Makoto Matsuoka

List of Publications by Year
in descending order

116 papers	20,360 citations	20817 60 h-index	22832 112 g-index
116 all docs	116 docs citations	116 times ranked	11933 citing authors

#	Article	IF	Citations
1	Cytokinin Oxidase Regulates Rice Grain Production. Science, 2005, 309, 741-745.	12.6	1,620
2	GIBBERELLIN INSENSITIVE DWARF1 encodes a soluble receptor for gibberellin. Nature, 2005, 437, 693-698.	27.8	1,326
3	OsSPL14 promotes panicle branching and higher grain productivity in rice. Nature Genetics, 2010, 42, 545-549.	21.4	1,187
4	slender Rice, a Constitutive Gibberellin Response Mutant, Is Caused by a Null Mutation of the SLR1 Gene, an Ortholog of the Height-Regulating Gene GAI/RGA/RHT/D8. Plant Cell, 2001, 13, 999-1010.	6.6	672
5	Loss of Function of a Rice brassinosteroid insensitive1 Homolog Prevents Internode Elongation and Bending of the Lamina Joint. Plant Cell, 2000, 12, 1591-1605.	6.6	650
6	An Overview of Gibberellin Metabolism Enzyme Genes and Their Related Mutants in Rice. Plant Physiology, 2004, 134, 1642-1653.	4.8	643
7	Genome-wide association study using whole-genome sequencing rapidly identifies new genes influencing agronomic traits in rice. Nature Genetics, 2016, 48, 927-934.	21.4	600
8	Loss-of-function of a rice brassinosteroid biosynthetic enzyme, C-6 oxidase, prevents the organized arrangement and polar elongation of cells in the leaves and stem. Plant Journal, 2002, 32, 495-508.	5.7	588
9	Accumulation of Phosphorylated Repressor for Gibberellin Signaling in an F-box Mutant. Science, 2003, 299, 1896-1898.	12.6	580
10	Erect leaves caused by brassinosteroid deficiency increase biomass production and grain yield in rice. Nature Biotechnology, 2006, 24, 105-109.	17.5	579
11	TheOsTB1gene negatively regulates lateral branching in rice. Plant Journal, 2003, 33, 513-520.	5.7	553
12	A Rice Brassinosteroid-Deficient Mutant, ebisu dwarf (d2), Is Caused by a Loss of Function of a New Member of Cytochrome P450. Plant Cell, 2003, 15, 2900-2910.	6.6	495
13	A Novel Cytochrome P450 Is Implicated in Brassinosteroid Biosynthesis via the Characterization of a Rice Dwarf Mutant, dwarf11, with Reduced Seed Length. Plant Cell, 2005, 17, 776-790.	6.6	482
14	The Role of OsBRI1 and Its Homologous Genes, OsBRL1 and OsBRL3, in Rice. Plant Physiology, 2006, 140, 580-590.	4.8	448
15	The Gibberellin Signaling Pathway Is Regulated by the Appearance and Disappearance of SLENDER RICE1 in Nuclei. Plant Cell, 2002, 14, 57-70.	6.6	429
16	Identification and characterization of Arabidopsis gibberellin receptors. Plant Journal, 2006, 46, 880-889.	5.7	413
17	Genetic approaches to crop improvement: responding to environmental and population changes. Nature Reviews Genetics, 2008, 9, 444-457.	16.3	396
18	KNOX homeodomain protein directly suppresses the expression of a gibberellin biosynthetic gene in the tobacco shoot apical meristem. Genes and Development, 2001, 15, 581-590.	5.9	390

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19	Molecular Interactions of a Soluble Gibberellin Receptor, GID1, with a Rice DELLA Protein, SLR1, and Gibberellin. Plant Cell, 2007, 19, 2140-2155.	6.6	362
20	gid1, a gibberellin-insensitive dwarf mutant, shows altered regulation of probenazole-inducible protein (PBZ1) in response to cold stress and pathogen attack. Plant, Cell and Environment, 2006, 29, 619-631.	5.7	344
21	Structural basis for gibberellin recognition by its receptor GID1. Nature, 2008, 456, 520-523.	27.8	306
22	Gibberellin Receptor and Its Role in Gibberellin Signaling in Plants. Annual Review of Plant Biology, 2007, 58, 183-198.	18.7	291
23	Expression of a Gibberellin 2-Oxidase Gene around the Shoot Apex Is Related to Phase Transition in Rice. Plant Physiology, 2001, 125, 1508-1516.	4.8	283
24	The Rice brassinosteroid-deficient dwarf2 Mutant, Defective in the Rice Homolog of Arabidopsis DIMINUTO/DWARF1, Is Rescued by the Endogenously Accumulated Alternative Bioactive Brassinosteroid, Dolichosterone. Plant Cell, 2005, 17, 2243-2254.	6.6	260
25	GID2, an F-box subunit of the SCF E3 complex, specifically interacts with phosphorylated SLR1 protein and regulates the gibberellin-dependent degradation of SLR1 in rice. Plant Journal, 2004, 37, 626-634.	5.7	244
26	New approach for rice improvement using a pleiotropic QTL gene for lodging resistance and yield. Nature Communications, 2010, 1, 132.	12.8	242
27	Loss-of-function of a Rice Gibberellin Biosynthetic Gene, GA20 oxidase (GA20ox-2), Led to the Rice 'Green Revolution'.. Breeding Science, 2002, 52, 143-150.	1.9	234
28	Isolation and characterization of a rice WUSCHEL-type homeobox gene that is specifically expressed in the central cells of a quiescent center in the root apical meristem. Plant Journal, 2003, 35, 429-441.	5.7	231
29	Ectopic Expression of KNOTTED1-Like Homeobox Protein Induces Expression of Cytokinin Biosynthesis Genes in Rice. Plant Physiology, 2006, 142, 54-62.	4.8	222
30	DELLA protein functions as a transcriptional activator through the DNA binding of the INDETERMINATE DOMAIN family proteins. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7861-7866.	7.1	212
31	Where do gibberellin biosynthesis and gibberellin signaling occur in rice plants?. Plant Journal, 2003, 35, 104-115.	5.7	207
32	Loss-of-function mutations in the rice homeobox gene OSH15 affect the architecture of internodes resulting in dwarf plants. EMBO Journal, 1999, 18, 992-1002.	7.8	192
33	The GID1-Mediated Gibberellin Perception Mechanism Is Conserved in the Lycophyte <i>Selaginella moellendorffii</i> but Not in the Bryophyte <i>Physcomitrella patens</i>. Plant Cell, 2007, 19, 3058-3079.	6.6	188
34	Comprehensive Transcriptome Analysis of Phytohormone Biosynthesis and Signaling Genes in Microspore/Pollen and Tapetum of Rice. Plant and Cell Physiology, 2008, 49, 1429-1450.	3.1	187
35	GID1-mediated gibberellin signaling in plants. Trends in Plant Science, 2008, 13, 192-199.	8.8	184
36	Regional Expression of the Rice KN1-Type Homeobox Gene Family during Embryo, Shoot, and Flower Development. Plant Cell, 1999, 11, 1651-1663.	6.6	174

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37	The riceSPINDLYgene functions as a negative regulator of gibberellin signaling by controlling the suppressive function of the DELLA protein, SLR1, and modulating brassinosteroid synthesis. Plant Journal, 2006, 48, 390-402.	5.7	170
38	Characterization of the Molecular Mechanism Underlying Gibberellin Perception Complex Formation in Rice Â. Plant Cell, 2010, 22, 2680-2696.	6.6	162
39	Multiple loss-of-function of Arabidopsis gibberellin receptor AtGID1s completely shuts down a gibberellin signal. Plant Journal, 2007, 50, 958-966.	5.7	136
40	New Approach to Increasing Rice Lodging Resistance and Biomass Yield Through the Use of High Gibberellin Producing Varieties. PLoS ONE, 2014, 9, e86870.	2.5	126
41	GWAS with principal component analysis identifies a gene comprehensively controlling rice architecture. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21262-21267.	7.1	122
42	SHOOT ORGANIZATION Genes Regulate Shoot Apical Meristem Organization and the Pattern of Leaf Primordium Initiation in Rice. Plant Cell, 2000, 12, 2161-2174.	6.6	116
43	A role for the ubiquitinâ€"26S-proteasome pathway in gibberellin signaling. Trends in Plant Science, 2003, 8, 492-497.	8.8	115
44	The suppressive function of the rice DELLA protein SLR1 is dependent on its transcriptional activation activity. Plant Journal, 2012, 71, 443-453.	5.7	109
45	A Novel AP2-Type Transcription Factor, SMALL ORGAN SIZE1, Controls Organ Size Downstream of an Auxin Signaling Pathway. Plant and Cell Physiology, 2014, 55, 897-912.	3.1	107
46	Identification of Transcription Factors Involved in Rice Secondary Cell Wall Formation. Plant and Cell Physiology, 2013, 54, 1791-1802.	3.1	105
47	SMALL ORGAN SIZE 1 and SMALL ORGAN SIZE 2/DWARF AND LOW-TILLERING Form a Complex to Integrate Auxin and Brassinosteroid Signaling in Rice. Molecular Plant, 2017, 10, 590-604.	8.3	105
48	Overexpression of a GRAS protein lacking the DELLA domain confers altered gibberellin responses in rice. Plant Journal, 2005, 44, 669-679.	5.7	101
49	Release of the Repressive Activity of Rice DELLA Protein SLR1 by Gibberellin Does Not Require SLR1 Degradation in the <i>gid2</i> Mutant. Plant Cell, 2008, 20, 2437-2446.	6.6	100
50	Dissection of the Phosphorylation of Rice DELLA Protein, SLENDER RICE1. Plant and Cell Physiology, 2005, 46, 1392-1399.	3.1	98
51	Isolation and characterization of dominant dwarf mutants, Slr1-d, in rice. Molecular Genetics and Genomics, 2009, 281, 223-231.	2.1	92
52	Genetic and Molecular Analysis of Utility of sd1 Alleles in Rice Breeding. Breeding Science, 2007, 57, 53-58.	1.9	90
53	OsPNH1regulates leaf development and maintenance of the shoot apical meristem in rice. Plant Journal, 2002, 30, 189-201.	5.7	85
54	Isolation of a Novel Lodging Resistance QTL Gene Involved in Strigolactone Signaling and Its Pyramiding with a QTL Gene Involved in Another Mechanism. Molecular Plant, 2015, 8, 303-314.	8.3	85

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55	Sorghum Dw1, an agronomically important gene for lodging resistance, encodes a novel protein involved in cell proliferation. Scientific Reports, 2016, 6, 28366.	3.3	81
56	The Gibberellin perception system evolved to regulate a pre-existing GAMYB-mediated system during land plant evolution. Nature Communications, 2011, 2, 544.	12.8	79
57	OsCAD2 is the major CAD gene responsible for monolignol biosynthesis in rice culm. Plant Cell Reports, 2012, 31, 91-101.	5.6	78
58	Survey of Genes Involved in Rice Secondary Cell Wall Formation Through a Co-Expression Network. Plant and Cell Physiology, 2013, 54, 1803-1821.	3.1	71
59	Antheridiogen determines sex in ferns via a spatiotemporally split gibberellin synthesis pathway. Science, 2014, 346, 469-473.	12.6	71
60	Increased lodging resistance in long-culm, low-lignin gh2 rice for improved feed and bioenergy production. Scientific Reports, 2014, 4, 6567.	3.3	68
61	Engineering the lodging resistance mechanism of post-Green Revolution rice to meet future demands. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2017, 93, 220-233.	3.8	67
62	A Major QTL Confers Rapid Internode Elongation in Response to Water Rise in Deepwater Rice. Breeding Science, 2007, 57, 305-314.	1.9	60
63	Functional analysis of cotton orthologs of GA signal transduction factors GID1 and SLR1. Plant Molecular Biology, 2008, 68, 1-16.	3.9	58
64	Plant Omics Data Center: An Integrated Web Repository for Interspecies Gene Expression Networks with NLP-Based Curation. Plant and Cell Physiology, 2015, 56, e9-e9.	3.1	55
65	Gibberellin deficiency pleiotropically induces culm bending in sorghum: an insight into sorghum semi-dwarf breeding. Scientific Reports, 2014, 4, 5287.	3.3	54
66	Precise estimation of genomic regions controlling lodging resistance using a set of reciprocal chromosome segment substitution lines in rice. Scientific Reports, 2016, 6, 30572.	3.3	53
67	Differential expression and affinities of Arabidopsis gibberellin receptors can explain variation in phenotypes of multiple knockâ€out mutants. Plant Journal, 2009, 60, 48-55.	5.7	52
68	Chapter 6 Molecular Biology of Gibberellins Signaling in Higher Plants. International Review of Cell and Molecular Biology, 2008, 268, 191-221.	3.2	51
69	The perception of gibberellins: clues from receptor structure. Current Opinion in Plant Biology, 2010, 13, 503-508.	7.1	51
70	Evolution and diversification of the plant gibberellin receptor GID1. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7844-E7853.	7.1	51
71	Brassinosteroids and Rice Architecture. Journal of Pesticide Sciences, 2004, 29, 184-188.	1.4	50
72	Isolation and characterization of a rice homebox gene, OSH15. Plant Molecular Biology, 1998, 38, 983-997.	3.9	49

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73	Analysis of rice panicle traits and detection of QTLs using an image analyzing method. Breeding Science, 2010, 60, 55-64.	1.9	49
74	Mapping of three QTLs that regulate internode elongation in deepwater rice. Breeding Science, 2008, 58, 39-46.	1.9	45
75	De Novo Transcriptome Assembly of a Fern, Lygodium japonicum, and a Web Resource Database, Ljtrans DB. Plant and Cell Physiology, 2015, 56, e5-e5.	3.1	44
76	Expression of photosynthetic genes from the C4 plant, maize, in tobacco. Molecular Genetics and Genomics, 1991, 225, 411-419.	2.4	43
77	Methyl jasmonate inhibits lamina joint inclination by repressing brassinosteroid biosynthesis and signaling in rice. Plant Science, 2015, 241, 238-245.	3.6	43
78	Characterization of CONSTITUTIVE PHOTOMORPHOGENESIS AND DWARFISM Homologs in Rice (Oryza) Tj ETQq0 0 0 rgBT /Overlock 10	5.1	42
79	Whole-genome sequence diversity and association analysis of 198 soybean accessions in mini-core collections. DNA Research, 2021, 28, .	3.4	36
80	OsIDD2, a zinc finger and INDETERMINATE DOMAIN protein, regulates secondary cell wall formation. Journal of Integrative Plant Biology, 2018, 60, 130-143.	8.5	34
81	Production of novel beneficial alleles of a rice yieldâ€related QTL by CRISPR/Cas9. Plant Biotechnology Journal, 2020, 18, 1987-1989.	8.3	33
82	A common allosteric mechanism regulates homeostatic inactivation of auxin and gibberellin. Nature Communications, 2020, 11, 2143.	12.8	32
83	Arabidopsis Group IIId ERF proteins positively regulate primary cell wall-type CESA genes. Journal of Plant Research, 2019, 132, 117-129.	2.4	30
84	Utilization of Stiff Culm Trait of Rice smos1 Mutant for Increased Lodging Resistance. PLoS ONE, 2014, 9, e96009.	2.5	27
85	Comprehensive Gene Expression Analysis of Rice Aleurone Cells: Probing the Existence of an Alternative Gibberellin Receptor. Plant Physiology, 2015, 167, 531-544.	4.8	27
86	Making the â€˜Green Revolutionâ€™ Truly Green: Improving Crop Nitrogen Use Efficiency. Plant and Cell Physiology, 2021, 62, 942-947.	3.1	25
87	Increasing resistant starch content in rice for better consumer health. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12616-12618.	7.1	23
88	Involvement of Homeobox Genes in Early Body Plan of Monocot. International Review of Cytology, 2002, 218, 1-36e.	6.2	22
89	Molecular Breeding of Sorghum bicolor, A Novel Energy Crop. International Review of Cell and Molecular Biology, 2016, 321, 221-257.	3.2	22
90	Rice globular embryo 4 (gle4) Mutant is Defective in Radial Pattern Formation during Embryogenesis. Plant and Cell Physiology, 2003, 44, 875-883.	3.1	21

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91	Split luciferase complementation assay to detect regulated protein-protein interactions in rice protoplasts in a large-scale format. Rice, 2014, 7, 11.	4.0	21
92	Expression and purification of a GRAS domain of SLR1, the rice DELLA protein. Protein Expression and Purification, 2014, 95, 248-258.	1.3	21
93	Formation, Maintenance and Function of the Shoot Apical Meristem in Rice. Plant Molecular Biology, 2006, 60, 827-842.	3.9	19
94	The hybrid breakdown 1(t) locus induces interspecific hybrid breakdown between rice Oryza sativa cv. Koshihikari and its wild relative O. nivara. Breeding Science, 2008, 58, 99-105.	1.9	19
95	ROOT GROWTH INHIBITING, a Rice Endo-1,4-Î²-d-Glucanase, Regulates Cell Wall Loosening and is Essential for Root Elongation. Journal of Plant Growth Regulation, 2012, 31, 373-381.	5.1	17
96	Diverse panicle architecture results from various combinations of Prl5/GA20ox4 and Pbl6/APO1 alleles. Communications Biology, 2020, 3, 302.	4.4	16
97	Starch metabolism and grain chalkiness under high temperature stress. National Science Review, 2016, 3, 280-282.	9.5	13
98	Effects of Ssi1 Gene Controlling dm-type Internode Elongation Pattern on Lodging Resistance and Panicle Characters in Rice. Breeding Science, 2006, 56, 261-268.	1.9	12
99	Evolution of GA Metabolic Enzymes in Land Plants. Plant and Cell Physiology, 2020, 61, 1919-1934.	3.1	11
100	A quantitative trait locus regulating rice grain width. Nature Genetics, 2007, 39, 583-584.	21.4	9
101	Genomeâ€wide expression quantitative trait locus studies facilitate isolation of causal genes controlling panicle structure. Plant Journal, 2020, 103, 266-278.	5.7	9
102	New path towards a better rice architecture. Cell Research, 2017, 27, 1189-1190.	12.0	9
103	Molecular actions of two synthetic brassinosteroids, iso-carbaBL and 6-deoxoBL, which cause altered physiological activities between Arabidopsis and rice. PLoS ONE, 2017, 12, e0174015.	2.5	9
104	Toward a Molecular Understanding of Plant Hormone Actions. Molecular Plant, 2016, 9, 1-3.	8.3	7
105	Potential of rice landraces with strong culms as genetic resources for improving lodging resistance against super typhoons. Scientific Reports, 2021, 11, 15780.	3.3	7
106	Gibberellin Signal Transduction in Rice. Journal of Plant Growth Regulation, 2003, 22, 141-151.	5.1	6
107	Regulatory Networks Acted Upon by the GID1â€"DELLA System After Perceiving Gibberellin. The Enzymes, 2014, 35, 1-25.	1.7	6
108	Evolutionary alterations in gene expression and enzymatic activities of gibberellin 3-oxidase 1 in Oryza. Communications Biology, 2022, 5, 67.	4.4	4

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109	Isolation of a novel lodging resistance QTL gene involved in strigolactone signaling and its pyramiding with a QTL gene involved in another mechanism. Molecular Plant, 2014, , .	8.3	3
110	Rice genetics: Control of grain length and quality. Nature Plants, 2015, 1, 15112.	9.3	3
111	Special Issue on Gibberellin: A Fascinating Substance That Still Attracts Plant Scientists. Plant and Cell Physiology, 2020, 61, 1829-1831.	3.1	2
112	Hormonal Signal Transduction in Rice. Biotechnology in Agriculture and Forestry, 2008, , 121-134.	0.2	1
113	Future Strategy of Breeding: Learn by Two Important Genes of Miracle Rice. Molecular Plant, 2020, 13, 823-824.	8.3	1
114	Greetings from Editor-in-Chief. Plant and Cell Physiology, 2008, 49, 1403-1403.	3.1	0
115	Is oneâ€line hybrid rice coming?. Journal of Integrative Plant Biology, 2019, 61, 908-910.	8.5	0
116	Gibberellin in rice; its biosynthesis, perception and application for breeding. Ikushugaku Kenkyu, 2010, 12, 154-159.	0.3	0