# Roland Mumm

## List of Publications by Citations



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| 67 papers | 3,546 citations | 34 h-index | 59 g-index |
| 69 ext. papers | 4,201 ext. citations | 5.4 avg, IF | 5.24 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 67 | Variation in natural plant products and the attraction of bodyguards involved in indirect plant defenseThe present review is one in the special series of reviews on animal–plant interactions.. *Canadian Journal of Zoology*, **2010**, 88, 628-667 | 1.5 | 222 |
| 66 | 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, 21202-7 | 11.5 | 205 |
| 65 | Foraging behavior of egg parasitoids exploiting chemical information. *Behavioral Ecology*, **2008**, 19, 677-689 | 2.9 | 202 |
| 64 | Diversity of global rice markets and the science required for consumer-targeted rice breeding. *PLoS ONE*, **2014**, 9, e85106 | 3.7 | 161 |
| 63 | Composition of human skin microbiota affects attractiveness to malaria mosquitoes. *PLoS ONE*, **2011**, 6, e28991 | 3.7 | 157 |
| 62 | Direct and indirect chemical defence of pine against folivorous insects. *Trends in Plant Science*, **2006** , 11, 351-8 | 13.1 | 149 |
| 61 | 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, 2575-87 | 7 | 132 |
| 60 | Improved batch correction in untargeted MS-based metabolomics. *Metabolomics*, **2016**, 12, 88 | 4.7 | 122 |
| 59 | The significance of background odour for an egg parasitoid to detect plants with host eggs. *Chemical Senses*, **2005**, 30, 337-43 | 4.8 | 121 |
| 58 | 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, 17430-5 | 11.5 | 117 |
| 57 | Diversity and functions of volatile organic compounds produced by Streptomyces from a disease-suppressive soil. *Frontiers in Microbiology*, **2015**, 6, 1081 | 5.7 | 113 |
| 56 | Significance of terpenoids in induced indirect plant defence against herbivorous arthropods. *Plant, Cell and Environment*, **2008**, 31, 575-85 | 8.4 | 103 |
| 55 | Chemical analysis of volatiles emitted by Pinus svlvestris after induction by insect oviposition. *Journal of Chemical Ecology*, **2003**, 29, 1235-52 | 2.7 | 103 |
| 54 | Extensive metabolic cross-talk in melon fruit revealed by spatial and developmental combinatorial metabolomics. *New Phytologist*, **2011**, 190, 683-96 | 9.8 | 101 |
| 53 | Untargeted metabolic quantitative trait loci analyses reveal a relationship between primary metabolism and potato tuber quality. *Plant Physiology*, **2012**, 158, 1306-18 | 6.6 | 101 |
| 52 | 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, 10033-8 | 11.5 | 96 |
| 51 | Insect egg deposition induces defence responses in Pinus sylvestris: characterisation of the elicitor. *Journal of Experimental Biology*, **2005**, 208, 1849-54 | 3 | 78 |

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| 50 | Formation of simple nitriles upon glucosinolate hydrolysis affects direct and indirect defense against the specialist herbivore, Pieris rapae. *Journal of Chemical Ecology*, **2008**, 34, 1311-21 | 2.7 | 76 |
| 49 | The herbivore-induced plant volatile methyl salicylate negatively affects attraction of the parasitoid Diadegma semiclausum. *Journal of Chemical Ecology*, **2010**, 36, 479-89 | 2.7 | 69 |
| 48 | Natural variation in herbivore-induced volatiles in Arabidopsis thaliana. *Journal of Experimental Botany*, **2010**, 61, 3041-56 | 7 | 66 |
| 47 | Mass spectrometry-based metabolomics of volatiles as a new tool for understanding aroma and flavour chemistry in processed food products. *Metabolomics*, **2019**, 15, 41 | 4.7 | 58 |
| 46 | Metabolomic and elemental profiling of melon fruit quality as affected by genotype and environment. *Metabolomics*, **2013**, 9, 57-77 | 4.7 | 56 |
| 45 | Metabolomics analysis of postharvest ripening heterogeneity of Hass avocadoes. *Postharvest Biology and Technology*, **2014**, 92, 172-179 | 6.2 | 51 |
| 44 | Metabolomics in melon: a new opportunity for aroma analysis. *Phytochemistry*, **2014**, 99, 61-72 | 4 | 51 |
| 43 | Orchestration of transcriptome, proteome and metabolome in the diatom Phaeodactylum tricornutum during nitrogen limitation. *Algal Research*, **2018**, 35, 33-49 | 5 | 50 |
| 42 | Choosy egg parasitoids: Specificity of oviposition-induced pine volatiles exploited by an egg parasitoid of pine sawflies. *Entomologia Experimentalis Et Applicata*, **2005**, 115, 217-225 | 2.1 | 49 |
| 41 | Comprehensive metabolomics to evaluate the impact of industrial processing on the phytochemical composition of vegetable purees. *Food Chemistry*, **2015**, 168, 348-55 | 8.5 | 48 |
| 40 | Plant Phenotypic and Transcriptional Changes Induced by Volatiles from the Fungal Root Pathogen. *Frontiers in Plant Science*, **2017**, 8, 1262 | 6.2 | 44 |
| 39 | Identification and QTL mapping of whitefly resistance components in Solanum galapagense. *Theoretical and Applied Genetics*, **2013**, 126, 1487-501 | 6 | 43 |
| 38 | The composition of carcass volatile profiles in relation to storage time and climate conditions. *Forensic Science International*, **2012**, 223, 64-71 | 2.6 | 42 |
| 37 | Differences in acidity of apples are probably mainly caused by a malic acid transporter gene on LG16. *Tree Genetics and Genomes*, **2013**, 9, 475-487 | 2.1 | 40 |
| 36 | Analysis of volatiles from black pine (Pinus nigra): significance of wounding and egg deposition by a herbivorous sawfly. *Phytochemistry*, **2004**, 65, 3221-30 | 4 | 40 |
| 35 | Anti-aphrodisiac compounds of male butterflies increase the risk of egg parasitoid attack by inducing plant synomone production. *Journal of Chemical Ecology*, **2009**, 35, 1373-81 | 2.7 | 39 |
| 34 | (+)-Valencene production in Nicotiana benthamiana is increased by down-regulation of competing pathways. *Biotechnology Journal*, **2015**, 10, 180-9 | 5.6 | 37 |
| 33 | Resistance factors in pepper inhibit larval development of thrips (Frankliniella occidentalis). *Entomologia Experimentalis Et Applicata*, **2012**, 145, 62-71 | 2.1 | 33 |

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| 32 | Courtship pheromones in parasitic wasps: comparison of bioactive and inactive hydrocarbon profiles by multivariate statistical methods. *Journal of Chemical Ecology*, **2007**, 33, 825-38 | 2.7 | 33 |
| 31 | Relation between HLA genes, human skin volatiles and attractiveness of humans to malaria mosquitoes. *Infection, Genetics and Evolution*, **2013**, 18, 87-93 | 4.5 | 29 |
| 30 | Delving deeper into technological innovations to understand differences in rice quality. *Rice*, **2015**, 8, 43 | 5.8 | 24 |
| 29 | Chemical and Sensory Characteristics of Soy Sauce: A Review. *Journal of Agricultural and Food Chemistry*, **2020**, 68, 11612-11630 | 5.7 | 24 |
| 28 | Metabolic responses of Eucalyptus species to different temperature regimes. *Journal of Integrative Plant Biology*, **2018**, 60, 397-411 | 8.3 | 22 |
| 27 | Gomphrena claussenii, a novel metal-hypertolerant bioindicator species, sequesters cadmium, but not zinc, in vacuolar oxalate crystals. *New Phytologist*, **2015**, 208, 763-75 | 9.8 | 20 |
| 26 | Comparative Metabolomics and Molecular Phylogenetics of Melon (, Cucurbitaceae) Biodiversity. *Metabolites*, **2020**, 10, | 5.6 | 19 |
| 25 | Comparison of volatile trapping techniques for the comprehensive analysis of food flavourings by Gas Chromatography-Mass Spectrometry. *Journal of Chromatography A*, **2020**, 1624, 461191 | 4.5 | 18 |
| 24 | Reciprocal cybrids reveal how organellar genomes affect plant phenotypes. *Nature Plants*, **2020**, 6, 13-21 | 11.5 | 17 |
| 23 | Comparison of the chemical composition of three species of smartweed (genus Persicaria) with a focus on drimane sesquiterpenoids. *Phytochemistry*, **2014**, 108, 129-36 | 4 | 17 |
| 22 | Green and White Asparagus : A Source of Developmental, Chemical and Urinary Intrigue. *Metabolites*, **2019**, 10, | 5.6 | 17 |
| 21 | Comparing induction at an early and late step in signal transduction mediating indirect defence in Brassica oleracea. *Journal of Experimental Botany*, **2009**, 60, 2589-99 | 7 | 15 |
| 20 | Defense of pyrethrum flowers: repelling herbivores and recruiting carnivores by producing aphid alarm pheromone. *New Phytologist*, **2019**, 223, 1607-1620 | 9.8 | 14 |
| 19 | Normal adult survival but reduced Bemisia tabaci oviposition rate on tomato lines carrying an introgression from S. habrochaites. *BMC Genetics*, **2014**, 15, 142 | 2.6 | 13 |
| 18 | Quantitative resistance against Bemisia tabaci in Solanum pennellii: Genetics and metabolomics. *Journal of Integrative Plant Biology*, **2016**, 58, 397-412 | 8.3 | 13 |
| 17 | Characterization of Male-Produced Aggregation Pheromone of the Bean Flower Thrips Megalurothrips sjostedti (Thysanoptera: Thripidae). *Journal of Chemical Ecology*, **2019**, 45, 348-355 | 2.7 | 11 |
| 16 | Maltodextrin improves physical properties and volatile compound retention of spray-dried asparagus concentrate. *LWT - Food Science and Technology*, **2021**, 142, 111058 | 5.4 | 10 |
| 15 | Use of New Generation Single Nucleotide Polymorphism Genotyping for Rapid Development of Near-Isogenic Lines in Rice. *Crop Science*, **2011**, 51, 2067-2073 | 2.4 | 8 |

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| 14 | Early biotic stress detection in tomato (Solanum lycopersicum) by BVOC emissions. *Phytochemistry*, **2017**, 144, 180-188 | 4 | 7 |
| 13 | A Multidisciplinary Phenotyping and Genotyping Analysis of a Mapping Population Enables Quality to Be Combined with Yield in Rice. *Frontiers in Molecular Biosciences*, **2017**, 4, 32 | 5.6 | 7 |
| 12 | Risk of egg parasitoid attraction depends on anti-aphrodisiac titre in the large cabbage white butterfly Pieris brassicae. *Journal of Chemical Ecology*, **2011**, 37, 364-7 | 2.7 | 7 |
| 11 | Metabolomics reveals the within-plant spatial effects of shading on tea plants. *Tree Physiology*, **2021**, 41, 317-330 | 4.2 | 6 |
| 10 | 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. *Food Chemistry*, **2021**, 374, 131710 | 8.5 | 4 |
| 9 | The effect of partial replacement of maltodextrin with vegetable fibres in spray-dried white asparagus powder on its physical and aroma properties. *Food Chemistry*, **2021**, 356, 129567 | 8.5 | 4 |
| 8 | Analyses of metabolic activity in peanuts under hermetic storage at different relative humidity levels. *Food Chemistry*, **2021**, 131020 | 8.5 | 4 |
| 7 | Natural variation in specialised metabolites production in the leafy vegetable spider plant (Gynandropsis gynandra L. (Briq.)) in Africa and Asia. *Phytochemistry*, **2020**, 178, 112468 | 4 | 3 |
| 6 | Cross-platform comparative analyses of genetic variation in amino acid content in potato tubers. *Metabolomics*, **2014**, 10, 1239-1257 | 4.7 | 2 |
| 5 | Metabolomics Reveals Heterogeneity in the Chemical Composition of Green and White Spears of Asparagus (). *Metabolites*, **2021**, 11, | 5.6 | 1 |
| 4 | Metabolomics of Photosynthetically Active Tissues in White Grapes: Effects of Light Microclimate and Stress Mitigation Strategies. *Metabolites*, **2021**, 11, | 5.6 | 1 |
| 3 | Stir bar sorptive extraction of aroma compounds in soy sauce: Revealing the chemical diversity. *Food Research International*, **2021**, 144, 110348 | 7 | 1 |
| 2 | Robust and Confident Predictor Selection in Metabolomics **2017**, 239-257 | | 0 |
| 1 | Systematic selection of competing metabolomics methods in a metabolite-sensory relationship study. *Metabolomics*, **2021**, 17, 77 | 4.7 | 0 |