Ryo Nakabayashi

List of Publications by Year in Descending Order

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	Sample Preparation, Data Acquisition, and Data Analysis for 15N-Labeled and Nonlabeled Monoterpene Indole Alkaloids in Catharanthus roseus. *Methods in Molecular Biology*, **2022**, 59-68	1.4	
85	Seed-coat protective neolignans are produced by the dirigent protein AtDP1 and the laccase AtLAC5 in Arabidopsis. *Plant Cell*, **2021**, 33, 129-152	11.6	5
84	Retrograde sulfur flow from glucosinolates to cysteine in. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	13
83	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. *Journal of Agricultural and Food Chemistry*, **2021**, 69, 8571-8577	5.7	1
82	Chromosome-level genome assembly of Ophiorrhiza pumila reveals the evolution of camptothecin biosynthesis. *Nature Communications*, **2021**, 12, 405	17.4	24
81	Stochastic estimation of radionuclide composition in wastes generated at Fukushima Daiichi nuclear power station using Bayesian inference. *Journal of Nuclear Science and Technology*, **2021**, 58, 493-506	1	1
80	Food Lipidomics for 155 Agricultural Plant Products. *Journal of Agricultural and Food Chemistry*, **2021**, 69, 8981-8990	5.7	11
79	A multimodal metabolomics approach using imaging mass spectrometry and liquid chromatography-tandem mass spectrometry for spatially characterizing monoterpene indole alkaloids secreted from roots. *Plant Biotechnology*, **2021**, 38, 305-310	1.3	1
78	Spatial metabolomics using imaging mass spectrometry to identify the localization of asparaptine A in. *Plant Biotechnology*, **2021**, 38, 311-315	1.3	0
77	Metabolomics and complementary techniques to investigate the plant phytochemical cosmos. *Natural Product Reports*, **2021**, 38, 1729-1759	15.1	7
76	Higher dimensional metabolomics using stable isotope labeling for identifying the missing specialized metabolism in plants. *Current Opinion in Plant Biology*, **2020**, 55, 84-92	9.9	8
75	Multiomics-based characterization of specialized metabolites biosynthesis in Cornus Officinalis. *DNA Research*, **2020**, 27,	4.5	6
74	Comparative Metabolome and Transcriptome Analyses of Susceptible Asparagus officinalis and Resistant Wild A. kiusianus Reveal Insights into Stem Blight Disease Resistance. *Plant and Cell Physiology*, **2020**, 61, 1464-1476	4.9	4
73	Metabolomic Determination of Specialized Metabolites Using Liquid Chromatography-Tandem Mass Spectrometry in the Traditional Chinese Medicines Astragali Radix and Hedysari Radix. *Natural Product Communications*, **2020**, 15, 1934578X1990119	0.9	1
72	Metabolomics with N Labeling for Characterizing Missing Monoterpene Indole Alkaloids in Plants. *Analytical Chemistry*, **2020**, 92, 5670-5675	7.8	14
71	Top-Down Metabolomics Approaches: Nitrogen- and Sulfur-Omics by Ultrahigh-Resolution Fourier Transform Ion Cyclotron Resonance-Mass Spectrometry **2020**, 138-155		
70	Phytochemical map leads to local omics world. *Plant Morphology*, **2020**, 32, 31-37	0	

69	The Structural Integrity of Lignin Is Crucial for Resistance against Parasitism in Rice. *Plant Physiology*, **2019**, 179, 1796-1809	6.6	32
68	A cheminformatics approach to characterize metabolomes in stable-isotope-labeled organisms. *Nature Methods*, **2019**, 16, 295-298	21.6	99
67	Development of calculation methodology for estimation of radionuclide composition in wastes generated at Fukushima Daiichi nuclear power station. *Journal of Nuclear Science and Technology*, **2019**, 56, 881-890	1	3
66	New otonecine-type pyrrolizidine alkaloid from Petasites japonicus. *Journal of Natural Medicines*, **2019**, 73, 602-607	3.3	7
65	Keeping the shape of plant tissue for visualizing metabolite features in segmentation and correlation analysis of imaging mass spectrometry in Asparagus officinalis. *Metabolomics*, **2019**, 15, 24	4.7	18
64	The Origin and Evolution of Plant Flavonoid Metabolism. *Frontiers in Plant Science*, **2019**, 10, 943	6.2	126
63	Producing the sulfur-containing metabolite asparaptine in calluses and a suspension cell line. *Plant Biotechnology*, **2019**, 36, 265-267	1.3	4
62	UGT79B31 is responsible for the final modification step of pollen-specific flavonoid biosynthesis in Petunia hybrida. *Planta*, **2018**, 247, 779-790	4.7	11
61	Metabolomic Evaluation of the Quality of Leaf Lettuce Grown in Practical Plant Factory to Capture Metabolite Signature. *Frontiers in Plant Science*, **2018**, 9, 665	6.2	18
60	Methodology to optimize radiation protection in radioactive waste disposal after closure of a disposal facility based on probabilistic approach. *Journal of Nuclear Science and Technology*, **2018**, 55, 335-347	1	3
59	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. *Radiocarbon*, **2018**, 60, 1691-1710	4.6	
58	Metabolic Reprogramming in Leaf Lettuce Grown Under Different Light Quality and Intensity Conditions Using Narrow-Band LEDs. *Scientific Reports*, **2018**, 8, 7914	4.9	43
57	Biosynthesis of riccionidins and marchantins is regulated by R2R3-MYB transcription factors in Marchantia polymorpha. *Journal of Plant Research*, **2018**, 131, 849-864	2.6	22
56	Top-down Metabolomic Approaches for Nitrogen-Containing Metabolites. *Analytical Chemistry*, **2017**, 89, 2698-2703	7.8	19
55	A Highly Specific Genome-Wide Association Study Integrated with Transcriptome Data Reveals the Contribution of Copy Number Variations to Specialized Metabolites in Arabidopsis thaliana Accessions. *Molecular Biology and Evolution*, **2017**, 34, 3111-3122	8.3	5
54	Temporal lag between gene expression and metabolite accumulation in flavonol biosynthesis of Arabidopsis roots. *Phytochemistry Letters*, **2017**, 22, 44-48	1.9	4
53	Identification of Chemical Form of Carbon Released from SUS304 and SUS316 in Alkaline Solution under Low-oxygen Condition. *MRS Advances*, **2017**, 2, 597-602	0.7	2
52	Ultrahigh resolution metabolomics for S-containing metabolites. *Current Opinion in Biotechnology*, **2017**, 43, 8-16	11.4	25

51	Effects of Combined Low Glutathione with Mild Oxidative and Low Phosphorus Stress on the Metabolism of. *Frontiers in Plant Science*, **2017**, 8, 1464	6.2	11
50	Transgenic rice seed expressing flavonoid biosynthetic genes accumulate glycosylated and/or acylated flavonoids in protein bodies. *Journal of Experimental Botany*, **2016**, 67, 95-106	7	20
49	Cloning and characterization of soybean gene Fg1 encoding flavonol 3-O-glucoside/galactoside (1-6) glucosyltransferase. *Plant Molecular Biology*, **2016**, 92, 445-456	4.6	14
48	Metabolome Analysis of Oryza sativa (Rice) Using Liquid Chromatography-Mass Spectrometry for Characterizing Organ Specificity of Flavonoids with Anti-inflammatory and Anti-oxidant Activity. *Chemical and Pharmaceutical Bulletin*, **2016**, 64, 952-6	1.9	12
47	Hydrogen Rearrangement Rules: Computational MS/MS Fragmentation and Structure Elucidation Using MS-FINDER Software. *Analytical Chemistry*, **2016**, 88, 7946-58	7.8	292
46	Changes in trans-S-1-Propenyl-l-cysteine Sulfoxide and Related Sulfur-Containing Amino Acids during Onion Storage. *Journal of Agricultural and Food Chemistry*, **2016**, 64, 9063-9071	5.7	4
45	Development of methodology of probabilistic safety assessment for radioactive waste disposal in consideration of epistemic uncertainty and aleatory uncertainty. *Journal of Nuclear Science and Technology*, **2016**, 53, 2006-2017	1	5
44	Chemical Assignment of Structural Isomers of Sulfur-Containing Metabolites in Garlic by Liquid Chromatography-Fourier Transform Ion Cyclotron Resonance-Mass Spectrometry. *Journal of Nutrition*, **2016**, 146, 397S-402S	4.1	24
43	Mutations in jasmonoyl-L-isoleucine-12-hydroxylases suppress multiple JA-dependent wound responses in Arabidopsis thaliana. *Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids* , **2016**, 1861, 1396-1408	5	24
42	Expression and functional analyses of a putative phenylcoumaran benzylic ether reductase in Arabidopsis thaliana. *Plant Cell Reports*, **2016**, 35, 513-26	5.1	9
41	Function of AP2/ERF Transcription Factors Involved in the Regulation of Specialized Metabolism in Revealed by Transcriptomics and Metabolomics. *Frontiers in Plant Science*, **2016**, 7, 1861	6.2	36
40	Improvement of memory recall by quercetin in rodent contextual fear conditioning and human early-stage Alzheimer's disease patients. *NeuroReport*, **2016**, 27, 671-6	1.7	23
39	Automation of chemical assignment for identifying molecular formula of S-containing metabolites by combining metabolomics and chemoinformatics with 34S labeling. *Metabolomics*, **2016**, 12, 1	4.7	8
38	Characterization of a recently evolved flavonol-phenylacyltransferase gene provides signatures of natural light selection in Brassicaceae. *Nature Communications*, **2016**, 7, 12399	17.4	90
37	Jasmonate-Responsive ERF Transcription Factors Regulate Steroidal Glycoalkaloid Biosynthesis in Tomato. *Plant and Cell Physiology*, **2016**, 57, 961-75	4.9	81
36	Top-down Targeted Metabolomics Reveals a Sulfur-Containing Metabolite with Inhibitory Activity against Angiotensin-Converting Enzyme in Asparagus officinalis. *Journal of Natural Products*, **2015**, 78, 1179-83	4.9	37
35	Multiomics in grape berry skin revealed specific induction of the stilbene synthetic pathway by ultraviolet-C irradiation. *Plant Physiology*, **2015**, 168, 47-59	6.6	51
34	Integrating transcriptome and target metabolome variability in doubled haploids of Allium cepa for abiotic stress protection. *Molecular Breeding*, **2015**, 35, 1	3.4	40

33	Linkage mapping, molecular cloning and functional analysis of soybean gene Fg3 encoding flavonol 3-O-glucoside/galactoside (1 -2) glucosyltransferase. *BMC Plant Biology*, **2015**, 15, 126	5.3	15
32	Metabolome-genome-wide association study dissects genetic architecture for generating natural variation in rice secondary metabolism. *Plant Journal*, **2015**, 81, 13-23	6.9	114
31	Identification of a flavin-containing S-oxygenating monooxygenase involved in alliin biosynthesis in garlic. *Plant Journal*, **2015**, 83, 941-51	6.9	37
30	Metabolic Profiling of Developing Pear Fruits Reveals Dynamic Variation in Primary and Secondary Metabolites, Including Plant Hormones. *PLoS ONE*, **2015**, 10, e0131408	3.7	49
29	Boosting Sensitivity in Liquid Chromatography-Fourier Transform Ion Cyclotron Resonance-Tandem Mass Spectrometry for Product Ion Analysis of Monoterpene Indole Alkaloids. *Frontiers in Plant Science*, **2015**, 6, 1127	6.2	6
28	The metabolic profile of grape berry skin and a comparison of metabolomes before veraison and at harvest. *Plant Biotechnology*, **2015**, 32, 267-272	1.3	4
27	Using metabolomic approaches to explore chemical diversity in rice. *Molecular Plant*, **2015**, 8, 58-67	14.4	82
26	Integrated metabolomics for abiotic stress responses in plants. *Current Opinion in Plant Biology*, **2015**, 24, 10-6	9.9	198
25	Assessing metabolomic and chemical diversity of a soybean lineage representing 35 years of breeding. *Metabolomics*, **2015**, 11, 261-270	4.7	37
24	Direct isolation of flavonoids from plants using ultra-small anatase TiO nanoparticles. *Plant Journal*, **2014**, 77, 443-53	6.9	43
23	Linkage mapping, molecular cloning and functional analysis of soybean gene Fg2 encoding flavonol 3-O-glucoside (1 6) rhamnosyltransferase. *Plant Molecular Biology*, **2014**, 84, 287-300	4.6	28
22	Using metabolomic approaches to explore chemical diversity in rice. *Molecular Plant*, **2014**,	14.4	3
21	A flavonoid 3-O-glucoside:2"-O-glucosyltransferase responsible for terminal modification of pollen-specific flavonols in Arabidopsis thaliana. *Plant Journal*, **2014**, 79, 769-82	6.9	65
20	Successful expression of a novel bacterial gene for pinoresinol reductase and its effect on lignan biosynthesis in transgenic Arabidopsis thaliana. *Applied Microbiology and Biotechnology*, **2014**, 98, 8165-77	3.7	8
19	Revisiting anabasine biosynthesis in tobacco hairy roots expressing plant lysine decarboxylase gene by using 15N-labeled lysine. *Plant Biotechnology*, **2014**, 31, 511-518	1.3	13
18	Alternation of flavonoid accumulation under drought stress in Arabidopsis thaliana. *Plant Signaling and Behavior*, **2014**, 9, e29518	2.5	78
17	Enhancement of oxidative and drought tolerance in Arabidopsis by overaccumulation of antioxidant flavonoids. *Plant Journal*, **2014**, 77, 367-79	6.9	573
16	Toward better annotation in plant metabolomics: isolation and structure elucidation of 36 specialized metabolites from (rice) by using MS/MS and NMR analyses. *Metabolomics*, **2014**, 10, 543-555	4.7	60

15	Coupling deep transcriptome analysis with untargeted metabolic profiling in Ophiorrhiza pumila to further the understanding of the biosynthesis of the anti-cancer alkaloid camptothecin and anthraquinones. *Plant and Cell Physiology*, **2013**, 54, 686-96	4.9	67
14	The flavonoid biosynthetic pathway in Arabidopsis: structural and genetic diversity. *Plant Physiology and Biochemistry*, **2013**, 72, 21-34	5.4	440
13	Metabolomics for unknown plant metabolites. *Analytical and Bioanalytical Chemistry*, **2013**, 405, 5005-11	4.4	75
12	Combination of liquid chromatography-Fourier transform ion cyclotron resonance-mass spectrometry with 13C-labeling for chemical assignment of sulfur-containing metabolites in onion bulbs. *Analytical Chemistry*, **2013**, 85, 1310-5	7.8	68
11	Inhibition of CUTIN DEFICIENT 2 Causes Defects in Cuticle Function and Structure and Metabolite Changes in Tomato Fruit. *Plant and Cell Physiology*, **2013**, 54, 1535-48	4.9	21
10	Dissection of genotype-phenotype associations in rice grains using metabolome quantitative trait loci analysis. *Plant Journal*, **2012**, 70, 624-36	6.9	155
9	RIKEN tandem mass spectral database (ReSpect) for phytochemicals: a plant-specific MS/MS-based data resource and database. *Phytochemistry*, **2012**, 82, 38-45	4	214
8	Changes in primary and secondary metabolite levels in response to gene targeting-mediated site-directed mutagenesis of the anthranilate synthase gene in rice. *Metabolites*, **2012**, 2, 1123-38	5.6	3
7	Two glycosyltransferases involved in anthocyanin modification delineated by transcriptome independent component analysis in Arabidopsis thaliana. *Plant Journal*, **2012**, 69, 154-67	6.9	124
6	Mass spectra-based framework for automated structural elucidation of metabolome data to explore phytochemical diversity. *Frontiers in Plant Science*, **2011**, 2, 40	6.2	25
5	Effects of freeze-drying of samples on metabolite levels in metabolome analyses. *Journal of Separation Science*, **2011**, 34, 3561-7	3.4	27
4	A polyhedral approach for understanding flavonoid biosynthesis in Arabidopsis. *New Biotechnology*, **2010**, 27, 829-36	6.4	12
3	Metabolomics-oriented isolation and structure elucidation of 37 compounds including two anthocyanins from Arabidopsis thaliana. *Phytochemistry*, **2009**, 70, 1017-29	4	105
2	Comprehensive flavonol profiling and transcriptome coexpression analysis leading to decoding gene-metabolite correlations in Arabidopsis. *Plant Cell*, **2008**, 20, 2160-76	11.6	308
1	Spatial metabolomics using imaging mass spectrometry to identify the localization of asparaptine in Asparagus officinalis		1