Makoto Hayashi

List of Publications by Year
in descending order

68 papers	5,359 citations	136740 32 h-index	102304 66 g-index
72 all docs	72 docs citations	72 times ranked	3895 citing authors

#	Article	IF	Citations
1	Genome Structure of the Legume, Lotus japonicus. DNA Research, 2008, 15, 227-239.	1.5	691
2	CYCLOPS, a mediator of symbiotic intracellular accommodation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20540-20545.	3.3	398
3	Plastid proteins crucial for symbiotic fungal and bacterial entry into plant roots. Nature, 2005, 433, 527-531.	13.7	391
4	NUCLEOPORIN85 Is Required for Calcium Spiking, Fungal and Bacterial Symbioses, and Seed Production in Lotus japonicus. Plant Cell, 2007, 19, 610-624.	3.1	309
5	NODULE INCEPTION Directly Targets NF-Y Subunit Genes to Regulate Essential Processes of Root Nodule Development in Lotus japonicus. PLoS Genetics, 2013, 9, e1003352.	1.5	283
6	How Many Peas in a Pod? Legume Genes Responsible for Mutualistic Symbioses Underground. Plant and Cell Physiology, 2010, 51, 1381-1397.	1.5	227
7	Large-Scale Analysis of Gene Expression Profiles during Early Stages of Root Nodule Formation in a Model Legume, Lotus japonicus. DNA Research, 2004, 11, 263-274.	1.5	207
8	Expression Islands Clustered on the Symbiosis Island of the Mesorhizobium loti Genome. Journal of Bacteriology, 2004, 186, 2439-2448.	1.0	205
9	NODULE INCEPTION creates a long-distance negative feedback loop involved in homeostatic regulation of nodule organ production. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14607-14612.	3.3	175
10	Gibberellin controls the nodulation signaling pathway in <i>Lotus japonicus</i>. Plant Journal, 2009, 58, 183-194.	2.8	162
11	Enhanced Accumulation of Cd 2+ by a Mesorhizobium sp. Transformed with a Gene from Arabidopsis thaliana Coding for Phytochelatin Synthase. Applied and Environmental Microbiology, 2003, 69, 1791-1796.	1.4	152
12	Construction of a Genetic Linkage Map of the Model Legume Lotus japonicus Using an Intraspecific F2 Population. DNA Research, 2001, 8, 301-310.	1.5	141
13	A shared gene drives lateral root development and root nodule symbiosis pathways in <i>Lotus</i>. Science, 2019, 366, 1021-1023.	6.0	135
14	The <i><scp>LORE</scp>1</i> insertion mutant resource. Plant Journal, 2016, 88, 306-317.	2.8	123
15	CERBERUS, a novel Uâ€box protein containing WDâ€40 repeats, is required for formation of the infection thread and nodule development in the legumeâ€"<i>Rhizobium</i> symbiosis. Plant Journal, 2009, 60, 168-180.	2.8	114
16	A novel bioremediation system for heavy metals using the symbiosis between leguminous plant and genetically engineered rhizobia. Journal of Biotechnology, 2002, 99, 279-293.	1.9	110
17	Polyubiquitin Promoter-Based Binary Vectors for Overexpression and Gene Silencing in <i>Lotus japonicus</i>. Molecular Plant-Microbe Interactions, 2008, 21, 375-382.	1.4	109
18	Establishment of a <i>Lotus japonicus</i> gene tagging population using the exonâ€targeting endogenous retrotransposon <i>LORE1</i>. Plant Journal, 2012, 69, 720-730.	2.8	109

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19	A dominant function of CCaMK in intracellular accommodation of bacterial and fungal endosymbionts. Plant Journal, 2010, 63, no-no.	2.8	102
20	Genetics of Symbiosis in Lotus japonicus: Recombinant Inbred Lines, Comparative Genetic Maps, and Map Position of 35 Symbiotic Loci. Molecular Plant-Microbe Interactions, 2006, 19, 80-91.	1.4	94
21	Nuclear-Localized and Deregulated Calcium- and Calmodulin-Dependent Protein Kinase Activates Rhizobial and Mycorrhizal Responses in <i>Lotus japonicus</i>. Plant Cell, 2012, 24, 810-822.	3.1	84
22	Rhizobial and Fungal Symbioses Show Different Requirements for Calmodulin Binding to Calcium Calmodulinâ€“Dependent Protein Kinase in <i>Lotus japonicus</i> Â Â. Plant Cell, 2012, 24, 304-321.	3.1	78
23	crinkle, a Novel Symbiotic Mutant That Affects the Infection Thread Growth and Alters the Root Hair, Trichome, and Seed Development in Lotus japonicus Â. Plant Physiology, 2003, 131, 1054-1063.	2.3	77
24	Multi-omics analysis on an agroecosystem reveals the significant role of organic nitrogen to increase agricultural crop yield. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 14552-14560.	3.3	77
25	NODULE INCEPTION Antagonistically Regulates Gene Expression with Nitrate in Lotus japonicus. Plant and Cell Physiology, 2015, 56, 368-376.	1.5	64
26	Rhizobial infection does not require cortical expression of upstream common symbiosis genes responsible for the induction of <scp>C</scp>a²⁺ spiking. Plant Journal, 2014, 77, 146-159.	2.8	50
27	Transcriptional networks leading to symbiotic nodule organogenesis. Current Opinion in Plant Biology, 2014, 20, 146-154.	3.5	50
28	Derepression of the Plant Chromovirus LORE1 Induces Germline Transposition in Regenerated Plants. PLoS Genetics, 2010, 6, e1000868.	1.5	48
29	Lossâ€ofâ€function of <scp>ASPARTIC PEPTIDASE NODULE</scp>â€<scp>INDUCED</scp> 1 (<scp>APN</scp>1) in <i>Lotus japonicus</i> restricts efficient nitrogenâ€fixing symbiosis with specific <i>Mesorhizobium loti</i> strains. Plant Journal, 2018, 93, 5-16.	2.8	46
30	Lotus burttii Takes a Position of the Third Corner in the Lotus Molecular Genetics Triangle. DNA Research, 2005, 12, 69-77.	1.5	38
31	Function of GRAS Proteins in Root Nodule Symbiosis is Retained in Homologs of a Non-Legume, Rice. Plant and Cell Physiology, 2010, 51, 1436-1442.	1.5	37
32	Identification of Symbiotically Defective Mutants of Lotus japonicus Affected in Infection Thread Growth. Molecular Plant-Microbe Interactions, 2006, 19, 1444-1450.	1.4	33
33	New Nodulation Mutants Responsible for Infection Thread Development in Lotus japonicus. Molecular Plant-Microbe Interactions, 2006, 19, 801-810.	1.4	32
34	Characterization of the Lotus japonicus Symbiotic Mutant lot1 That Shows a Reduced Nodule Number and Distorted Trichomes. Plant Physiology, 2005, 137, 1261-1271.	2.3	31
35	Pollen Development and Tube Growth are Affected in the Symbiotic Mutant of Lotus japonicus, crinkle. Plant and Cell Physiology, 2004, 45, 511-520.	1.5	29
36	Expression of LjENOD40 Genes in Response to Symbiotic and Non-symbiotic Signals: LjENOD40â€“1 and LjENOD40â€“2 are Differentially Regulated in Lotus japonicus. Plant and Cell Physiology, 2005, 46, 1291-1298.	1.5	25

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37	Blue Light Perception by Both Roots and Rhizobia Inhibits Nodule Formation in <i>Lotus japonicus</i>. Molecular Plant-Microbe Interactions, 2016, 29, 786-796.	1.4	25
38	Function and evolution of nodulation genes in legumes. Cellular and Molecular Life Sciences, 2011, 68, 1341-1351.	2.4	24
39	Leguminous nodule symbiosis involves recruitment of factors contributing to lateral root development. Current Opinion in Plant Biology, 2021, 59, 102000.	3.5	24
40	Nodule Organogenesis in Lotus japonicus. Journal of Plant Research, 2000, 113, 489-495.	1.2	19
41	ERN1 and CYCLOPS coordinately activate NIN signaling to promote infection thread formation in Lotus japonicus. Journal of Plant Research, 2019, 132, 641-653.	1.2	19
42	The rhizobial autotransporter determines the symbiotic nitrogen fixation activity of <i>Lotus japonicus</i> in a host-specific manner. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1806-1815.	3.3	19
43	Efficient transformation of Mesorhizobium huakuii subsp. rengei and Rhizobium species. Journal of Bioscience and Bioengineering, 2000, 89, 550-553.	1.1	18
44	EspB from enterohaemorrhagic Escherichiaâ€ƒcoli is a natively partially folded protein. FEBS Journal, 2005, 272, 756-768.	2.2	18
45	SNARE Proteins LjVAMP72a and LjVAMP72b Are Required for Root Symbiosis and Root Hair Formation in Lotus japonicus. Frontiers in Plant Science, 2018, 9, 1992.	1.7	17
46	Building the interaction interfaces: host responses upon infection with microorganisms. Current Opinion in Plant Biology, 2015, 23, 132-139.	3.5	16
47	DNA Synthesis and Fragmentation in Bacteroids during Astragalus sinicus Root Nodule Development. Bioscience, Biotechnology and Biochemistry, 2001, 65, 510-515.	0.6	14
48	Expression of a major house dust mite allergen gene from Dermatophagoides farinae in Lotus japonicus accession miyakojima MG-20. Journal of Bioscience and Bioengineering, 2005, 99, 165-168.	1.1	14
49	Common Mechanisms of Developmental Reprogramming in Plantsâ€"Lessons From Regeneration, Symbiosis, and Parasitism. Frontiers in Plant Science, 2020, 11, 1084.	1.7	12
50	Improved Sensitivity for High Resolution in Situ Hybridization Using Resin Extraction of Methyl Methacrylate Embedded Material. Biotechnic and Histochemistry, 1999, 74, 40-48.	0.7	11
51	Symbiosis and pathogenesis: What determines the difference?. Current Opinion in Plant Biology, 2014, 20, v-vi.	3.5	10
52	Multifaceted Cellular Reprogramming at the Crossroads Between Plant Development and Biotic Interactions. Plant and Cell Physiology, 2018, 59, 651-655.	1.5	9
53	A pH-dependent conformational change in EspA, a component of the Escherichia coli O157:H7 type III secretion system. FEBS Journal, 2005, 272, 2773-2783.	2.2	8
54	Variation of the amino acid content of Arabidopsis seeds by expressing soybean aspartate aminotransferase gene. Journal of Bioscience and Bioengineering, 2002, 94, 225-30.	1.1	8

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55	Whole-Genome Sequence of the Nitrogen-Fixing Symbiotic Rhizobium Mesorhizobium loti Strain TONO. Genome Announcements, 2016, 4, .	0.8	7
56	Activation of an Endogenous Retrotransposon Associated with Epigenetic Changes in <i>Lotus japonicus</i>: A Tool for Functional Genomics in Legumes. Plant Genome, 2013, 6, plantgenome2013.04.0009.	1.6	6
57	Peribacteroid solution of soybean root nodules partly induces genomic loci for differentiation into bacteroids of free-living Bradyrhizobium japonicum cells. Soil Science and Plant Nutrition, 2015, 61, 461-470.	0.8	4
58	Rapid Flower Initiation of a Desert Ephemeral Pectis papposa Gray.. Cytologia, 1994, 59, 369-375.	0.2	2
59	Root hair abundant genes LjRH101 and LjRH102 encode peroxidase and xyloglucan endotransglycosylase in Lotus japonicus. Journal of Bioscience and Bioengineering, 2005, 99, 84-86.	1.1	2
60	Kinase activity-dependent stability of calcium/calmodulin-dependent protein kinase of Lotus japonicus. Planta, 2019, 250, 1773-1779.	1.6	2
61	Evolution of root nodule symbiosis: Focusing on the transcriptional regulation from the genomic point of view. Plant Biotechnology, 2022, 39, 79-83.	0.5	2
62	Function of GRAS Proteins in Root Nodule Symbiosis is Retained in Homologs of a Non-Legume, Rice. Plant and Cell Physiology, 2010, 51, 2152-2152.	1.5	1
63	Blue light does not inhibit nodulation in Sesbania rostrata. Plant Signaling and Behavior, 2017, 12, e1268313.	1.2	1
64	Genetic Linkage Map of the Model Legume Lotus japonicus. Biotechnology in Agriculture and Forestry, 2003, , 167-182.	0.2	1
65	Forward and Reverse Genetics: The LORE1 Retrotransposon Insertion Mutants. Compendium of Plant Genomes, 2014, , 221-227.	0.3	1
66	Plant Genes Involved in Symbiotic Signal Perception/Signal Transduction. Compendium of Plant Genomes, 2014, , 59-71.	0.3	1
67	Histological Morphology and Development of the Shoot Apical Meristem of a Rapid-flowering Desert Annual Pectis papposa Gray.. Cytologia, 1994, 59, 471-477.	0.2	0
68	Evidence for commitment of flowers on the mother plant to floral regeneration inNicotiana plumbaginifolia VIV. Journal of Plant Research, 1995, 108, 107-110.	1.2	0