Rabi Ann Musah

List of Publications by Year in Descending Order

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	DART-HRMS as a triage approach for the rapid analysis of cannabinoid-infused edible matrices, personal-care products and Cannabis sativa hemp plant material. *Forensic Chemistry*, **2022**, 27, 100382	2.8	1
59	Revealing the presence of tryptamine new psychoactive substances using fused "neutral loss" spectra derived from DART high-resolution mass spectra.. *Talanta*, **2022**, 246, 123417	6.2	
58	Two-Dimensional Gas Chromatographic and Mass Spectrometric Characterization of Lipid-Rich Biological Matrices-Application to Human Cerumen (Earwax).. *ACS Omega*, **2022**, 7, 230-239	3.9	
57	Quantification of hordenine in a complex plant matrix by direct analysis in real time-high-resolution mass spectrometry: Application to the "plant of concern" Sceletium tortuosum. *Drug Testing and Analysis*, **2021**,	3.5	1
56	Coral Genus Differentiation Based on Direct Analysis in Real Time-High Resolution Mass Spectrometry-Derived Chemical Fingerprints. *Analytical Chemistry*, **2021**, 93, 15306-15314	7.8	1
55	Workflow for the Supervised Learning of Chemical Data: Efficient Data Reduction-Multivariate Curve Resolution (EDR-MCR). *Analytical Chemistry*, **2021**, 93, 5020-5027	7.8	0
54	Atmospheric Oxidation of Propanesulfinic Acid Initiated by OH Radicals: Reaction Mechanism, Energetics, Rate Coefficients, and Atmospheric Implications. *ACS Earth and Space Chemistry*, **2021**, 5, 1498-1510	3.2	1
53	Catalytic effect of water and formic acid on the reaction of carbonyl sulfide with dimethyl amine under tropospheric conditions. *Physical Chemistry Chemical Physics*, **2021**, 23, 8752-8766	3.6	1
52	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	7.8	9
51	Characterization of the VolatilesTProfiles of the Eggs of Forensically Relevant Lucilia sericata and Phormia regina (Diptera: Calliphoridae) Blow Flies by SPME-Facilitated GC-MS. *Journal of Medical Entomology*, **2020**, 57, 994-1005	2.2	1
50	Reaction mechanism, energetics, and kinetics of the water-assisted thioformaldehyde + ⍰H reaction and the fate of its product radical under tropospheric conditions. *Physical Chemistry Chemical Physics*, **2020**, 22, 10027-10042	3.6	5
49	MALDI-mass spectrometry imaging for touch chemistry biometric analysis: Establishment of exposure to nitroaromatic explosives through chemical imaging of latent fingermarks. *Forensic Chemistry*, **2020**, 20, 100269	2.8	0
48	Detection and Quantification of Psychoactive ,-Dimethyltryptamine in Ayahuasca Brews by Ambient Ionization High-Resolution Mass Spectrometry. *ACS Omega*, **2020**, 5, 28547-28554	3.9	3
47	Computational Study Investigating the Atmospheric Oxidation Mechanism and Kinetics of Dipropyl Thiosulfinate Initiated by OH Radicals and the Fate of Propanethiyl Radical. *Journal of Physical Chemistry A*, **2020**, 124, 8292-8304	2.8	3
46	An Efficient Ambient Ionization Mass Spectrometric Approach to Detection and Quantification of the Mescaline Content of Commonly Abused Cacti from the Echinopsis Genus. *Journal of Forensic Sciences*, **2020**, 65, 61-66	1.8	8
45	Random Forest Processing of Direct Analysis in Real-Time Mass Spectrometric Data Enables Species Identification of Psychoactive Plants from Their Headspace Chemical Signatures. *ACS Omega*, **2019**, 4, 15636-15644	3.9	6
44	Theoretical Studies of the Gas-Phase Reactions of -Methyl Methanesulfinothioate (Dimethyl Thiosulfinate) with OH and Cl Radicals: Reaction Mechanisms, Energetics, and Kinetics. *Journal of Physical Chemistry A*, **2019**, 123, 8448-8459	2.8	6

43	Call it a "nightshade"-A hierarchical classification approach to identification of hallucinogenic Solanaceae spp. using DART-HRMS-derived chemical signatures. *Talanta*, **2019**, 204, 739-746	6.2	9
42	A validated method for the quantification of mitragynine in sixteen commercially available Kratom (Mitragyna speciosa) products. *Forensic Science International*, **2019**, 299, 195-202	2.6	18
41	Evaluation of the Potential of 2-Amino-3-(1,7-dicarba-closo-dodecaboranyl-1-thio)propanoic Acid as a Boron Neutron Capture Therapy Agent. *ACS Omega*, **2019**, 4, 3820-3826	3.9	6
40	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. *Polyhedron*, **2019**, 163, 171-177	2.7	1
39	Simultaneous imaging of latent fingermarks and detection of analytes of forensic relevance by laser ablation direct analysis in real time imaging-mass spectrometry (LADI-MS). *Forensic Chemistry*, **2019**, 15, 100173	2.8	11
38	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. *Rapid Communications in Mass Spectrometry*, **2019**, 33, 1915-1925	2.2	3
37	Impact on Glioblastoma U87 Cell Gene Expression of a Carborane Cluster-Bearing Amino Acid: Implications for Carborane Toxicity in Mammalian Cells. *ACS Chemical Neuroscience*, **2019**, 10, 1524-1534	5.7	8
36	Spatial distributions of furan and 5-hydroxymethylfurfural in unroasted and roasted Coffea arabica beans. *Food Research International*, **2019**, 119, 725-732	7	9
35	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. *Talanta*, **2019**, 194, 563-575	6.2	22
34	Identification and classification of cathinone unknowns by statistical analysis processing of direct analysis in real time-high resolution mass spectrometry-derived "neutral loss" spectra. *Talanta*, **2018**, 179, 546-553	6.2	20
33	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. *Analytical Chemistry*, **2018**, 90, 9206-9217	7.8	15
32	A Rapid, High-Throughput Validated Method for the Quantification of Atropine in Datura stramonium Seeds Using Direct Analysis in Real Time-High Resolution Mass Spectrometry (DART-HRMS). *Methods in Molecular Biology*, **2018**, 1810, 207-215	1.4	5
31	Detection of Diagnostic Plant-Derived Psychoactive Biomarkers in Fingerprints by MALDI-SpiralTOF-Mass Spectrometry Imaging. *Methods in Molecular Biology*, **2018**, 1810, 125-132	1.4	2
30	Utilizing Direct Analysis in Real Time-High Resolution Mass Spectrometry-Derived Dark Matter Spectra to Classify and Identify Unknown Synthetic Cathinones. *Methods in Molecular Biology*, **2018**, 1810, 217-225	1.4	0
29	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. *Analytical Chemistry*, **2018**, 90, 12802-12809	7.8	2
28	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. *Analytical Chemistry*, **2017**, 89, 3421-3429	7.8	36
27	Species Identification of Necrophagous Insect Eggs Based on Amino Acid Profile Differences Revealed by Direct Analysis in Real Time-High Resolution Mass Spectrometry. *Analytical Chemistry*, **2017**, 89, 7719-7726	7.8	20
26	Rapid Species-level Identification of Salvias by Chemometric Processing of Ambient Ionisation Mass Spectrometry-derived Chemical Profiles. *Phytochemical Analysis*, **2017**, 28, 16-26	3.4	13

25	"Carboranyl-cysteine"-Synthesis, Structure and Self-Assembly Behavior of a Novel Amino Acid. *Scientific Reports*, **2017**, 7, 16995	4.9	12
24	Rapid High-throughput Species Identification of Botanical Material Using Direct Analysis in Real Time High Resolution Mass Spectrometry. *Journal of Visualized Experiments*, **2016**,	1.6	6
23	Application of ambient ionization high resolution mass spectrometry to determination of the botanical provenance of the constituents of psychoactive drug mixtures. *Forensic Science International*, **2016**, 266, 271-280	2.6	25
22	Chemical Inhibition of Kynureninase Reduces Pseudomonas aeruginosa Quorum Sensing and Virulence Factor Expression. *ACS Chemical Biology*, **2016**, 11, 1106-17	4.9	24
21	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. *Forensic Science International*, **2016**, 260, 66-73	2.6	22
20	Mechanosensitivity below Ground: Touch-Sensitive Smell-Producing Roots in the Shy Plant Mimosa pudica. *Plant Physiology*, **2016**, 170, 1075-89	6.6	10
19	More than just heat: ambient ionization mass spectrometry for determination of the species of origin of processed commercial products application to psychoactive pepper supplements. *Analytical Methods*, **2016**, 8, 1646-1658	3.2	8
18	A High Throughput Ambient Mass Spectrometric Approach to Species Identification and Classification from Chemical Fingerprint Signatures. *Scientific Reports*, **2015**, 5, 11520	4.9	43
17	Plant seed species identification from chemical fingerprints: a high-throughput application of direct analysis in real time mass spectrometry. *Analytical Chemistry*, **2015**, 87, 8748-57	7.8	44
16	DART-MS in-source collision induced dissociation and high mass accuracy for new psychoactive substance determinations. *Forensic Science International*, **2014**, 244, 42-9	2.6	35
15	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". *Forensic Science International*, **2014**, 242, 210-218	2.6	42
14	Direct analysis in real time mass spectrometry (DART-MS) of "bath salt" cathinone drug mixtures. *Analyst, The*, **2013**, 138, 3424-32	5	59
13	Direct analysis in real time mass spectrometry with collision-induced dissociation for structural analysis of synthetic cannabinoids. *Rapid Communications in Mass Spectrometry*, **2012**, 26, 2335-42	2.2	55
12	Direct analysis in real time mass spectrometry for analysis of sexual assault evidence. *Rapid Communications in Mass Spectrometry*, **2012**, 26, 1039-46	2.2	56
11	Rapid identification of synthetic cannabinoids in herbal samples via direct analysis in real time mass spectrometry. *Rapid Communications in Mass Spectrometry*, **2012**, 26, 1109-14	2.2	86
10	Detection of the spermicide nonoxynol-9 via GC-MS. *Journal of the American Society for Mass Spectrometry*, **2012**, 23, 996-9	3.5	24
9	First insights into the mode of action of a "lachrymatory factor synthase"--implications for the mechanism of lachrymator formation in Petiveria alliacea, Allium cepa and Nectaroscordum species. *Phytochemistry*, **2011**, 72, 1939-46	4	11
8	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 siculum. *Journal of Agricultural and Food Chemistry*, **2010**, 58, 1121-8	5.7	77

7	Studies of a novel cysteine sulfoxide lyase from Petiveria alliacea: the first heteromeric alliinase. *Plant Physiology*, **2009**, 151, 1304-16	6.6	12
6	Discovery and characterization of a novel lachrymatory factor synthase in Petiveria alliacea and its influence on alliinase-mediated formation of biologically active organosulfur compounds. *Plant Physiology*, **2009**, 151, 1294-303	6.6	21
5	Antibacterial and Antifungal Activity of Sulfur-Containing Compounds from Petiveria Alliacea L.. *Phosphorus, Sulfur and Silicon and the Related Elements*, **2005**, 180, 1455-1456	1	7
4	The HIV-1 nucleocapsid zinc finger protein as a target of antiretroviral therapy. *Current Topics in Medicinal Chemistry*, **2004**, 4, 1605-22	3	45
3	The lachrymatory principle of Petiveria alliacea. *Phytochemistry*, **2003**, 63, 37-40	4	30
2	S-Substituted cysteine derivatives and thiosulfinate formation in Petiveria alliacea-part II. *Phytochemistry*, **2002**, 61, 675-80	4	42
1	Cysteine sulfoxide derivatives in Petiveria alliacea. *Phytochemistry*, **2001**, 58, 981-5	4	52