Ton Bisseling

List of Publications by Year
in descending order

110 papers	13,485 citations	30070 54 h-index	27406 106 g-index
150 all docs	150 docs citations	150 times ranked	12604 citing authors

#	Article	IF	Citations
1	Primer3Plus, an enhanced web interface to Primer3. Nucleic Acids Research, 2007, 35, W71-W74.	14.5	2,323
2	The Medicago genome provides insight into the evolution of rhizobial symbioses. Nature, 2011, 480, 520-524.	27.8	1,166
3	LysM Domain Receptor Kinases Regulating Rhizobial Nod Factor-Induced Infection. Science, 2003, 302, 630-633.	12.6	725
4	A Putative Ca2+ and Calmodulin-Dependent Protein Kinase Required for Bacterial and Fungal Symbioses. Science, 2004, 303, 1361-1364.	12.6	697
5	NSP1 of the GRAS Protein Family Is Essential for Rhizobial Nod Factor-Induced Transcription. Science, 2005, 308, 1789-1791.	12.6	534
6	Medicago LYK3, an Entry Receptor in Rhizobial Nodulation Factor Signaling. Plant Physiology, 2007, 145, 183-191.	4.8	322
7	RNA interference in Agrobacterium rhizogenes-transformed roots of Arabidopsis and Medicago truncatula. Journal of Experimental Botany, 2004, 55, 983-992.	4.8	292
8	Strigolactone Biosynthesis in <i>Medicago</i> Â<i>truncatula</i> and Rice Requires the Symbiotic GRAS-Type Transcription Factors NSP1 and NSP2 Â. Plant Cell, 2011, 23, 3853-3865.	6.6	291
9	The role of actin in root hair morphogenesis: studies with lipochito-oligosaccharide as a growth stimulator and cytochalasin as an actin perturbing drug. Plant Journal, 1999, 17, 141-154.	5.7	273
10	LysM-Type Mycorrhizal Receptor Recruited for Rhizobium Symbiosis in Nonlegume <i>Parasponia</i>. Science, 2011, 331, 909-912.	12.6	273
11	Comparative genomics of the nonlegume <i>Parasponia</i> reveals insights into evolution of nitrogen-fixing rhizobium symbioses. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E4700-E4709.	7.1	253
12	A Nodule-Specific Protein Secretory Pathway Required for Nitrogen-Fixing Symbiosis. Science, 2010, 327, 1126-1129.	12.6	251
13	Fate map of <i>Medicago truncatula</i> root nodules. Development (Cambridge), 2014, 141, 3517-3528.	2.5	245
14	Single Nucleus Genome Sequencing Reveals High Similarity among Nuclei of an Endomycorrhizal Fungus. PLoS Genetics, 2014, 10, e1004078.	3.5	238
15	Formation of organelle-like N2-fixing symbiosomes in legume root nodules is controlled by DMI2. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10375-10380.	7.1	227
16	Characterization of GmENOD40 , a gene showing novel patterns of cell-specific expression during soybean nodule development. Plant Journal, 1993, 3, 573-585.	5.7	224
17	<i>Rhizobium</i> â€“legume symbiosis shares an exocytotic pathway required for arbuscule formation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8316-8321.	7.1	213
18	<i>Rhizobium</i>Nod Factor Perception and Signalling. Plant Cell, 2002, 14, S239-S249.	6.6	195

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19	Integration of the FISH pachytene and genetic maps of <i>Medicago truncatula</i>. Plant Journal, 2001, 27, 49-58.	5.7	186
20	Nod factor signaling genes and their function in the early stages of Rhizobium infection. Current Opinion in Plant Biology, 2005, 8, 346-352.	7.1	182
21	Lipo-oligosaccharides of Rhizobium induce infection-related early nodulin gene expression in pea root hairs. Plant Journal, 1993, 4, 727-733.	5.7	153
22	Rhizobium Lipo-chitooligosaccharide Signaling Triggers Accumulation of Cytokinins in Medicago truncatula Roots. Molecular Plant, 2015, 8, 1213-1226.	8.3	146
23	Lipochito-oligosaccharides re-initiate root hair tip growth in Vicia sativa with high calcium and spectrin-like antigen at the tip. Plant Journal, 1998, 13, 341-350.	5.7	145
24	IPD3 Controls the Formation of Nitrogen-Fixing Symbiosomes in Pea and <i>Medicago</i> Spp.. Molecular Plant-Microbe Interactions, 2011, 24, 1333-1344.	2.6	143
25	<i>Medicago</i>N2-Fixing Symbiosomes Acquire the Endocytic Identity Marker Rab7 but Delay the Acquisition of Vacuolar Identity. Plant Cell, 2009, 21, 2811-2828.	6.6	142
26	Developmental aspects of the Rhizobium-legume symbiosis. Plant Molecular Biology, 1992, 19, 89-107.	3.9	129
27	Endomycorrhizae and rhizobial Nod factors both require SYM8 to induce the expression of the early nodulin genesPsENOD5 and PsENOD12A. Plant Journal, 1998, 15, 605-614.	5.7	118
28	The strigolactone biosynthesis gene DWARF27 is co-opted in rhizobium symbiosis. BMC Plant Biology, 2015, 15, 260.	3.6	118
29	Microsymbiont discrimination mediated by a host-secreted peptide in <i>Medicago truncatula</i>. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6848-6853.	7.1	110
30	A <i>Medicago truncatula </i><scp>SWEET</scp> transporter implicated in arbuscule maintenance during arbuscular mycorrhizal symbiosis. New Phytologist, 2019, 224, 396-408.	7.3	101
31	A Remote <i>cis</i>-Regulatory Region Is Required for <i>NIN</i> Expression in the Pericycle to Initiate Nodule Primordium Formation in <i>Medicago truncatula</i>. Plant Cell, 2019, 31, 68-83.	6.6	101
32	Nod Factor Receptors Form Heteromeric Complexes and Are Essential for Intracellular Infection in<i>Medicago</i>Nodules. Plant Cell, 2014, 26, 4188-4199.	6.6	92
33	A Phylogenetic Strategy Based on a Legume-Specific Whole Genome Duplication Yields Symbiotic Cytokinin Type-A Response Regulators. Plant Physiology, 2011, 157, 2013-2022.	4.8	91
34	Hostâ€•and stageâ€dependent secretome of the arbuscular mycorrhizal fungus <i>Rhizophagus irregularis</i>. Plant Journal, 2018, 94, 411-425.	5.7	88
35	Nod factor-induced host responses and mechanisms of Nod factor perception. New Phytologist, 1996, 133, 25-43.	7.3	87
36	A lysin motif effector subverts chitinâ€triggered immunity to facilitate arbuscular mycorrhizal symbiosis. New Phytologist, 2020, 225, 448-460.	7.3	87

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37	Cell- and Tissue-Specific Transcriptome Analyses of Medicago truncatula Root Nodules. PLoS ONE, 2013, 8, e64377.	2.5	86
38	A symbiosisâ€dedicated SYNTAXIN OF PLANTS 13II isoform controls the formation of a stable hostâ€“microbe interface in symbiosis. New Phytologist, 2016, 211, 1338-1351.	7.3	83
39	Root developmental programs shape the<i>Medicago truncatula</i>nodule meristem. Development (Cambridge), 2015, 142, 2941-50.	2.5	78
40	Adjustment of Host Cells for Accommodation of Symbiotic Bacteria: Vacuole Defunctionalization, HOPS Suppression, and TIP1g Retargeting in <i>Medicago</i> Â Â Â. Plant Cell, 2014, 26, 3809-3822.	6.6	73
41	MAPK-triggered chromatin reprogramming by histone deacetylase in plant innate immunity. Genome Biology, 2017, 18, 131.	8.8	73
42	Evolution of a symbiotic receptor through gene duplications in the legumeâ€“rhizobium mutualism. New Phytologist, 2014, 201, 961-972.	7.3	71
43	Identification of agthi1, whose product is involved in biosynthesis of the thiamine precursor thiazole, in actinorhizal nodules of Alnus glutinosa. Plant Journal, 1996, 10, 361-368.	5.7	69
44	Plant-Specific Histone Deacetylases HDT1/2 Regulate <i>GIBBERELLIN 2-OXIDASE2</i> Expression to Control Arabidopsis Root Meristem Cell Number. Plant Cell, 2017, 29, 2183-2196.	6.6	69
45	Immuno-gold localization of leghaemoglobin in cytoplasm in nitrogen-fixing root nodules of pea. Nature, 1984, 311, 254-256.	27.8	68
46	The PsENOD12 Gene Is Expressed at Two Different Sites in Afghanistan Pea Pseudonodules Induced by Auxin Transport Inhibitors. Plant Physiology, 1992, 100, 1649-1655.	4.8	68
47	ARP2/3-Mediated Actin Nucleation Associated With Symbiosome Membrane Is Essential for the Development of Symbiosomes in Infected Cells of <i>Medicago truncatula</i> Root Nodules. Molecular Plant-Microbe Interactions, 2015, 28, 605-614.	2.6	68
48	Microsynteny between pea and Medicago truncatula in the SYM2 region. Plant Molecular Biology, 2002, 50, 225-235.	3.9	65
49	Biology by Numbersâ€”Introducing Quantitation into Life Science Education. PLoS Biology, 2005, 3, e1.	5.6	63
50	Exploiting an ancient signalling machinery to enjoy a nitrogen fixing symbiosis. Current Opinion in Plant Biology, 2012, 15, 438-443.	7.1	62
51	In vivofluorescence correlation microscopy (FCM) reveals accumulation and immobilization of Nod factors in root hair cell walls. Plant Journal, 2000, 21, 109-119.	5.7	61
52	Model for the robust establishment of precise proportions in the early Drosophila embryo. Journal of Theoretical Biology, 2005, 234, 13-19.	1.7	60
53	Next-Generation Communication. Science, 2009, 324, 691-691.	12.6	59
54	In-situ localization of chalcone synthase mRNA in pea root nodule development. Plant Journal, 1992, 2, 143-151.	5.7	58

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55	Satellite repeats in the functional centromere and pericentromeric heterochromatin of Medicago truncatula. Chromosoma, 2004, 113, 276-283.	2.2	58
56	Early nodulin gene expression during Nod factor-induced processes in Vicia sativa. Plant Journal, 1995, 8, 111-119.	5.7	57
57	Nonlegume <i>Parasponia andersonii</i> Deploys a Broad Rhizobium Host Range Strategy Resulting in Largely Variable Symbiotic Effectiveness. Molecular Plant-Microbe Interactions, 2012, 25, 954-963.	2.6	55
58	Hybrid de novo genome assembly of Chinese chestnut (Castanea mollissima). GigaScience, 2019, 8, .	6.4	55
59	Synthetic bacterial community derived from a desert rhizosphere confers salt stress resilience to tomato in the presence of a soil microbiome. ISME Journal, 2022, 16, 1907-1920.	9.8	54
60	Intracellular plant microbe associations: secretory pathways and the formation of perimicrobial compartments. Current Opinion in Plant Biology, 2010, 13, 372-377.	7.1	45
61	Modeling a Cortical Auxin Maximum for Nodulation: Different Signatures of Potential Strategies. Frontiers in Plant Science, 2012, 3, 96.	3.6	44
62	Rhizobial and Actinorhizal Symbioses: What Are the Shared Features?. Plant Cell, 1996, 8, 1899.	6.6	42
63	Medicago SPX1 and SPX3 regulate phosphate homeostasis, mycorrhizal colonization, and arbuscule degradation. Plant Cell, 2021, 33, 3470-3486.	6.6	42
64	CRISPR/Cas9-Mediated Mutagenesis of Four Putative Symbiosis Genes of the Tropical Tree Parasponia andersonii Reveals Novel Phenotypes. Frontiers in Plant Science, 2018, 9, 284.	3.6	41
65	Interface Symbiotic Membrane Formation in Root Nodules of Medicago truncatula: the Role of Synaptotagmins MtSyt1, MtSyt2 and MtSyt3. Frontiers in Plant Science, 2017, 8, 201.	3.6	39
66	<scp>VAMP</scp>721a and <scp>VAMP</scp>721d are important for pectin dynamics and release of bacteria in soybean nodules. New Phytologist, 2016, 210, 1011-1021.	7.3	38
67	Evolutionary origin of rhizobium Nod factor signaling. Plant Signaling and Behavior, 2011, 6, 1510-1514.	2.4	36
68	Nutrient computation for root architecture. Science, 2014, 346, 300-301.	12.6	36
69	Evolution of NIN and NIN-like Genes in Relation to Nodule Symbiosis. Genes, 2020, 11, 777.	2.4	36
70	One-Step Agrobacterium Mediated Transformation of Eight Genes Essential for Rhizobium Symbiotic Signaling Using the Novel Binary Vector System pHUGE. PLoS ONE, 2012, 7, e47885.	2.5	35
71	NIN is essential for development of symbiosomes, suppression of defence and premature senescence in <i>Medicago truncatula</i> nodules. New Phytologist, 2021, 230, 290-303.	7.3	33
72	Mutant analysis in the nonlegume <i>Parasponia andersonii</i> identifies NIN and NFâ€YA1 transcription factors as a core genetic network in nitrogenâ€fixing nodule symbioses. New Phytologist, 2020, 226, 541-554.	7.3	32

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73	Identification of distinct steps during tubule formation by the movement protein of Cowpea mosaic virus. Journal of General Virology, 2003, 84, 3485-3494.	2.9	29
74	Diversity of Root Nodulation and Rhizobial Infection Processes. , 1998, , 347-360.		28
75	Haustorium Formation in <i>Medicago truncatula</i> Roots Infected by <i>Phytophthora palmivora</i> Does Not Involve the Common Endosymbiotic Program Shared by Arbuscular Mycorrhizal Fungi and Rhizobia. Molecular Plant-Microbe Interactions, 2015, 28, 1271-1280.	2.6	27
76	Quantitative comparison between the rhizosphere effect of <i>Arabidopsis thaliana</i> and co-occurring plant species with a longer life history. ISME Journal, 2020, 14, 2433-2448.	9.8	27
77	A genetically and functionally diverse group of non-diazotrophic Bradyrhizobium spp. colonizes the root endophytic compartment of Arabidopsis thaliana. BMC Plant Biology, 2018, 18, 61.	3.6	26
78	Duplication of Symbiotic Lysin Motif Receptors Predates the Evolution of Nitrogen-Fixing Nodule Symbiosis. Plant Physiology, 2020, 184, 1004-1023.	4.8	26
79	A nuclearâ€targeted effector of <i>Rhizophagus irregularis</i> interferes with histone 2B monoâ€ubiquitination to promote arbuscular mycorrhization. New Phytologist, 2021, 230, 1142-1155.	7.3	26
80	Reâ€evaluation of phytohormoneâ€independent division of tobacco protoplastâ€derived cells. Plant Journal, 1999, 17, 461-466.	5.7	24
81	The Scion/Rootstock Genotypes and Habitats Affect Arbuscular Mycorrhizal Fungal Community in Citrus. Frontiers in Microbiology, 2015, 6, 1372.	3.5	24
82	Lateral root formation involving cell division in both pericycle, cortex and endodermis is a common and ancestral trait in seed plants. Development (Cambridge), 2019, 146, .	2.5	24
83	A Homeotic Mutation Changes Legume Nodule Ontogeny into Actinorhizal-Type Ontogeny. Plant Cell, 2020, 32, 1868-1885.	6.6	24
84	Comparative transcriptome analysis of Poncirus trifoliata identifies a core set of genes involved in arbuscular mycorrhizal symbiosis. Journal of Experimental Botany, 2018, 69, 5255-5264.	4.8	19
85	The birth of cooperation. Science, 2014, 345, 29-30.	12.6	17
86	The roots of nodulins. Physiologia Plantarum, 1990, 79, 407-414.	5.2	16
87	Efficiency of Agrobacterium rhizogenesâ€"mediated root transformation of Parasponia and Trema is temperature dependent. Plant Growth Regulation, 2012, 68, 459-465.	3.4	16
88	CYCLOPS: A New Vision on Rhizobium-Induced Nodule Organogenesis. Cell Host and Microbe, 2014, 15, 127-129.	11.0	14
89	Plant growthâ€promoting rhizobacterium <i>Pseudomonas</i> sp. CM11 specifically induces lateral roots. New Phytologist, 2022, 235, 1575-1588.	7.3	14
90	Magnetic Resonance Microscopy at Cellular Resolution and Localised Spectroscopy of Medicago truncatula at 22.3 Tesla. Scientific Reports, 2020, 10, 971.	3.3	13

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91	Draft Genome Sequence of the Phosphate-Solubilizing Bacterium Pseudomonas argentinensis Strain SA190 Isolated from the Desert Plant <i>Indigofera argentea</i>. Genome Announcements, 2016, 4, .	0.8	9
92	In Situ Hybridization Method for Localization of mRNA Molecules in Medicago Tissue Sections. Methods in Molecular Biology, 2018, 1822, 145-159.	0.9	9
93	Specificity in legume nodule symbiosis. Science, 2020, 369, 620-621.	12.6	9
94	SNARE Complexity in Arbuscular Mycorrhizal Symbiosis. Frontiers in Plant Science, 2020, 11, 354.	3.6	9
95	Plant-specific histone deacetylases are essential for early and late stages of Medicago nodule development. Plant Physiology, 2021, 186, 1591-1605.	4.8	9
96	A new wholeâ€mount DNA quantification method and the analysis of nuclear DNA content in the stemâ€cell niche of Arabidopsis roots. Plant Journal, 2008, 55, 886-894.	5.7	8
97	Compact tomato seedlings and plants upon overexpression of a tomato chromatin remodelling <scp>ATP</scp>ase gene. Plant Biotechnology Journal, 2016, 14, 581-591.	8.3	7
98	Gene expression in ineffective actinorhizal nodules ofAlnus glutinosa. Acta Botanica Gallica, 1996, 143, 613-620.	0.9	6
99	Digital Learning Material for Model Building in Molecular Biology. Journal of Science Education and Technology, 2005, 14, 123-134.	3.9	6
100	Draft Genome Sequence of the Plant Growthâ€œPromoting Rhizobacterium Acinetobacter radioresistens Strain SA188 Isolated from the Desert Plant Indigofera argentea. Genome Announcements, 2017, 5, .	0.8	5
101	Draft Genome Sequence of Ochrobactrum intermedium Strain SA148, a Plant Growth-Promoting Desert Rhizobacterium. Genome Announcements, 2017, 5, .	0.8	5
102	Draft Genome Sequence of <i>Enterobacter</i> sp. Sa187, an Endophytic Bacterium Isolated from the Desert Plant <i>Indigofera argentea</i>. Genome Announcements, 2017, 5, .	0.8	5
103	The Medicago truncatula nodule identity gene MtNOOT1 is required for coordinated apical-basal development of the root. BMC Plant Biology, 2019, 19, 571.	3.6	5
104	The Evolutionary Aspects of Legume Nitrogenâ€œFixing Nodule Symbiosis. Results and Problems in Cell Differentiation, 2020, 69, 387-408.	0.7	5
105	Endocytic Accommodation of Microbes in Plants. , 2012, , 271-295.		4
106	GeneNoteBook, a collaborative notebook for comparative genomics. Bioinformatics, 2019, 35, 4779-4781.	4.1	3
107	High Salt Levels Reduced Dissimilarities in Root-Associated Microbiomes of Two Barley Genotypes. Molecular Plant-Microbe Interactions, 2022, 35, 592-603.	2.6	3
108	Digital learning material for student-directed model building in molecular biology. Biochemistry and Molecular Biology Education, 2005, 33, 325-329.	1.2	1

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109	Growth and development: Close relations of secretion and K+. Nature Plants, 2015, 1, 15113.	9.3	1
110	Fluorescence In Situ Hybridization on Medicago truncatula Chromosomes. , 2008, , 371-383.		0