## Haiyang Li

## List of Publications by Year in Descending Order

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1,387 19 91 33 h-index g-index citations papers 6.1 1,648 96 4.45 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
91	Sensitive detection of glyoxal by cluster-mediated CHBr chemical ionization time-of-flight mass spectrometry <i>Analytica Chimica Acta</i> , <b>2022</b> , 1206, 339612	6.6	1
90	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> , <b>2022</b> , 475, 116819	1.9	0
89	Triboionization in Discontinuous Atmospheric Pressure Inlet for a Miniature Ion Trap Mass Spectrometer. <i>Analytical Chemistry</i> , <b>2021</b> , 93, 15897-15904	7.8	O
88	Ternary ruthenium complex hydrides for ammonia synthesis via the associative mechanism. <i>Nature Catalysis</i> , <b>2021</b> , 4, 959-967	36.5	9
87	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> , <b>2021</b> , 1150, 338223	6.6	1
86	Dopant assisted photoionization ion mobility spectrometry for on-site specific and sensitive determination of atmospheric ammonia. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 330, 129365	8.5	1
85	High Mass Resolution Multireflection Time-of-Flight Secondary Ion Mass Spectrometer. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2021</b> , 32, 1196-1204	3.5	4
84	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> , <b>2021</b> , 1142, 118-126	6.6	3
83	Real-time continuous measurement of intraoperative trace exhaled propofol by planar differential mobility spectrometry. <i>Analytical Methods</i> , <b>2021</b> , 13, 2624-2630	3.2	
82	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> , <b>2021</b> , 93, 11852-11858	7.8	0
81	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> , <b>2021</b> , 350, 130844	8.5	1
80	Photoionization-induced NO chemical ionization time-of-flight mass spectrometry for rapid measurement of aldehydes and benzenes in vehicles. <i>Talanta</i> , <b>2021</b> , 235, 122722	6.2	
79	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> , <b>2021</b> , 93, 2207-2214	7.8	4
78	Study of Coulombic broadening in stand-alone ion mobility spectrometry. <i>Review of Scientific Instruments</i> , <b>2020</b> , 91, 035111	1.7	
77	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> , <b>2020</b> , 1111, 31-39	6.6	3
76	Online monitoring of end-tidal propofol in balanced anesthesia by anisole assisted positive photoionization ion mobility spectrometer. <i>Talanta</i> , <b>2020</b> , 211, 120712	6.2	2
75	Solvent assisted thermal desorption for the on-site detection of illegal drugs by a miniature ion trap mass spectrometer. <i>Analytical Methods</i> , <b>2020</b> , 12, 264-271	3.2	5

## (2018-2020)

74	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> , <b>2020</b> , 1098, 47-55	6.6	7	
73	Benzene-assisted photoionization positive ion mobility spectrometry coupled with a time-resolved introduction for field detecting dimethyl sulfide in seawater. <i>Analytical Methods</i> , <b>2020</b> , 12, 5168-5176	3.2	1	
72	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> , <b>2020</b> , 1137, 56-63	6.6	5	
71	Ion gating in ion mobility spectrometry: Principles and advances. <i>TrAC - Trends in Analytical Chemistry</i> , <b>2020</b> , 133, 116100	14.6	6	
7°	Potential analytical methods for on-site oral drug test: Recent developments and applications. <i>TrAC - Trends in Analytical Chemistry</i> , <b>2019</b> , 120, 115649	14.6	7	
69	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> , <b>2019</b> , 144, 1104-1109	5	7	
68	Miniaturized Ion Mobility Spectrometer with a Dual-Compression Tristate Ion Shutter for On-Site Rapid Screening of Fentanyl Drug Mixtures. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 9138-9146	7.8	16	
67	Enhancing the sensitivity of ion mobility spectrometry using the ion enrichment effect of non-uniform electrostatic field. <i>Sensors and Actuators B: Chemical</i> , <b>2019</b> , 295, 179-185	8.5	3	
66	UV photoionization ion mobility spectrometry: Fundamentals and applications. <i>Analytica Chimica Acta</i> , <b>2019</b> , 1077, 1-13	6.6	12	
65	Multi-capillary column high-pressure photoionization time-of-flight mass spectrometry and its application for online rapid analysis of flavor compounds. <i>Talanta</i> , <b>2019</b> , 201, 33-39	6.2	4	
64	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> , <b>2019</b> , 91, 3845-3851	7.8	27	
63	Rapid volatiles fingerprinting by dopant-assisted positive photoionization ion mobility spectrometry for discrimination and characterization of Green Tea aromas. <i>Talanta</i> , <b>2019</b> , 191, 39-45	6.2	20	
62	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> , <b>2019</b> , 91, 10212-10220	7.8	15	
61	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> , <b>2019</b> , 192, 46-51	6.2	6	
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> , <b>2019</b> , 1052, 96-104	6.6	5	
59	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> , <b>2018</b> , 1008, 74-81	6.6	12	
58	Online Monitoring of Intraoperative Exhaled Propofol by Acetone-Assisted Negative Photoionization Ion Mobility Spectrometry Coupled with Time-Resolved Purge Introduction. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 5280-5289	7.8	15	
57	Direct Detection of Small n-Alkanes at Sub-ppbv Level by Photoelectron-Induced O Cation Chemical Ionization Mass Spectrometry at kPa Pressure. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 5398-5404	7.8	11	

56	Selectivity improvement of positive photoionization ion mobility spectrometry for rapid detection of organophosphorus pesticides by switching dopant concentration. <i>Talanta</i> , <b>2018</b> , 176, 247-252	6.2	8
55	Room-Temperature Methane Conversion by Graphene-Confined Single Iron Atoms. <i>CheM</i> , <b>2018</b> , 4, 1907	2-10.10	227
54	Improved analytical performance of photoionization ion mobility spectrometry for the rapid detection of organophosphorus pesticides using patterns with multiple reactant ions <i>RSC Advances</i> , <b>2018</b> , 8, 18067-18073	3.7	3
53	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> , <b>2018</b> , 1032, 83-90	6.6	9
52	Long-term sub second-response monitoring of gaseous ammonia in ambient air by positive inhaling ion mobility spectrometry. <i>Talanta</i> , <b>2017</b> , 175, 522-527	6.2	6
51	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> , <b>2017</b> , 279, 268-280	2.6	20
50	Pushing the Resolving Power of Tyndall-Powell Gate Ion Mobility Spectrometry over 100 with No Sensitivity Loss for Multiple Ion Species. <i>Analytical Chemistry</i> , <b>2017</b> , 89, 13398-13404	7.8	15
49	Sensitive detection of trimethylamine based on dopant-assisted positive photoionization ion mobility spectrometry. <i>Talanta</i> , <b>2017</b> , 162, 398-402	6.2	12
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> , <b>2016</b> , 27, 144-52	3.5	9
47	High-Pressure Photon Ionization Source for TOFMS and Its Application for Online Breath Analysis. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 9047-55	7.8	37
46	Ion mobility spectrometry as a simple and rapid method to measure the plasma propofol concentrations for intravenous anaesthesia monitoring. <i>Scientific Reports</i> , <b>2016</b> , 6, 37525	4.9	7
45	A simulation model study of the coupled field in the IMS drift tube. <i>International Journal for Ion Mobility Spectrometry</i> , <b>2016</b> , 19, 219-226	1.5	2
44	Photoprompted Hot Electrons from Bulk Cross-Linked Graphene Materials and Their Efficient Catalysis for Atmospheric Ammonia Synthesis. <i>ACS Nano</i> , <b>2016</b> , 10, 10507-10515	16.7	101
43	Development of a suitcase time-of-flight mass spectrometer for in situ fault diagnosis of SF6 -insulated switchgear by detection of decomposition products. <i>Rapid Communications in Mass Spectrometry</i> , <b>2016</b> , 30 Suppl 1, 38-43	2.2	4
42	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> , <b>2016</b> , 88, 5028-32	7.8	27
41	Dopant-assisted negative photoionization Ion mobility spectrometry coupled with on-line cooling inlet for real-time monitoring H2S concentration in sewer gas. <i>Talanta</i> , <b>2016</b> , 153, 295-300	6.2	5
40	Ellipticity-dependent of multiple ionisation methyl iodide cluster using 532 nm nanosecond laser. <i>Molecular Physics</i> , <b>2016</b> , 114, 855-861	1.7	
39	Online Measurement of Exhaled NO Concentration and Its Production Sites by Fast Non-equilibrium Dilution Ion Mobility Spectrometry. <i>Scientific Reports</i> , <b>2016</b> , 6, 23095	4.9	4

## (2014-2016)

38	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> , <b>2016</b> , 88, 4391-9	7.8	35	
37	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> , <b>2016</b> , 161, 693-699	6.2	11	
36	Field Switching Combined with Bradbury-Nielsen Gate for Ion Mobility Spectrometry. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 7925-30	7.8	16	
35	Dopant titrating ion mobility spectrometry for trace exhaled nitric oxide detection. <i>Journal of Breath Research</i> , <b>2015</b> , 9, 016003	3.1	7	
34	A temperature-programmed reaction/single-photon ionization time-of-flight mass spectrometry system for rapid investigation of gasBolid heterogeneous catalytic reactions under realistic reaction conditions. <i>Catalysis Science and Technology</i> , <b>2015</b> , 5, 4959-4963	5.5	4	
33	Improved analytical performance of negative 63Ni ion mobility spectrometry for on-line measurement of propofol using dichloromethane as dopant. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2015</b> , 26, 190-3	3.5	13	
32	Development of a Portable Single Photon Ionization-Photoelectron Ionization Time-of-Flight Mass Spectrometer. <i>International Journal of Analytical Chemistry</i> , <b>2015</b> , 2015, 581696	1.4	7	
31	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> , <b>2015</b> , 5, 10659	4.9	14	
30	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> , <b>2015</b> , 7, 1104-1109	3.2		
29	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> , <b>2015</b> , 87, 2427-33	7.8	18	
28	Time-resolved dynamic dilution introduction for ion mobility spectrometry and its application in end-tidal propofol monitoring. <i>Journal of Breath Research</i> , <b>2015</b> , 9, 016002	3.1	11	
27	A study of focusing effect in the variable DC electric fields Ion mobility spectrometry. <i>International Journal for Ion Mobility Spectrometry</i> , <b>2014</b> , 17, 11-18	1.5	1	
26	Trap-and-release membrane inlet ion mobility spectrometry for on-line measurement of trace propofol in exhaled air. <i>Analytical Methods</i> , <b>2014</b> , 6, 698-703	3.2	14	
25	Water-assisted low temperature plasma ionization source for sensitive detection of explosives. <i>RSC Advances</i> , <b>2014</b> , 4, 14791-14794	3.7	10	
24	Fast Switching of CO3(-)(H2O)n and O2(-)(H2O)n reactant ions in dopant-assisted negative photoionization ion mobility spectrometry for explosives detection. <i>Analytical Chemistry</i> , <b>2014</b> , 86, 268	37 <sup>7</sup> 9 <sup>8</sup> 3	31	
23	Ambient temperature nanoelectrospray ion mobility detector for high performance liquid chromatography in determining amines. <i>Journal of Chromatography A</i> , <b>2014</b> , 1358, 192-8	4.5	6	
22	Quasi-trapping chemical ionization source based on a commercial VUV lamp for time-of-flight mass spectrometry. <i>Analytical Chemistry</i> , <b>2014</b> , 86, 1332-6	7.8	15	
21	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> , <b>2014</b> , 86, 7681-7	7.8	19	

20	On-site rapid detection of trace non-volatile inorganic explosives by stand-alone ion mobility spectrometry via acid-enhanced evaporization. <i>Scientific Reports</i> , <b>2014</b> , 4, 6631	4.9	43
19	Detection of nitrobenzene compounds in surface water by ion mobility spectrometry coupled with molecularly imprinted polymers. <i>Journal of Hazardous Materials</i> , <b>2014</b> , 280, 588-94	12.8	26
18	Sensitive detection of black powder by stand-alone ion mobility spectrometer with chlorinated hydrocarbon modifiers in drift gas. <i>Talanta</i> , <b>2014</b> , 121, 215-9	6.2	13
17	Non-contact halogen lamp heating assisted LTP ionization miniature rectilinear ion trap: a platform for rapid, on-site explosives analysis. <i>Analyst, The</i> , <b>2013</b> , 138, 5068-73	5	31
16	An in-source stretched membrane inlet for on-line analysis of VOCs in water with single photon ionization TOFMS. <i>Analyst, The</i> , <b>2013</b> , 138, 5826-31	5	13
15	Dopant-assisted negative photoionization ion mobility spectrometry for sensitive detection of explosives. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 319-26	7.8	65
14	Sensitive detection of black powder by a stand-alone ion mobility spectrometer with an embedded titration region. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 4849-52	7.8	35
13	On-line measurement of propofol using membrane inlet ion mobility spectrometer. <i>Talanta</i> , <b>2012</b> , 98, 241-6	6.2	25
12	Bradbury-Nielsen-gate-grid structure for further enhancing the resolution of ion mobility spectrometry. <i>Analytical Chemistry</i> , <b>2012</b> , 84, 5700-7	7.8	21
11	Resolution enhancement of ion mobility spectrometry by improving the three-zone properties of the Bradbury-Nielsen gate. <i>Analytical Chemistry</i> , <b>2012</b> , 84, 1725-31	7.8	30
10	Separation principle and Monte Carlo studies for differential mobility spectrometry. <i>International Journal for Ion Mobility Spectrometry</i> , <b>2012</b> , 15, 91-98	1.5	2
9	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> , <b>2011</b> , 83, 5309-16	7.8	60
8	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> , <b>2011</b> , 83, 8992-8	7.8	22
7	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> , <b>2011</b> , 82, 086103	1.7	10
6	Cluster-assisted generation of multiply charged ions in nanosecond laser ionization of seeded furan beam at 532 and 1064 nm. <i>Molecular Physics</i> , <b>2008</b> , 106, 1389-1395	1.7	8
5	Interaction of the important species HNO and HFSO2 in the atmosphere: Theoretical study of the N?H and S?H blue-shifted hydrogen bonds. <i>International Journal of Quantum Chemistry</i> , <b>2007</b> , 107, 396-4	4 <b>6</b> 2	16
4	Calculation of the multimode FranckCondon factors based on the coherent state method. <i>Molecular Physics</i> , <b>2005</b> , 103, 3337-3342	1.7	17
3	Solar photooxidation of azo dye over mixed (Al-Fe) pillared bentonite using hydrogen peroxide. <i>Reaction Kinetics and Catalysis Letters</i> , <b>2005</b> , 85, 313-321		3

- Generation of multiple charged ions: Photoemission electron impact ionization. *Science in China Series B: Chemistry*, **1998**, 41, 525-534
- Laser induced photoemission electron and the generation of high Rydberg states of atoms and molecules. *Science Bulletin*, **1998**, 43, 1616-1620

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