

Abraham K Badu-Tawiah

List of Publications by Year in descending order

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62
papers

2,346
citations

185998

28
h-index

214527

47
g-index

65
all docs

65
docs citations

65
times ranked

2046
citing authors

#	ARTICLE	IF	CITATIONS
1	Accelerated Carbon-Carbon Bond-Forming Reactions in Preparative Electrospray. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 11832-11835.	7.2	186
2	Mass spectrometry imaging reveals the sub-organ distribution of carbon nanomaterials. <i>Nature Nanotechnology</i> , 2015, 10, 176-182.	15.6	164
3	Direct Biofluid Analysis Using Hydrophobic Paper Spray Mass Spectrometry. <i>Analytical Chemistry</i> , 2016, 88, 1878-1884.	3.2	131
4	Mass Spectrometry for Paper-Based Immunoassays: Toward On-Demand Diagnosis. <i>Journal of the American Chemical Society</i> , 2016, 138, 6356-6359.	6.6	109
5	Chemical Aspects of the Extractive Methods of Ambient Ionization Mass Spectrometry. <i>Annual Review of Physical Chemistry</i> , 2013, 64, 481-505.	4.8	107
6	Polymerization-based signal amplification for paper-based immunoassays. <i>Lab on A Chip</i> , 2015, 15, 655-659.	3.1	98
7	Accelerated C-N Bond Formation in Dropcast Thin Films on Ambient Surfaces. <i>Journal of the American Society for Mass Spectrometry</i> , 2012, 23, 1461-1468.	1.2	96
8	Picomole-Scale Real-Time Photoreaction Screening: Discovery of the Visible-Light-Promoted Dehydrogenation of Tetrahydroquinolines under Ambient Conditions. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 9345-9349.	7.2	93
9	Ambient Ion Soft Landing. <i>Analytical Chemistry</i> , 2011, 83, 2648-2654.	3.2	77
10	Reactions of Microsolvated Organic Compounds at Ambient Surfaces: Droplet Velocity, Charge State, and Solvent Effects. <i>Journal of the American Society for Mass Spectrometry</i> , 2012, 23, 1077-1084.	1.2	72
11	Non-aqueous spray solvents and solubility effects in desorption electrospray ionization. <i>Journal of the American Society for Mass Spectrometry</i> , 2010, 21, 572-579.	1.2	70
12	2D wax-printed paper substrates with extended solvent supply capabilities allow enhanced ion signal in paper spray ionization. <i>Analyst, The</i> , 2016, 141, 3866-3873.	1.7	69
13	Emerging trends in paper spray mass spectrometry: Microsampling, storage, direct analysis, and applications. <i>Mass Spectrometry Reviews</i> , 2020, 39, 336-370.	2.8	61
14	Analysis of Polycyclic Aromatic Hydrocarbons Using Desorption Atmospheric Pressure Chemical Ionization Coupled to a Portable Mass Spectrometer. <i>Journal of the American Society for Mass Spectrometry</i> , 2015, 26, 271-280.	1.2	57
15	Thread spray mass spectrometry for direct analysis of capsaicinoids in pepper products. <i>Analytica Chimica Acta</i> , 2018, 1023, 81-88.	2.6	49
16	Applications of Mass Spectrometry for Clinical Diagnostics: The Influence of Turnaround Time. <i>Analytical Chemistry</i> , 2020, 92, 183-202.	3.2	46
17	Screening and Quantification of Aliphatic Primary Alkyl Corrosion Inhibitor Amines in Water Samples by Paper Spray Mass Spectrometry. <i>Analytical Chemistry</i> , 2016, 88, 1391-1400.	3.2	45
18	In situ analysis of corrosion inhibitors using a portable mass spectrometer with paper spray ionization. <i>Analyst, The</i> , 2013, 138, 3740.	1.7	40

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19	Peptide Cross-Linking at Ambient Surfaces by Reactions of Nanosprayed Molecular Cations. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 9417-9421.	7.2	38
20	Enhanced ion signals in desorption electrospray ionization using surfactant spray solutions. <i>Journal of the American Society for Mass Spectrometry</i> , 2010, 21, 1423-1431.	1.2	37
21	Reactions of Organic Ions at Ambient Surfaces in a Solvent-Free Environment. <i>Journal of the American Society for Mass Spectrometry</i> , 2012, 23, 842-849.	1.2	36
22	Reactive Charged Droplets for Reduction of Matrix Effects in Electrospray Ionization Mass Spectrometry. <i>Analytical Chemistry</i> , 2015, 87, 10988-10994.	3.2	32
23	Dried Blood Spheroids for Dry-State Room Temperature Stabilization of Microliter Blood Samples. <i>Analytical Chemistry</i> , 2018, 90, 9353-9358.	3.2	32
24	Picomole-Scale Real-Time Photoreaction Screening: Discovery of the Visible-Light-Promoted Dehydrogenation of Tetrahydroquinolines under Ambient Conditions. <i>Angewandte Chemie</i> , 2016, 128, 9491-9495.	1.6	31
25	Direct Analysis and Quantification of Metaldehyde in Water using Reactive Paper Spray Mass Spectrometry. <i>Scientific Reports</i> , 2016, 6, 35643.	1.6	31
26	An integrated mass spectrometry platform enables picomole-scale real-time electrosynthetic reaction screening and discovery. <i>Chemical Science</i> , 2018, 9, 5724-5729.	3.7	31
27	Direct Analysis of Doping Agents in Raw Urine Using Hydrophobic Paper Spray Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2020, 31, 1212-1222.	1.2	31
28	Droplet Imbibition Enables Nonequilibrium Interfacial Reactions in Charged Microdroplets. <i>Langmuir</i> , 2019, 35, 14451-14457.	1.6	28
29	Microsampling with cotton thread: Storage and ultra-sensitive analysis by thread spray mass Spectrometry. <i>Analytica Chimica Acta</i> , 2019, 1082, 98-105.	2.6	27
30	Direct Mass Spectrometry Analysis of Complex Mixtures by Nanoelectrospray with Simultaneous Atmospheric Pressure Chemical Ionization and Electrophoretic Separation Capabilities. <i>Analytical Chemistry</i> , 2019, 91, 11562-11568.	3.2	27
31	An integrated electrocatalytic nESI-MS platform for quantification of fatty acid isomers directly from untreated biofluids. <i>Chemical Science</i> , 2020, 11, 9891-9897.	3.7	26
32	Electrospray soft-landing for the construction of non-covalent molecular nanostructures using charged droplets under ambient conditions. <i>Chemical Communications</i> , 2016, 52, 13660-13663.	2.2	19
33	Re-configurable, multi-mode contained-electrospray ionization for protein folding and unfolding on the millisecond time scale. <i>Analyst, The</i> , 2017, 142, 2152-2160.	1.7	19
34	Rapid Scotch Whisky Analysis and Authentication using Desorption Atmospheric Pressure Chemical Ionisation Mass Spectrometry. <i>Scientific Reports</i> , 2019, 9, 7994.	1.6	19
35	Reactive Olfaction Ambient Mass Spectrometry. <i>Analytical Chemistry</i> , 2019, 91, 6790-6799.	3.2	18
36	Direct differentiation of whole blood for forensic serology analysis by thread spray mass spectrometry. <i>Analyst, The</i> , 2020, 145, 5615-5623.	1.7	15

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37	Enzyme-Catalyzed Hydrolysis of Lipids in Immiscible Microdroplets Studied by Contained-Electrospray Ionization. <i>Analytical Chemistry</i> , 2021, 93, 13001-13007.	3.2	15
38	In-Source Microdroplet Derivatization Using Coaxial Contained-Electrospray Mass Spectrometry for Enhanced Sensitivity in Saccharide Analysis. <i>Analytical Chemistry</i> , 2021, 93, 16779-16786.	3.2	15
39	In Situ Bioconjugation and Ambient Surface Modification Using Reactive Charged Droplets. <i>Analytical Chemistry</i> , 2015, 87, 3144-3148.	3.2	14
40	Novel manufacturing method for producing apohemoglobin and its biophysical properties. <i>Biotechnology and Bioengineering</i> , 2020, 117, 125-145.	1.7	14
41	Monoacylation of Symmetrical Diamines in Charge Microdroplets. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 531-536.	1.2	14
42	Analysis and modification of surfaces using molecular ions in the ambient environment. <i>Current Opinion in Chemical Biology</i> , 2011, 15, 741-747.	2.8	12
43	Analysis of non-conjugated steroids in water using paper spray mass spectrometry. <i>Scientific Reports</i> , 2020, 10, 10698.	1.6	12
44	Microsampling with a Solid-Phase Extraction Cartridge: Storage and Online Mass Spectrometry Analysis. <i>Analytical Chemistry</i> , 2021, 93, 13632-13640.	3.2	12
45	Direct and Efficient Dehydrogenation of Tetrahydroquinolines and Primary Amines Using Corona Discharge Generated on Ambient Hydrophobic Paper Substrate. <i>Journal of the American Society for Mass Spectrometry</i> , 2017, 28, 647-654.	1.2	11
46	Accelerated nucleophilic substitution reactions of dansyl chloride with aniline under ambient conditions via dual-tip reactive paper spray. <i>Scientific Reports</i> , 2020, 10, 21504.	1.6	11
47	Reactive Thread Spray Mass Spectrometry for Localization of C=C Bonds in Free Fatty Acids: Applications for Obesity Diagnosis. <i>Analytical Chemistry</i> , 2022, 94, 2358-2365.	3.2	10
48	N-Substituted Auxiliaries for Aerobic Dehydrogenation of Tetrahydro-isoquinoline: A Theory-Guided Photo-Catalytic Design. <i>Scientific Reports</i> , 2019, 9, 11280.	1.6	9
49	Embossed Paper Platform for Whole Blood Collection, Room Temperature Storage, and Direct Analysis by Pinhole Paper Spray Mass Spectrometry. <i>Analytical Chemistry</i> , 2022, 94, 4417-4425.	3.2	9
50	Automated Immunoassay Performed on a 3D Microfluidic Paper-Based Device for Malaria Detection by Ambient Mass Spectrometry. <i>Analytical Chemistry</i> , 2022, 94, 5132-5139.	3.2	9
51	Determining Surface Energy of Porous Substrates by Spray Ionization. <i>Langmuir</i> , 2019, 35, 13853-13859.	1.6	8
52	High-Throughput Mass Spectrometry Screening Platform for Discovering New Chemical Reactions under Uncatalyzed, Solvent-Free Experimental Conditions. <i>Analytical Chemistry</i> , 2020, 92, 15025-15033.	3.2	8
53	Protective mechanism of dried blood spheroids: stabilization of labile analytes in whole blood, plasma, and serum. <i>Analyst</i> , 2021, 146, 6780-6787.	1.7	8
54	Uncatalyzed N-Alkylation of Amines in Ionic Wind from Ambient Corona Discharge. <i>Analytical Chemistry</i> , 2021, 93, 2440-2448.	3.2	8

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55	Spray Mechanism of Contained-Electrospray Ionization. <i>Journal of the American Society for Mass Spectrometry</i> , 2020, 31, 1499-1508.	1.2	7
56	Clinical Chemistry for Developing Countries: Mass Spectrometry. <i>Annual Review of Analytical Chemistry</i> , 2021, 14, 437-465.	2.8	6
57	Enhanced thread spray mass spectrometry: a general method for direct pesticide analysis in various complex matrices. <i>Analyst, The</i> , 2021, 146, 5592-5600.	1.7	4
58	A proof-of-concept, two-tiered approach for ricin detection using ambient mass spectrometry. <i>RSC Advances</i> , 2020, 10, 17045-17049.	1.7	3
59	Dehydration of gas-phase benzyl amine alcohols studied at atmospheric pressure. <i>International Journal of Mass Spectrometry</i> , 2022, 476, 116836.	0.7	3
60	The Effect of the Physical Morphology of Dried Biofluids on the Chemical Stability of Analytes Stored in Paper and Direct Analysis by Mass Spectrometry. <i>Analytical Chemistry</i> , 2022, 94, 9618-9626.	3.2	3
61	InnenrÄ¼cktitelbild: Accelerated CarboniCarbon Bond-Forming Reactions in Preparative Electrospray (Angew. Chem. 47/2012). <i>Angewandte Chemie</i> , 2012, 124, 12075-12075.	1.6	1
62	Front Cover Image, Volume 117, Number 1, January 2020. <i>Biotechnology and Bioengineering</i> , 2020, 117, i.	1.7	0