

Iver Jakobsen

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120
papers

9,179
citations

51
h-index

94
g-index

126
ext. papers

10,252
ext. citations

6.4
avg, IF

6.01
L-index

#	Paper	IF	Citations
120	Roles of arbuscular mycorrhizas in plant phosphorus nutrition: interactions between pathways of phosphorus uptake in arbuscular mycorrhizal roots have important implications for understanding and manipulating plant phosphorus acquisition. <i>Plant Physiology</i> , 2011 , 156, 1050-7	6.6	649
119	Mycorrhizal fungi can dominate phosphate supply to plants irrespective of growth responses. <i>Plant Physiology</i> , 2003 , 133, 16-20	6.6	632
118	Functional diversity in arbuscular mycorrhizal (AM) symbioses: the contribution of the mycorrhizal P uptake pathway is not correlated with mycorrhizal responses in growth or total P uptake. <i>New Phytologist</i> , 2004 , 162, 511-524	9.8	492
117	High functional diversity within species of arbuscular mycorrhizal fungi. <i>New Phytologist</i> , 2004 , 164, 357-364	9.84	438
116	The use of phospholipid and neutral lipid fatty acids to estimate biomass of arbuscular mycorrhizal fungi in soil. <i>Mycological Research</i> , 1995 , 99, 623-629		378
115	The characterization of novel mycorrhiza-specific phosphate transporters from <i>Lycopersicon esculentum</i> and <i>Solanum tuberosum</i> uncovers functional redundancy in symbiotic phosphate transport in solanaceous species. <i>Plant Journal</i> , 2005 , 42, 236-50	6.9	246
114	Spatial differences in acquisition of soil phosphate between two arbuscular mycorrhizal fungi in symbiosis with <i>Medicago truncatula</i> . <i>New Phytologist</i> , 2000 , 147, 357-366	9.8	228
113	Estimation of the biomass of arbuscular mycorrhizal fungi in a linseed field. <i>Soil Biology and Biochemistry</i> , 1999 , 31, 1879-1887	7.5	224
112	Role of Arbuscular Mycorrhizal Fungi in Uptake of Phosphorus and Nitrogen From Soil. <i>Critical Reviews in Biotechnology</i> , 1995 , 15, 257-270	9.4	222
111	Nonredundant regulation of rice arbuscular mycorrhizal symbiosis by two members of the phosphate transporter1 gene family. <i>Plant Cell</i> , 2012 , 24, 4236-51	11.6	214
110	Growth and extracellular phosphatase activity of arbuscular mycorrhizal hyphae as influenced by soil organic matter. <i>Soil Biology and Biochemistry</i> , 1995 , 27, 1153-1159	7.5	157
109	Functional diversity of arbuscular mycorrhizas extends to the expression of plant genes involved in P nutrition. <i>Journal of Experimental Botany</i> , 2002 , 53, 1593-601	7	150
108	A mycorrhizal fungus grows on biochar and captures phosphorus from its surfaces. <i>Soil Biology and Biochemistry</i> , 2014 , 77, 252-260	7.5	149
107	Phosphorus acquisition efficiency in arbuscular mycorrhizal maize is correlated with the abundance of root-external hyphae and the accumulation of transcripts encoding PHT1 phosphate transporters. <i>New Phytologist</i> , 2017 , 214, 632-643	9.8	144
106	Arbuscular mycorrhiza reduces susceptibility of tomato to <i>Alternaria solani</i> . <i>Mycorrhiza</i> , 2006 , 16, 413-419	9.9	134
105	Mycorrhizal phosphate uptake pathway in tomato is phosphorus-repressible and transcriptionally regulated. <i>New Phytologist</i> , 2009 , 181, 950-959	9.8	131
104	The role of phosphorus in nitrogen fixation by young pea plants (<i>Pisum sativum</i>). <i>Physiologia Plantarum</i> , 1985 , 64, 190-196	4.6	126

103	Suppression of the biocontrol agent trichoderma harzianum by mycelium of the arbuscular mycorrhizal fungus glomus intraradices in root-free soil. <i>Applied and Environmental Microbiology</i> , 1999 , 65, 1428-34	4.8	120
102	Mycorrhizal fungal abundance is affected by long-term climatic manipulations in the field. <i>Global Change Biology</i> , 2003 , 9, 186-194	11.4	119
101	The mycorrhizal fungus (Glomus intraradices) affects microbial activity in the rhizosphere of pea plants (Pisum sativum). <i>Soil Biology and Biochemistry</i> , 2003 , 35, 1349-1357	7.5	114
100	Enzymatic evidence for the key role of arginine in nitrogen translocation by arbuscular mycorrhizal fungi. <i>Plant Physiology</i> , 2007 , 144, 782-92	6.6	110
99	Functional diversity in arbuscular mycorrhizas: exploitation of soil patches with different phosphate enrichment differs among fungal species. <i>Plant, Cell and Environment</i> , 2005 , 28, 642-650	8.4	107
98	Facilitation of phosphorus uptake in maize plants by mycorrhizosphere bacteria. <i>Scientific Reports</i> , 2017 , 7, 4686	4.9	104
97	Effects of various organic compounds on growth and phosphorus uptake of an arbuscular mycorrhizal fungus. <i>New Phytologist</i> , 1999 , 141, 517-524	9.8	102
96	Underground resource allocation between individual networks of mycorrhizal fungi. <i>New Phytologist</i> , 2008 , 180, 890-8	9.8	99
95	Physiological and molecular evidence for Pi uptake via the symbiotic pathway in a reduced mycorrhizal colonization mutant in tomato associated with a compatible fungus. <i>New Phytologist</i> , 2005 , 168, 445-54	9.8	96
94	The occurrence of vesicular-arbuscular mycorrhiza in barley and wheat grown in some Danish soils with different fertilizer treatments. <i>Plant and Soil</i> , 1980 , 55, 403-414	4.2	95
93	Soil bacteria respond to presence of roots but not to mycelium of arbuscular mycorrhizal fungi. <i>Soil Biology and Biochemistry</i> , 1996 , 28, 463-470	7.5	94
92	Temperature constraints on the growth and functioning of root organ cultures with arbuscular mycorrhizal fungi. <i>New Phytologist</i> , 2005 , 168, 179-88	9.8	92
91	P uptake by arbuscular mycorrhizal hyphae: effect of soil temperature and atmospheric CO2 enrichment. <i>Global Change Biology</i> , 2003 , 9, 106-116	11.4	88
90	Common arbuscular mycorrhizal networks amplify competition for phosphorus between seedlings and established plants. <i>New Phytologist</i> , 2013 , 200, 229-240	9.8	87
89	Hyphal transport by a vesicular-arbuscular mycorrhizal fungus of N applied to the soil as ammonium or nitrate. <i>Biology and Fertility of Soils</i> , 1993 , 16, 66-70	6.1	86
88	Beyond the rhizosphere: growth and function of arbuscular mycorrhizal external hyphae in sands of varying pore sizes. <i>Plant and Soil</i> , 2003 , 251, 105-114	4.2	84
87	A novel analytical method for in vivo phosphate tracking. <i>FEBS Letters</i> , 2006 , 580, 5885-93	3.8	81
86	Contrasting phosphate acquisition of mycorrhizal fungi with that of root hairs using the root hairless barley mutant. <i>Plant, Cell and Environment</i> , 2005 , 28, 928-938	8.4	76

85	Suppression of the activity of arbuscular mycorrhizal fungi by the soil microbiota. <i>ISME Journal</i> , 2018 , 12, 1296-1307	11.9	75
84	Mycorrhiza and root hairs in barley enhance acquisition of phosphorus and uranium from phosphate rock but mycorrhiza decreases root to shoot uranium transfer. <i>New Phytologist</i> , 2005 , 165, 591-8	9.8	74
83	Flax (<i>Linum usitatissimum</i> L.) depends on arbuscular mycorrhizal fungi for growth and P uptake at intermediate but not high soil P levels in the field. <i>Plant and Soil</i> , 1998 , 203, 37-46	4.2	72
82	Reduction of bacterial growth by a vesicular-arbuscular mycorrhizal fungus in the rhizosphere of cucumber (<i>Cucumis sativus</i> L.). <i>Biology and Fertility of Soils</i> , 1993 , 15, 253-258	6.1	71
81	The response of two <i>Glomus</i> mycorrhizal fungi and a fine endophyte to elevated atmospheric CO ₂ , soil warming and drought. <i>Global Change Biology</i> , 2004 , 10, 1909-1921	11.4	70
80	Interactive effects of soil temperature, atmospheric carbon dioxide and soil N on root development, biomass and nutrient uptake of winter wheat during vegetative growth. <i>Journal of Experimental Botany</i> , 2001 , 52, 1913-23	7	70
79	Phospho-imaging as a tool for visualization and noninvasive measurement of P transport dynamics in arbuscular mycorrhizas. <i>New Phytologist</i> , 2002 , 154, 809-819	9.8	68
78	Investigations of barley stripe mosaic virus as a gene silencing vector in barley roots and in <i>Brachypodium distachyon</i> and oat. <i>Plant Methods</i> , 2010 , 6, 26	5.8	64
77	The use of fatty acid signatures to study mycelial interactions between the arbuscular mycorrhizal fungus <i>Glomus intraradices</i> and the saprotrophic fungus <i>Fusarium culmorum</i> in root-free soil. <i>Mycological Research</i> , 1998 , 102, 1491-1496		63
76	Influence of an arbuscular mycorrhizal fungus on <i>Pseudomonas fluorescens</i> DF57 in rhizosphere and hyphosphere soil. <i>New Phytologist</i> , 1999 , 142, 113-122	9.8	60
75	Arbuscular mycorrhizal phosphate transport under monoxenic conditions using radio-labelled inorganic and organic phosphate. <i>Biotechnology Letters</i> , 2000 , 22, 1705-1708	3	59
74	Arbuscular mycorrhizal fungi can decrease the uptake of uranium by subterranean clover grown at high levels of uranium in soil. <i>Environmental Pollution</i> , 2004 , 130, 427-36	9.3	58
73	Contribution by two arbuscular mycorrhizal fungi to P uptake by cucumber (<i>Cucumis sativus</i> L.) from ³² P-labelled organic matter during mineralization in soil. <i>Plant and Soil</i> , 1994 , 163, 203-209	4.2	58
72	Phosphate pool dynamics in the arbuscular mycorrhizal fungus <i>Glomus intraradices</i> studied by <i>in vivo</i> P NMR spectroscopy. <i>New Phytologist</i> , 2004 , 162, 783-794	9.8	57
71	Response of free-living soil protozoa and microorganisms to elevated atmospheric CO ₂ and presence of mycorrhiza. <i>Soil Biology and Biochemistry</i> , 2002 , 34, 923-932	7.5	57
70	Transport of radiocaesium by arbuscular mycorrhizal fungi to <i>Medicago truncatula</i> under <i>in vitro</i> conditions. <i>Environmental Microbiology</i> , 2006 , 8, 1926-34	5.2	55
69	Interaction between foliar-feeding insects, mycorrhizal fungi, and rhizosphere protozoa on pea plants. <i>Pedobiologia</i> , 2003 , 47, 281-287	1.7	50
68	Uptake of ³² P from labelled organic matter, by mycorrhizal and non-mycorrhizal subterranean clover (<i>Trifolium subterraneum</i> L.). <i>Plant and Soil</i> , 1995 , 172, 221-227	4.2	49

67	Foraging and Resource Allocation Strategies of Mycorrhizal Fungi in a Patchy Environment. <i>Ecological Studies</i> , 2002 , 93-115	1.1	43
66	Hyphal growth from spores of the mycorrhizal fungus <i>Glomus caledonius</i> : Effect of amino acids. <i>Soil Biology and Biochemistry</i> , 1983 , 15, 55-58	7.5	42
65	Phosphate sensing by fluorescent reporter proteins embedded in polyacrylamide nanoparticles. <i>ACS Nano</i> , 2008 , 2, 19-24	16.7	41
64	³¹ P NMR for the study of P metabolism and translocation in arbuscular mycorrhizal fungi. <i>Plant and Soil</i> , 2000 , 226, 245-253	4.2	41
63	Interactions between a mycophagous Collembola, dry yeast and the external mycelium of an arbuscular mycorrhizal fungus. <i>Mycorrhiza</i> , 1996 , 6, 259-264	3.9	40
62	Plant growth responses to elevated atmospheric CO ₂ are increased by phosphorus sufficiency but not by arbuscular mycorrhizas. <i>Journal of Experimental Botany</i> , 2016 , 67, 6173-6186	7	39
61	Direct application of carbendazim and propiconazole at field rates to the external mycelium of three arbuscular mycorrhizal fungi species: effect on ³² P transport and succinate dehydrogenase activity. <i>Mycorrhiza</i> , 1997 , 7, 33-37	3.9	39
60	Population performance of collembolans feeding on soil fungi from different ecological niches. <i>Soil Biology and Biochemistry</i> , 2008 , 40, 360-369	7.5	38
59	Pre-inoculation with arbuscular mycorrhizal fungi increases early nutrient concentration and growth of field-grown leeks under high productivity conditions. <i>Plant and Soil</i> , 2008 , 307, 135-147	4.2	38
58	Research approaches to study the functioning of vesicular-arbuscular mycorrhizas in the field. <i>Plant and Soil</i> , 1994 , 159, 141-147	4.2	38
57	Dose-response relationships between four pesticides and phosphorus uptake by hyphae of arbuscular mycorrhizas. <i>Soil Biology and Biochemistry</i> , 1998 , 30, 1415-1422	7.5	37
56	Effects of <i>Pseudomonas fluorescens</i> DF57 on growth and P uptake of two arbuscular mycorrhizal fungi in symbiosis with cucumber. <i>Mycorrhiza</i> , 1999 , 8, 329-334	3.9	37
55	Role and influence of mycorrhizal fungi on radiocesium accumulation by plants. <i>Journal of Environmental Radioactivity</i> , 2008 , 99, 785-800	2.4	36
54	Effects of the mycorrhizal fungus <i>Glomus intraradices</i> on uranium uptake and accumulation by <i>Medicago truncatula</i> L. from uranium-contaminated soil. <i>Plant and Soil</i> , 2005 , 275, 349-359	4.2	35
53	No significant contribution of arbuscular mycorrhizal fungi to transfer of radiocesium from soil to plants. <i>Applied and Environmental Microbiology</i> , 2004 , 70, 6512-7	4.8	35
52	Phosphorus uptake by arbuscular mycorrhizal hyphae does not increase when the host plant grows under atmospheric CO ₂ enrichment. <i>New Phytologist</i> , 2002 , 154, 751-760	9.8	34
51	Mycorrhiza formation and nutrient concentration in leeks (<i>Allium porrum</i>) in relation to previous crop and cover crop management on high P soils. <i>Plant and Soil</i> , 2005 , 273, 101-114	4.2	34
50	Comparison of techniques for the extraction and quantification of extra-radical mycelium of arbuscular mycorrhizal fungi in soils. <i>Soil Biology and Biochemistry</i> , 1999 , 31, 479-482	7.5	34

49	Local and distal effects of arbuscular mycorrhizal colonization on direct pathway Pi uptake and root growth in <i>Medicago truncatula</i> . <i>Journal of Experimental Botany</i> , 2015 , 66, 4061-73	7	33
48	Phosphate transport by hyphae of field communities of arbuscular mycorrhizal fungi at two levels of P fertilization. <i>Plant and Soil</i> , 2000 , 221, 181-187	4.2	33
47	Arbuscular mycorrhizas contribute to phytostabilization of uranium in uranium mining tailings. <i>Journal of Environmental Radioactivity</i> , 2008 , 99, 801-10	2.4	32
46	Direct evidence for modulation of photosynthesis by an arbuscular mycorrhiza-induced carbon sink strength. <i>New Phytologist</i> , 2019 , 223, 896-907	9.8	31
45	Laboratory and field methods for measurement of hyphal uptake of nutrients in soil. <i>Plant and Soil</i> , 2000 , 226, 237-244	4.2	31
44	Fungicide application and phosphorus uptake by hyphae of arbuscular mycorrhizal fungi into field-grown peas. <i>Soil Biology and Biochemistry</i> , 2001 , 33, 1231-1237	7.5	31
43	The influence of mycorrhiza on uranium and phosphorus uptake by barley plants from a field-contaminated soil. <i>Environmental Science and Pollution Research</i> , 2005 , 12, 325-31	5.1	30
42	Evaluation of phosphorus in thermally converted sewage sludge: P pools and availability to wheat. <i>Plant and Soil</i> , 2017 , 418, 307-317	4.2	29
41	Augmentation of the phosphorus fertilizer value of biochar by inoculation of wheat with selected <i>Penicillium</i> strains. <i>Soil Biology and Biochemistry</i> , 2018 , 116, 139-147	7.5	29
40	Protocol: using virus-induced gene silencing to study the arbuscular mycorrhizal symbiosis in <i>Pisum sativum</i> . <i>Plant Methods</i> , 2010 , 6, 28	5.8	29
39	Effects of a mycophagous Collembola on the symbioses between <i>Trifolium subterraneum</i> and three arbuscular mycorrhizal fungi. <i>New Phytologist</i> , 1996 , 133, 295-302	9.8	28
38	Rhizobium strain effects on pea: The relation between nitrogen accumulation, phosphoenolpyruvate carboxylase activity in nodules and asparagine in root bleeding sap. <i>Physiologia Plantarum</i> , 1987 , 71, 281-286	4.6	28
37	Heat Stress Affects Pi-related Genes Expression and Inorganic Phosphate Deposition/Accumulation in Barley. <i>Frontiers in Plant Science</i> , 2016 , 7, 926	6.2	28
36	Impact of arbuscular mycorrhizal fungi on uranium accumulation by plants. <i>Journal of Environmental Radioactivity</i> , 2008 , 99, 775-84	2.4	27
35	The Role of the P1BS Element Containing Promoter-Driven Genes in Pi Transport and Homeostasis in Plants. <i>Frontiers in Plant Science</i> , 2012 , 3, 58	6.2	25
34	The interplay between P uptake pathways in mycorrhizal peas: a combined physiological and gene-silencing approach. <i>Physiologia Plantarum</i> , 2013 , 149, 234-48	4.6	25
33	Fermentation of sugar beet waste by <i>Aspergillus niger</i> facilitates growth and P uptake of external mycelium of mixed populations of arbuscular mycorrhizal fungi. <i>Soil Biology and Biochemistry</i> , 2007 , 39, 485-492	7.5	25
32	Hyphal fusion to plant species connections - giant mycelia and community nutrient flow. <i>New Phytologist</i> , 2004 , 164, 4-7	9.8	25

31	Nitrogen input mediates the effect of free-air CO ₂ enrichment on mycorrhizal fungal abundance. <i>Global Change Biology</i> , 2004 , 10, 1678-1688	11.4	23
30	Phosphorus uptake of an arbuscular mycorrhizal fungus is not effected by the biocontrol bacterium <i>Burkholderia cepacia</i> . <i>Soil Biology and Biochemistry</i> , 2002 , 34, 1875-1881	7.5	22
29	Comparison of two test systems for measuring plant phosphorus uptake via arbuscular mycorrhizal fungi. <i>Mycorrhiza</i> , 1999 , 8, 207-213	3.9	22
28	Effects of VA mycorrhiza on yield and harvest index of field-grown pea. <i>Plant and Soil</i> , 1987 , 98, 407-415	4.2	22
27	Combined effect of an arbuscular mycorrhizal fungus and a biocontrol bacterium against <i>Pythium ultimum</i> in soil. <i>Folia Geobotanica</i> , 2003 , 38, 145-154	1.4	21
26	Neither mycorrhizal inoculation nor atmospheric CO concentration has strong effects on pea root production and root loss. <i>New Phytologist</i> , 2001 , 149, 283-290	9.8	21
25	The effect of pretransplant inoculation with VA mycorrhizal fungi on the subsequent growth of leeks in the field. <i>Plant and Soil</i> , 1987 , 97, 279-283	4.2	19
24	Nutrient Dynamics in Arbuscular Mycorrhizal Networks. <i>Ecological Studies</i> , 2015 , 91-131	1.1	17
23	Co-ordinated Changes in the Accumulation of Metal Ions in Maize (<i>Zea mays</i> ssp. <i>mays</i> L.) in Response to Inoculation with the Arbuscular Mycorrhizal Fungus <i>Funneliformis mosseae</i> . <i>Plant and Cell Physiology</i> , 2017 , 58, 1689-1699	4.9	15
22	Rhizosphere Microorganisms and Plant Phosphorus Uptake. <i>Agronomy</i> , 2015 , 437-494	0.8	14
21	A decade of free-air CO ₂ enrichment increased the carbon throughput in a grass-clover ecosystem but did not drastically change carbon allocation patterns. <i>Functional Ecology</i> , 2014 , 28, 538-545	5.6	14
20	Sugar beet waste and its component ferulic acid inhibits external mycelium of arbuscular mycorrhizal fungus. <i>Soil Biology and Biochemistry</i> , 2011 , 43, 1456-1463	7.5	14
19	Fluorescent gel particles in the nanometer range for detection of metabolites in living cells. <i>Polymers for Advanced Technologies</i> , 2006 , 17, 790-793	3.2	14
18	Suppression of arbuscular mycorrhizal fungal activity in a diverse collection of non-cultivated soils. <i>FEMS Microbiology Ecology</i> , 2019 , 95,	4.3	13
17	Short-term utilization of carbon by the soil microbial community under future climatic conditions in a temperate heathland. <i>Soil Biology and Biochemistry</i> , 2014 , 68, 9-19	7.5	13
16	A key role for arbuscular mycorrhiza in plant acquisition of P from sewage sludge recycled to soil. <i>Soil Biology and Biochemistry</i> , 2017 , 115, 11-20	7.5	13
15	The effect of symbiotic microorganisms on phytoalexin contents of soybean roots. <i>Journal of Plant Physiology</i> , 1997 , 151, 716-723	3.6	13
14	The roles of mycorrhiza and <i>Penicillium</i> inoculants in phosphorus uptake by biochar-amended wheat. <i>Soil Biology and Biochemistry</i> , 2018 , 127, 168-177	7.5	13

13	Rhizosphere yeasts improve P uptake of a maize arbuscular mycorrhizal association. <i>Applied Soil Ecology</i> , 2018 , 125, 18-25	5	12
12	Arbuscular mycorrhiza reduces phytoextraction of uranium, thorium and other elements from phosphate rock. <i>Journal of Environmental Radioactivity</i> , 2008 , 99, 811-9	2.4	11
11	6 Carbon Metabolism in Mycorrhiza. <i>Methods in Microbiology</i> , 1991 , 23, 149-180	2.8	10
10	Soil phosphorus availability is a driver of the responses of maize (<i>Zea mays</i>) to elevated CO ₂ concentration and arbuscular mycorrhizal colonisation. <i>Symbiosis</i> , 2019 , 77, 73-82	3	9
9	Influence of vesicular-arbuscular mycorrhiza and straw mulch on growth of barley. <i>Plant and Soil</i> , 1981 , 62, 157-161	4.2	7
8	Effects of age, supra-ambient oxygen and repeated assays on acetylene reduction and root respiration in pea. <i>Physiologia Plantarum</i> , 1988 , 74, 77-82	4.6	6
7	Disentangling the abiotic and biotic components of AMF suppressive soils. <i>Soil Biology and Biochemistry</i> , 2021 , 159, 108305	7.5	6
6	Technical Note: Mesocosm approach to quantify dissolved inorganic carbon percolation fluxes. <i>Biogeosciences</i> , 2014 , 11, 1077-1084	4.6	5
5	Different sensitivity of a panel of <i>Rhizophagus</i> isolates to AMF-suppressive soils. <i>Applied Soil Ecology</i> , 2020 , 155, 103662	5	2
4	Phosphorus acquisition efficiency in arbuscular mycorrhizal maize is correlated with the abundance of root-external hyphae and the accumulation of transcripts encoding PHT1 phosphate transporters		2
3	Hormetic responses in arbuscular mycorrhizal fungi. <i>Soil Biology and Biochemistry</i> , 2021 , 159, 108299	7.5	2
2	Corrigendum to A novel analytical method for in vivo phosphate tracking [FEBS Lett. 580 (2006) 5885-5893]. <i>FEBS Letters</i> , 2007 , 581, 579-579	3.8	1
1	Letters from ICOM Digging deeper into mycorrhizal research. <i>New Phytologist</i> , 2007 , 174, 233-235	9.8	