Heike Bcking

List of Publications by Citations

48 papers	3,785 citations	27 h-index	52 g-index
52 ext. papers	4,442 ext. citations	6.6 avg, IF	5.11 L-index

#	Paper	IF	Citations
48	Reciprocal rewards stabilize cooperation in the mycorrhizal symbiosis. *Science*, **2011**, 333, 880-2	33.3	1058
47	Nitrogen transfer in the arbuscular mycorrhizal symbiosis. *Nature*, **2005**, 435, 819-23	50.4	703
46	Carbon availability triggers fungal nitrogen uptake and transport in arbuscular mycorrhizal symbiosis. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 2666-71	11.5	273
45	Fungal nutrient allocation in common mycorrhizal networks is regulated by the carbon source strength of individual host plants. *New Phytologist*, **2014**, 203, 646-656	9.8	176
44	Role of Arbuscular Mycorrhizal Fungi in the Nitrogen Uptake of Plants: Current Knowledge and Research Gaps. *Agronomy*, **2015**, 5, 587-612	3.6	148
43	Phosphate uptake, transport and transfer by the arbuscular mycorrhizal fungus Glomus intraradices is stimulated by increased carbohydrate availability. *New Phytologist*, **2005**, 165, 899-911	9.8	140
42	Regulation of the nitrogen transfer pathway in the arbuscular mycorrhizal symbiosis: gene characterization and the coordination of expression with nitrogen flux. *Plant Physiology*, **2010**, 153, 1175-87	6.6	130
41	High functional diversity within species of arbuscular mycorrhizal fungi is associated with differences in phosphate and nitrogen uptake and fungal phosphate metabolism. *Mycorrhiza*, **2015**, 25, 533-46	3.9	99
40	The fungus does not transfer carbon to or between roots in an arbuscular mycorrhizal symbiosis. *New Phytologist*, **2004**, 163, 617-627	9.8	77
39	A toolbox of genes, proteins, metabolites and promoters for improving drought tolerance in soybean includes the metabolite coumestrol and stomatal development genes. *BMC Genomics*, **2016**, 17, 102	4.5	61
38	Hiding in a crowd�does diversity facilitate persistence of a low-quality fungal partner in the mycorrhizal symbiosis?. *Symbiosis*, **2013**, 59, 47-56	3	55
37	Triacylglyceride metabolism by Fusarium graminearum during colonization and sexual development on wheat. *Molecular Plant-Microbe Interactions*, **2009**, 22, 1492-503	3.6	48
36	Inhibition of a ubiquitously expressed pectin methyl esterase in Solanum tuberosum L. affects plant growth, leaf growth polarity, and ion partitioning. *Planta*, **2004**, 219, 32-40	4.7	48
35	Spatial structure and interspecific cooperation: theory and an empirical test using the mycorrhizal mutualism. *American Naturalist*, **2012**, 179, E133-46	3.7	47
34	The fungal sheath of ectomycorrhizal pine roots: an apoplastic barrier for the entry of calcium, magnesium, and potassium into the root cortex?. *Journal of Experimental Botany*, **2002**, 53, 1659-69	7	47
33	Elemental contents in vacuolar granules of ectomycorrhizal fungi measured by EELS and EDXS. A comparison of different methods and preparation techniques. *Micron*, **1998**, 29, 53-61	2.3	44
32	Uptake and transfer of nutrients in ectomycorrhizal associations: interactions between photosynthesis and phosphate nutrition. *Mycorrhiza*, **2003**, 13, 59-68	3.9	43

31	Root exudates stimulate the uptake and metabolism of organic carbon in germinating spores of Glomus intraradices. *New Phytologist*, **2008**, 180, 684-695	9.8	41
30	Subcellular compartmentation of elements in non-mycorrhizal and mycorrhizal roots of Pinus sylvestris: an X-ray microanalytical study. I. The distribution of phosphate. *New Phytologist*, **2000**, 145, 311-320	9.8	40
29	Germinating spores of Glomus intraradices can use internal and exogenous nitrogen sources for de novo biosynthesis of amino acids. *New Phytologist*, **2009**, 184, 399-411	9.8	36
28	Nutrient demand and fungal access to resources control the carbon allocation to the symbiotic partners in tripartite interactions of Medicago truncatula. *Plant, Cell and Environment*, **2019**, 42, 270-284	8.4	35
27	The Role of the Mycorrhizal Symbiosis in Nutrient Uptake of Plants and the Regulatory Mechanisms Underlying These Transport Processes **2012**,		35
26	The role of carbon in fungal nutrient uptake and transport: implications for resource exchange in the arbuscular mycorrhizal symbiosis. *Plant Signaling and Behavior*, **2012**, 7, 1509-12	2.5	34
25	Host plant quality mediates competition between arbuscular mycorrhizal fungi. *Fungal Ecology*, **2016**, 20, 233-240	4.1	33
24	Common mycorrhizal networks and their effect on the bargaining power of the fungal partner in the arbuscular mycorrhizal symbiosis. *Communicative and Integrative Biology*, **2016**, 9, e1107684	1.7	33
23	The Ectomycorrhizal Fungus Produces Lipochitooligosaccharides and Uses the Common Symbiosis Pathway to Colonize Roots. *Plant Cell*, **2019**, 31, 2386-2410	11.6	33
22	Seasonal and cell type specific expression of sulfate transporters in the phloem of Populus reveals tree specific characteristics for SO(4)(2-) storage and mobilization. *Plant Molecular Biology*, **2010**, 72, 499-517	4.6	29
21	Do fungivores trigger the transfer of protective metabolites from host plants to arbuscular mycorrhizal hyphae?. *Ecology*, **2013**, 94, 2019-29	4.6	26
20	Harnessing Soil Microbes to Improve Plant Phosphate Efficiency in Cropping Systems. *Agronomy*, **2019**, 9, 127	3.6	24
19	Arbuscular mycorrhizal growth responses are fungal specific but do not differ between soybean genotypes with different phosphate efficiency. *Annals of Botany*, **2016**, 118, 11-21	4.1	23
18	Subcellular compartmentation of elements in non-mycorrhizal and mycorrhizal roots of Pinus sylvestris: an X-ray microanalytical study. II. The distribution of calcium, potassium and sodium. *New Phytologist*, **2000**, 145, 321-331	9.8	22
17	Biodegradation of aromatic compounds by white rot and ectomycorrhizal fungal species and the accumulation of chlorinated benzoic acid in ectomycorrhizal pine seedlings. *Chemosphere*, **2002**, 49, 297-306	8.4	20
16	Misconceptions on the application of biological market theory to the mycorrhizal symbiosis. *Nature Plants*, **2016**, 2, 16063	11.5	16
15	The ectomycorrhizal contribution to tree nutrition. *Advances in Botanical Research*, **2019**, 77-126	2.2	16
14	Phosphate absorption and efflux of three ectomycorrhizal fungi as affected by external phosphate, cation and carbohydrate concentrations. *Mycological Research*, **2004**, 108, 599-609		15

13	Ultrastructural element localization by EDXS in Empetrum nigrum. *Micron*, **2002**, 33, 339-51	2.3	14
12	Applied jasmonates accumulate extracellularly in tomato, but intracellularly in barley. *FEBS Letters*, **2004**, 562, 45-50	3.8	14
11	Ectomycoremediation: An Eco-Friendly Technique for the Remediation of Polluted Sites. *Soil Biology*, **2011**, 209-229	1	11
10	Genotypic differences in phosphorus acquisition efficiency and root performance of cotton (Gossypium hirsutum) under low-phosphorus stress. *Crop and Pasture Science*, **2019**, 70, 344	2.2	8
9	Metatranscriptomic Analysis and In Silico Approach Identified Mycoviruses in the Arbuscular Mycorrhizal Fungus spp. *Viruses*, **2018**, 10,	6.2	8
8	Single-Cell RNA Sequencing of Plant-Associated Bacterial Communities. *Frontiers in Microbiology*, **2019**, 10, 2452	5.7	6
7	Draft Genome Sequence of sp. Strain ONC3, a Novel Bacterial Species of the Family Isolated from Garden Soil. *Microbiology Resource Announcements*, **2019**, 8,	1.3	4
6	Beneficial Plant Microbe Interactions and Their Effect on Nutrient Uptake, Yield, and Stress Resistance of Soybeans **2019**,		3
5	Draft Genome Sequence of sp. Strain MC02, Isolated from a Sandy Loam Maize Soil. *Microbiology Resource Announcements*, **2019**, 8,	1.3	2
4	sp. nov., isolated from the soil of a cultivated maize field. *International Journal of Systematic and Evolutionary Microbiology*, **2020**, 70, 3912-3920	2.2	2
3	Inter- and Intraspecific Fungal Diversity in the Arbuscular Mycorrhizal Symbiosis **2017**, 253-274		1
2	Draft Genome Sequence of sp. Strain DN04, Isolated from Cultivated Soil. *Microbiology Resource Announcements*, **2019**, 8,	1.3	1
1	sp. nov., a novel addition to the genus, isolated from the soil of a cultivated maize field. *International Journal of Systematic and Evolutionary Microbiology*, **2021**, 71,	2.2	1