965 citations	279798 23 h-index	289244 40 g-index
96 all docs	96 docs citations	96 times ranked	1938 citing authors

#	Article	IF	Citations
1	Room-Temperature Methane Conversion by Graphene-Confined Single Iron Atoms. CheM, 2018, 4, 1902-1910.	11.7	350
2	Photoprompted Hot Electrons from Bulk Cross-Linked Graphene Materials and Their Efficient Catalysis for Atmospheric Ammonia Synthesis. ACS Nano, 2016, 10, 10507-10515.	14.6	125
3	Dopant-Assisted Negative Photoionization Ion Mobility Spectrometry for Sensitive Detection of Explosives. Analytical Chemistry, 2013, 85, 319-326.	6.5	79
4	Single Photon Ionization and Chemical Ionization Combined Ion Source Based on a Vacuum Ultraviolet Lamp for Orthogonal Acceleration Time-of-Flight Mass Spectrometry. Analytical Chemistry, 2011, 83, 5309-5316.	6.5	73
5	Ternary ruthenium complex hydrides for ammonia synthesis via the associative mechanism. Nature Catalysis, 2021, 4, 959-967.	34.4	67
6	High-Pressure Photon Ionization Source for TOFMS and Its Application for Online Breath Analysis. Analytical Chemistry, 2016, 88, 9047-9055.	6.5	54
7	On-site Rapid Detection of Trace Non-volatile Inorganic Explosives by Stand-alone Ion Mobility Spectrometry via Acid-enhanced Evaporization. Scientific Reports, 2014, 4, 6631.	3.3	51
8	Rapid On-Site Detection of Illegal Drugs in Complex Matrix by Thermal Desorption Acetone-Assisted Photoionization Miniature Ion Trap Mass Spectrometer. Analytical Chemistry, 2019, 91, 3845-3851.	6.5	46
9	Dopant-Assisted Positive Photoionization Ion Mobility Spectrometry Coupled with Time-Resolved Thermal Desorption for On-Site Detection of Triacetone Triperoxide and Hexamethylene Trioxide Diamine in Complex Matrices. Analytical Chemistry, 2016, 88, 4391-4399.	6.5	45
10	Detection of nitrobenzene compounds in surface water by ion mobility spectrometry coupled with molecularly imprinted polymers. Journal of Hazardous Materials, 2014, 280, 588-594.	12.4	37
11	Fast Switching of CO₃^{â€“}(H₂O)_n and O₂^{â€“}(H₂O)_n Reactant Ions in Dopant-Assisted Negative Photoionization Ion Mobility Spectrometry for Explosives Detection. Analytical Chemistry, 2014, 86, 2687-2693.	6.5	37
12	Sensitive Detection of Black Powder by a Stand-Alone Ion Mobility Spectrometer with an Embedded Titration Region. Analytical Chemistry, 2013, 85, 4849-4852.	6.5	36
13	Photoionization-Generated Dibromomethane Cation Chemical Ionization Source for Time-of-Flight Mass Spectrometry and Its Application on Sensitive Detection of Volatile Sulfur Compounds. Analytical Chemistry, 2016, 88, 5028-5032.	6.5	36
14	Resolution Enhancement of Ion Mobility Spectrometry by Improving the Three-Zone Properties of the Bradbury-Nielsen Gate. Analytical Chemistry, 2012, 84, 1725-1731.	6.5	35
15	Non-contact halogen lamp heating assisted LTP ionization miniature rectilinear ion trap: a platform for rapid, on-site explosives analysis. Analyst, The, 2013, 138, 5068.	3.5	34
16	Rapid volatiles fingerprinting by dopant-assisted positive photoionization ion mobility spectrometry for discrimination and characterization of Green Tea aromas. Talanta, 2019, 191, 39-45.	5.5	32
17	Rapid Screening of Trace Volatile and Nonvolatile Illegal Drugs by Miniature Ion Trap Mass Spectrometry: Synchronized Flash-Thermal-Desorption Purging and Ion Injection. Analytical Chemistry, 2019, 91, 10212-10220.	6.5	32
18	Vacuum Ultraviolet Lamp Based Magnetic Field Enhanced Photoelectron Ionization and Single Photon Ionization Source for Online Time-of-Flight Mass Spectrometry. Analytical Chemistry, 2011, 83, 8992-8998.	6.5	30

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19	Rapid screening of abused drugs by direct analysis in real time (DART) coupled to time-of-flight mass spectrometry (TOF-MS) combined with ion mobility spectrometry (IMS). Forensic Science International, 2017, 279, 268-280.	2.2	30
20	Miniaturized Ion Mobility Spectrometer with a Dual-Compression Tristate Ion Shutter for On-Site Rapid Screening of Fentanyl Drug Mixtures. Analytical Chemistry, 2019, 91, 9138-9146.	6.5	29
21	On-line measurement of propofol using membrane inlet ion mobility spectrometer. Talanta, 2012, 98, 241-246.	5.5	27
22	UV photoionization ion mobility spectrometry: Fundamentals and applications. Analytica Chimica Acta, 2019, 1077, 1-13.	5.4	26
23	Bradburyâ€“Nielsenâ€“Gateâ€“Grid Structure for Further Enhancing the Resolution of Ion Mobility Spectrometry. Analytical Chemistry, 2012, 84, 5700-5707.	6.5	23
24	Long-Term Real-Time Monitoring Catalytic Synthesis of Ammonia in a Microreactor by VUV-Lamp-Based Charge-Transfer Ionization Time-of-Flight Mass Spectrometry. Analytical Chemistry, 2014, 86, 7681-7687.	6.5	23
25	Online Monitoring of Intraoperative Exhaled Propofol by Acetone-Assisted Negative Photoionization Ion Mobility Spectrometry Coupled with Time-Resolved Purge Introduction. Analytical Chemistry, 2018, 90, 5280-5289.	6.5	22
26	Detection of Nitro-Based and Peroxide-Based Explosives by Fast Polarity-Switchable Ion Mobility Spectrometer with Ion Focusing in Vicinity of Faraday Detector. Scientific Reports, 2015, 5, 10659.	3.3	20
27	Realization of In-Source Collision-Induced Dissociation in Single-Photon Ionization Time-of-Flight Mass Spectrometry and Its Application for Differentiation of Isobaric Compounds. Analytical Chemistry, 2015, 87, 2427-2433.	6.5	20
28	Pushing the Resolving Power of Tyndallâ€“Powell Gate Ion Mobility Spectrometry over 100 with No Sensitivity Loss for Multiple Ion Species. Analytical Chemistry, 2017, 89, 13398-13404.	6.5	19
29	Calculation of the multimode Franckâ€“Condon factors based on the coherent state method. Molecular Physics, 2005, 103, 3337-3342.	1.7	18
30	Interaction of the important species HNO and HFSO2 in the atmosphere: Theoretical study of the Nï£¿H and Sï£¿H blue-shifted hydrogen bonds. International Journal of Quantum Chemistry, 2007, 107, 396-402.	2.0	18
31	Quasi-Trapping Chemical Ionization Source Based on a Commercial VUV Lamp for Time-of-Flight Mass Spectrometry. Analytical Chemistry, 2014, 86, 1332-1336.	6.5	18
32	Field Switching Combined with Bradburyâ€“Nielsen Gate for Ion Mobility Spectrometry. Analytical Chemistry, 2015, 87, 7925-7930.	6.5	18
33	High-pressure photon ionization time-of-flight mass spectrometry combined with dynamic purge-injection for rapid analysis of volatile metabolites in urine. Analytica Chimica Acta, 2018, 1008, 74-81.	5.4	17
34	Selectivity improvement of positive photoionization ion mobility spectrometry for rapid detection of organophosphorus pesticides by switching dopant concentration. Talanta, 2018, 176, 247-252.	5.5	17
35	Trap-and-release membrane inlet ion mobility spectrometry for on-line measurement of trace propofol in exhaled air. Analytical Methods, 2014, 6, 698-703.	2.7	16
36	Sensitive detection of trimethylamine based on dopant-assisted positive photoionization ion mobility spectrometry. Talanta, 2017, 162, 398-402.	5.5	16

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37	Rapid and highly sensitive measurement of trimethylamine in seawater using dynamic purge-release and dopant-assisted atmospheric pressure photoionization mass spectrometry. Analytica Chimica Acta, 2020, 1137, 56-63.	5.4	16
38	Direct Detection of Small n-Alkanes at Sub-ppbv Level by Photoelectron-Induced O₂⁺ Cation Chemical Ionization Mass Spectrometry at kPa Pressure. Analytical Chemistry, 2018, 90, 5398-5404.	6.5	15
39	Ion gating in ion mobility spectrometry: Principles and advances. TrAC - Trends in Analytical Chemistry, 2020, 133, 116100.	11.4	15
40	Sensitive detection of black powder by stand-alone ion mobility spectrometer with chlorinated hydrocarbon modifiers in drift gas. Talanta, 2014, 121, 215-219.	5.5	14
41	An in-source stretched membrane inlet for on-line analysis of VOCs in water with single photon ionization TOFMS. Analyst, The, 2013, 138, 5826.	3.5	13
42	Time-resolved dynamic dilution introduction for ion mobility spectrometry and its application in end-tidal propofol monitoring. Journal of Breath Research, 2015, 9, 016002.	3.0	13
43	Improved Analytical Performance of Negative ⁶³Ni Ion Mobility Spectrometry for On-line Measurement of Propofol Using Dichloromethane as Dopant. Journal of the American Society for Mass Spectrometry, 2015, 26, 190-193.	2.8	13
44	Water-assisted low temperature plasma ionization source for sensitive detection of explosives. RSC Advances, 2014, 4, 14791-14794.	3.6	12
45	Note: Design and construction of a simple and reliable printed circuit board-substrate Bradbury-Nielsen gate for ion mobility spectrometry. Review of Scientific Instruments, 2011, 82, 086103.	1.3	11
46	Development of a Portable Single Photon Ionization-Photoelectron Ionization Time-of-Flight Mass Spectrometer. International Journal of Analytical Chemistry, 2015, 2015, 1-7.	1.0	11
47	Online monitoring of trace chlorinated benzenes in flue gas of municipal solid waste incinerator by windowless VUV lamp single photon ionization TOFMS coupled with automatic enrichment system. Talanta, 2016, 161, 693-699.	5.5	11
48	Rapid Identification and Quantification of Linear Olefin Isomers by Online Ozonolysis-Single Photon Ionization Time-of-Flight Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2016, 27, 144-152.	2.8	11
49	Dopant-assisted photoionization positive ion mobility spectrometry coupled with time-resolved purge introduction for online quantitative monitoring of intraoperative end-tidal propofol. Analytica Chimica Acta, 2018, 1032, 83-90.	5.4	11
50	An in-source helical membrane inlet single photon ionization time-of-flight mass spectrometer for automatic monitoring of trace VOCs in water. Talanta, 2019, 192, 46-51.	5.5	11
51	Highly selective and sensitive online measurement of trace exhaled HCN by acetone-assisted negative photoionization time-of-flight mass spectrometry with in-source CID. Analytica Chimica Acta, 2020, 1111, 31-39.	5.4	11
52	Nonuniform Electric Field-Enhanced In-Source Declustering in High-Pressure Photoionization/Photoionization-Induced Chemical Ionization Mass Spectrometry for Operando Catalytic Reaction Monitoring. Analytical Chemistry, 2021, 93, 2207-2214.	6.5	11
53	Potential analytical methods for on-site oral drug test: Recent developments and applications. TrAC - Trends in Analytical Chemistry, 2019, 120, 115649.	11.4	10
54	Single photon ionization time-of-flight mass spectrometry with a windowless RF-discharge lamp for high temporal resolution monitoring of the initial stage of methanol-to-olefins reaction. Analyst, The, 2019, 144, 1104-1109.	3.5	10

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55	Cluster-assisted generation of multiply charged ions in nanosecond laser ionization of seeded furan beam at 532 and 1064 nm. Molecular Physics, 2008, 106, 1389-1395.	1.7	9
56	Development of a suitcase timeâ€ofâ€flight mass spectrometer for in situ fault diagnosis of SF₆â€insulated switchgear by detection of decomposition products. Rapid Communications in Mass Spectrometry, 2016, 30, 38-43.	1.5	9
57	Dopant-assisted negative photoionization Ion mobility spectrometry coupled with on-line cooling inlet for real-time monitoring H2S concentration in sewer gas. Talanta, 2016, 153, 295-300.	5.5	9
58	Long-term sub second-response monitoring of gaseous ammonia in ambient air by positive inhaling ion mobility spectrometry. Talanta, 2017, 175, 522-527.	5.5	9
59	High Mass Resolution Multireflection Time-of-Flight Secondary Ion Mass Spectrometer. Journal of the American Society for Mass Spectrometry, 2021, 32, 1196-1204.	2.8	9
60	Achieving high gating performance for ion mobility spectrometry by manipulating ion swarm spatiotemporal behaviors in the vicinity of ion shutter. Analytica Chimica Acta, 2019, 1052, 96-104.	5.4	8
61	Solvent assisted thermal desorption for the on-site detection of illegal drugs by a miniature ion trap mass spectrometer. Analytical Methods, 2020, 12, 264-271.	2.7	8
62	Rapid determination of intraoperative blood propofol concentration in operating theatre by dopant-enhanced neutral release and negative photoionization ion mobility spectrometry. Analytica Chimica Acta, 2020, 1098, 47-55.	5.4	8
63	Ambient temperature nanoelectrospray ion mobility detector for high performance liquid chromatography in determining amines. Journal of Chromatography A, 2014, 1358, 192-198.	3.7	7
64	Dopant titrating ion mobility spectrometry for trace exhaled nitric oxide detection. Journal of Breath Research, 2015, 9, 016003.	3.0	7
65	Ion mobility spectrometry as a simple and rapid method to measure the plasma propofol concentrations for intravenous anaesthesia monitoring. Scientific Reports, 2016, 6, 37525.	3.3	7
66	Rapid Identification of Adulteration in Extra Virgin Olive Oil via Dynamic Headspace Sampling and High-Pressure Photoionization Time-of-Flight Mass Spectrometry. Journal of Agricultural and Food Chemistry, 2022, 70, 6775-6784.	5.2	7
67	Dopant assisted photoionization ion mobility spectrometry for on-site specific and sensitive determination of atmospheric ammonia. Sensors and Actuators B: Chemical, 2021, 330, 129365.	7.8	6
68	A temperature-programmed reaction/single-photon ionization time-of-flight mass spectrometry system for rapid investigation of gasâ€“solid heterogeneous catalytic reactions under realistic reaction conditions. Catalysis Science and Technology, 2015, 5, 4959-4963.	4.1	5
69	Enhancing the sensitivity of ion mobility spectrometry using the ion enrichment effect of non-uniform electrostatic field. Sensors and Actuators B: Chemical, 2019, 295, 179-185.	7.8	5
70	Multi-capillary column high-pressure photoionization time-of-flight mass spectrometry and its application for online rapid analysis of flavor compounds. Talanta, 2019, 201, 33-39.	5.5	5
71	Parallel Coupling of Ion Mobility Spectrometry and Ion Trap Mass Spectrometry for the Real-Time Alarm Triggering and Identification of Hazardous Chemical Leakages. Analytical Chemistry, 2021, 93, 11852-11858.	6.5	5
72	Online Measurement of Exhaled NO Concentration and Its Production Sites by Fast Non-equilibrium Dilution Ion Mobility Spectrometry. Scientific Reports, 2016, 6, 23095.	3.3	4

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73	Improved analytical performance of photoionization ion mobility spectrometry for the rapid detection of organophosphorus pesticides using K₀ patterns with multiple reactant ions. RSC Advances, 2018, 8, 18067-18073.	3.6	4
74	Online monitoring of end-tidal propofol in balanced anesthesia by anisole assisted positive photoionization ion mobility spectrometer. Talanta, 2020, 211, 120712.	5.5	4
75	Sensitive detection of glyoxal by cluster-mediated CH2Br2+ chemical ionization time-of-flight mass spectrometry. Analytica Chimica Acta, 2022, 1206, 339612.	5.4	4
76	Solar photooxidation of azo dye over mixed (Al-Fe) pillared bentonite using hydrogen peroxide. Reaction Kinetics and Catalysis Letters, 2005, 85, 313-321.	0.6	3
77	A simulation model study of the coupled field in the IMS drift tube. International Journal for Ion Mobility Spectrometry, 2016, 19, 219-226.	1.4	3
78	Benzene-assisted photoionization positive ion mobility spectrometry coupled with a time-resolved introduction for field detecting dimethyl sulfide in seawater. Analytical Methods, 2020, 12, 5168-5176.	2.7	3
79	Rapid quantitative determination of blood propofol concentration throughout perioperative period by negative photoionization ion mobility spectrometer with solvent-assisted neutral desorption. Analytica Chimica Acta, 2021, 1142, 118-126.	5.4	3
80	Breath-by-breath measurement of intraoperative propofol by unidirectional anisole-assisted photoionization ion mobility spectrometry via real-time correction of humidity. Analytica Chimica Acta, 2021, 1150, 338223.	5.4	3
81	Triboionization in Discontinuous Atmospheric Pressure Inlet for a Miniature Ion Trap Mass Spectrometer. Analytical Chemistry, 2021, 93, 15897-15904.	6.5	3
82	Separation principle and Monte Carlo studies for differential mobility spectrometry. International Journal for Ion Mobility Spectrometry, 2012, 15, 91-98.	1.4	2
83	A Strategy for Simultaneously Improving Resolution and Sensitivity of Hybrid Quadrupole Ion Trap/Time-of-Flight Mass Spectrometry Using Square Waveform Phase Modulation. Journal of the American Society for Mass Spectrometry, 2022, 33, 322-327.	2.8	2
84	Laser induced photoemission electron and the generation of high Rydberg states of atoms and molecules. Science Bulletin, 1998, 43, 1616-1620.	1.7	1
85	A study of focusing effect in the variable DC electric fields Ion mobility spectrometry. International Journal for Ion Mobility Spectrometry, 2014, 17, 11-18.	1.4	1
86	Real-time continuous measurement of intraoperative trace exhaled propofol by planar differential mobility spectrometry. Analytical Methods, 2021, 13, 2624-2630.	2.7	1
87	Pulse purge thermal desorption ion mobility spectrometer for rapid and sensitive determination of intravenous anesthetic etomidate in blood. Sensors and Actuators B: Chemical, 2021, 350, 130844.	7.8	1
88	Photoionization-induced NO+ chemical ionization time-of-flight mass spectrometry for rapid measurement of aldehydes and benzenes in vehicles. Talanta, 2021, 235, 122722.	5.5	1
89	Quantitative analysis of Phthalate Esters by in-situ thermal desorption atmospheric pressure photoionization mass spectrometry using a dopant as the internal standard. International Journal of Mass Spectrometry, 2022, 475, 116819.	1.5	1
90	Generation of multiple charged ions: Photoemission electron impact ionization. Science in China Series B: Chemistry, 1998, 41, 525-534.	0.8	0

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91	A thermal desorption ion mobility spectrometer for the measurement of anticoagulant rodenticide diphacinone in beverages via in situ acid-assisted conversion. Analytical Methods, 2015, 7, 1104-1109.	2.7	0
92	Ellipticity-dependent of multiple ionisation methyl iodide cluster using 532 nm nanosecond laser. Molecular Physics, 2016, 114, 855-861.	1.7	0
93	Study of Coulombic broadening in stand-alone ion mobility spectrometry. Review of Scientific Instruments, 2020, 91, 035111.	1.3	0