Katharina Pawlowski

List of Publications by Year in Descending Order

105 papers	3,412 citations	33 h-index	55 g-index
114 ext. papers	4,267 ext. citations	5.3 avg, IF	4.83 L-index

#	Paper	IF	Citations
105	Anthropogenic influences on the distribution of the Casuarina-Frankia symbiosis. *Symbiosis*, **2021**, 84, 353-367	3	0
104	Genes in the Development and Evolution of Land Plants. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	5
103	What can the phylogeny of class I KNOX genes and their expression patterns in land plants tell us about the evolution of shoot development?. *Botanical Journal of the Linnean Society*, **2021**, 195, 254-280	2.2	3
102	Changes in the Plant Sitosterol/Stigmasterol Ratio Caused by the Plant Parasitic Nematode. *Plants*, **2021**, 10,	4.5	7
101	Hairy CRISPR: Genome Editing in Plants Using Hairy Root Transformation.. *Plants*, **2021**, 11,	4.5	2
100	A Homeotic Mutation Changes Legume Nodule Ontogeny into Actinorhizal-Type Ontogeny. *Plant Cell*, **2020**, 32, 1868-1885	11.6	10
99	The Peptidoglycan Biosynthesis Gene in Actinorhizal vs. Plant Type. *Genes*, **2020**, 11,	4.2	2
98	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. *Photosynthetica*, **2020**, 58, 608-621	2.2	0
97	Candidatus Frankia nodulisporulans sp. nov., an Alnus glutinosa-infective Frankia species unable to grow in pure culture and able to sporulate in-planta. *Systematic and Applied Microbiology*, **2020**, 43, 126134	4.2	4
96	as a Model for Studying the Root Symbioses of the Rosaceae. *Frontiers in Plant Science*, **2019**, 10, 661	6.2	7
95	Lateral Root Initiation in the Parental Root Meristem of Cucurbits: Old Players in a New Position. *Frontiers in Plant Science*, **2019**, 10, 365	6.2	9
94	Frankia-Enriched Metagenomes from the Earliest Diverging Symbiotic Frankia Cluster: They Come in Teams. *Genome Biology and Evolution*, **2019**, 11, 2273-2291	3.9	18
93	Accumulation of and Response to Auxins in Roots and Nodules of the Actinorhizal Plant Compared to the Model Legume. *Frontiers in Plant Science*, **2019**, 10, 1085	6.2	5
92	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). *International Journal of Molecular Sciences*, **2019**, 21,	6.3	8
91	Lateral root initiation and formation within the parental root meristem of Cucurbita pepo: is auxin a key player?. *Annals of Botany*, **2018**, 122, 873-888	4.1	11
90	Genomic Changes Associated with the Evolutionary Transitions of Nostoc to a Plant Symbiont. *Molecular Biology and Evolution*, **2018**, 35, 1160-1175	8.3	21
89	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. *Functional Plant Biology*, **2018**, 45, 247-258	2.7	8

88	Allene oxide synthase, allene oxide cyclase and jasmonic acid levels in Lotus japonicus nodules. *PLoS ONE*, **2018**, 13, e0190884	3.7	6
87	Comparative Analysis of the Nodule Transcriptomes of (Rhamnaceae, Rosales) and (Datiscaceae, Cucurbitales). *Frontiers in Plant Science*, **2018**, 9, 1629	6.2	7
86	Phylogenomics reveals multiple losses of nitrogen-fixing root nodule symbiosis. *Science*, **2018**, 361,	33.3	167
85	Frankia and Actinorhizal Plants: Symbiotic Nitrogen Fixation **2017**, 237-261		9
84	The Huperzia selago Shoot Tip Transcriptome Sheds New Light on the Evolution of Leaves. *Genome Biology and Evolution*, **2017**, 9, 2444-2460	3.9	14
83	Proposal of ‘Candidatus Frankia californiensis’, the uncultured symbiont in nitrogen-fixing root nodules of a phylogenetically broad group of hosts endemic to western North America. *International Journal of Systematic and Evolutionary Microbiology*, **2017**, 67, 3706-3715	2.2	18
82	An assemblage of Frankia Cluster II strains from California contains the canonical nod genes and also the sulfotransferase gene nodH. *BMC Genomics*, **2016**, 17, 796	4.5	41
81	An update on research on Frankia and actinorhizal plants on the occasion of the 18th meeting of the Frankia-actinorhizal plants symbiosis. *Symbiosis*, **2016**, 70, 1-4	3	6
80	Antioxidative ability and membrane integrity in salt-induced responses of Casuarina glauca Sieber ex Spreng. in symbiosis with N2-fixing Frankia Thr or supplemented with mineral nitrogen. *Journal of Plant Physiology*, **2016**, 196-197, 60-9	3.6	17
79	The impact of salinity on the symbiosis between Casuarina glauca Sieb. ex Spreng. and N2-fixing Frankia bacteria based on the analysis of Nitrogen and Carbon metabolism. *Plant and Soil*, **2016**, 398, 327-337	4.2	23
78	An integrated approach to understand the mechanisms underlying salt stress tolerance in Casuarina glauca and its relation with nitrogen-fixing Frankia Thr. *Symbiosis*, **2016**, 70, 111-116	3	12
77	Salt Stress Tolerance in Casuarina glauca and Its Relation with Nitrogen-Fixing Frankia Bacteria **2016**, 143-151		2
76	Organic acids metabolism in Frankia alni. *Symbiosis*, **2016**, 70, 37-48	3	9
75	The N-metabolites of roots and actinorhizal nodules from Alnus glutinosa and Datisca glomerata: can D. glomerata change N-transport forms when nodulated?. *Symbiosis*, **2016**, 70, 149-157	3	8
74	Is salt stress tolerance in Casuarina glauca Sieb. ex Spreng. associated with its nitrogen-fixing root-nodule symbiosis? An analysis at the photosynthetic level. *Plant Physiology and Biochemistry*, **2015**, 96, 97-109	5.4	28
73	Functional Analysis of Nitrogen-Fixing Root Nodule Symbioses Induced by Frankia: Transport and Metabolic Interactions **2015**, 475-486		
72	Candidatus Frankia Datiscae Dg1, the Actinobacterial Microsymbiont of Datisca glomerata, Expresses the Canonical nod Genes nodABC in Symbiosis with Its Host Plant. *PLoS ONE*, **2015**, 10, e0127630	3.7	61
71	Plasmodesmata without callose and calreticulin in higher plants - open channels for fast symplastic transport?. *Frontiers in Plant Science*, **2014**, 5, 74	6.2	16

70	Lignification of cell walls of infected cells in Casuarina glauca nodules that depend on symplastic sugar supply is accompanied by reduction of plasmodesmata number and narrowing of plasmodesmata. *Physiologia Plantarum*, **2013**, 147, 524-40	4.6	12
69	Comparison of the nodule vs. root transcriptome of the actinorhizal plant Datisca glomerata: actinorhizal nodules contain a specific class of defensins. *PLoS ONE*, **2013**, 8, e72442	3.7	37
68	The diversity of actinorhizal symbiosis. *Protoplasma*, **2012**, 249, 967-79	3.4	103
67	Analysis of the subcellular localisation of lipoxygenase in legume and actinorhizal nodules. *Plant Biology*, **2012**, 14, 56-63	3.7	8
66	Composite Cucurbita pepo plants with transgenic roots as a tool to study root development. *Annals of Botany*, **2012**, 110, 479-89	4.1	30
65	The Casuarina glauca metallothionein I promoter in nodulated transgenic hairy roots of the actinorhizal plant Datisca glomerata. *Functional Plant Biology*, **2011**, 38, 728-737	2.7	2
64	Progress on research on actinorhizal plants. *Functional Plant Biology*, **2011**, 38, 633-638	2.7	17
63	Jasmonate biosynthesis in legume and actinorhizal nodules. *New Phytologist*, **2011**, 189, 568-79	9.8	37
62	Plasmodesmata distribution and sugar partitioning in nitrogen-fixing root nodules of Datisca glomerata. *Planta*, **2011**, 233, 139-52	4.7	15
61	Actinorhizal plant defence-related genes in response to symbiotic Frankia. *Functional Plant Biology*, **2011**, 38, 639-644	2.7	15
60	Actinorhizal plants. *Functional Plant Biology*, **2011**, 38, v-vii	2.7	5
59	New perspectives on nodule nitrogen assimilation in actinorhizal symbioses. *Functional Plant Biology*, **2011**, 38, 645-652	2.7	31
58	Genome sequence of "Candidatus Frankia datiscae" Dg1, the uncultured microsymbiont from nitrogen-fixing root nodules of the dicot Datisca glomerata. *Journal of Bacteriology*, **2011**, 193, 7017-8	3.5	87
57	Two novel disaccharides, rutinose and methylrutinose, are involved in carbon metabolism in Datisca glomerata. *Planta*, **2010**, 231, 507-21	4.7	13
56	Characterization of four defense-related genes up-regulated in root nodules of Casuarina glauca. *Symbiosis*, **2010**, 50, 27-35	3	9
55	Auxin Production by Symbiotic Fungi: Bioassay and HPLC-MS Analysis. *Soil Biology*, **2009**, 381-392	1	1
54	Evidence for functional heterogeneity of sieve element-companion cell complexes in minor vein phloem of Alonsoa meridionalis. *Journal of Experimental Botany*, **2009**, 60, 1873-83	7	37
53	Induction of Actinorhizal Nodules by Frankia. *Microbiology Monographs*, **2008**, 127-154	0.8	4

52	Chitinases in root nodules. *Plant Biotechnology*, **2008**, 25, 299-307	1.3	21
51	Nodules and oxygen. *Plant Biotechnology*, **2008**, 25, 291-298	1.3	4
50	Plant Symbioses with Frankia and Cyanobacteria **2007**, 165-178		1
49	Isolation and characterization of cgchi3, a nodule-specific gene from Casuarina glauca encoding a class III chitinase. *Physiologia Plantarum*, **2007**, 130, 418-426	4.6	15
48	Piriformospora indica affects plant growth by auxin production. *Physiologia Plantarum*, **2007**, 131, 581-9	4.6	200
47	Truncated hemoglobins in actinorhizal nodules of Datisca glomerata. *Plant Biology*, **2007**, 9, 776-85	3.7	31
46	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. *Plant Journal*, **2006**, 47, 883-96	6.9	51
45	Root-based N2-fixing symbioses: Legumes, actinorhizal plants, Parasponia sp. and cycads. *Plant Ecophysiology*, **2005**, 51-78		6
44	Lipid metabolism in arbuscular mycorrhizal roots of Medicago truncatula. *Phytochemistry*, **2005**, 66, 781-91	4	107
43	Root-based N2-fixing symbioses: Legumes, actinorhizal plants, Parasponia sp. and cycads. *Plant and Soil*, **2005**, 266, 205-230	4.2	60
42	Root-based N2-fixing Symbioses: Legumes, Actinorhizal Plants, Parasponia sp. and Cycads. *Plant and Soil*, **2005**, 274, 51-78	4.2	71
41	Novel expression pattern of cytosolic Gln synthetase in nitrogen-fixing root nodules of the actinorhizal host, Datisca glomerata. *Plant Physiology*, **2004**, 135, 1849-62	6.6	29
40	A nodule-specific dicarboxylate transporter from alder is a member of the peptide transporter family. *Plant Physiology*, **2004**, 134, 969-78	6.6	88
39	Distinct roles of Lotus japonicus SYMRK and SYM15 in root colonization and arbuscule formation. *New Phytologist*, **2004**, 163, 381-392	9.8	86
38	Distinct patterns of symbiosis-related gene expression in actinorhizal nodules from different plant families. *Molecular Plant-Microbe Interactions*, **2003**, 16, 796-807	3.6	25
37	Comparison of nodule induction in legume and actinorhizal symbioses: the induction of actinorhizal nodules does not involve ENOD40. *Molecular Plant-Microbe Interactions*, **2003**, 16, 808-16	3.6	27
36	A member of the germin-like protein family is a highly conserved mycorrhiza-specific induced gene. *Plant and Cell Physiology*, **2003**, 44, 1208-14	4.9	44
35	Symbiotic and non-symbiotic expression of cgMT1, a metallothionein-like gene from the actinorhizal tree Casuarina glauca. *Plant Molecular Biology*, **2002**, 49, 81-92	4.6	33

34	Frankia and Actinorhizal Plants **2000**, 451-452		
33	Casuarina glauca prenodule cells display the same differentiation as the corresponding nodule cells. *Molecular Plant-Microbe Interactions*, **2000**, 13, 107-12	3.6	50
32	Characterization of a Casuarina glauca nodule-specific subtilisin-like protease gene, a homolog of Alnus glutinosa ag12. *Molecular Plant-Microbe Interactions*, **2000**, 13, 113-7	3.6	64
31	Symbiotic root nodules of the actinorhizal plant Datisca glomerata express Rubisco activase mRNA. *Plant Physiology*, **1999**, 120, 411-20	6.6	24
30	Flavan-containing cells delimit Frankia-infected compartments in Casuarina glauca nodules. *Plant Physiology*, **1999**, 121, 113-22	6.6	54
29	Re-evaluation of phytohormone-independent division of tobacco protoplast-derived cells. *Plant Journal*, **1999**, 17, 461-466	6.9	24
28	Asymmetric Responsiveness to Ethylene Mediates Cell Elongation in the Apical Hook of Peas. *Plant Cell*, **1998**, 10, 713-719	11.6	44
27	Interaction between Frankia and actinorhizal plants. *Sub-Cellular Biochemistry*, **1998**, 29, 165-89	5.5	4
26	Cloning of a full-length symbiotic hemoglobin cDNA and in situ localization of the corresponding mRNA in Casuarina glauca root nodule*. *Physiologia Plantarum*, **1997**, 99, 608-616	4.6	3
25	A nodule-specific gene family from Alnus glutinosa encodes glycine- and histidine-rich proteins expressed in the early stages of actinorhizal nodule development. *Molecular Plant-Microbe Interactions*, **1997**, 10, 656-64	3.6	45
24	ag13 is expressed in Alnus glutinosa nodules in infected cells during endosymbiont degradation and in the nodule pericycle. *Physiologia Plantarum*, **1997**, 99, 601-607	4.6	22
23	Cloning of a full-length symbiotic hemoglobin cDNA and in situ localization of the corresponding mRNA in Casuarina glauca root nodule. *Physiologia Plantarum*, **1997**, 99, 608-616	4.6	39
22	Nodule-specific gene expression. *Physiologia Plantarum*, **1997**, 99, 617-631	4.6	29
21	Rhizobial and Actinorhizal Symbioses: What Are the Shared Features?. *Plant Cell*, **1996**, 8, 1899	11.6	33
20	Rhizobial and Actinorhizal Symbioses: What Are the Shared Features?. *Plant Cell*, **1996**, 8, 1899-1913	11.6	140
19	Modification of phytohormone response by a peptide encoded by ENOD40 of legumes and a nonlegume. *Science*, **1996**, 273, 370-3	33.3	186
18	Identification of agthi1, whose product is involved in biosynthesis of the thiamine precursor thiazole, in actinorhizal nodules of Alnus glutinosa. *Plant Journal*, **1996**, 10, 361-8	6.9	45
17	Nitrogen metabolism in actinorhizal nodules of Alnus glutinosa: expression of glutamine synthetase and acetylornithine transaminase. *Plant Molecular Biology*, **1996**, 32, 1177-84	4.6	44

16	Nitrogen Fixing Root Nodule Symbioses: Legume Nodules and Actinorhizal Nodules. *Biotechnology Annual Review*, **1996**, 2, 151-184		3
15	Gene expression in ineffective actinorhizal nodules of Alnus glutinosa. *Acta Botanica Gallica*, **1996**, 143, 613-620		5
14	Sucrose synthase and enolase expression in actinorhizal nodules of. *Molecular Genetics and Genomics*, **1996**, 250, 437		10
13	Expression of Frankia nif genes in nodules of Alnus glutinosa. *Plant and Soil*, **1995**, 170, 371-376	4.2	22
12	Symbiotic Nitrogen Fixation. *Plant Cell*, **1995**, 7, 869	11.6	118
11	A nodule-specific gene encoding a subtilisin-like protease is expressed in early stages of actinorhizal nodule development. *Plant Cell*, **1995**, 7, 785-94	11.6	169
10	A Nodule-Specific Gene Encoding a Subtilisin-Like Protease Is Expressed in Early Stages of Actinorhizal Nodule Development. *Plant Cell*, **1995**, 7, 785	11.6	1
9	Isolation of total, poly(A) and polysomal RNA from plant tissues **1994**, 231-243		37
8	Ultrastructure of the endophyte and localization of nifH transcripts in root nodules of Coriaria nepalensis Wall, by in situ hybridization. *New Phytologist*, **1994**, 126, 131-136	9.8	18
7	Isolation and characterization of a cDNA from Cuphea lanceolata encoding a beta-ketoacyl-ACP reductase. *Molecular Genetics and Genomics*, **1992**, 233, 122-8		21
6	Characterization of a novel Azorhizobium caulinodans ORS571 two-component regulatory system, NtrY/NtrX, involved in nitrogen fixation and metabolism. *Molecular Genetics and Genomics*, **1991**, 231, 124-38		98
5	The Azorhizobium caulinodans nitrogen-fixation regulatory gene, nifA, is controlled by the cellular nitrogen and oxygen status. *Molecular Microbiology*, **1989**, 3, 825-38	4.1	52
4	Regulation of Nitrogen Fixation (nif) Genes of Azorbizobium caulinodans ORS571 in Culture and in planta. *Journal of Plant Physiology*, **1988**, 132, 405-411	3.6	10
3	Cloning and characterization of nifA and ntrC genes of the stem nodulating bacterium ORS571, the nitrogen fixing symbiont of Sesbania rostrata: Regulation of nitrogen fixation (nif) genes in the free living versus symbiotic state. *Molecular Genetics and Genomics*, **1987**, 206, 207-219		67
2	Actinorhizal Symbioses117-137		
1	Mechanisms of salt stress tolerance in Casuarina: a review of recent research. *Journal of Forest Research*,1-4	1.4	0