

# Katharina Pawlowski

## List of Publications by Citations

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4,267  
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L-index

#	Paper	IF	Citations
105	Piriformospora indica affects plant growth by auxin production. <i>Physiologia Plantarum</i> , <b>2007</b> , 131, 581-9	4.6	200
104	Modification of phytohormone response by a peptide encoded by ENOD40 of legumes and a nonlegume. <i>Science</i> , <b>1996</b> , 273, 370-3	33.3	186
103	A nodule-specific gene encoding a subtilisin-like protease is expressed in early stages of actinorhizal nodule development. <i>Plant Cell</i> , <b>1995</b> , 7, 785-94	11.6	169
102	Phylogenomics reveals multiple losses of nitrogen-fixing root nodule symbiosis. <i>Science</i> , <b>2018</b> , 361,	33.3	167
101	Rhizobial and Actinorhizal Symbioses: What Are the Shared Features?. <i>Plant Cell</i> , <b>1996</b> , 8, 1899-1913	11.6	140
100	Symbiotic Nitrogen Fixation. <i>Plant Cell</i> , <b>1995</b> , 7, 869	11.6	118
99	Lipid metabolism in arbuscular mycorrhizal roots of <i>Medicago truncatula</i> . <i>Phytochemistry</i> , <b>2005</b> , 66, 781-91	4.1	107
98	The diversity of actinorhizal symbiosis. <i>Protoplasma</i> , <b>2012</b> , 249, 967-79	3.4	103
97	Characterization of a novel Azorhizobium caulinodans ORS571 two-component regulatory system, NtrY/NtrX, involved in nitrogen fixation and metabolism. <i>Molecular Genetics and Genomics</i> , <b>1991</b> , 231, 124-38		98
96	A nodule-specific dicarboxylate transporter from alder is a member of the peptide transporter family. <i>Plant Physiology</i> , <b>2004</b> , 134, 969-78	6.6	88
95	Genome sequence of "Candidatus Frankia daticae" Dg1, the uncultured microsymbiont from nitrogen-fixing root nodules of the dicot <i>Datisca glomerata</i> . <i>Journal of Bacteriology</i> , <b>2011</b> , 193, 7017-8	3.5	87
94	Distinct roles of <i>Lotus japonicus</i> SYMRK and SYM15 in root colonization and arbuscule formation. <i>New Phytologist</i> , <b>2004</b> , 163, 381-392	9.8	86
93	Root-based N <sub>2</sub> -fixing Symbioses: Legumes, Actinorhizal Plants, Parasponia sp. and Cycads. <i>Plant and Soil</i> , <b>2005</b> , 274, 51-78	4.2	71
92	Cloning and characterization of nifA and ntrC genes of the stem nodulating bacterium ORS571, the nitrogen fixing symbiont of <i>Sesbania rostrata</i> : Regulation of nitrogen fixation (nif) genes in the free living versus symbiotic state. <i>Molecular Genetics and Genomics</i> , <b>1987</b> , 206, 207-219		67
91	Characterization of a <i>Casuarina glauca</i> nodule-specific subtilisin-like protease gene, a homolog of <i>Alnus glutinosa</i> ag12. <i>Molecular Plant-Microbe Interactions</i> , <b>2000</b> , 13, 113-7	3.6	64
90	Candidatus Frankia Daticae Dg1, the Actinobacterial Microsymbiont of <i>Datisca glomerata</i> , Expresses the Canonical nod Genes nodABC in Symbiosis with Its Host Plant. <i>PLoS ONE</i> , <b>2015</b> , 10, e0127630	3.7	61
89	Root-based N <sub>2</sub> -fixing symbioses: Legumes, actinorhizal plants, Parasponia sp. and cycads. <i>Plant and Soil</i> , <b>2005</b> , 266, 205-230	4.2	60

88	Flavan-containing cells delimit Frankia-infected compartments in Casuarina glauca nodules. <i>Plant Physiology</i> , <b>1999</b> , 121, 113-22	6.6	54
87	The Azorhizobium caulinodans nitrogen-fixation regulatory gene, nifA, is controlled by the cellular nitrogen and oxygen status. <i>Molecular Microbiology</i> , <b>1989</b> , 3, 825-38	4.1	52
86	Identification of an allene oxide synthase (CYP74C) that leads to formation of alpha-ketols from 9-hydroperoxides of linoleic and linolenic acid in below-ground organs of potato. <i>Plant Journal</i> , <b>2006</b> , 47, 883-96	6.9	51
85	Casuarina glauca prenodule cells display the same differentiation as the corresponding nodule cells. <i>Molecular Plant-Microbe Interactions</i> , <b>2000</b> , 13, 107-12	3.6	50
84	A nodule-specific gene family from Alnus glutinosa encodes glycine- and histidine-rich proteins expressed in the early stages of actinorhizal nodule development. <i>Molecular Plant-Microbe Interactions</i> , <b>1997</b> , 10, 656-64	3.6	45
83	Identification of agthi1, whose product is involved in biosynthesis of the thiamine precursor thiazole, in actinorhizal nodules of Alnus glutinosa. <i>Plant Journal</i> , <b>1996</b> , 10, 361-8	6.9	45
82	A member of the germin-like protein family is a highly conserved mycorrhiza-specific induced gene. <i>Plant and Cell Physiology</i> , <b>2003</b> , 44, 1208-14	4.9	44
81	Asymmetric Responsiveness to Ethylene Mediates Cell Elongation in the Apical Hook of Peas. <i>Plant Cell</i> , <b>1998</b> , 10, 713-719	11.6	44
80	Nitrogen metabolism in actinorhizal nodules of Alnus glutinosa: expression of glutamine synthetase and acetylornithine transaminase. <i>Plant Molecular Biology</i> , <b>1996</b> , 32, 1177-84	4.6	44
79	An assemblage of Frankia Cluster II strains from California contains the canonical nod genes and also the sulfotransferase gene nodH. <i>BMC Genomics</i> , <b>2016</b> , 17, 796	4.5	41
78	Cloning of a full-length symbiotic hemoglobin cDNA and in situ localization of the corresponding mRNA in Casuarina glauca root nodule. <i>Physiologia Plantarum</i> , <b>1997</b> , 99, 608-616	4.6	39
77	Comparison of the nodule vs. root transcriptome of the actinorhizal plant Datisca glomerata: actinorhizal nodules contain a specific class of defensins. <i>PLoS ONE</i> , <b>2013</b> , 8, e72442	3.7	37
76	Jasmonate biosynthesis in legume and actinorhizal nodules. <i>New Phytologist</i> , <b>2011</b> , 189, 568-79	9.8	37
75	Evidence for functional heterogeneity of sieve element-companion cell complexes in minor vein phloem of Alonsoa meridionalis. <i>Journal of Experimental Botany</i> , <b>2009</b> , 60, 1873-83	7	37
74	Isolation of total, poly(A) and polysomal RNA from plant tissues <b>1994</b> , 231-243		37
73	Rhizobial and Actinorhizal Symbioses: What Are the Shared Features?. <i>Plant Cell</i> , <b>1996</b> , 8, 1899	11.6	33
72	Symbiotic and non-symbiotic expression of cgMT1, a metallothionein-like gene from the actinorhizal tree Casuarina glauca. <i>Plant Molecular Biology</i> , <b>2002</b> , 49, 81-92	4.6	33
71	New perspectives on nodule nitrogen assimilation in actinorhizal symbioses. <i>Functional Plant Biology</i> , <b>2011</b> , 38, 645-652	2.7	31

70	Truncated hemoglobins in actinorhizal nodules of <i>Datisca glomerata</i> . <i>Plant Biology</i> , <b>2007</b> , 9, 776-85	3.7	31
69	Composite Cucurbita pepo plants with transgenic roots as a tool to study root development. <i>Annals of Botany</i> , <b>2012</b> , 110, 479-89	4.1	30
68	Nodule-specific gene expression. <i>Physiologia Plantarum</i> , <b>1997</b> , 99, 617-631	4.6	29
67	Novel expression pattern of cytosolic Gln synthetase in nitrogen-fixing root nodules of the actinorhizal host, <i>Datisca glomerata</i> . <i>Plant Physiology</i> , <b>2004</b> , 135, 1849-62	6.6	29
66	Is salt stress tolerance in <i>Casuarina glauca</i> Sieb. ex Spreng. associated with its nitrogen-fixing root-nodule symbiosis? An analysis at the photosynthetic level. <i>Plant Physiology and Biochemistry</i> , <b>2015</b> , 96, 97-109	5.4	28
65	Comparison of nodule induction in legume and actinorhizal symbioses: the induction of actinorhizal nodules does not involve ENOD40. <i>Molecular Plant-Microbe Interactions</i> , <b>2003</b> , 16, 808-16	3.6	27
64	Distinct patterns of symbiosis-related gene expression in actinorhizal nodules from different plant families. <i>Molecular Plant-Microbe Interactions</i> , <b>2003</b> , 16, 796-807	3.6	25
63	Symbiotic root nodules of the actinorhizal plant <i>Datisca glomerata</i> express Rubisco activase mRNA. <i>Plant Physiology</i> , <b>1999</b> , 120, 411-20	6.6	24
62	Re-evaluation of phytohormone-independent division of tobacco protoplast-derived cells. <i>Plant Journal</i> , <b>1999</b> , 17, 461-466	6.9	24
61	The impact of salinity on the symbiosis between <i>Casuarina glauca</i> Sieb. ex Spreng. and N <sub>2</sub> -fixing Frankia bacteria based on the analysis of Nitrogen and Carbon metabolism. <i>Plant and Soil</i> , <b>2016</b> , 398, 327-337	4.2	23
60	ag13 is expressed in <i>Alnus glutinosa</i> nodules in infected cells during endosymbiont degradation and in the nodule pericycle. <i>Physiologia Plantarum</i> , <b>1997</b> , 99, 601-607	4.6	22
59	Expression of Frankia nif genes in nodules of <i>Alnus glutinosa</i> . <i>Plant and Soil</i> , <b>1995</b> , 170, 371-376	4.2	22
58	Genomic Changes Associated with the Evolutionary Transitions of Nostoc to a Plant Symbiont. <i>Molecular Biology and Evolution</i> , <b>2018</b> , 35, 1160-1175	8.3	21
57	Chitinases in root nodules. <i>Plant Biotechnology</i> , <b>2008</b> , 25, 299-307	1.3	21
56	Isolation and characterization of a cDNA from <i>Cuphea lanceolata</i> encoding a beta-ketoacyl-ACP reductase. <i>Molecular Genetics and Genomics</i> , <b>1992</b> , 233, 122-8		21
55	Frankia-Enriched Metagenomes from the Earliest Diverging Symbiotic Frankia Cluster: They Come in Teams. <i>Genome Biology and Evolution</i> , <b>2019</b> , 11, 2273-2291	3.9	18
54	Ultrastructure of the endophyte and localization of nifH transcripts in root nodules of <i>Coriaria nepalensis</i> Wall, by in situ hybridization. <i>New Phytologist</i> , <b>1994</b> , 126, 131-136	9.8	18
53	Proposal of <i>Candidatus Frankia californiensis</i> the uncultured symbiont in nitrogen-fixing root nodules of a phylogenetically broad group of hosts endemic to western North America. <i>International Journal of Systematic and Evolutionary Microbiology</i> , <b>2017</b> , 67, 3706-3715	2.2	18

52	Antioxidative ability and membrane integrity in salt-induced responses of <i>Casuarina glauca</i> Sieber ex Spreng. in symbiosis with N <sub>2</sub> -fixing <i>Frankia</i> Thr or supplemented with mineral nitrogen. <i>Journal of Plant Physiology</i> , <b>2016</b> , 196-197, 60-9	3.6	17
51	Progress on research on actinorhizal plants. <i>Functional Plant Biology</i> , <b>2011</b> , 38, 633-638	2.7	17
50	Plasmodesmata without callose and calreticulin in higher plants - open channels for fast symplastic transport?. <i>Frontiers in Plant Science</i> , <b>2014</b> , 5, 74	6.2	16
49	Plasmodesmata distribution and sugar partitioning in nitrogen-fixing root nodules of <i>Datisca glomerata</i> . <i>Planta</i> , <b>2011</b> , 233, 139-52	4.7	15
48	Actinorhizal plant defence-related genes in response to symbiotic <i>Frankia</i> . <i>Functional Plant Biology</i> , <b>2011</b> , 38, 639-644	2.7	15
47	Isolation and characterization of <i>cgchi3</i> , a nodule-specific gene from <i>Casuarina glauca</i> encoding a class III chitinase. <i>Physiologia Plantarum</i> , <b>2007</b> , 130, 418-426	4.6	15
46	The <i>Huperzia</i> selago Shoot Tip Transcriptome Sheds New Light on the Evolution of Leaves. <i>Genome Biology and Evolution</i> , <b>2017</b> , 9, 2444-2460	3.9	14
45	Two novel disaccharides, rutinose and methylrutinose, are involved in carbon metabolism in <i>Datisca glomerata</i> . <i>Planta</i> , <b>2010</b> , 231, 507-21	4.7	13
44	An integrated approach to understand the mechanisms underlying salt stress tolerance in <i>Casuarina glauca</i> and its relation with nitrogen-fixing <i>Frankia</i> Thr. <i>Symbiosis</i> , <b>2016</b> , 70, 111-116	3	12
43	Lignification of cell walls of infected cells in <i>Casuarina glauca</i> nodules that depend on symplastic sugar supply is accompanied by reduction of plasmodesmata number and narrowing of plasmodesmata. <i>Physiologia Plantarum</i> , <b>2013</b> , 147, 524-40	4.6	12
42	Lateral root initiation and formation within the parental root meristem of <i>Cucurbita pepo</i> : is auxin a key player?. <i>Annals of Botany</i> , <b>2018</b> , 122, 873-888	4.1	11
41	A Homeotic Mutation Changes Legume Nodule Ontogeny into Actinorhizal-Type Ontogeny. <i>Plant Cell</i> , <b>2020</b> , 32, 1868-1885	11.6	10
40	Regulation of Nitrogen Fixation ( <i>nif</i> ) Genes of <i>Azorbizobium caulinodans</i> ORS571 in Culture and in planta. <i>Journal of Plant Physiology</i> , <b>1988</b> , 132, 405-411	3.6	10
39	Sucrose synthase and enolase expression in actinorhizal nodules of. <i>Molecular Genetics and Genomics</i> , <b>1996</b> , 250, 437		10
38	Lateral Root Initiation in the Parental Root Meristem of Cucurbits: Old Players in a New Position. <i>Frontiers in Plant Science</i> , <b>2019</b> , 10, 365	6.2	9
37	<i>Frankia</i> and Actinorhizal Plants: Symbiotic Nitrogen Fixation <b>2017</b> , 237-261		9
36	Characterization of four defense-related genes up-regulated in root nodules of <i>Casuarina glauca</i> . <i>Symbiosis</i> , <b>2010</b> , 50, 27-35	3	9
35	Organic acids metabolism in <i>Frankia alni</i> . <i>Symbiosis</i> , <b>2016</b> , 70, 37-48	3	9

34	The levels of peroxisomal catalase protein and activity modulate the onset of cell death in tobacco BY-2 cells via reactive oxygen species levels and autophagy. <i>Functional Plant Biology</i> , <b>2018</b> , 45, 247-258	2.7	8
33	Analysis of the subcellular localisation of lipoxygenase in legume and actinorhizal nodules. <i>Plant Biology</i> , <b>2012</b> , 14, 56-63	3.7	8
32	Comparative Proteomic Analysis of Nodulated and Non-Nodulated Sieb. ex Spreng. Grown under Salinity Conditions Using Sequential Window Acquisition of All Theoretical Mass Spectra (SWATH-MS). <i>International Journal of Molecular Sciences</i> , <b>2019</b> , 21,	6.3	8
31	The N-metabolites of roots and actinorhizal nodules from <i>Alnus glutinosa</i> and <i>Datisca glomerata</i> : can <i>D. glomerata</i> change N-transport forms when nodulated?. <i>Symbiosis</i> , <b>2016</b> , 70, 149-157	3	8
30	as a Model for Studying the Root Symbioses of the Rosaceae. <i>Frontiers in Plant Science</i> , <b>2019</b> , 10, 661	6.2	7
29	Changes in the Plant $\beta$ Sitosterol/Stigmasterol Ratio Caused by the Plant Parasitic Nematode. <i>Plants</i> , <b>2021</b> , 10,	4.5	7
28	Comparative Analysis of the Nodule Transcriptomes of (Rhamnaceae, Rosales) and (Datisceae, Cucurbitales). <i>Frontiers in Plant Science</i> , <b>2018</b> , 9, 1629	6.2	7
27	An update on research on Frankia and actinorhizal plants on the occasion of the 18th meeting of the Frankia-actinorhizal plants symbiosis. <i>Symbiosis</i> , <b>2016</b> , 70, 1-4	3	6
26	Allene oxide synthase, allene oxide cyclase and jasmonic acid levels in <i>Lotus japonicus</i> nodules. <i>PLoS ONE</i> , <b>2018</b> , 13, e0190884	3.7	6
25	Root-based N <sub>2</sub> -fixing symbioses: Legumes, actinorhizal plants, <i>Parasponia</i> sp. and cycads. <i>Plant Ecophysiology</i> , <b>2005</b> , 51-78		6
24	Accumulation of and Response to Auxins in Roots and Nodules of the Actinorhizal Plant Compared to the Model Legume. <i>Frontiers in Plant Science</i> , <b>2019</b> , 10, 1085	6.2	5
23	Actinorhizal plants. <i>Functional Plant Biology</i> , <b>2011</b> , 38, v-vii	2.7	5
22	Gene expression in ineffective actinorhizal nodules of <i>Alnus glutinosa</i> . <i>Acta Botanica Gallica</i> , <b>1996</b> , 143, 613-620		5
21	Genes in the Development and Evolution of Land Plants. <i>International Journal of Molecular Sciences</i> , <b>2021</b> , 22,	6.3	5
20	Induction of Actinorhizal Nodules by Frankia. <i>Microbiology Monographs</i> , <b>2008</b> , 127-154	0.8	4
19	Nodules and oxygen. <i>Plant Biotechnology</i> , <b>2008</b> , 25, 291-298	1.3	4
18	Interaction between Frankia and actinorhizal plants. <i>Sub-Cellular Biochemistry</i> , <b>1998</b> , 29, 165-89	5.5	4
17	Candidatus Frankia nodulisporulans sp. nov., an <i>Alnus glutinosa</i> -infective Frankia species unable to grow in pure culture and able to sporulate in-planta. <i>Systematic and Applied Microbiology</i> , <b>2020</b> , 43, 1261-1274	4.2	4

16	Cloning of a full-length symbiotic hemoglobin cDNA and in situ localization of the corresponding mRNA in <i>Casuarina glauca</i> root nodule*. <i>Physiologia Plantarum</i> , <b>1997</b> , 99, 608-616	4.6	3
15	Nitrogen Fixing Root Nodule Symbioses: Legume Nodules and Actinorhizal Nodules. <i>Biotechnology Annual Review</i> , <b>1996</b> , 2, 151-184		3
14	What can the phylogeny of class I KNOX genes and their expression patterns in land plants tell us about the evolution of shoot development?. <i>Botanical Journal of the Linnean Society</i> , <b>2021</b> , 195, 254-280 <sup>2.2</sup>		3
13	The Peptidoglycan Biosynthesis Gene in Actinorhizal vs. Plant Type. <i>Genes</i> , <b>2020</b> , 11,	4.2	2
12	The <i>Casuarina glauca</i> metallothionein I promoter in nodulated transgenic hairy roots of the actinorhizal plant <i>Datisca glomerata</i> . <i>Functional Plant Biology</i> , <b>2011</b> , 38, 728-737	2.7	2
11	Salt Stress Tolerance in <i>Casuarina glauca</i> and Its Relation with Nitrogen-Fixing Frankia Bacteria <b>2016</b> , 143-151		2
10	Hairy CRISPR: Genome Editing in Plants Using Hairy Root Transformation.. <i>Plants</i> , <b>2021</b> , 11,	4.5	2
9	Auxin Production by Symbiotic Fungi: Bioassay and HPLC-MS Analysis. <i>Soil Biology</i> , <b>2009</b> , 381-392	1	1
8	Plant Symbioses with Frankia and Cyanobacteria <b>2007</b> , 165-178		1
7	A Nodule-Specific Gene Encoding a Subtilisin-Like Protease Is Expressed in Early Stages of Actinorhizal Nodule Development. <i>Plant Cell</i> , <b>1995</b> , 7, 785	11.6	1
6	Special issue in honour of Prof. Reto J. Strasser - Photosynthetic activity as assessed via chlorophyll a fluorescence suggests a role of potassium channels in root to shoot signaling. <i>Photosynthetica</i> , <b>2020</b> , 58, 608-621	2.2	0
5	Anthropogenic influences on the distribution of the <i>Casuarina</i> -Frankia symbiosis. <i>Symbiosis</i> , <b>2021</b> , 84, 353-367	3	0
4	Mechanisms of salt stress tolerance in <i>Casuarina</i> : a review of recent research. <i>Journal of Forest Research</i> , 1-4	1.4	0
3	Functional Analysis of Nitrogen-Fixing Root Nodule Symbioses Induced by Frankia: Transport and Metabolic Interactions <b>2015</b> , 475-486		
2	Frankia and Actinorhizal Plants <b>2000</b> , 451-452		
1	Actinorhizal Symbioses 117-137		