Iver Jakobsen

List of Publications by Year
in descending order

122 papers	11,251 citations	31976 53 h-index	30087 103 g-index
126 all docs	126 docs citations	126 times ranked	7549 citing authors

#	Article	IF	Citations
1	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. Plant Physiology, 2011, 156, 1050-1057.	4.8	862
2	Mycorrhizal Fungi Can Dominate Phosphate Supply to Plants Irrespective of Growth Responses. Plant Physiology, 2003, 133, 16-20.	4.8	780
3	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. New Phytologist, 2004, 162, 511-524.	7.3	588
4	High functional diversity within species of arbuscular mycorrhizal fungi. New Phytologist, 2004, 164, 357-364.	7.3	512
5	The use of phospholipid and neutral lipid fatty acids to estimate biomass of arbuscular mycorrhizal fungi in soil. Mycological Research, 1995, 99, 623-629.	2.5	442
6	Nonredundant Regulation of Rice Arbuscular Mycorrhizal Symbiosis by Two Members of the <i>PHOSPHATE TRANSPORTER1</i> Gene Family. Plant Cell, 2012, 24, 4236-4251.	6.6	306
7	Estimation of the biomass of arbuscular mycorrhizal fungi in a linseed field. Soil Biology and Biochemistry, 1999, 31, 1879-1887.	8.8	290
8	The characterization of novel mycorrhiza-specific phosphate transporters from Lycopersicon esculentum and Solanum tuberosum uncovers functional redundancy in symbiotic phosphate transport in solanaceous species. Plant Journal, 2005, 42, 236-250.	5.7	281
9	Role of Arbuscular Mycorrhizal Fungi in Uptake of Phosphorus and Nitrogen From Soil. Critical Reviews in Biotechnology, 1995, 15, 257-270.	9.0	273
10	Spatial differences in acquisition of soil phosphate between two arbuscular mycorrhizal fungi in symbiosis with Medicago truncatula. New Phytologist, 2000, 147, 357-366.	7.3	259
11	Phosphorus acquisition efficiency in arbuscular mycorrhizal maize is correlated with the abundance of rootâ€external hyphae and the accumulation of transcripts encoding PHT1 phosphate transporters. New Phytologist, 2017, 214, 632-643.	7.3	210
12	A mycorrhizal fungus grows on biochar and captures phosphorus from its surfaces. Soil Biology and Biochemistry, 2014, 77, 252-260.	8.8	184
13	Growth and extracellular phosphatase activity of arbuscular mycorrhizal hyphae as influenced by soil organic matter. Soil Biology and Biochemistry, 1995, 27, 1153-1159.	8.8	178
14	Functional diversity of arbuscular mycorrhizas extends to the expression of plant genes involved in P nutrition. Journal of Experimental Botany, 2002, 53, 1593-1601.	4.8	167
15	Mycorrhizal phosphate uptake pathway in tomato is phosphorusâ€repressible and transcriptionally regulated. New Phytologist, 2009, 181, 950-959.	7.3	165
16	Arbuscular mycorrhiza reduces susceptibility of tomato to Alternaria solani. Mycorrhiza, 2006, 16, 413-419.	2.8	161
17	Facilitation of phosphorus uptake in maize plants by mycorrhizosphere bacteria. Scientific Reports, 2017, 7, 4686.	3.3	160
18	The role of phosphorus in nitrogen fixation by young pea plants (Pisum sativum). Physiologia Plantarum, 1985, 64, 190-196.	5.2	155

#	Article	IF	Citations
19	Mycorrhizal fungal abundance is affected by long-term climatic manipulations in the field. Global Change Biology, 2003, 9, 186-194.	9.5	143
20	Suppression of the Biocontrol Agent <i>Trichoderma harzianum</i> by Mycelium of the Arbuscular Mycorrhizal Fungus <i>Glomus intraradices</i> in Root-Free Soil. Applied and Environmental Microbiology, 1999, 65, 1428-1434.	3.1	137
21	Underground resource allocation between individual networks of mycorrhizal fungi. New Phytologist, 2008, 180, 890-898.	7.3	128
22	Functional diversity in arbuscular mycorrhizas: exploitation of soil patches with different phosphate enrichment differs among fungal species. Plant, Cell and Environment, 2005, 28, 642-650.	5.7	127
23	Enzymatic Evidence for the Key Role of Arginine in Nitrogen Translocation by Arbuscular Mycorrhizal Fungi. Plant Physiology, 2007, 144, 782-792.	4.8	125
24	The mycorrhizal fungus (Glomus intraradices) affects microbial activity in the rhizosphere of pea plants (Pisum sativum). Soil Biology and Biochemistry, 2003, 35, 1349-1357.	8.8	123
25	Suppression of the activity of arbuscular mycorrhizal fungi by the soil microbiota. ISME Journal, 2018, 12, 1296-1307.	9.8	122
26	Temperature constraints on the growth and functioning of root organ cultures with arbuscular mycorrhizal fungi. New Phytologist, 2005, 168, 179-188.	7.3	112
27	Effects of various organic compounds on growth and phosphorus uptake of an arbuscular mycorrhizal fungus. New Phytologist, 1999, 141, 517-524.	7.3	111
28	Title is missing!. Plant and Soil, 2003, 251, 105-114.	3.7	109
29	Hyphal transport by a vesicular-arbuscular mycorrhizal fungus of N applied to the soil as ammonium or nitrate. Biology and Fertility of Soils, 1993, 16, 66-70.	4.3	108
30	Common arbuscular mycorrhizal networks amplify competition for phosphorus between seedlings and established plants. New Phytologist, 2013, 200, 229-240.	7.3	107
31	The occrrence of vesicular-arbuscular mycorrhiza in barley and wheat grown in some Danish soils with different fertilizer treatments. Plant and Soil, 1980, 55, 403-414.	3.7	105
32	Physiological and molecular evidence for Pi uptake via the symbiotic pathway in a reduced mycorrhizal colonization mutant in tomato associated with a compatible fungus. New Phytologist, 2005, 168, 445-454.	7.3	105
33	P uptake by arbuscular mycorrhizal hyphae: effect of soil temperature and atmospheric CO2 enrichment. Global Change Biology, 2003, 9, 106-116.	9.5	101
34	Soil bacteria respond to presence of roots but not to mycelium of arbuscular mycorrhizal fungi. Soil Biology and Biochemistry, 1996, 28, 463-470.	8.8	98
35	Reduction of bacterial growth by a vesicular-arbuscular mycorrhizal fungus in the rhizosphere of cucumber (Cucumis sativus L.). Biology and Fertility of Soils, 1993, 15, 253-258.	4.3	90
36	Contrasting phosphate acquisition of mycorrhizal fungi with that of root hairs using the root hairless barley mutant. Plant, Cell and Environment, 2005, 28, 928-938.	5.7	90

#	Article	IF	Citations
37	A novel analytical method for in vivo phosphate tracking. FEBS Letters, 2006, 580, 5885-5893.	2.8	90
38	The response of two Glomus mycorrhizal fungi and a fine endophyte to elevated atmospheric CO2 , soil warming and drought. Global Change Biology, 2004, 10, 1909-1921.	9.5	86
39	Title is missing!. Plant and Soil, 1998, 203, 37-46.	3.7	84
40	Investigations of barley stripe mosaic virus as a gene silencing vector in barley roots and in Brachypodium distachyon and oat. Plant Methods, 2010, 6, 26.	4.3	84
41	Interactive effects of soil temperature, atmospheric carbon dioxide and soil N on root development, biomass and nutrient uptake of winter wheat during vegetative growth. Journal of Experimental Botany, 2001, 52, 1913-1923.	4.8	82
42	Phosphoâ€imaging as a tool for visualization and noninvasive measurement of P transport dynamics in arbuscular mycorrhizas. New Phytologist, 2002, 154, 809-819.	7.3	82
43	Mycorrhiza and root hairs in barley enhance acquisition of phosphorus and uranium from phosphate rock but mycorrhiza decreases root to shoot uranium transfer. New Phytologist, 2005, 165, 591-598.	7.3	82
44	Arbuscular mycorrhizal fungi can decrease the uptake of uranium by subterranean clover grown at high levels of uranium in soil. Environmental Pollution, 2004, 130, 427-436.	7.5	72
45	Direct evidence for modulation of photosynthesis by an arbuscular mycorrhizaâ€induced carbon sink strength. New Phytologist, 2019, 223, 896-907.	7.3	71
46	Contribution by two arbuscular mycorrhizal fungi to P uptake by cucumber (Cucumis sativus L.) from32P-labelled organic matter during mineralization in soil. Plant and Soil, 1994, 163, 203-209.	3.7	70
47	The use of fatty acid signatures to study mycelial interactions between the arbuscular mycorrhizal fungus Glomus intraradices and the saprotrophic fungus Fusarium culmorum in root-free soil. Mycological Research, 1998, 102, 1491-1496.	2.5	70
48	Title is missing!. Biotechnology Letters, 2000, 22, 1705-1708.	2.2	69
49	Phosphate pool dynamics in the arbuscular mycorrhizal fungus Glomus intraradices studied by in vivo 31 P NMR spectroscopy. New Phytologist, 2004, 162, 783-794.	7.3	66
50	Transport of radiocaesium by arbuscular mycorrhizal fungi to Medicago truncatula under in vitro conditions. Environmental Microbiology, 2006, 8, 1926-1934.	3.8	64
51	Influence of an arbuscular mycorrhizal fungus onPseudomonas fluorescensDF57 in rhizosphere and hyphosphere soil. New Phytologist, 1999, 142, 113-122.	7.3	63
52	Response of free-living soil protozoa and microorganisms to elevated atmospheric CO2 and presence of mycorrhiza. Soil Biology and Biochemistry, 2002, 34, 923-932.	8.8	58
53	Interaction between foliar-feeding insects, mycorrhizal fungi, and rhizosphere protozoa on pea plants. Pedobiologia, 2003, 47, 281-287.	1.2	55
54	Uptake of 32P from labelled organic matter, by mycorrhizal and non-mycorrhizal subterranean clover (Trifolium subterraneum L.). Plant and Soil, 1995, 172, 221-227.	3.7	51

#	Article	IF	Citations
55	31P NMR for the study of P metabolism and translocation in arbuscular mycorrhizal fungi. Plant and Soil, 2000, 226, 245-253.	3.7	50
56	Foraging and Resource Allocation Strategies of Mycorrhizal Fungi in a Patchy Environment. Ecological Studies, 2002, , 93-115.	1.2	50
57	Augmentation of the phosphorus fertilizer value of biochar by inoculation of wheat with selected Penicillium strains. Soil Biology and Biochemistry, 2018, 116, 139-147.	8.8	50
58	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. Mycorrhiza, 1997, 7, 33-37.	2.8	49
59	Role and influence of mycorrhizal fungi on radiocesium accumulation by plants. Journal of Environmental Radioactivity, 2008, 99, 785-800.	1.7	48
60	Population performance of collembolans feeding on soil fungi from different ecological niches. Soil Biology and Biochemistry, 2008, 40, 360-369.	8.8	47
61	Plant growth responses to elevated atmospheric CO₂are increased by phosphorus sufficiency but not by arbuscular mycorrhizas. Journal of Experimental Botany, 2016, 67, 6173-6186.	4.8	47
62	Hyphal growth from spores of the mycorrhizal fungus Glomus caledonius: Effect of amino acids. Soil Biology and Biochemistry, 1983, 15, 55-58.	8.8	46
63	Doseâ€“response relationships between four pesticides and phosphorus uptake by hyphae of arbuscular mycorrhizas. Soil Biology and Biochemistry, 1998, 30, 1415-1422.	8.8	46
64	Research approaches to study the functioning of vesicular-arbuscular mycorrhizas in the field. Plant and Soil, 1994, 159, 141-147.	3.7	45
65	Title is missing!. Plant and Soil, 2000, 221, 181-187.	3.7	45
66	Effects of Pseudomonas fluorescens DF57 on growth and P uptake of two arbuscular mycorrhizal fungi in symbiosis with cucumber. Mycorrhiza, 1999, 8, 329-334.	2.8	44
67	Phosphate Sensing by Fluorescent Reporter Proteins Embedded in Polyacrylamide Nanoparticles. ACS Nano, 2008, 2, 19-24.	14.6	44
68	Pre-inoculation with arbuscular mycorrhizal fungi increases early nutrient concentration and growth of field-grown leeks under high productivity conditions. Plant and Soil, 2008, 307, 135-147.	3.7	43
69	Interactions between a mycophagous Collembola, dry yeast and the external mycelium of an arbuscular mycorrhizal fungus. Mycorrhiza, 1996, 6, 259-264.	2.8	42
70	Heat Stress Affects Pi-related Genes Expression and Inorganic Phosphate Deposition/Accumulation in Barley. Frontiers in Plant Science, 2016, 7, 926.	3.6	42
71	Mycorrhiza formation and nutrient concentration in leeks (Allium porrum) in relation to previous crop and cover crop management on high P soils. Plant and Soil, 2005, 273, 101-114.	3.7	41
72	No Significant Contribution of Arbuscular Mycorrhizal Fungi to Transfer of Radiocesium from Soil to Plants. Applied and Environmental Microbiology, 2004, 70, 6512-6517.	3.1	40

#	Article	IF	Citations
73	Local and distal effects of arbuscular mycorrhizal colonization on direct pathway Pi uptake and root growth in Medicago truncatula. Journal of Experimental Botany, 2015, 66, 4061-4073.	4.8	40
74	Evaluation of phosphorus in thermally converted sewage sludge: P pools and availability to wheat. Plant and Soil, 2017, 418, 307-317.	3.7	40
75	Comparison of techniques for the extraction and quantification of extra-radical mycelium of arbuscular mycorrhizal fungi in soils. Soil Biology and Biochemistry, 1999, 31, 479-482.	8.8	39
76	Laboratory and field methods for measurement of hyphal uptake of nutrients in soil. Plant and Soil, 2000, 226, 237-244.	3.7	39
77	Arbuscular mycorrhizas contribute to phytostabilization of uranium in uranium mining tailings. Journal of Environmental Radioactivity, 2008, 99, 801-810.	1.7	38
78	Phosphorus uptake by arbuscular mycorrhizal hyphae does not increase when the host plant grows under atmospheric CO 2 enrichment. New Phytologist, 2002, 154, 751-760.	7.3	37
79	Effects of the mycorrhizal fungus Glomus intraradices on uranium uptake and accumulation by Medicago truncatula L. from uranium-contaminated soil. Plant and Soil, 2005, 275, 349-359.	3.7	37
80	The Influence of Mycorrhiza on Uranium and Phosphorus Uptake by Barley Plants from a Field-contaminated Soil (7 pp). Environmental Science and Pollution Research, 2005, 12, 325-331.	5.3	36
81	Fungicide application and phosphorus uptake by hyphae of arbuscular mycorrhizal fungi into field-grown peas. Soil Biology and Biochemistry, 2001, 33, 1231-1237.	8.8	35
82	Effects of a mycophagous Collembola on the symbioses between Trifolium subterraneum and three arbuscular mycorrhizal fungi. New Phytologist, 1996, 133, 295-302.	7.3	34
83	Nitrogen input mediates the effect of free-air CO2 enrichment on mycorrhizal fungal abundance. Global Change Biology, 2004, 10, 1678-1688.	9.5	32
84	The Role of the P1BS Element Containing Promoter-Driven Genes in Pi Transport and Homeostasis in Plants. Frontiers in Plant Science, 2012, 3, 58.	3.6	32
85	Hyphal fusion to plant species connections â€“ giant mycelia and community nutrient flow. New Phytologist, 2004, 164, 4-7.	7.3	31
86	Fermentation of sugar beet waste by Aspergillus niger facilitates growth and P uptake of external mycelium of mixed populations of arbuscular mycorrhizal fungi. Soil Biology and Biochemistry, 2007, 39, 485-492.	8.8	31
87	Protocol: using virus-induced gene silencing to study the arbuscular mycorrhizal symbiosis in Pisum sativum. Plant Methods, 2010, 6, 28.	4.3	31
88	The interplay between P uptake pathways in mycorrhizal peas: a combined physiological and geneâ€silencing approach. Physiologia Plantarum, 2013, 149, 234-248.	5.2	30
89	Impact of arbuscular mycorrhizal fungi on uranium accumulation by plants. Journal of Environmental Radioactivity, 2008, 99, 775-784.	1.7	29
90	Rhizobium strain effects on pea: The relation between nitrogen accumulation, phosphoenolpyruvate carboxylase activity in nodules and asparagine in root bleeding sap. Physiologia Plantarum, 1987, 71, 281-286.	5.2	28

#	Article	IF	Citations
91	Combined effect of an arbuscular mycorrhizal fungus and a biocontrol bacterium againstPythium ultimum in soil. Folia Geobotanica, 2003, 38, 145-154.	0.9	27
92	Nutrient Dynamics in Arbuscular Mycorrhizal Networks. Ecological Studies, 2015, , 91-131.	1.2	27
93	Co-ordinated Changes in the Accumulation of Metal Ions in Maize (Zea mays ssp. mays L.) in Response to Inoculation with the Arbuscular Mycorrhizal Fungus Funneliformis mosseae. Plant and Cell Physiology, 2017, 58, 1689-1699.	3.1	27
94	Comparison of two test systems for measuring plant phosphorus uptake via arbuscular mycorrhizal fungi. Mycorrhiza, 1999, 8, 207-213.	2.8	26
95	Effects of VA mycorrhiza on yield and harvest index of field-grown pea. Plant and Soil, 1987, 98, 407-415.	3.7	25
96	Neither mycorrhizal inoculation nor atmospheric CO 2 concentration has strong effects on pea root production and root loss. New Phytologist, 2001, 149, 283-290.	7.3	23
97	Phosphorus uptake of an arbuscular mycorrhizal fungus is not effected by the biocontrol bacterium Burkholderia cepacia. Soil Biology and Biochemistry, 2002, 34, 1875-1881.	8.8	23
98	The roles of mycorrhiza and Penicillium inoculants in phosphorus uptake by biochar-amended wheat. Soil Biology and Biochemistry, 2018, 127, 168-177.	8.8	23
99	Suppression of arbuscular mycorrhizal fungal activity in a diverse collection of non-cultivated soils. FEMS Microbiology Ecology, 2019, 95, .	2.7	23
100	The effect of pretransplant inoculation with VA mycorrhizal fungi on the subsequent growth of leeks in the field. Plant and Soil, 1987, 97, 279-283.	3.7	21
101	Rhizosphere Microorganisms and Plant Phosphorus Uptake. Agronomy, 0, , 437-494.	0.2	21
102	Multimodal correlative imaging and modelling of phosphorus uptake from soil by hyphae of mycorrhizal fungi. New Phytologist, 2022, 234, 688-703.	7.3	20
103	A key role for arbuscular mycorrhiza in plant acquisition of P from sewage sludge recycled to soil. Soil Biology and Biochemistry, 2017, 115, 11-20.	8.8	19
104	6 Carbon Metabolism in Mycorrhiza. Methods in Microbiology, 1991, 23, 149-180.	0.8	18
105	A decade of freeâ€air <scp>CO</scp>₂ enrichment increased the carbon throughput in a grassâ€clover ecosystem but did not drastically change carbon allocation patterns. Functional Ecology, 2014, 28, 538-545.	3.6	18
106	Short-term utilization of carbon by the soil microbial community under future climatic conditions in a temperate heathland. Soil Biology and Biochemistry, 2014, 68, 9-19.	8.8	18
107	Sugar beet waste and its component ferulic acid inhibits external mycelium of arbuscular mycorrhizal fungus. Soil Biology and Biochemistry, 2011, 43, 1456-1463.	8.8	17
108	Disentangling the abiotic and biotic components of AMF suppressive soils. Soil Biology and Biochemistry, 2021, 159, 108305.	8.8	17

#	Article	IF	Citations
109	Fluorescent gel particles in the nanometer range for detection of metabolites in living cells. Polymers for Advanced Technologies, 2006, 17, 790-793.	3.2	15
110	Rhizosphere yeasts improve P uptake of a maize arbuscular mycorrhizal association. Applied Soil Ecology, 2018, 125, 18-25.	4.3	15
111	Arbuscular mycorrhiza reduces phytoextraction of uranium, thorium and other elements from phosphate rock. Journal of Environmental Radioactivity, 2008, 99, 811-819.	1.7	14
112	The effect of symbiotic microorganisms on phytoalexin contents of soybean roots. Journal of Plant Physiology, 1997, 151, 716-723.	3.5	13
113	Soil phosphorus availability is a driver of the responses of maize (Zea mays) to elevated CO2 concentration and arbuscular mycorrhizal colonisation. Symbiosis, 2019, 77, 73-82.	2.3	10
114	Influence of vesicular-arbuscular mycorrhiza and straw mulch on growth of barley. Plant and Soil, 1981, 62, 157-161.	3.7	8
115	Effects of age, supra-ambient oxygen and repeated assays on acetylene reduction and root respiration in pea. Physiologia Plantarum, 1988, 74, 77-82.	5.2	7
116	Hormetic responses in arbuscular mycorrhizal fungi. Soil Biology and Biochemistry, 2021, 159, 108299.	8.8	6
117	Technical Note: Mesocosm approach to quantify dissolved inorganic carbon percolation fluxes. Biogeosciences, 2014, 11, 1077-1084.	3.3	5
118	Different sensitivity of a panel of Rhizophagus isolates to AMF-suppressive soils. Applied Soil Ecology, 2020, 155, 103662.	4.3	5
119	Corrigendum to â€œA novel analytical method for in vivo phosphate trackingâ€•[FEBS Lett. 580 (2006) 5885-5893]. FEBS Letters, 2007, 581, 579-579.	2.8	2
120	A tribute to Sally E. Smith. New Phytologist, 2020, 228, 397-402.	7.3	1
121	Concepts in mycorrhizal research . Ed. by K. G. MUKERJI. 24Ã—16 cm. Pp. xi+374 with 39 textâ€figures. Dordrecht, The Netherlands: Kluwer Academic Publishers, 1996. Price h/b: Â£136.00, ISBN 0 7923 3890 1.. New Phytologist, 1999, 142, 419-419.	7.3	0
122	Letters from ICOM â€“ digging deeper into mycorrhizal research. New Phytologist, 2007, 174, 233-235.	7.3	0