

# Rabi Ann Musah

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

60  
papers

1,097  
citations

20  
h-index

31  
g-index

64  
ext. papers

1,281  
ext. citations

4.2  
avg, IF

4.82  
L-index

#	Paper	IF	Citations
60	Rapid identification of synthetic cannabinoids in herbal samples via direct analysis in real time mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , <b>2012</b> , 26, 1109-14	2.2	86
59	Applications of direct analysis in real time-mass spectrometry (DART-MS) in Allium chemistry. (Z)-butanethial S-oxide and 1-butenyl thiosulfinates and their S-(E)-1-butenylcysteine S-oxide precursor from Allium sicutum. <i>Journal of Agricultural and Food Chemistry</i> , <b>2010</b> , 58, 1121-8	5.7	77
58	Direct analysis in real time mass spectrometry (DART-MS) of "bath salt" cathinone drug mixtures. <i>Analyst, The</i> , <b>2013</b> , 138, 3424-32	5	59
57	Direct analysis in real time mass spectrometry for analysis of sexual assault evidence. <i>Rapid Communications in Mass Spectrometry</i> , <b>2012</b> , 26, 1039-46	2.2	56
56	Direct analysis in real time mass spectrometry with collision-induced dissociation for structural analysis of synthetic cannabinoids. <i>Rapid Communications in Mass Spectrometry</i> , <b>2012</b> , 26, 2335-42	2.2	55
55	Cysteine sulfoxide derivatives in Petiveria alliacea. <i>Phytochemistry</i> , <b>2001</b> , 58, 981-5	4	52
54	The HIV-1 nucleocapsid zinc finger protein as a target of antiretroviral therapy. <i>Current Topics in Medicinal Chemistry</i> , <b>2004</b> , 4, 1605-22	3	45
53	Plant seed species identification from chemical fingerprints: a high-throughput application of direct analysis in real time mass spectrometry. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 8748-57	7.8	44
52	A High Throughput Ambient Mass Spectrometric Approach to Species Identification and Classification from Chemical Fingerprint Signatures. <i>Scientific Reports</i> , <b>2015</b> , 5, 11520	4.9	43
51	Rapid detection by direct analysis in real time-mass spectrometry (DART-MS) of psychoactive plant drugs of abuse: the case of Mitragyna speciosa aka "Kratom". <i>Forensic Science International</i> , <b>2014</b> , 242, 210-218	2.6	42
50	S-Substituted cysteine derivatives and thiosulfinate formation in Petiveria alliacea-part II. <i>Phytochemistry</i> , <b>2002</b> , 61, 675-80	4	42
49	Development of "Laser Ablation Direct Analysis in Real Time Imaging" Mass Spectrometry: Application to Spatial Distribution Mapping of Metabolites Along the Biosynthetic Cascade Leading to Synthesis of Atropine and Scopolamine in Plant Tissue. <i>Analytical Chemistry</i> , <b>2017</b> , 89, 3421-3429	7.8	36
48	DART-MS in-source collision induced dissociation and high mass accuracy for new psychoactive substance determinations. <i>Forensic Science International</i> , <b>2014</b> , 244, 42-9	2.6	35
47	The lachrymatory principle of Petiveria alliacea. <i>Phytochemistry</i> , <b>2003</b> , 63, 37-40	4	30
46	Application of ambient ionization high resolution mass spectrometry to determination of the botanical provenance of the constituents of psychoactive drug mixtures. <i>Forensic Science International</i> , <b>2016</b> , 266, 271-280	2.6	25
45	Chemical Inhibition of Kynureninase Reduces Pseudomonas aeruginosa Quorum Sensing and Virulence Factor Expression. <i>ACS Chemical Biology</i> , <b>2016</b> , 11, 1106-17	4.9	24
44	Detection of the spermicide nonoxynol-9 via GC-MS. <i>Journal of the American Society for Mass Spectrometry</i> , <b>2012</b> , 23, 996-9	3.5	24

43	Direct analysis in real time high resolution mass spectrometry as a tool for rapid characterization of mind-altering plant materials and revelation of supplement adulteration--The case of Kanna. <i>Forensic Science International</i> , <b>2016</b> , 260, 66-73	2.6	22
42	A chemometric strategy for forensic analysis of condom residues: Identification and marker profiling of condom brands from direct analysis in real time-high resolution mass spectrometric chemical signatures. <i>Talanta</i> , <b>2019</b> , 194, 563-575	6.2	22
41	Discovery and characterization of a novel lachrymatory factor synthase in <i>Petiveria alliacea</i> and its influence on alliinase-mediated formation of biologically active organosulfur compounds. <i>Plant Physiology</i> , <b>2009</b> , 151, 1294-303	6.6	21
40	Species Identification of Necrophagous Insect Eggs Based on Amino Acid Profile Differences Revealed by Direct Analysis in Real Time-High Resolution Mass Spectrometry. <i>Analytical Chemistry</i> , <b>2017</b> , 89, 7719-7726	7.8	20
39	Identification and classification of cathinone unknowns by statistical analysis processing of direct analysis in real time-high resolution mass spectrometry-derived "neutral loss" spectra. <i>Talanta</i> , <b>2018</b> , 179, 546-553	6.2	20
38	A validated method for the quantification of mitragynine in sixteen commercially available Kratom ( <i>Mitragyna speciosa</i> ) products. <i>Forensic Science International</i> , <b>2019</b> , 299, 195-202	2.6	18
37	Direct Analysis in Real Time-Mass Spectrometry and Kohonen Artificial Neural Networks for Species Identification of Larva, Pupa and Adult Life Stages of Carrion Insects. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 9206-9217 <sup>15</sup>	7.8	15
36	Rapid Species-level Identification of <i>Salvias</i> by Chemometric Processing of Ambient Ionisation Mass Spectrometry-derived Chemical Profiles. <i>Phytochemical Analysis</i> , <b>2017</b> , 28, 16-26	3.4	13
35	"Carboranyl-cysteine"-Synthesis, Structure and Self-Assembly Behavior of a Novel $\alpha$ -Amino Acid. <i>Scientific Reports</i> , <b>2017</b> , 7, 16995	4.9	12
34	Studies of a novel cysteine sulfoxide lyase from <i>Petiveria alliacea</i> : the first heteromeric alliinase. <i>Plant Physiology</i> , <b>2009</b> , 151, 1304-16	6.6	12
33	Simultaneous imaging of latent fingerprints and detection of analytes of forensic relevance by laser ablation direct analysis in real time imaging-mass spectrometry (LADI-MS). <i>Forensic Chemistry</i> , <b>2019</b> , 15, 100173	2.8	11
32	First insights into the mode of action of a "lachrymatory factor synthase"--implications for the mechanism of lachrymator formation in <i>Petiveria alliacea</i> , <i>Allium cepa</i> and <i>Nectaroscordum</i> species. <i>Phytochemistry</i> , <b>2011</b> , 72, 1939-46	4	11
31	Mechanosensitivity below Ground: Touch-Sensitive Smell-Producing Roots in the Shy Plant <i>Mimosa pudica</i> . <i>Plant Physiology</i> , <b>2016</b> , 170, 1075-89	6.6	10
30	Call it a "nightshade"-A hierarchical classification approach to identification of hallucinogenic <i>Solanaceae</i> spp. using DART-HRMS-derived chemical signatures. <i>Talanta</i> , <b>2019</b> , 204, 739-746	6.2	9
29	Identification of the Species Constituents of Maggot Populations Feeding on Decomposing Remains-Facilitation of the Determination of Post Mortem Interval and Time Since Tissue Infestation through Application of Machine Learning and Direct Analysis in Real Time-Mass Spectrometry. <i>Analytical Chemistry</i> , <b>2020</b> , 92, 5439-5446	7.8	9
28	Spatial distributions of furan and 5-hydroxymethylfurfural in unroasted and roasted <i>Coffea arabica</i> beans. <i>Food Research International</i> , <b>2019</b> , 119, 725-732	7	9
27	More than just heat: ambient ionization mass spectrometry for determination of the species of origin of processed commercial products--application to psychoactive pepper supplements. <i>Analytical Methods</i> , <b>2016</b> , 8, 1646-1658	3.2	8
26	Impact on Glioblastoma U87 Cell Gene Expression of a Carborane Cluster-Bearing Amino Acid: Implications for Carborane Toxicity in Mammalian Cells. <i>ACS Chemical Neuroscience</i> , <b>2019</b> , 10, 1524-1534 <sup>5.7</sup>	5.7	8

25	An Efficient Ambient Ionization Mass Spectrometric Approach to Detection and Quantification of the Mescaline Content of Commonly Abused Cacti from the Echinopsis Genus. <i>Journal of Forensic Sciences</i> , <b>2020</b> , 65, 61-66	1.8	8
24	Antibacterial and Antifungal Activity of Sulfur-Containing Compounds from <i>Petiveria Alliacea</i> L.. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , <b>2005</b> , 180, 1455-1456	1	7
23	Random Forest Processing of Direct Analysis in Real-Time Mass Spectrometric Data Enables Species Identification of Psychoactive Plants from Their Headspace Chemical Signatures. <i>ACS Omega</i> , <b>2019</b> , 4, 15636-15644	3.9	6
22	Theoretical Studies of the Gas-Phase Reactions of <i>N</i> -Methyl Methanesulfinothioate (Dimethyl Thiosulfinate) with OH and Cl Radicals: Reaction Mechanisms, Energetics, and Kinetics. <i>Journal of Physical Chemistry A</i> , <b>2019</b> , 123, 8448-8459	2.8	6
21	Evaluation of the Potential of 2-Amino-3-(1,7-dicarba-closo-dodecaboranyl-1-thio)propanoic Acid as a Boron Neutron Capture Therapy Agent. <i>ACS Omega</i> , <b>2019</b> , 4, 3820-3826	3.9	6
20	Rapid High-throughput Species Identification of Botanical Material Using Direct Analysis in Real Time High Resolution Mass Spectrometry. <i>Journal of Visualized Experiments</i> , <b>2016</b> ,	1.6	6
19	Reaction mechanism, energetics, and kinetics of the water-assisted thioformaldehyde + OH reaction and the fate of its product radical under tropospheric conditions. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 10027-10042	3.6	5
18	A Rapid, High-Throughput Validated Method for the Quantification of Atropine in <i>Datura stramonium</i> Seeds Using Direct Analysis in Real Time-High Resolution Mass Spectrometry (DART-HRMS). <i>Methods in Molecular Biology</i> , <b>2018</b> , 1810, 207-215	1.4	5
17	Rapid detection and validated quantification of psychoactive compounds in complex plant matrices by direct analysis in real time-high resolution mass spectrometry - Application to "Kava" psychoactive pepper products. <i>Rapid Communications in Mass Spectrometry</i> , <b>2019</b> , 33, 1915-1925	2.2	3
16	Detection and Quantification of Psychoactive <i>N,N</i> -Dimethyltryptamine in Ayahuasca Brews by Ambient Ionization High-Resolution Mass Spectrometry. <i>ACS Omega</i> , <b>2020</b> , 5, 28547-28554	3.9	3
15	Computational Study Investigating the Atmospheric Oxidation Mechanism and Kinetics of Dipropyl Thiosulfinate Initiated by OH Radicals and the Fate of Propanethiyl Radical. <i>Journal of Physical Chemistry A</i> , <b>2020</b> , 124, 8292-8304	2.8	3
14	Detection of Diagnostic Plant-Derived Psychoactive Biomarkers in Fingerprints by MALDI-SpiralTOF-Mass Spectrometry Imaging. <i>Methods in Molecular Biology</i> , <b>2018</b> , 1810, 125-132	1.4	2
13	Application of Direct Analysis in Real Time-High Resolution Mass Spectrometry to Investigations of Induced Plant Chemical Defense Mechanisms-Revelation of Negative Feedback Inhibition of an Alliinase. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 12802-12809	7.8	2
12	Multidimensional high-resolution NMR structural characterization of a carborane cluster derivative: The case of 2-amino-3-(1,7-dicarba-closo-dodecaboranyl-1-thio)propanoic acid. <i>Polyhedron</i> , <b>2019</b> , 163, 171-177	2.7	1
11	Characterization of the Volatile Profiles of the Eggs of Forensically Relevant <i>Lucilia sericata</i> and <i>Phormia regina</i> (Diptera: Calliphoridae) Blow Flies by SPME-Facilitated GC-MS. <i>Journal of Medical Entomology</i> , <b>2020</b> , 57, 994-1005	2.2	1
10	Quantification of hordenine in a complex plant matrix by direct analysis in real time-high-resolution mass spectrometry: Application to the "plant of concern" <i>Sceletium tortuosum</i> . <i>Drug Testing and Analysis</i> , <b>2021</b> ,	3.5	1
9	DART-HRMS as a triage approach for the rapid analysis of cannabinoid-infused edible matrices, personal-care products and <i>Cannabis sativa</i> hemp plant material. <i>Forensic Chemistry</i> , <b>2022</b> , 27, 100382	2.8	1
8	Coral Genus Differentiation Based on Direct Analysis in Real Time-High Resolution Mass Spectrometry-Derived Chemical Fingerprints. <i>Analytical Chemistry</i> , <b>2021</b> , 93, 15306-15314	7.8	1

7	Atmospheric Oxidation of Propanesulfinic Acid Initiated by OH Radicals: Reaction Mechanism, Energetics, Rate Coefficients, and Atmospheric Implications. <i>ACS Earth and Space Chemistry</i> , <b>2021</b> , 5, 1498-1510	3.2	1
6	Catalytic effect of water and formic acid on the reaction of carbonyl sulfide with dimethyl amine under tropospheric conditions. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 8752-8766	3.6	1
5	Utilizing Direct Analysis in Real Time-High Resolution Mass Spectrometry-Derived Dark Matter Spectra to Classify and Identify Unknown Synthetic Cathinones. <i>Methods in Molecular Biology</i> , <b>2018</b> , 1810, 217-225	1.4	0
4	MALDI-mass spectrometry imaging for touch chemistry biometric analysis: Establishment of exposure to nitroaromatic explosives through chemical imaging of latent fingerprints. <i>Forensic Chemistry</i> , <b>2020</b> , 20, 100269	2.8	0
3	Workflow for the Supervised Learning of Chemical Data: Efficient Data Reduction-Multivariate Curve Resolution (EDR-MCR). <i>Analytical Chemistry</i> , <b>2021</b> , 93, 5020-5027	7.8	0
2	Revealing the presence of tryptamine new psychoactive substances using fused "neutral loss" spectra derived from DART high-resolution mass spectra.. <i>Talanta</i> , <b>2022</b> , 246, 123417	6.2	
1	Two-Dimensional Gas Chromatographic and Mass Spectrometric Characterization of Lipid-Rich Biological Matrices-Application to Human Cerumen (Earwax).. <i>ACS Omega</i> , <b>2022</b> , 7, 230-239	3.9	