

Ryo Nakabayashi

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.

86

papers

4,379

citations

31

h-index

65

g-index

91

ext. papers

5,656

ext. citations

5.8

avg. IF

5.59

L-index

| # | Paper | IF | Citations |
|----|---|------|-----------|
| 86 | Enhancement of oxidative and drought tolerance in Arabidopsis by overaccumulation of antioxidant flavonoids. <i>Plant Journal</i> , 2014 , 77, 367-79 | 6.9 | 573 |
| 85 | The flavonoid biosynthetic pathway in Arabidopsis: structural and genetic diversity. <i>Plant Physiology and Biochemistry</i> , 2013 , 72, 21-34 | 5.4 | 440 |
| 84 | Comprehensive flavonol profiling and transcriptome coexpression analysis leading to decoding gene-metabolite correlations in Arabidopsis. <i>Plant Cell</i> , 2008 , 20, 2160-76 | 11.6 | 308 |
| 83 | Hydrogen Rearrangement Rules: Computational MS/MS Fragmentation and Structure Elucidation Using MS-FINDER Software. <i>Analytical Chemistry</i> , 2016 , 88, 7946-58 | 7.8 | 292 |
| 82 | RIKEN tandem mass spectral database (ReSpect) for phytochemicals: a plant-specific MS/MS-based data resource and database. <i>Phytochemistry</i> , 2012 , 82, 38-45 | 4 | 214 |
| 81 | Integrated metabolomics for abiotic stress responses in plants. <i>Current Opinion in Plant Biology</i> , 2015 , 24, 10-6 | 9.9 | 198 |
| 80 | Dissection of genotype-phenotype associations in rice grains using metabolome quantitative trait loci analysis. <i>Plant Journal</i> , 2012 , 70, 624-36 | 6.9 | 155 |
| 79 | The Origin and Evolution of Plant Flavonoid Metabolism. <i>Frontiers in Plant Science</i> , 2019 , 10, 943 | 6.2 | 126 |
| 78 | Two glycosyltransferases involved in anthocyanin modification delineated by transcriptome independent component analysis in Arabidopsis thaliana. <i>Plant Journal</i> , 2012 , 69, 154-67 | 6.9 | 124 |
| 77 | Metabolome-genome-wide association study dissects genetic architecture for generating natural variation in rice secondary metabolism. <i>Plant Journal</i> , 2015 , 81, 13-23 | 6.9 | 114 |
| 76 | Metabolomics-oriented isolation and structure elucidation of 37 compounds including two anthocyanins from Arabidopsis thaliana. <i>Phytochemistry</i> , 2009 , 70, 1017-29 | 4 | 105 |
| 75 | A cheminformatics approach to characterize metabolomes in stable-isotope-labeled organisms. <i>Nature Methods</i> , 2019 , 16, 295-298 | 21.6 | 99 |
| 74 | Characterization of a recently evolved flavonol-phenylacyltransferase gene provides signatures of natural light selection in Brassicaceae. <i>Nature Communications</i> , 2016 , 7, 12399 | 17.4 | 90 |
| 73 | Using metabolomic approaches to explore chemical diversity in rice. <i>Molecular Plant</i> , 2015 , 8, 58-67 | 14.4 | 82 |
| 72 | Jasmonate-Responsive ERF Transcription Factors Regulate Steroidal Glycoalkaloid Biosynthesis in Tomato. <i>Plant and Cell Physiology</i> , 2016 , 57, 961-75 | 4.9 | 81 |
| 71 | Alternation of flavonoid accumulation under drought stress in Arabidopsis thaliana. <i>Plant Signaling and Behavior</i> , 2014 , 9, e29518 | 2.5 | 78 |
| 70 | Metabolomics for unknown plant metabolites. <i>Analytical and Bioanalytical Chemistry</i> , 2013 , 405, 5005-11 | 14.4 | 75 |

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| 69 | Combination of liquid chromatography-Fourier transform ion cyclotron resonance-mass spectrometry with ¹³ C-labeling for chemical assignment of sulfur-containing metabolites in onion bulbs. <i>Analytical Chemistry</i> , 2013 , 85, 1310-5 | 7.8 | 68 |
| 68 | Coupling deep transcriptome analysis with untargeted metabolic profiling in <i>Ophiorrhiza pumila</i> to further the understanding of the biosynthesis of the anti-cancer alkaloid camptothecin and anthraquinones. <i>Plant and Cell Physiology</i> , 2013 , 54, 686-96 | 4.9 | 67 |
| 67 | A flavonoid 3-O-glucoside:2"-O-glucosyltransferase responsible for terminal modification of pollen-specific flavonols in <i>Arabidopsis thaliana</i> . <i>Plant Journal</i> , 2014 , 79, 769-82 | 6.9 | 65 |
| 66 | Toward better annotation in plant metabolomics: isolation and structure elucidation of 36 specialized metabolites from (rice) by using MS/MS and NMR analyses. <i>Metabolomics</i> , 2014 , 10, 543-555 | 4.7 | 60 |
| 65 | Multimomics in grape berry skin revealed specific induction of the stilbene synthetic pathway by ultraviolet-C irradiation. <i>Plant Physiology</i> , 2015 , 168, 47-59 | 6.6 | 51 |
| 64 | Metabolic Profiling of Developing Pear Fruits Reveals Dynamic Variation in Primary and Secondary Metabolites, Including Plant Hormones. <i>PLoS ONE</i> , 2015 , 10, e0131408 | 3.7 | 49 |
| 63 | Direct isolation of flavonoids from plants using ultra-small anatase TiO ₂ nanoparticles. <i>Plant Journal</i> , 2014 , 77, 443-53 | 6.9 | 43 |
| 62 | Metabolic Reprogramming in Leaf Lettuce Grown Under Different Light Quality and Intensity Conditions Using Narrow-Band LEDs. <i>Scientific Reports</i> , 2018 , 8, 7914 | 4.9 | 43 |
| 61 | Integrating transcriptome and target metabolome variability in doubled haploids of <i>Allium cepa</i> for abiotic stress protection. <i>Molecular Breeding</i> , 2015 , 35, 1 | 3.4 | 40 |
| 60 | Top-down Targeted Metabolomics Reveals a Sulfur-Containing Metabolite with Inhibitory Activity against Angiotensin-Converting Enzyme in <i>Asparagus officinalis</i> . <i>Journal of Natural Products</i> , 2015 , 78, 1179-83 | 4.9 | 37 |
| 59 | Identification of a flavin-containing S-oxygenating monooxygenase involved in alliin biosynthesis in garlic. <i>Plant Journal</i> , 2015 , 83, 941-51 | 6.9 | 37 |
| 58 | Assessing metabolomic and chemical diversity of a soybean lineage representing 35 years of breeding. <i>Metabolomics</i> , 2015 , 11, 261-270 | 4.7 | 37 |
| 57 | Function of AP2/ERF Transcription Factors Involved in the Regulation of Specialized Metabolism in Revealed by Transcriptomics and Metabolomics. <i>Frontiers in Plant Science</i> , 2016 , 7, 1861 | 6.2 | 36 |
| 56 | The Structural Integrity of Lignin Is Crucial for Resistance against Parasitism in Rice. <i>Plant Physiology</i> , 2019 , 179, 1796-1809 | 6.6 | 32 |
| 55 | Linkage mapping, molecular cloning and functional analysis of soybean gene Fg2 encoding flavonol 3-O-glucoside (1 ³ 6) rhamnosyltransferase. <i>Plant Molecular Biology</i> , 2014 , 84, 287-300 | 4.6 | 28 |
| 54 | Effects of freeze-drying of samples on metabolite levels in metabolome analyses. <i>Journal of Separation Science</i> , 2011 , 34, 3561-7 | 3.4 | 27 |
| 53 | Ultrahigh resolution metabolomics for S-containing metabolites. <i>Current Opinion in Biotechnology</i> , 2017 , 43, 8-16 | 11.4 | 25 |
| 52 | Mass spectra-based framework for automated structural elucidation of metabolome data to explore phytochemical diversity. <i>Frontiers in Plant Science</i> , 2011 , 2, 40 | 6.2 | 25 |

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|----|--|------|----|
| 51 | Chemical Assignment of Structural Isomers of Sulfur-Containing Metabolites in Garlic by Liquid Chromatography-Fourier Transform Ion Cyclotron Resonance-Mass Spectrometry. <i>Journal of Nutrition</i> , 2016 , 146, 397S-402S | 4.1 | 24 |
| 50 | Mutations in jasmonoyl-L-isoleucine-12-hydroxylases suppress multiple JA-dependent wound responses in <i>Arabidopsis thaliana</i> . <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2016 , 1861, 1396-1408 | 5 | 24 |
| 49 | Chromosome-level genome assembly of <i>Ophiorrhiza pumila</i> reveals the evolution of camptothecin biosynthesis. <i>Nature Communications</i> , 2021 , 12, 405 | 17.4 | 24 |
| 48 | Improvement of memory recall by quercetin in rodent contextual fear conditioning and human early-stage Alzheimer's disease patients. <i>NeuroReport</i> , 2016 , 27, 671-6 | 1.7 | 23 |
| 47 | Biosynthesis of riccionidins and marchantins is regulated by R2R3-MYB transcription factors in <i>Marchantia polymorpha</i> . <i>Journal of Plant Research</i> , 2018 , 131, 849-864 | 2.6 | 22 |
| 46 | Inhibition of CUTIN DEFICIENT 2 Causes Defects in Cuticle Function and Structure and Metabolite Changes in Tomato Fruit. <i>Plant and Cell Physiology</i> , 2013 , 54, 1535-48 | 4.9 | 21 |
| 45 | Transgenic rice seed expressing flavonoid biosynthetic genes accumulate glycosylated and/or acylated flavonoids in protein bodies. <i>Journal of Experimental Botany</i> , 2016 , 67, 95-106 | 7 | 20 |
| 44 | Top-down Metabolomic Approaches for Nitrogen-Containing Metabolites. <i>Analytical Chemistry</i> , 2017 , 89, 2698-2703 | 7.8 | 19 |
| 43 | Keeping the shape of plant tissue for visualizing metabolite features in segmentation and correlation analysis of imaging mass spectrometry in <i>Asparagus officinalis</i> . <i>Metabolomics</i> , 2019 , 15, 24 | 4.7 | 18 |
| 42 | Metabolomic Evaluation of the Quality of Leaf Lettuce Grown in Practical Plant Factory to Capture Metabolite Signature. <i>Frontiers in Plant Science</i> , 2018 , 9, 665 | 6.2 | 18 |
| 41 | Linkage mapping, molecular cloning and functional analysis of soybean gene Fg3 encoding flavonol 3-O-glucoside/galactoside (1- α) glucosyltransferase. <i>BMC Plant Biology</i> , 2015 , 15, 126 | 5.3 | 15 |
| 40 | Metabolomics with N Labeling for Characterizing Missing Monoterpene Indole Alkaloids in Plants. <i>Analytical Chemistry</i> , 2020 , 92, 5670-5675 | 7.8 | 14 |
| 39 | Cloning and characterization of soybean gene Fg1 encoding flavonol 3-O-glucoside/galactoside (1- β) glucosyltransferase. <i>Plant Molecular Biology</i> , 2016 , 92, 445-456 | 4.6 | 14 |
| 38 | Revisiting anabasine biosynthesis in tobacco hairy roots expressing plant lysine decarboxylase gene by using ¹⁵ N-labeled lysine. <i>Plant Biotechnology</i> , 2014 , 31, 511-518 | 1.3 | 13 |
| 37 | Retrograde sulfur flow from glucosinolates to cysteine in. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118, | 11.5 | 13 |
| 36 | Metabolome Analysis of <i>Oryza sativa</i> (Rice) Using Liquid Chromatography-Mass Spectrometry for Characterizing Organ Specificity of Flavonoids with Anti-inflammatory and Anti-oxidant Activity. <i>Chemical and Pharmaceutical Bulletin</i> , 2016 , 64, 952-6 | 1.9 | 12 |
| 35 | A polyhedral approach for understanding flavonoid biosynthesis in <i>Arabidopsis</i> . <i>New Biotechnology</i> , 2010 , 27, 829-36 | 6.4 | 12 |
| 34 | UGT79B31 is responsible for the final modification step of pollen-specific flavonoid biosynthesis in <i>Petunia hybrida</i> . <i>Planta</i> , 2018 , 247, 779-790 | 4.7 | 11 |

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| 33 | Effects of Combined Low Glutathione with Mild Oxidative and Low Phosphorus Stress on the Metabolism of. <i>Frontiers in Plant Science</i> , 2017 , 8, 1464 | 6.2 | 11 |
| 32 | Food Lipidomics for 155 Agricultural Plant Products. <i>Journal of Agricultural and Food Chemistry</i> , 2021 , 69, 8981-8990 | 5.7 | 11 |
| 31 | Expression and functional analyses of a putative phenylcoumaran benzylic ether reductase in <i>Arabidopsis thaliana</i> . <i>Plant Cell Reports</i> , 2016 , 35, 513-26 | 5.1 | 9 |
| 30 | Higher dimensional metabolomics using stable isotope labeling for identifying the missing specialized metabolism in plants. <i>Current Opinion in Plant Biology</i> , 2020 , 55, 84-92 | 9.9 | 8 |
| 29 | Successful expression of a novel bacterial gene for pinoreosin reductase and its effect on lignan biosynthesis in transgenic <i>Arabidopsis thaliana</i> . <i>Applied Microbiology and Biotechnology</i> , 2014 , 98, 8165-77 | 5.7 | 8 |
| 28 | Automation of chemical assignment for identifying molecular formula of S-containing metabolites by combining metabolomics and chemoinformatics with 34S labeling. <i>Metabolomics</i> , 2016 , 12, 1 | 4.7 | 8 |
| 27 | New otonecine-type pyrrolizidine alkaloid from <i>Petasites japonicus</i> . <i>Journal of Natural Medicines</i> , 2019 , 73, 602-607 | 3.3 | 7 |
| 26 | Metabolomics and complementary techniques to investigate the plant phytochemical cosmos. <i>Natural Product Reports</i> , 2021 , 38, 1729-1759 | 15.1 | 7 |
| 25 | Multimiomics-based characterization of specialized metabolites biosynthesis in <i>Cornus Officinalis</i> . <i>DNA Research</i> , 2020 , 27, | 4.5 | 6 |
| 24 | Boosting Sensitivity in Liquid Chromatography-Fourier Transform Ion Cyclotron Resonance-Tandem Mass Spectrometry for Product Ion Analysis of Monoterpene Indole Alkaloids. <i>Frontiers in Plant Science</i> , 2015 , 6, 1127 | 6.2 | 6 |
| 23 | A Highly Specific Genome-Wide Association Study Integrated with Transcriptome Data Reveals the Contribution of Copy Number Variations to Specialized Metabolites in <i>Arabidopsis thaliana</i> Accessions. <i>Molecular Biology and Evolution</i> , 2017 , 34, 3111-3122 | 8.3 | 5 |
| 22 | Development of methodology of probabilistic safety assessment for radioactive waste disposal in consideration of epistemic uncertainty and aleatory uncertainty. <i>Journal of Nuclear Science and Technology</i> , 2016 , 53, 2006-2017 | 1 | 5 |
| 21 | Seed-coat protective neolignans are produced by the dirigent protein AtDP1 and the laccase AtLAC5 in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2021 , 33, 129-152 | 11.6 | 5 |
| 20 | Comparative Metabolome and Transcriptome Analyses of Susceptible <i>Asparagus officinalis</i> and Resistant Wild <i>A. kiusianus</i> Reveal Insights into Stem Blight Disease Resistance. <i>Plant and Cell Physiology</i> , 2020 , 61, 1464-1476 | 4.9 | 4 |
| 19 | Changes in trans-S-1-Propenyl-L-cysteine Sulfoxide and Related Sulfur-Containing Amino Acids during Onion Storage. <i>Journal of Agricultural and Food Chemistry</i> , 2016 , 64, 9063-9071 | 5.7 | 4 |
| 18 | Temporal lag between gene expression and metabolite accumulation in flavonol biosynthesis of <i>Arabidopsis</i> roots. <i>Phytochemistry Letters</i> , 2017 , 22, 44-48 | 1.9 | 4 |
| 17 | The metabolic profile of grape berry skin and a comparison of metabolomes before veraison and at harvest. <i>Plant Biotechnology</i> , 2015 , 32, 267-272 | 1.3 | 4 |
| 16 | Producing the sulfur-containing metabolite asparaptine in calluses and a suspension cell line. <i>Plant Biotechnology</i> , 2019 , 36, 265-267 | 1.3 | 4 |

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|----|--|------|---|
| 15 | Development of calculation methodology for estimation of radionuclide composition in wastes generated at Fukushima Daiichi nuclear power station. <i>Journal of Nuclear Science and Technology</i> , 2019 , 56, 881-890 | 1 | 3 |
| 14 | Using metabolomic approaches to explore chemical diversity in rice. <i>Molecular Plant</i> , 2014 , | 14.4 | 3 |
| 13 | Changes in primary and secondary metabolite levels in response to gene targeting-mediated site-directed mutagenesis of the anthranilate synthase gene in rice. <i>Metabolites</i> , 2012 , 2, 1123-38 | 5.6 | 3 |
| 12 | Methodology to optimize radiation protection in radioactive waste disposal after closure of a disposal facility based on probabilistic approach. <i>Journal of Nuclear Science and Technology</i> , 2018 , 55, 335-347 | 1 | 3 |
| 11 | Identification of Chemical Form of Carbon Released from SUS304 and SUS316 in Alkaline Solution under Low-oxygen Condition. <i>MRS Advances</i> , 2017 , 2, 597-602 | 0.7 | 2 |
| 10 | Metabolomic Determination of Specialized Metabolites Using Liquid Chromatography-Tandem Mass Spectrometry in the Traditional Chinese Medicines Astragali Radix and Hedysari Radix. <i>Natural Product Communications</i> , 2020 , 15, 1934578X1990119 | 0.9 | 1 |
| 9 | Tandem Mass Spectrum Similarity-Based Network Analysis Using C-Labeled and Non-labeled Metabolome Data to Identify the Biosynthetic Pathway of the Blood Pressure-Lowering Asparagus Metabolite Asparaptine A. <i>Journal of Agricultural and Food Chemistry</i> , 2021 , 69, 8571-8577 | 5.7 | 1 |
| 8 | Spatial metabolomics using imaging mass spectrometry to identify the localization of asparaptine in <i>Asparagus officinalis</i> | | 1 |
| 7 | Stochastic estimation of radionuclide composition in wastes generated at Fukushima Daiichi nuclear power station using Bayesian inference. <i>Journal of Nuclear Science and Technology</i> , 2021 , 58, 493-506 | 1 | 1 |
| 6 | A multimodal metabolomics approach using imaging mass spectrometry and liquid chromatography-tandem mass spectrometry for spatially characterizing monoterpene indole alkaloids secreted from roots. <i>Plant Biotechnology</i> , 2021 , 38, 305-310 | 1.3 | 1 |
| 5 | Spatial metabolomics using imaging mass spectrometry to identify the localization of asparaptine A in. <i>Plant Biotechnology</i> , 2021 , 38, 311-315 | 1.3 | 0 |
| 4 | Top-Down Metabolomics Approaches: Nitrogen- and Sulfur-Omics by Ultrahigh-Resolution Fourier Transform Ion Cyclotron Resonance-Mass Spectrometry 2020 , 138-155 | | |
| 3 | Phytochemical map leads to local omics world. <i>Plant Morphology</i> , 2020 , 32, 31-37 | 0 | |
| 2 | Identification of chemical form of stable carbon released from type 304L and 316L stainless-steel powders in alkaline and acidic solutions under low-oxygen conditions. <i>Radiocarbon</i> , 2018 , 60, 1691-1710 ^{4,6} | | |
| 1 | Sample Preparation, Data Acquisition, and Data Analysis for ¹⁵ N-Labeled and Nonlabeled Monoterpene Indole Alkaloids in <i>Catharanthus roseus</i> . <i>Methods in Molecular Biology</i> , 2022 , 59-68 | 1.4 | |