Christel Baum

List of Publications by Year
in descending order

90 papers	3,582 citations	147566 31 h-index	149479 56 g-index
92 all docs	92 docs citations	92 times ranked	4971 citing authors

#	Article	IF	Citations
1	Trace elements in the soil-plant interface: Phytoavailability, translocation, and phytoremediationâ€“A review. Earth-Science Reviews, 2017, 171, 621-645.	4.0	588
2	Increasing the productivity and product quality of vegetable crops using arbuscular mycorrhizal fungi: A review. Scientia Horticulturae, 2015, 187, 131-141.	1.7	277
3	Innovative methods in soil phosphorus research: A review. Journal of Plant Nutrition and Soil Science, 2015, 178, 43-88.	1.1	256
4	Early stage litter decomposition across biomes. Science of the Total Environment, 2018, 628-629, 1369-1394.	3.9	177
5	Heavy-metal mobilization and uptake by mycorrhizal and nonmycorrhizal willows (Salix Ã— dasyclados). Journal of Plant Nutrition and Soil Science, 2006, 169, 516-522.	1.1	105
6	Effects of long-term phosphorus application and plant-growth promoting rhizobacteria on maize phosphorus nutrition under field conditions. European Journal of Soil Biology, 2013, 55, 124-130.	1.4	95
7	A million and more trees for science. Nature Ecology and Evolution, 2018, 2, 763-766.	3.4	90
8	Stability and composition of soil organic matter control respiration and soil enzyme activities. Soil Biology and Biochemistry, 2008, 40, 1496-1505.	4.2	89
9	Effects of nitrogen and phosphorus fertilization on mycorrhizal formation of two poplar clones(Populus trichocarpa andP. tremula x tremuloides). Journal of Plant Nutrition and Soil Science, 2000, 163, 491-497.	1.1	70
10	Density, metabolic activity, and identity of cultivable rhizosphere bacteria on Salix viminalis in disturbed arable and landfill soils. Journal of Plant Nutrition and Soil Science, 2010, 173, 747-756.	1.1	63
11	Biological soil crusts of Arctic Svalbard and of Livingston Island, Antarctica. Polar Biology, 2017, 40, 399-411.	0.5	63
12	Assessing Environmental Impacts of Short Rotation Coppice (SRC) Expansion: Model Definition and Preliminary Results. Bioenergy Research, 2012, 5, 621-635.	2.2	62
13	Effects of chemical conditions in re-wetted peats on temporal variation in microbial biomass and acid phosphatase activity within the growing season. Applied Soil Ecology, 2003, 22, 167-174.	2.1	59
14	ASSOCIATED BACTERIA INCREASE THE PHYTOEXTRACTION OF CADMIUM AND ZINC FROM A METAL-CONTAMINATED SOIL BY MYCORRHIZAL WILLOWS. International Journal of Phytoremediation, 2009, 11, 200-213.	1.7	57
15	The effect of plant growth-promoting rhizobacteria on the phytoextraction of Cd and Zn byBrassica napusL.. International Journal of Phytoremediation, 2017, 19, 597-604.	1.7	57
16	Long-term effects of short rotation forestry with willows and poplar on soil properties. Archives of Agronomy and Soil Science, 2007, 53, 673-682.	1.3	55
17	Promotion of mycorrhiza formation and growth of willows by the bacterial strain Sphingomonas sp. 23L on fly ash. Biology and Fertility of Soils, 2009, 45, 385-394.	2.3	55
18	Interactive and Single Effects of Ectomycorrhiza Formation and Bacillus cereus on Metallothionein MT1 Expression and Phytoextraction of Cd and Zn by Willows. Water, Air, and Soil Pollution, 2012, 223, 957-968.	1.1	51

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19	Bacterial potentials for uptake, solubilization and mineralization of extracellular phosphorus in agricultural soils are highly stable under different fertilization regimes. Environmental Microbiology Reports, 2018, 10, 320-327.	1.0	49
20	Ectomycorrhizal community structure under willows at former ore mining sites. European Journal of Soil Biology, 2008, 44, 37-44.	1.4	47
21	Efficiency of microbially assisted phytoremediation of heavy-metal contaminated soils. Environmental Reviews, 2018, 26, 316-332.	2.1	47
22	Advances in Understanding Organic Nitrogen Chemistry in Soils Using State-of-the-art Analytical Techniques. Advances in Agronomy, 2013, 119, 83-151.	2.4	46
23	Vertical distribution of soil properties under shortâ€rotation forestry in Northern Germany. Journal of Plant Nutrition and Soil Science, 2010, 173, 737-746.	1.1	42
24	The effects of nitrogen fertilization and soil properties on mycorrhizal formation of Salix viminalis. Forest Ecology and Management, 2002, 160, 35-43.	1.4	41
25	The Potential of Rhizosphere Microorganisms to Promote the Plant Growth in Disturbed Soils. , 2012, , 35-64.		38
26	Application of Microorganisms in Bioremediation of Environment from Heavy Metals. , 2014, , 215-227.		37
27	Strain-specific bioaccumulation and intracellular distribution of Cd2+ in bacteria isolated from the rhizosphere, ectomycorrhizae, and fruitbodies of ectomycorrhizal fungi. Environmental Science and Pollution Research, 2015, 22, 3055-3067.	2.7	37
28	Biological Soil Crusts of Arctic Svalbardâ€"Water Availability as Potential Controlling Factor for Microalgal Biodiversity. Frontiers in Microbiology, 2017, 8, 1485.	1.5	37
29	Interactive effects of plant growthâ€"promoting rhizobacteria and organic fertilization on P nutrition of Zea mays L. and Brassica napus L.. Journal of Plant Nutrition and Soil Science, 2011, 174, 602-613.	1.1	35
30	Loss of soil phosphorus by tile drains during storm events. Agricultural Water Management, 2016, 167, 21-28.	2.4	35
31	The significance of host-fungus combinations in ectomycorrhizal symbioses for the chemical quality of willow foliage. Plant and Soil, 2009, 323, 213-224.	1.8	34
32	Mycorrhizal community structure, microbial biomass P and phosphatase activities under Salix polaris as influenced by nutrient availability. European Journal of Soil Biology, 2009, 45, 168-175.	1.4	34
33	Spatial distribution of arsenic and heavy metals in willow roots from a contaminated floodplain soil measured by X-ray fluorescence spectroscopy. Science of the Total Environment, 2011, 409, 4094-100.	3.9	33
34	Growth response of Populus trichocarpa to inoculation by the ectomycorrhizal fungus Laccaria laccata in a pot and a field experiment. Forest Ecology and Management, 2002, 163, 1-8.	1.4	30
35	Impact of ectomycorrhizal colonization and rust infection on the secondary metabolism of poplar (Populus trichocarpa x deltoides). Tree Physiology, 2012, 32, 1357-1364.	1.4	30
36	Impact of Populus trees on the composition of organic matter and the soil microbial community in Orthic Gray Luvisols in Saskatchewan (Canada). Soil Biology and Biochemistry, 2014, 70, 5-11.	4.2	30

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37	The significance of rotation periods for mycorrhiza formation in Short Rotation Coppice. Forest Ecology and Management, 2010, 260, 1943-1949.	1.4	29
38	Clonal and seasonal shifts in communities of saprotrophic microfungi and soil enzyme activities in the mycorrhizosphere of Salix spp.. Journal of Plant Nutrition and Soil Science, 2006, 169, 481-487.	1.1	28
39	Correspondence of ectomycorrhizal diversity and colonisation of willows (Salix spp.) grown in short rotation coppice on arable sites and adjacent natural stands. Mycorrhiza, 2012, 22, 603-613.	1.3	27
40	Scale-Dependent Variability of As and Heavy Metals in a River Elbe Floodplain. Clean - Soil, Air, Water, 2011, 39, 328-337.	0.7	25
41	Tillage-induced changes in the distribution of soil organic matter and the soil aggregate stability under a former short rotation coppice. Soil and Tillage Research, 2013, 133, 49-53.	2.6	24
42	Interactive effects of substrates and ectomycorrhizal colonization on growth of a poplar clone. Journal of Plant Nutrition and Soil Science, 2000, 163, 221-226.	1.1	21
43	Genotype identity has a more important influence than genotype diversity on shoot biomass productivity in willow shortâ€rotation coppices. GCB Bioenergy, 2018, 10, 534-547.	2.5	21
44	Soil microbial phosphorus turnover and identity of algae and fungi in biological soil crusts along a transect in a glacier foreland. European Journal of Soil Biology, 2019, 91, 9-17.	1.4	21
45	Selection of ectomycorrhizal willow genotype in phytoextraction of heavy metals. Environmental Technology (United Kingdom), 2013, 34, 225-230.	1.2	20
46	Ectomycorrhiza formation and willow growth promotion as affected by associated bacteria: role of microbial metabolites and use of C sources. Biology and Fertility of Soils, 2010, 46, 139-150.	2.3	19
47	The impact of short rotation coppice on the concentrations of aliphatic soil lipids. Plant and Soil, 2012, 350, 163-177.	1.8	19
48	Mixture of Salix Genotypes Promotes Root Colonization With Dark Septate Endophytes and Changes P Cycling in the Mycorrhizosphere. Frontiers in Microbiology, 2018, 9, 1012.	1.5	19
49	The Contribution of Endomycorrhiza to the Performance of Potato Virus Y-Infected Solanaceous Plants: Disease Alleviation or Exacerbation?. Frontiers in Microbiology, 2019, 10, 516.	1.5	19
50	Effects of an Early Successional Biological Soil Crust from a Temperate Coastal Sand Dune (NE) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 22 217-229.	1.4	18
51	Willow Short-Rotation Coppice as Model System for Exploring Ecological Theory on Biodiversityâ€“Ecosystem Function. Diversity, 2019, 11, 125.	0.7	16
52	Effects of different innovative bone char based P fertilizers on bacteria catalyzing P turnover in agricultural soils. Agriculture, Ecosystems and Environment, 2021, 314, 107419.	2.5	16
53	Arbuscular Mycorrhiza Changes the Impact of Potato Virus Y on Growth and Stress Tolerance of Solanum tuberosum L. in vitro. Frontiers in Microbiology, 2019, 10, 2971.	1.5	16
54	Metabolic profiles of microorganisms associated with the halophyteSalicornia europaeain soils with different levels of salinity. Ecoscience, 2014, 21, 114-122.	0.6	15

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55	Cadmiumâ€induced changes in the production of siderophores by a plant growth promoting strain of Pseudomonas fulva. Journal of Basic Microbiology, 2018, 58, 623-632.	1.8	15
56	Lichens Bite the Dust â€“ A Bioweathering Scenario in the Atacama Desert. IScience, 2020, 23, 101647.	1.9	15
57	Inoculation withTrichoderma saturnisporumaccelerates wheat straw decomposition on soil. Archives of Agronomy and Soil Science, 2007, 53, 1-12.	1.3	14
58	Impact of arbuscular mycorrhizal fungi on the growth and expression of gene encoding stress protein â€“ metallothionein BnMT2 in the nonâ€host crop Brassica napus L.. Journal of Plant Nutrition and Soil Science, 2014, 177, 459-467.	1.1	14
59	Small-Scale Spatial Variability of Soil Chemical and Biochemical Properties in a Rewetted Degraded Peatland. Frontiers in Environmental Science, 2019, 7, .	1.5	14
60	Overstory-specific effects of litter fall on the microbial carbon turnover in a mature deciduous forest. Forest Ecology and Management, 2009, 258, 109-114.	1.4	13
61	Host plantâ€”ectomycorrhizal fungus combination drives resource allocation in willow: Evidence for complex species interaction from a simple experiment. Ecoscience, 2013, 20, 112-121.	0.6	13
62	Interactive physiological response of potato (Solanum tuberosum L.) plants to fungal colonization and Potato virus Y (PVY) infection. Acta Mycologica, 2014, 1, 291-303.	0.3	13
63	Comparative vegetation survey with focus on cryptogamic covers in the high Arctic along two differing catenas. Polar Biology, 2019, 42, 2131-2145.	0.5	11
64	Organic and Inorganic P Sources Interacting with Applied Rhizosphere Bacteria and Their Effects on Growth and P Supply of Maize. Communications in Soil Science and Plant Analysis, 2013, 44, 3205-3215.	0.6	10
65	Indicators for soil organic matter quality in no-till soils under perennial crops in Central Sweden. Soil and Tillage Research, 2015, 148, 74-84.	2.6	10
66	Effect of triple superphosphate and biowaste compost on mycorrhizal colonization and enzymatic P mobilization under maize in a longâ€term field experiment. Journal of Plant Nutrition and Soil Science, 2019, 182, 167-174.	1.1	10
67	Diversity of microbial phototrophs and heterotrophs in Icelandic biocrusts and their role in phosphorus-rich Andosols. Geoderma, 2021, 386, 114905.	2.3	10
68	The Effects of Host Plant Genotype and Environmental Conditions on Fungal Community Composition and Phosphorus Solubilization in Willow Short Rotation Coppice. Frontiers in Plant Science, 2021, 12, 647709.	1.7	10
69	Soilâ€ecological evaluation of willows in a floodplain. Journal of Plant Nutrition and Soil Science, 2012, 175, 245-252.	1.1	9
70	Soil amendment with agroâ€industrial byproducts: molecularâ€chemical compositions and effects on soil biochemical activities and phosphorus fractions. Journal of Plant Nutrition and Soil Science, 2011, 174, 113-120.	1.1	8
71	Soil Carbon Modelling in Salix Biomass Plantations: Variety Determines Carbon Sequestration and Climate Impacts. Forests, 2021, 12, 1529.	0.9	8
72	Impact of Organic Amendments on the Suppression of Fusarium Wilt. Soil Biology, 2015, , 353-362.	0.6	7

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73	Crop-specific differences in the concentrations of lipids in leachates from the root zone. Archives of Agronomy and Soil Science, 2013, 59, 119-125.	1.3	6
74	Decontamination Activity of Ryegrass Exudates Towards Bisphenol A in the Absence and Presence of Dissolved Natural Organic Matter. International Journal of Phytoremediation, 2015, 17, 1-8.	1.7	6
75	Fertilization effects on soil ecology strongly depend on the genotype in a willow (Salix spp.) plantation. Forest Ecology and Management, 2020, 466, 118126.	1.4	6
76	Compost of Different Stability Affects the Molecular Composition and Mineralization of Soil Organic Matter. Open Journal of Soil Science, 2013, 03, 58-69.	0.3	5
77	Erosion Induced Heterogeneity of Soil Organic Matter in Catenae from the Baltic Sea Catchment. Soil Systems, 2019, 3, 42.	1.0	5
78	Site-Effects Dominate the Plant Availability of Nutrients under Salix Species during the First Cutting Cycle. Forests, 2021, 12, 1226.	0.9	5
79	Complete Genome Sequence of Psychrobacillus sp. Strain INOP01, a Phosphate-Solubilizing Bacterium Isolated from an Agricultural Soil in Germany. Microbiology Resource Announcements, 2022, 11, e0020722.	0.3	5
80	Spatial Variability of Selected Soil Properties in Long-Term Drained and Restored Peatlands. Frontiers in Environmental Science, 2022, 10, .	1.5	4
81	Evaluation of agro-industrial by-products as nutrient source for plant growth. Archives of Agronomy and Soil Science, 2012, 58, 451-460.	1.3	3
82	Mixed Growth with Weeds Promotes Mycorrhizal Colonization and Increases the Plant-Availability of Phosphorus under Maize (Zea mays L.). Agronomy, 2021, 11, 1304.	1.3	3
83	Impact of the Legume Catch Crop Serradella on Subsequent Growth and P Mobilization under Barley in Different Fertilization Treatments. Agronomy, 2021, 11, 2437.	1.3	3
84	Site-Dependent Relationships Between Fungal Community Composition, Plant Genotypic Diversity and Environmental Drivers in a Salix Biomass System. Frontiers in Fungal Biology, 2021, 2, .	0.9	1
85	EinfluÃŸ der Mykorrhizierung auf die AktivitÃt extrazellulÃrer Enzyme in der RhizosphÃre von Pappeln. , 2004, , 33-38.		1
86	Transgene effects on rhizodeposition: Evidence from molecular-chemical screening by Pyrolysis-Field Ionisation Mass Spectrometry (Py-FIMS). Nature Precedings, 2010, , .	0.1	0
87	Wood species affect the degradation of crude oil in beach sand. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2015, 50, 1411-1416.	0.9	0
88	Fast and sensitive in vivo studies under controlled environmental conditions to substitute long-term field trials with genetically modified plants. Journal of Biotechnology, 2017, 243, 48-60.	1.9	0
89	Reprint of â€œFast and sensitive in vivo studies under controlled environmental conditions to substitute long-term field trials with genetically modified plantsâ€. Journal of Biotechnology, 2017, 257, 22-34.	1.9	0
90	Sustainability of Impacts of Poplar Growth on Soil Organic Matter in Eutric Cambisols. Soil Systems, 2019, 3, 32.	1.0	0