

Roland Mumm

List of Publications by Year in descending order

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66
papers

4,771
citations

87888

38
h-index

102487

66
g-index

69
all docs

69
docs citations

69
times ranked

5813
citing authors

#	ARTICLE	IF	CITATIONS
1	Variation in natural plant products and the attraction of bodyguards involved in indirect plant defense. The present review is one in the special series of reviews on animal-plant interactions. Canadian Journal of Zoology, 2010, 88, 628-667.	1.0	275
2	Whiteflies interfere with indirect plant defense against spider mites in Lima bean. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21202-21207.	7.1	247
3	Foraging behavior of egg parasitoids exploiting chemical information. Behavioral Ecology, 2008, 19, 677-689.	2.2	237
4	Diversity of Global Rice Markets and the Science Required for Consumer-Targeted Rice Breeding. PLoS ONE, 2014, 9, e85106.	2.5	229
5	Composition of Human Skin Microbiota Affects Attractiveness to Malaria Mosquitoes. PLoS ONE, 2011, 6, e28991.	2.5	208
6	Direct and indirect chemical defence of pine against folivorous insects. Trends in Plant Science, 2006, 11, 351-358.	8.8	176
7	Diversity and functions of volatile organic compounds produced by Streptomyces from a disease-suppressive soil. Frontiers in Microbiology, 2015, 6, 1081.	3.5	174
8	Improved batch correction in untargeted MS-based metabolomics. Metabolomics, 2016, 12, 88.	3.0	167
9	Jasmonic acid-induced volatiles of Brassica oleracea attract parasitoids: effects of time and dose, and comparison with induction by herbivores. Journal of Experimental Botany, 2009, 60, 2575-2587.	4.8	151
10	The Significance of Background Odour for an Egg Parasitoid to Detect Plants with Host Eggs. Chemical Senses, 2005, 30, 337-343.	2.0	131
11	Significance of terpenoids in induced indirect plant defence against herbivorous arthropods. Plant, Cell and Environment, 2008, 31, 575-585.	5.7	131
12	Isoprene interferes with the attraction of bodyguards by herbaceous plants. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17430-17435.	7.1	129
13	Chemical analysis of volatiles emitted by Pinus sylvestris after induction by insect oviposition. Journal of Chemical Ecology, 2003, 29, 1235-1252.	1.8	125
14	Mass spectrometry-based metabolomics of volatiles as a new tool for understanding aroma and flavour chemistry in processed food products. Metabolomics, 2019, 15, 41.	3.0	125
15	Untargeted Metabolic Quantitative Trait Loci Analyses Reveal a Relationship between Primary Metabolism and Potato Tuber Quality. Plant Physiology, 2012, 158, 1306-1318.	4.8	119
16	Formation of Simple Nitriles upon Glucosinolate Hydrolysis Affects Direct and Indirect Defense Against the Specialist Herbivore, Pieris rapae. Journal of Chemical Ecology, 2008, 34, 1311-1321.	1.8	115
17	Extensive metabolic cross-talk in melon fruit revealed by spatial and developmental combinatorial metabolomics. New Phytologist, 2011, 190, 683-696.	7.3	111
18	Male-derived butterfly anti-aphrodisiac mediates induced indirect plant defense. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 10033-10038.	7.1	109

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19	Chemical and Sensory Characteristics of Soy Sauce: A Review. <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 11612-11630.	5.2	104
20	Insect egg deposition induces defence responses in <i>Pinus sylvestris</i> : characterisation of the elicitor. <i>Journal of Experimental Biology</i> , 2005, 208, 1849-1854.	1.7	92
21	Orchestration of transcriptome, proteome and metabolome in the diatom <i>Phaeodactylum tricornutum</i> during nitrogen limitation. <i>Algal Research</i> , 2018, 35, 33-49.	4.6	90
22	Plant Phenotypic and Transcriptional Changes Induced by Volatiles from the Fungal Root Pathogen <i>Rhizoctonia solani</i> . <i>Frontiers in Plant Science</i> , 2017, 8, 1262.	3.6	78
23	The Herbivore-Induced Plant Volatile Methyl Salicylate Negatively Affects Attraction of the Parasitoid <i>Diadegma semiclausum</i> . <i>Journal of Chemical Ecology</i> , 2010, 36, 479-489.	1.8	77
24	Natural variation in herbivore-induced volatiles in <i>Arabidopsis thaliana</i> . <i>Journal of Experimental Botany</i> , 2010, 61, 3041-3056.	4.8	77
25	Metabolomic and elemental profiling of melon fruit quality as affected by genotype and environment. <i>Metabolomics</i> , 2013, 9, 57-77.	3.0	74
26	Identification and QTL mapping of whitefly resistance components in <i>Solanum galapagense</i> . <i>Theoretical and Applied Genetics</i> , 2013, 126, 1487-1501.	3.6	66
27	Metabolomics in melon: A new opportunity for aroma analysis. <i>Phytochemistry</i> , 2014, 99, 61-72.	2.9	66
28	Comprehensive metabolomics to evaluate the impact of industrial processing on the phytochemical composition of vegetable purees. <i>Food Chemistry</i> , 2015, 168, 348-355.	8.2	60
29	Metabolomics analysis of postharvest ripening heterogeneity of 'Hass' avocados. <i>Postharvest Biology and Technology</i> , 2014, 92, 172-179.	6.0	59
30	(+)α-Valencene production in <i>Nicotiana benthamiana</i> is increased by downregulation of competing pathways. <i>Biotechnology Journal</i> , 2015, 10, 180-189.	3.5	54
31	Green and White Asparagus (<i>Asparagus officinalis</i>): A Source of Developmental, Chemical and Urinary Intrigue. <i>Metabolites</i> , 2020, 10, 17.	2.9	54
32	The composition of carcass volatile profiles in relation to storage time and climate conditions. <i>Forensic Science International</i> , 2012, 223, 64-71.	2.2	53
33	Choosy egg parasitoids: Specificity of oviposition-induced pine volatiles exploited by an egg parasitoid of pine sawflies. <i>Entomologia Experimentalis Et Applicata</i> , 2005, 115, 217-225.	1.4	51
34	Anti-aphrodisiac Compounds of Male Butterflies Increase the Risk of Egg Parasitoid Attack by Inducing Plant Synomone Production. <i>Journal of Chemical Ecology</i> , 2009, 35, 1373-1381.	1.8	48
35	Differences in acidity of apples are probably mainly caused by a malic acid transporter gene on LG16. <i>Tree Genetics and Genomes</i> , 2013, 9, 475-487.	1.6	47
36	Analysis of volatiles from black pine (<i>Pinus nigra</i>): significance of wounding and egg deposition by a herbivorous sawfly. <i>Phytochemistry</i> , 2004, 65, 3221-3230.	2.9	44

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37	Relation between HLA genes, human skin volatiles and attractiveness of humans to malaria mosquitoes. <i>Infection, Genetics and Evolution</i> , 2013, 18, 87-93.	2.3	41
38	Reciprocal cybrids reveal how organellar genomes affect plant phenotypes. <i>Nature Plants</i> , 2020, 6, 13-21.	9.3	40
39	Courtship Pheromones in Parasitic Wasps: Comparison of Bioactive and Inactive Hydrocarbon Profiles by Multivariate Statistical Methods. <i>Journal of Chemical Ecology</i> , 2007, 33, 825-838.	1.8	39
40	Resistance factors in pepper inhibit larval development of thrips (<i>Frankliniella</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622	1.4	38
41	Comparative Metabolomics and Molecular Phylogenetics of Melon (<i>Cucumis melo</i> , Cucurbitaceae) Biodiversity. <i>Metabolites</i> , 2020, 10, 121.	2.9	35
42	Comparison of volatile trapping techniques for the comprehensive analysis of food flavourings by Gas Chromatography-Mass Spectrometry. <i>Journal of Chromatography A</i> , 2020, 1624, 461191.	3.7	35
43	Metabolic responses of <i>Eucalyptus</i> species to different temperature regimes. <i>Journal of Integrative Plant Biology</i> , 2018, 60, 397-411.	8.5	34
44	Delving deeper into technological innovations to understand differences in rice quality. <i>Rice</i> , 2015, 8, 43.	4.0	30
45	Defense of pyrethrum flowers: repelling herbivores and recruiting carnivores by producing aphid alarm pheromone. <i>New Phytologist</i> , 2019, 223, 1607-1620.	7.3	29
46	<i>Gomphrena clausenii</i> , a novel metal-hypertolerant bioindicator species, sequesters cadmium, but not zinc, in vacuolar oxalate crystals. <i>New Phytologist</i> , 2015, 208, 763-775.	7.3	28
47	Maltodextrin improves physical properties and volatile compound retention of spray-dried asparagus concentrate. <i>LWT - Food Science and Technology</i> , 2021, 142, 111058.	5.2	25
48	Comparative compositions of metabolites and dietary fibre components in doughs and breads produced from bread wheat, emmer and spelt and using yeast and sourdough processes. <i>Food Chemistry</i> , 2022, 374, 131710.	8.2	22
49	Characterization of Male-Produced Aggregation Pheromone of the Bean Flower Thrips <i>Megalurothrips sjostedti</i> (Thysanoptera: Thripidae). <i>Journal of Chemical Ecology</i> , 2019, 45, 348-355.	1.8	21
50	Comparison of the chemical composition of three species of smartweed (genus <i>Persicaria</i>) with a focus on drimane sesquiterpenoids. <i>Phytochemistry</i> , 2014, 108, 129-136.	2.9	19
51	Quantitative resistance against <i>Bemisia tabaci</i> in <i>Solanum pennellii</i> : Genetics and metabolomics. <i>Journal of Integrative Plant Biology</i> , 2016, 58, 397-412.	8.5	19
52	Comparing induction at an early and late step in signal transduction mediating indirect defence in <i>Brassica oleracea</i> . <i>Journal of Experimental Botany</i> , 2009, 60, 2589-2599.	4.8	17
53	Normal adult survival but reduced <i>Bemisia tabaci</i> oviposition rate on tomato lines carrying an introgression from <i>S. habrochaites</i> . <i>BMC Genetics</i> , 2014, 15, 142.	2.7	17
54	Metabolomics reveals the within-plant spatial effects of shading on tea plants. <i>Tree Physiology</i> , 2021, 41, 317-330.	3.1	17

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55	Analyses of metabolic activity in peanuts under hermetic storage at different relative humidity levels. <i>Food Chemistry</i> , 2022, 373, 131020.	8.2	16
56	The effect of partial replacement of maltodextrin with vegetable fibres in spray-dried white asparagus powder on its physical and aroma properties. <i>Food Chemistry</i> , 2021, 356, 129567.	8.2	12
57	Metabolomics Reveals Heterogeneity in the Chemical Composition of Green and White Spears of Asparagus (<i>A. officinalis</i>). <i>Metabolites</i> , 2021, 11, 708.	2.9	12
58	Risk of Egg Parasitoid Attraction Depends on Anti-aphrodisiac Titre in the Large Cabbage White Butterfly <i>Pieris brassicae</i> . <i>Journal of Chemical Ecology</i> , 2011, 37, 364-367.	1.8	10
59	Use of New Generation Single Nucleotide Polymorphism Genotyping for Rapid Development of Near-Isogenic Lines in Rice. <i>Crop Science</i> , 2011, 51, 2067-2073.	1.8	10
60	Early biotic stress detection in tomato (<i>Solanum lycopersicum</i>) by BVOC emissions. <i>Phytochemistry</i> , 2017, 144, 180-188.	2.9	10
61	Metabolomics of Photosynthetically Active Tissues in White Grapes: Effects of Light Microclimate and Stress Mitigation Strategies. <i>Metabolites</i> , 2021, 11, 205.	2.9	10
62	Natural variation in specialised metabolites production in the leafy vegetable spider plant (<i>Gynandropsis gynandra</i> L. (Briq.)) in Africa and Asia. <i>Phytochemistry</i> , 2020, 178, 112468.	2.9	9
63	A Multidisciplinary Phenotyping and Genotyping Analysis of a Mapping Population Enables Quality to Be Combined with Yield in Rice. <i>Frontiers in Molecular Biosciences</i> , 2017, 4, 32.	3.5	8
64	Stir bar sorptive extraction of aroma compounds in soy sauce: Revealing the chemical diversity. <i>Food Research International</i> , 2021, 144, 110348.	6.2	8
65	Cross-platform comparative analyses of genetic variation in amino acid content in potato tubers. <i>Metabolomics</i> , 2014, 10, 1239-1257.	3.0	3
66	Systematic selection of competing metabolomics methods in a metabolite-sensory relationship study. <i>Metabolomics</i> , 2021, 17, 77.	3.0	3