

Gary A Eiceman

List of Publications by Year in descending order

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64
papers

3,242
citations

236925

25
h-index

144013

57
g-index

66
all docs

66
docs citations

66
times ranked

1970
citing authors

#	ARTICLE	IF	CITATIONS
1	A critical review of ion mobility spectrometry for the detection of explosives and explosive related compounds. <i>Talanta</i> , 2001, 54, 515-529.	5.5	676
2	Ion Mobility Spectrometry: Principles and Applications. <i>Applied Spectroscopy Reviews</i> , 2006, 41, 323-375.	6.7	324
3	Peer Reviewed: Ion Mobility Spectrometers in National Defense. <i>Analytical Chemistry</i> , 2004, 76, 390 A-397 A.	6.5	292
4	Separation of Ions from Explosives in Differential Mobility Spectrometry by Vapor-Modified Drift Gas. <i>Analytical Chemistry</i> , 2004, 76, 4937-4944.	6.5	178
5	Recent Developments in Ion Mobility Spectrometry. <i>Applied Spectroscopy Reviews</i> , 2011, 46, 472-521.	6.7	152
6	Effect of Moisture on the Field Dependence of Mobility for Gas-Phase Ions of Organophosphorus Compounds at Atmospheric Pressure with Field Asymmetric Ion Mobility Spectrometry. <i>Journal of Physical Chemistry A</i> , 2003, 107, 3648-3654.	2.5	121
7	Field Dependence of Mobilities for Gas-Phase-Protonated Monomers and Proton-Bound Dimers of Ketones by Planar Field Asymmetric Waveform Ion Mobility Spectrometer (PFAIMS). <i>Journal of Physical Chemistry A</i> , 2002, 106, 5437-5444.	2.5	114
8	Proton-bound cluster ions in ion mobility spectrometry. <i>International Journal of Mass Spectrometry</i> , 1999, 193, 57-68.	1.5	101
9	Pressure Effects in Differential Mobility Spectrometry. <i>Analytical Chemistry</i> , 2006, 78, 7697-7706.	6.5	95
10	Quantitative calibration of vapor levels of TNT, RDX, and PETN using a diffusion generator with gravimetry and ion mobility spectrometry. <i>Talanta</i> , 1997, 45, 57-74.	5.5	68
11	Miniature radio-frequency mobility analyzer as a gas chromatographic detector for oxygen-containing volatile organic compounds, pheromones and other insect attractants. <i>Journal of Chromatography A</i> , 2001, 917, 205-217.	3.7	67
12	Analysis of a drift tube at ambient pressure: Models and precise measurements in ion mobility spectrometry. <i>Review of Scientific Instruments</i> , 2001, 72, 3610-3621.	1.3	63
13	Ion mobility spectrometry of hydrazine, monomethylhydrazine, and ammonia in air with 5-nonanone reagent gas. <i>Analytical Chemistry</i> , 1993, 65, 1696-1702.	6.5	62
14	Enhanced selectivity in ion mobility spectrometry analysis of complex mixtures by alternate reagent gas chemistry. <i>Analytica Chimica Acta</i> , 1995, 306, 21-33.	5.4	62
15	Differential mobility spectrometry of chlorocarbons with a micro-fabricated drift tube. <i>Analyst, The</i> , 2004, 129, 297.	3.5	59
16	Micro-machined planar field asymmetric ion mobility spectrometer as a gas chromatographic detector. <i>Analyst, The</i> , 2002, 127, 466-471.	3.5	51
17	Pattern recognition analysis of differential mobility spectra with classification by chemical family. <i>Analytica Chimica Acta</i> , 2006, 579, 1-10.	5.4	41
18	Exploration of a Multicapillary Column for Use in Elevated Speed Gas Chromatography. <i>International Journal of Environmental Analytical Chemistry</i> , 1997, 66, 225-239.	3.3	39

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19	Gas Chromatography. Analytical Chemistry, 1998, 70, 321-340.	6.5	39
20	Gas Chromatography. Analytical Chemistry, 2006, 78, 3985-3996.	6.5	36
21	Monitoring volatile organic compounds in ambient air inside and outside buildings with the use of a radio-frequency-based ion-mobility analyzer with a micromachined drift tube. Field Analytical Chemistry and Technology, 2000, 4, 297-308.	0.8	34
22	Mobility resolution and mass analysis of ions from ammonia and hydrazine complexes with ketones formed in air at ambient pressure. Journal of the American Society for Mass Spectrometry, 2007, 18, 940-951.	2.8	33
23	Classification of ion mobility spectra by functional groups using neural networks. Analytica Chimica Acta, 1999, 394, 121-133.	5.4	32
24	Gas Chromatography. Analytical Chemistry, 2002, 74, 2771-2780.	6.5	32
25	Tandem ion mobility spectrometry at ambient pressure and field decomposition of mobility selected ions of explosives and interferences. Analyst, The, 2019, 144, 2052-2061.	3.5	27
26	Atmospheric pressure chemical ionization of fluorinated phenols in atmospheric pressure chemical ionization mass spectrometry, tandem mass spectrometry, and ion mobility spectrometry. Journal of the American Society for Mass Spectrometry, 1999, 10, 1157-1165.	2.8	26
27	Neural Network Recognition of Chemical Class Information in Mobility Spectra Obtained at High Temperatures. Analytical Chemistry, 2000, 72, 1192-1198.	6.5	26
28	Monitoring Indoor Ambient Atmospheres for Volatile Organic Compounds Using an Ion Mobility Analyzer Array with Selective Chemical Ionization. International Journal of Environmental Analytical Chemistry, 1995, 61, 81-94.	3.3	24
29	Gas Chromatography. Analytical Chemistry, 2004, 76, 3387-3394.	6.5	24
30	Stability of proton-bound clusters of alkyl alcohols, aldehydes and ketones in Ion Mobility Spectrometry. Talanta, 2018, 185, 299-308.	5.5	23
31	Decomposition Kinetics of Nitroglycerine-Cl ⁺ in Air at Ambient Pressure with a Tandem Ion Mobility Spectrometer. Journal of Physical Chemistry A, 2014, 118, 2683-2692.	2.5	22
32	Discrimination of combustion fuel sources using gas chromatography-planar field asymmetric-waveform ion mobility spectrometry. Journal of Separation Science, 2003, 26, 585-593.	2.5	20
33	Dissociation Enthalpies of Chloride Adducts of Nitrate and Nitrite Explosives Determined by Ion Mobility Spectrometry. Journal of Physical Chemistry A, 2016, 120, 690-698.	2.5	16
34	Detection of salmonella typhimurium by hand-held ion mobility spectrometer: A quantitative assessment of response characteristics. Field Analytical Chemistry and Technology, 1997, 1, 213-226.	0.8	15
35	Ion Mobility Spectrometer-Fragmenter-Ion Mobility Spectrometer Analogue of a Triple Quadrupole for High-Resolution Ion Analysis at Atmospheric Pressure. Analytical Chemistry, 2018, 90, 6885-6892.	6.5	15
36	A determination of the effective temperatures for the dissociation of the proton bound dimer of dimethyl methylphosphonate in a planar differential mobility spectrometer. International Journal for Ion Mobility Spectrometry, 2010, 13, 25-36.	1.4	14

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37	Fast gas chromatography-differential mobility spectrometry of explosives from TATP to Tetryl without gas atmosphere modifiers. <i>International Journal for Ion Mobility Spectrometry</i> , 2010, 13, 157-165.	1.4	14
38	Paper spray ionization with ion mobility spectrometry at ambient pressure. <i>International Journal for Ion Mobility Spectrometry</i> , 2011, 14, 51-59.	1.4	14
39	Limits of separation of a multi-capillary column with mixtures of volatile organic compounds for a flame ionization detector and a differential mobility detector. <i>Journal of Chromatography A</i> , 2009, 1216, 985-993.	3.7	13
40	Planar Drift Tube for Ion Mobility Spectrometry. <i>Instrumentation Science and Technology</i> , 2007, 35, 365-383.	1.8	12
41	Field Induced Fragmentation (Fif) Spectra of Oxygen Containing Volatile Organic Compounds with Reactive Stage Tandem Ion Mobility Spectrometry and Functional Group Classification by Neural Network Analysis. <i>Analytical Chemistry</i> , 2020, 92, 5862-5870.	6.5	12
42	Tandem Differential Mobility Spectrometry in Purified Air for High-Speed Selective Vapor Detection. <i>Analytical Chemistry</i> , 2014, 86, 2395-2402.	6.5	11
43	High Kinetic Energy Ion Mobility Spectrometry \hat{c} Mass Spectrometry investigations of four inhalation anaesthetics: isoflurane, enflurane, sevoflurane and desflurane. <i>International Journal of Mass Spectrometry</i> , 2022, 475, 116831.	1.5	11
44	Classification of biodiesel and fuel blends using gas chromatography \hat{c} differential mobility spectrometry with cluster analysis and isolation of C18:3 me by dual ion filtering. <i>Talanta</i> , 2016, 155, 278-288.	5.5	10
45	Quantitative response in ion mobility spectrometry with atmospheric pressure chemical ionization in positive polarity as a function of moisture and temperature. <i>Analytica Chimica Acta</i> , 2019, 1092, 144-150.	5.4	10
46	Fragmentation, auto-modification and post ionisation proton bound dimer ion formation: the differential mobility spectrometry of low molecular weight alcohols. <i>Analyst, The</i> , 2016, 141, 4587-4598.	3.5	9
47	Differential Mobility Spectrometry of Ketones in Air at Extreme Levels of Moisture. <i>Scientific Reports</i> , 2019, 9, 5593.	3.3	9
48	Reactive Tandem Ion Mobility Spectrometry with Electric Field Fragmentation of Alcohols at Ambient Pressure. <i>Analytical Chemistry</i> , 2019, 91, 6281-6287.	6.5	9
49	Ion Mobility Spectrometry of Gas-Phase Ions from Laser Ablation of Solids in Air at Ambient Pressure. <i>Applied Spectroscopy</i> , 2007, 61, 1076-1083.	2.2	7
50	Patterns of ion distributions from a cylindrical ^{63}Ni foil in an ion mobility spectrometer. <i>International Journal for Ion Mobility Spectrometry</i> , 2014, 17, 139-145.	1.4	7
51	Improved selectivity for the determination of trinitrotoluene through reactive stage tandem ion mobility spectrometry and a quantitative measure of source-based suppression of ionization. <i>Talanta</i> , 2021, 226, 121944.	5.5	7
52	Rapid detection of propiconazole and tebuconazole in wood by solid phase desorption: ion mobility spectrometry. <i>Wood Science and Technology</i> , 2011, 45, 205-214.	3.2	6
53	Tandem differential mobility spectrometry with chemical modification of ions. <i>International Journal for Ion Mobility Spectrometry</i> , 2012, 15, 123-130.	1.4	6
54	Ion density of positive and negative ions at ambient pressure in air at $12\hat{c}136\hat{A}\text{mm}$ from 4.9 kV soft x-ray source. <i>Review of Scientific Instruments</i> , 2021, 92, 054104.	1.3	5

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55	High Performance Micromachined Planar Field-Asymmetric Ion Mobility Spectrometers for Chemical and Biological Compound Detection. Materials Research Society Symposia Proceedings, 2002, 729, 411.	0.1	4
56	Gas chromatography with tandem differential mobility spectrometry of fatty acid alkyl esters and the selective detection of methyl linolenate in biodiesels by dual-stage ion filtering. Journal of Chromatography A, 2015, 1421, 162-170.	3.7	4
57	Field induced fragmentation spectra from reactive stage-tandem differential mobility spectrometry. Analyst, The, 2020, 145, 5314-5324.	3.5	4
58	Parametric Sensitivity in a Generalized Model for Atmospheric Pressure Chemical Ionization Reactions. Journal of the American Society for Mass Spectrometry, 2021, 32, 2218-2226.	2.8	2
59	Successive reactions in field induced fragmentation spectra from tandem ion mobility spectrometry at ambient pressure and their influence on classification by neural networks. International Journal of Mass Spectrometry, 2021, 470, 116701.	1.5	2
60	Quantitative response to nitrite from field-induced decomposition of the chloride adduct of RDX by reactive stage tandem ion mobility spectrometry. Analyst, The, 2021, 146, 565-573.	3.5	2
61	Ion mobility spectrometry of solid surfaces for pharmaceutical residues using electrospray laser desorption and ionization. International Journal for Ion Mobility Spectrometry, 2015, 18, 87-93.	1.4	1
62	Stable compensation voltages in differential mobility spectra by separating neutral vapors from ions in sample flow. International Journal for Ion Mobility Spectrometry, 2020, 23, 9-17.	1.4	1
63	Field induced displacement reactions with proton bound dimers of organophosphorus compounds in a tandem differential mobility spectrometer. Analyst, The, 2021, 146, 4172-4179.	3.5	1
64	Ion mobility spectrometry. , 2020, , 171-183.		1