

# Haiyang Li

## List of Publications by Year in descending order

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93  
papers

1,965  
citations

279487

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docs citations

96  
times ranked

1938  
citing authors

#	ARTICLE	IF	CITATIONS
1	Room-Temperature Methane Conversion by Graphene-Confined Single Iron Atoms. <i>CheM</i> , 2018, 4, 1902-1910.	5.8	350
2	Photoprompted Hot Electrons from Bulk Cross-Linked Graphene Materials and Their Efficient Catalysis for Atmospheric Ammonia Synthesis. <i>ACS Nano</i> , 2016, 10, 10507-10515.	7.3	125
3	Dopant-Assisted Negative Photoionization Ion Mobility Spectrometry for Sensitive Detection of Explosives. <i>Analytical Chemistry</i> , 2013, 85, 319-326.	3.2	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. <i>Analytical Chemistry</i> , 2011, 83, 5309-5316.	3.2	73
5	Ternary ruthenium complex hydrides for ammonia synthesis via the associative mechanism. <i>Nature Catalysis</i> , 2021, 4, 959-967.	16.1	67
6	High-Pressure Photon Ionization Source for TOFMS and Its Application for Online Breath Analysis. <i>Analytical Chemistry</i> , 2016, 88, 9047-9055.	3.2	54
7	On-site Rapid Detection of Trace Non-volatile Inorganic Explosives by Stand-alone Ion Mobility Spectrometry via Acid-enhanced Evaporization. <i>Scientific Reports</i> , 2014, 4, 6631.	1.6	51
8	Rapid On-Site Detection of Illegal Drugs in Complex Matrix by Thermal Desorption Acetone-Assisted Photoionization Miniature Ion Trap Mass Spectrometer. <i>Analytical Chemistry</i> , 2019, 91, 3845-3851.	3.2	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. <i>Analytical Chemistry</i> , 2016, 88, 4391-4399.	3.2	45
10	Detection of nitrobenzene compounds in surface water by ion mobility spectrometry coupled with molecularly imprinted polymers. <i>Journal of Hazardous Materials</i> , 2014, 280, 588-594.	6.5	37
11	Fast Switching of CO <sub>3</sub> <sup>+</sup> (H <sub>2</sub> O) <sub>n</sub> <sup>+</sup> and O <sub>2</sub> <sup>+</sup> (H <sub>2</sub> O) <sub>n</sub> <sup>+</sup> Reactant Ions in Dopant-Assisted Negative Photoionization Ion Mobility Spectrometry for Explosives Detection. <i>Analytical Chemistry</i> , 2014, 86, 2687-2693.	3.2	37
12	Sensitive Detection of Black Powder by a Stand-Alone Ion Mobility Spectrometer with an Embedded Titration Region. <i>Analytical Chemistry</i> , 2013, 85, 4849-4852.	3.2	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. <i>Analytical Chemistry</i> , 2016, 88, 5028-5032.	3.2	36
14	Resolution Enhancement of Ion Mobility Spectrometry by Improving the Three-Zone Properties of the Bradbury-Nielsen Gate. <i>Analytical Chemistry</i> , 2012, 84, 1725-1731.	3.2	35
15	Non-contact halogen lamp heating assisted LTP ionization miniature rectilinear ion trap: a platform for rapid, on-site explosives analysis. <i>Analyst</i> , 2013, 138, 5068.	1.7	34
16	Rapid volatiles fingerprinting by dopant-assisted positive photoionization ion mobility spectrometry for discrimination and characterization of Green Tea aromas. <i>Talanta</i> , 2019, 191, 39-45.	2.9	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. <i>Analytical Chemistry</i> , 2019, 91, 10212-10220.	3.2	32
18	Vacuum Ultraviolet Lamp Based Magnetic Field Enhanced Photoelectron Ionization and Single Photon Ionization Source for Online Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 2011, 83, 8992-8998.	3.2	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). <i>Forensic Science International</i> , 2017, 279, 268-280.	1.3	30
20	Miniaturized Ion Mobility Spectrometer with a Dual-Compression Tristate Ion Shutter for On-Site Rapid Screening of Fentanyl Drug Mixtures. <i>Analytical Chemistry</i> , 2019, 91, 9138-9146.	3.2	29
21	On-line measurement of propofol using membrane inlet ion mobility spectrometer. <i>Talanta</i> , 2012, 98, 241-246.	2.9	27
22	UV photoionization ion mobility spectrometry: Fundamentals and applications. <i>Analytica Chimica Acta</i> , 2019, 1077, 1-13.	2.6	26
23	Bradburyâ€“Nielsenâ€“Gateâ€“Grid Structure for Further Enhancing the Resolution of Ion Mobility Spectrometry. <i>Analytical Chemistry</i> , 2012, 84, 5700-5707.	3.2	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. <i>Analytical Chemistry</i> , 2014, 86, 7681-7687.	3.2	23
25	Online Monitoring of Intraoperative Exhaled Propofol by Acetone-Assisted Negative Photoionization Ion Mobility Spectrometry Coupled with Time-Resolved Purge Introduction. <i>Analytical Chemistry</i> , 2018, 90, 5280-5289.	3.2	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. <i>Scientific Reports</i> , 2015, 5, 10659.	1.6	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. <i>Analytical Chemistry</i> , 2015, 87, 2427-2433.	3.2	20
28	Pushing the Resolving Power of Tyndallâ€“Powell Gate Ion Mobility Spectrometry over 100 with No Sensitivity Loss for Multiple Ion Species. <i>Analytical Chemistry</i> , 2017, 89, 13398-13404.	3.2	19
29	Calculation of the multimode Franckâ€“Condon factors based on the coherent state method. <i>Molecular Physics</i> , 2005, 103, 3337-3342.	0.8	18
30	Interaction of the important species HNO and HFSO <sub>2</sub> in the atmosphere: Theoretical study of the N <sub>2</sub> H and Si <sub>2</sub> H blue-shifted hydrogen bonds. <i>International Journal of Quantum Chemistry</i> , 2007, 107, 396-402.	1.0	18
31	Quasi-Trapping Chemical Ionization Source Based on a Commercial VUV Lamp for Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 2014, 86, 1332-1336.	3.2	18
32	Field Switching Combined with Bradburyâ€“Nielsen Gate for Ion Mobility Spectrometry. <i>Analytical Chemistry</i> , 2015, 87, 7925-7930.	3.2	18
33	High-pressure photon ionization time-of-flight mass spectrometry combined with dynamic purge-injection for rapid analysis of volatile metabolites in urine. <i>Analytica Chimica Acta</i> , 2018, 1008, 74-81.	2.6	17
34	Selectivity improvement of positive photoionization ion mobility spectrometry for rapid detection of organophosphorus pesticides by switching dopant concentration. <i>Talanta</i> , 2018, 176, 247-252.	2.9	17
35	Trap-and-release membrane inlet ion mobility spectrometry for on-line measurement of trace propofol in exhaled air. <i>Analytical Methods</i> , 2014, 6, 698-703.	1.3	16
36	Sensitive detection of trimethylamine based on dopant-assisted positive photoionization ion mobility spectrometry. <i>Talanta</i> , 2017, 162, 398-402.	2.9	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. <i>Analytica Chimica Acta</i> , 2020, 1137, 56-63.	2.6	16
38	Direct Detection of Small <i>n</i> -Alkanes at Sub-ppbv Level by Photoelectron-Induced O <sub>2</sub> <sup>+</sup> Cation Chemical Ionization Mass Spectrometry at kPa Pressure. <i>Analytical Chemistry</i> , 2018, 90, 5398-5404.	3.2	15
39	Ion gating in ion mobility spectrometry: Principles and advances. <i>TrAC - Trends in Analytical Chemistry</i> , 2020, 133, 116100.	5.8	15
40	Sensitive detection of black powder by stand-alone ion mobility spectrometer with chlorinated hydrocarbon modifiers in drift gas. <i>Talanta</i> , 2014, 121, 215-219.	2.9	14
41	An in-source stretched membrane inlet for on-line analysis of VOCs in water with single photon ionization TOFMS. <i>Analyst, The</i> , 2013, 138, 5826.	1.7	13
42	Time-resolved dynamic dilution introduction for ion mobility spectrometry and its application in end-tidal propofol monitoring. <i>Journal of Breath Research</i> , 2015, 9, 016002.	1.5	13
43	Improved Analytical Performance of Negative <sup>63</sup> Ni Ion Mobility Spectrometry for On-line Measurement of Propofol Using Dichloromethane as Dopant. <i>Journal of the American Society for Mass Spectrometry</i> , 2015, 26, 190-193.	1.2	13
44	Water-assisted low temperature plasma ionization source for sensitive detection of explosives. <i>RSC Advances</i> , 2014, 4, 14791-14794.	1.7	12
45	Note: Design and construction of a simple and reliable printed circuit board-substrate Bradbury-Nielsen gate for ion mobility spectrometry. <i>Review of Scientific Instruments</i> , 2011, 82, 086103.	0.6	11
46	Development of a Portable Single Photon Ionization-Photoelectron Ionization Time-of-Flight Mass Spectrometer. <i>International Journal of Analytical Chemistry</i> , 2015, 2015, 1-7.	0.4	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. <i>Talanta</i> , 2016, 161, 693-699.	2.9	11
48	Rapid Identification and Quantification of Linear Olefin Isomers by Online Ozonolysis-Single Photon Ionization Time-of-Flight Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2016, 27, 144-152.	1.2	11
49	Dopant-assisted photoionization positive ion mobility spectrometry coupled with time-resolved purge introduction for online quantitative monitoring of intraoperative end-tidal propofol. <i>Analytica Chimica Acta</i> , 2018, 1032, 83-90.	2.6	11
50	An in-source helical membrane inlet single photon ionization time-of-flight mass spectrometer for automatic monitoring of trace VOCs in water. <i>Talanta</i> , 2019, 192, 46-51.	2.9	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. <i>Analytica Chimica Acta</i> , 2020, 1111, 31-39.	2.6	11
52	Nonuniform Electric Field-Enhanced In-Source Declustering in High-Pressure Photoionization/Photoionization-Induced Chemical Ionization Mass Spectrometry for Operando Catalytic Reaction Monitoring. <i>Analytical Chemistry</i> , 2021, 93, 2207-2214.	3.2	11
53	Potential analytical methods for on-site oral drug test: Recent developments and applications. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 120, 115649.	5.8	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. <i>Analyst, The</i> , 2019, 144, 1104-1109.	1.7	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. <i>Molecular Physics</i> , 2008, 106, 1389-1395.	0.8	9
56	Development of a suitcase time-of-flight mass spectrometer for <i>in situ</i> fault diagnosis of SF <sub>6</sub> insulated switchgear by detection of decomposition products. <i>Rapid Communications in Mass Spectrometry</i> , 2016, 30, 38-43.	0.7	9
57	Dopant-assisted negative photoionization Ion mobility spectrometry coupled with on-line cooling inlet for real-time monitoring H <sub>2</sub> S concentration in sewer gas. <i>Talanta</i> , 2016, 153, 295-300.	2.9	9
58	Long-term sub second-response monitoring of gaseous ammonia in ambient air by positive inhaling ion mobility spectrometry. <i>Talanta</i> , 2017, 175, 522-527.	2.9	9
59	High Mass Resolution Multireflection Time-of-Flight Secondary Ion Mass Spectrometer. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 1196-1204.	1.2	9
60	Achieving high gating performance for ion mobility spectrometry by manipulating ion swarm spatiotemporal behaviors in the vicinity of ion shutter. <i>Analytica Chimica Acta</i> , 2019, 1052, 96-104.	2.6	8
61	Solvent assisted thermal desorption for the on-site detection of illegal drugs by a miniature ion trap mass spectrometer. <i>Analytical Methods</i> , 2020, 12, 264-271.	1.3	8
62	Rapid determination of intraoperative blood propofol concentration in operating theatre by dopant-enhanced neutral release and negative photoionization ion mobility spectrometry. <i>Analytica Chimica Acta</i> , 2020, 1098, 47-55.	2.6	8
63	Ambient temperature nanoelectrospray ion mobility detector for high performance liquid chromatography in determining amines. <i>Journal of Chromatography A</i> , 2014, 1358, 192-198.	1.8	7
64	Dopant titrating ion mobility spectrometry for trace exhaled nitric oxide detection. <i>Journal of Breath Research</i> , 2015, 9, 016003.	1.5	7
65	Ion mobility spectrometry as a simple and rapid method to measure the plasma propofol concentrations for intravenous anaesthesia monitoring. <i>Scientific Reports</i> , 2016, 6, 37525.	1.6	7
66	Rapid Identification of Adulteration in Extra Virgin Olive Oil via Dynamic Headspace Sampling and High-Pressure Photoionization Time-of-Flight Mass Spectrometry. <i>Journal of Agricultural and Food Chemistry</i> , 2022, 70, 6775-6784.	2.4	7
67	Dopant assisted photoionization ion mobility spectrometry for on-site specific and sensitive determination of atmospheric ammonia. <i>Sensors and Actuators B: Chemical</i> , 2021, 330, 129365.	4.0	6
68	A temperature-programmed reaction/single-photon ionization time-of-flight mass spectrometry system for rapid investigation of gas-solid heterogeneous catalytic reactions under realistic reaction conditions. <i>Catalysis Science and Technology</i> , 2015, 5, 4959-4963.	2.1	5
69	Enhancing the sensitivity of ion mobility spectrometry using the ion enrichment effect of non-uniform electrostatic field. <i>Sensors and Actuators B: Chemical</i> , 2019, 295, 179-185.	4.0	5
70	Multi-capillary column high-pressure photoionization time-of-flight mass spectrometry and its application for online rapid analysis of flavor compounds. <i>Talanta</i> , 2019, 201, 33-39.	2.9	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. <i>Analytical Chemistry</i> , 2021, 93, 11852-11858.	3.2	5
72	Online Measurement of Exhaled NO Concentration and Its Production Sites by Fast Non-equilibrium Dilution Ion Mobility Spectrometry. <i>Scientific Reports</i> , 2016, 6, 23095.	1.6	4

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73	Improved analytical performance of photoionization ion mobility spectrometry for the rapid detection of organophosphorus pesticides using $K^+$ patterns with multiple reactant ions. <i>RSC Advances</i> , 2018, 8, 18067-18073.	1.7	4
74	Online monitoring of end-tidal propofol in balanced anesthesia by anisole assisted positive photoionization ion mobility spectrometer. <i>Talanta</i> , 2020, 211, 120712.	2.9	4
75	Sensitive detection of glyoxal by cluster-mediated $CH_2Br_2^+$ chemical ionization time-of-flight mass spectrometry. <i>Analytica Chimica Acta</i> , 2022, 1206, 339612.	2.6	4
76	Solar photooxidation of azo dye over mixed (Al-Fe) pillared bentonite using hydrogen peroxide. <i>Reaction Kinetics and Catalysis Letters</i> , 2005, 85, 313-321.	0.6	3
77	A simulation model study of the coupled field in the IMS drift tube. <i>International Journal for Ion Mobility Spectrometry</i> , 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. <i>Analytical Methods</i> , 2020, 12, 5168-5176.	1.3	3
79	Rapid quantitative determination of blood propofol concentration throughout perioperative period by negative photoionization ion mobility spectrometer with solvent-assisted neutral desorption. <i>Analytica Chimica Acta</i> , 2021, 1142, 118-126.	2.6	3
80	Breath-by-breath measurement of intraoperative propofol by unidirectional anisole-assisted photoionization ion mobility spectrometry via real-time correction of humidity. <i>Analytica Chimica Acta</i> , 2021, 1150, 338223.	2.6	3
81	Triboionization in Discontinuous Atmospheric Pressure Inlet for a Miniature Ion Trap Mass Spectrometer. <i>Analytical Chemistry</i> , 2021, 93, 15897-15904.	3.2	3
82	Separation principle and Monte Carlo studies for differential mobility spectrometry. <i>International Journal for Ion Mobility Spectrometry</i> , 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. <i>Journal of the American Society for Mass Spectrometry</i> , 2022, 33, 322-327.	1.2	2
84	Laser induced photoemission electron and the generation of high Rydberg states of atoms and molecules. <i>Science Bulletin</i> , 1998, 43, 1616-1620.	1.7	1
85	A study of focusing effect in the variable DC electric fields Ion mobility spectrometry. <i>International Journal for Ion Mobility Spectrometry</i> , 2014, 17, 11-18.	1.4	1
86	Real-time continuous measurement of intraoperative trace exhaled propofol by planar differential mobility spectrometry. <i>Analytical Methods</i> , 2021, 13, 2624-2630.	1.3	1
87	Pulse purge thermal desorption ion mobility spectrometer for rapid and sensitive determination of intravenous anesthetic etomidate in blood. <i>Sensors and Actuators B: Chemical</i> , 2021, 350, 130844.	4.0	1
88	Photoionization-induced $NO^+$ chemical ionization time-of-flight mass spectrometry for rapid measurement of aldehydes and benzenes in vehicles. <i>Talanta</i> , 2021, 235, 122722.	2.9	1
89	Quantitative analysis of Phthalate Esters by in-situ thermal desorption atmospheric pressure photoionization mass spectrometry using a dopant as the internal standard. <i>International Journal of Mass Spectrometry</i> , 2022, 475, 116819.	0.7	1
90	Generation of multiple charged ions: Photoemission electron impact ionization. <i>Science in China Series B: Chemistry</i> , 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. <i>Analytical Methods</i> , 2015, 7, 1104-1109.	1.3	0
92	Ellipticity-dependent of multiple ionisation methyl iodide cluster using 532 nm nanosecond laser. <i>Molecular Physics</i> , 2016, 114, 855-861.	0.8	0
93	Study of Coulombic broadening in stand-alone ion mobility spectrometry. <i>Review of Scientific Instruments</i> , 2020, 91, 035111.	0.6	0