Ansgar T Kirk

List of Publications by Year
in descending order

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54 papers	1,056 citations	430754 18 h-index	454834 30 g-index
57 all docs	57 docs citations	57 times ranked	467 citing authors

#	Article	IF	Citations
1	A compact high resolution ion mobility spectrometer for fast trace gas analysis. Analyst, The, 2013, 138, 5200.	1.7	96
2	High-Resolution High Kinetic Energy Ion Mobility Spectrometer Based on a Low-Discrimination Tristate Ion Shutter. Analytical Chemistry, 2018, 90, 5603-5611.	3.2	71
3	High Kinetic Energy Ion Mobility Spectrometer: Quantitative Analysis of Gas Mixtures with Ion Mobility Spectrometry. Analytical Chemistry, 2014, 86, 7023-7032.	3.2	70
4	Ultra-high-resolution ion mobility spectrometryâ€"current instrumentation, limitations, and future developments. Analytical and Bioanalytical Chemistry, 2019, 411, 6229-6246.	1.9	69
5	Bradbury-Nielsen vs. Field switching shutters for high resolution drift tube ion mobility spectrometers. International Journal for Ion Mobility Spectrometry, 2014, 17, 131-137.	1.4	51
6	Separation of Isotopologues in Ultra-High-Resolution Ion Mobility Spectrometry. Analytical Chemistry, 2017, 89, 1509-1515.	3.2	49
7	Quantitative Detection of Benzene in Toluene- and Xylene-Rich Atmospheres Using High-Kinetic-Energy Ion Mobility Spectrometry (IMS). Analytical Chemistry, 2014, 86, 11841-11846.	3.2	45
8	Pushing a compact 15Âcm long ultra-high resolution drift tube ion mobility spectrometer with Râ€‰=â€‰250 to Râ€‰=â€‰425 using peak deconvolution. International Journal for Ion Mobility Spectrometry, 2015, 18, 17-22.	1.4	38
9	A compact high resolution electrospray ionization ion mobility spectrometer. Talanta, 2016, 150, 1-6.	2.9	28
10	Simulation aided design of a low cost ion mobility spectrometer based on printed circuit boards. International Journal for Ion Mobility Spectrometry, 2016, 19, 167-174.	1.4	27
11	In-circuit-measurement of parasitic elements in high gain high bandwidth low noise transimpedance amplifiers. Review of Scientific Instruments, 2014, 85, 124703.	0.6	25
12	An analytical model for the optimum drift voltage of drift tube ion mobility spectrometers with respect to resolving power and detection limits. International Journal for Ion Mobility Spectrometry, 2015, 18, 129-135.	1.4	24
13	A universal relationship between optimum drift voltage and resolving power. International Journal for Ion Mobility Spectrometry, 2017, 20, 105-109.	1.4	24
14	Analyzing Positive Reactant Ions in High Kinetic Energy Ion Mobility Spectrometry (HiKE-IMS) by HiKE-IMSâ€"MS. Journal of the American Society for Mass Spectrometry, 2020, 31, 812-821.	1.2	24
15	A compact high-resolution X-ray ion mobility spectrometer. Review of Scientific Instruments, 2016, 87, 053120.	0.6	23
16	Estimating and Reducing Uncertainty in Reverberation-Chamber Characterization at Millimeter-Wave Frequencies. IEEE Transactions on Antennas and Propagation, 2016, 64, 3130-3140.	3.1	21
17	Improving Ion Mobility Spectrometer Sensitivity through the Extended Field Switching Ion Shutter. Analytical Chemistry, 2020, 92, 4838-4847.	3.2	20
18	Parameter Estimation and Uncertainty Evaluation in a Low Rician <italic>K</italic>-Factor Reverberation-Chamber Environment. IEEE Transactions on Electromagnetic Compatibility, 2014, 56, 1002-1012.	1.4	19

#	Article	IF	Citations
19	Ion mobility spectrometer with orthogonal X-Ray source for increased sensitivity. Talanta, 2018, 185, 537-541.	2.9	19
20	Toward Compact High-Performance Ion Mobility Spectrometers: Ion Gating in Ion Mobility Spectrometry. Analytical Chemistry, 2021, 93, 6062-6070.	3.2	19
21	Positive Reactant Ion Formation in High Kinetic Energy Ion Mobility Spectrometry (HiKE-IMS). Journal of the American Society for Mass Spectrometry, 2020, 31, 1291-1301.	1.2	17
22	Shutterless ion mobility spectrometer with fast pulsed electron source. Review of Scientific Instruments, 2017, 88, 024102.	0.6	16
23	A Simple Analytical Model for Predicting the Detectable Ion Current in Ion Mobility Spectrometry Using Corona Discharge Ionization Sources. Journal of the American Society for Mass Spectrometry, 2018, 29, 1425-1430.	1.2	15
24	Fast pulsed operation of a small non-radioactive electron source with continuous emission current control. Review of Scientific Instruments, 2015, 86, 065102.	0.6	14
25	Fast Orthogonal Separation by Superposition of Time of Flight and Field Asymmetric Ion Mobility Spectrometry. Analytical Chemistry, 2018, 90, 1114-1121.	3.2	13
26	Plate-height model of ion mobility-mass spectrometry. Analyst, The, 2020, 145, 6313-6333.	1.7	13
27	Ion Fragmentation and Filtering by Alpha Function in Ion Mobility Spectrometry for Improved Compound Differentiation. Analytical Chemistry, 2019, 91, 8941-8947.	3.2	12
28	Negative Reactant Ion Formation in High Kinetic Energy Ion Mobility Spectrometry (HiKE-IMS). Journal of the American Society for Mass Spectrometry, 2020, 31, 1861-1874.	1.2	12
29	Field-Dependent Reduced Ion Mobilities of Positive and Negative Ions in Air and Nitrogen in High Kinetic Energy Ion Mobility Spectrometry (HiKE-IMS). Journal of the American Society for Mass Spectrometry, 2020, 31, 2191-2201.	1.2	12
30	IMS Instrumentation I: Isolated data acquisition for ion mobility spectrometers with grounded ion sources. International Journal for Ion Mobility Spectrometry, 2020, 23, 69-74.	1.4	12
31	High Kinetic Energy Ion Mobility Spectrometry (HiKE-IMS) at 40 mbar. Journal of the American Society for Mass Spectrometry, 2020, 31, 1536-1543.	1.2	12
32	Acetone and perdeuterated acetone in UV-IMS. International Journal for Ion Mobility Spectrometry, 2018, 21, 49-53.	1.4	11
33	Improving the analytical performance of ion mobility spectrometer using a non-radioactive electron source. International Journal for Ion Mobility Spectrometry, 2016, 19, 175-182.	1.4	10
34	Comparison of spatial ion distributions from different ionization sources. International Journal for Ion Mobility Spectrometry, 2019, 22, 21-29.	1.4	10
35	Compact and Sensitive Dual Drift Tube Ion Mobility Spectrometer with a New Dual Field Switching Ion Shutter for Simultaneous Detection of Both Ion Polarities. Analytical Chemistry, 2020, 92, 11834-11841.	3.2	10
36	Coupling of a High-Resolution Ambient Pressure Drift Tube Ion Mobility Spectrometer to a Commercial Time-of-flight Mass Spectrometer. Journal of the American Society for Mass Spectrometry, 2018, 29, 2208-2217.	1.2	9

#	Article	IF	Citations
37	Ion Mobility Shift of Isotopologues in a High Kinetic Energy Ion Mobility Spectrometer (HiKE-IMS) at Elevated Effective Temperatures. Journal of the American Society for Mass Spectrometry, 2020, 31, 2093-2101.	1.2	9
38	Analytical model for the signal-to-noise-ratio of drift tube ion mobility spectrometers. TM Technisches Messen, 2021, 88, 262-273.	0.3	9
39	Formation of positive product ions from substances with low proton affinity in high kinetic energy ion mobility spectrometry. Rapid Communications in Mass Spectrometry, 2021, 35, e8998.	0.7	8
40	Plateâ€heightâ€mass spectrometry: Part 2â€”Peakâ€toâ€peak resolution and peak capacity. Journal of Separation Science, 2021, 44, 2798-2813.	1.3	8
41	Influence of Reduced Field Strength on Product Ion Formation in High Kinetic Energy Ion Mobility Spectrometry (HiKE-IMS). Journal of the American Society for Mass Spectrometry, 2021, 32, 1810-1820.	1.2	7
42	A Simple Printed Circuit Boardâ€“Based Ion Funnel for Focusing Low m/z Ratio Ions with High Kinetic Energies at Elevated Pressure. Journal of the American Society for Mass Spectrometry, 2019, 30, 1813-1823.	1.2	6
43	Enhanced Resolving Power by Moving Field Ion Mobility Spectrometry. Analytical Chemistry, 2020, 92, 12967-12974.	3.2	6
44	Electron capture detector based on a non-radioactive electron source: operating parameters vs.Âanalytical performance. Journal of Sensors and Sensor Systems, 2017, 6, 381-387.	0.6	6
45	Miniaturized Drift Tube Ion Mobility Spectrometer with Ultra-Fast Polarity Switching. Analytical Chemistry, 2022, 94, 777-786.	3.2	6
46	A sensitive gas chromatography detector based on atmospheric pressure chemical ionization by a dielectric barrier discharge. Journal of Chromatography A, 2017, 1483, 120-126.	1.8	4
47	Simulation of Cluster Dynamics of Proton-Bound Water Clusters in a High Kinetic Energy Ion-Mobility Spectrometer. Journal of the American Society for Mass Spectrometry, 2021, 32, 2436-2450.	1.2	4
48	Influence of Sample Gas Humidity on Product Ion Formation in High Kinetic Energy Ion Mobility Spectrometry (HiKE-IMS). Journal of the American Society for Mass Spectrometry, 0, , .	1.2	4
49	Ultrasensitive Ion Source for Drift Tube Ion Mobility Spectrometers Combining Optimized Sample Gas Flow with Both Chemical Ionization and Direct Ionization. Analytical Chemistry, 2022, 94, 9960-9969.	3.2	4
50	Transient simulation of moving ion clouds in time-of-flight ion mobility spectrometers operating with DC and AC fields. International Journal for Ion Mobility Spectrometry, 2015, 18, 107-115.	1.4	3
51	Electron Capture Detector with Non-Radioactive Electron Source. Proceedings (mdpi), 2017, 1, 443.	0.2	3
52	Non-radioactive electron source with nanosecond pulse modulation for atmospheric pressure chemical ionization. Review of Scientific Instruments, 2019, 90, 113306.	0.6	3
53	Pulsed electron source for atmospheric pressure chemical ionization in ion mobility spectrometry. , 2017, , .		1
54	A simple centripetal force model for explaining the focusing effect of ion funnels. International Journal of Mass Spectrometry, 2018, 432, 14-17.	0.7	1