

Christian Poll

List of Publications by Year
in descending order

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Version: 2024-02-01

60
papers

3,574
citations

172207

29
h-index

138251

58
g-index

62
all docs

62
docs citations

62
times ranked

5718
citing authors

#	ARTICLE	IF	CITATIONS
1	Long-term manipulation of mean climatic conditions alters drought effects on C and N cycling in an arable soil. <i>Global Change Biology</i> , 2022, 28, 3974-3990.	4.2	6
2	Heavy rainfall following a summer drought stimulates soil redox dynamics and facilitates rapid and deep translocation of glyphosate in floodplain soils. <i>Environmental Sciences: Processes and Impacts</i> , 2022, , .	1.7	2
3	¹³ C assimilation as well as functional gene abundance and expression elucidate the biodegradation of glyphosate in a field experiment. <i>Environmental Pollution</i> , 2022, 306, 119382.	3.7	6
4	Changes in Chemical and Microbial Soil Parameters Following 8 Years of Deadwood Decay: An Experiment with Logs of 13 Tree Species in 30 Forests. <i>Ecosystems</i> , 2021, 24, 955-967.	1.6	24
5	What are the limits in a colluvial deposit? Perspectives from archaeopedology. <i>Catena</i> , 2021, 198, 105040.	2.2	12
6	Modeling temperature sensitivity of soil organic matter decomposition: Splitting the pools. <i>Soil Biology and Biochemistry</i> , 2021, 153, 108108.	4.2	10
7	Microbial Utilisation of Aboveground Litter-Derived Organic Carbon Within a Sandy Dystric Cambisol Profile. <i>Frontiers in Soil Science</i> , 2021, 1, .	0.8	11
8	Middle Bronze Age land use practices in the northwestern Alpine foreland – a multi-proxy study of colluvial deposits, archaeological features and peat bogs. <i>Soil</i> , 2021, 7, 269-304.	2.2	12
9	Independent effects of warming and altered precipitation pattern on nematode community structure in an arable field. <i>Agriculture, Ecosystems and Environment</i> , 2021, 316, 107467.	2.5	9
10	Rhizosphere activity in an old-growth forest reacts rapidly to changes in soil moisture and shapes whole-tree carbon allocation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 24885-24892.	3.3	50
11	Biodegradation of Pesticides at the Limit: Kinetics and Microbial Substrate Use at Low Concentrations. <i>Frontiers in Microbiology</i> , 2020, 11, 2107.	1.5	21
12	Do Soil Warming and Changes in Precipitation Patterns Affect Seed Yield and Seed Quality of Field-Grown Winter Oilseed Rape?. <i>Agronomy</i> , 2020, 10, 520.	1.3	11
13	Plant litter enhances degradation of the herbicide MCPA and increases formation of biogenic non-extractable residues in soil. <i>Environment International</i> , 2020, 142, 105867.	4.8	10
14	Spatial Control of Carbon Dynamics in Soil by Microbial Decomposer Communities. <i>Frontiers in Environmental Science</i> , 2020, 8, .	1.5	15
15	Soil Properties Control Microbial Carbon Assimilation and Its Mean Residence Time. <i>Frontiers in Environmental Science</i> , 2020, 8, .	1.5	10
16	Vineyard management system affects soil microbiological properties. <i>Oeno One</i> , 2020, 54, .	0.7	9
17	Fungi and bacteria respond differently to changing environmental conditions within a soil profile. <i>Soil Biology and Biochemistry</i> , 2019, 137, 107543.	4.2	31
18	Earthworms modulate the effects of climate warming on the taxon richness of soil meso- and macrofauna in an agricultural system. <i>Agriculture, Ecosystems and Environment</i> , 2019, 278, 72-80.	2.5	23

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19	Inquiry-Based Learning in the Life Sciences. , 2019, , 171-180.		1
20	Controls on microbially regulated soil organic carbon decomposition at the regional scale. Soil Biology and Biochemistry, 2018, 118, 59-68.	4.2	35
21	Cross-laboratory comparison of fluorimetric microplate and colorimetric bench-scale soil enzyme assays. Soil Biology and Biochemistry, 2018, 121, 240-248.	4.2	22
22	Offsetting global warming-induced elevated greenhouse gas emissions from an arable soil by biochar application. Global Change Biology, 2018, 24, e318-e334.	4.2	75
23	Water flow drives small scale biogeography of pesticides and bacterial pesticide degraders - A microcosm study using 2,4-D as a model compound. Soil Biology and Biochemistry, 2018, 127, 137-147.	4.2	10
24	Dynamics of soil respiration and microbial communities: Interactive controls of temperature and substrate quality. Soil Biology and Biochemistry, 2018, 127, 60-70.	4.2	47
25	Influence of elevated soil temperature and biochar application on organic matter associated with aggregate-size and density fractions in an arable soil. Agriculture, Ecosystems and Environment, 2017, 241, 79-87.	2.5	45
26	Microbial community response to changes in substrate availability and habitat conditions in a reciprocal subsoil transfer experiment. Soil Biology and Biochemistry, 2017, 105, 138-152.	4.2	39
27	Carbon flow from litter through soil microorganisms: From incorporation rates to mean residence times in bacteria and fungi. Soil Biology and Biochemistry, 2017, 115, 187-196.	4.2	53
28	Interaction of minerals, organic matter, and microorganisms during biogeochemical interface formation as shown by a series of artificial soil experiments. Biology and Fertility of Soils, 2017, 53, 9-22.	2.3	67
29	The impact of chemical pollution on the resilience of soils under multiple stresses: A conceptual framework for future research. Science of the Total Environment, 2016, 568, 1076-1085.	3.9	37
30	Quantifying global soil carbon losses in response to warming. Nature, 2016, 540, 104-108.	13.7	879
31	Partitioning of ecosystem respiration in winter wheat and silage maize— modeling seasonal temperature effects. Agriculture, Ecosystems and Environment, 2016, 224, 131-144.	2.5	18
32	Modeling coupled pesticide degradation and organic matter turnover: From gene abundance to process rates. Soil Biology and Biochemistry, 2016, 103, 349-364.	4.2	22
33	Short-term response of soil microorganisms to biochar addition in a temperate agroecosystem under soil warming. Agriculture, Ecosystems and Environment, 2016, 233, 308-317.	2.5	60
34	Effect of water redistribution by two distinct saprotrophic fungi on carbon mineralization and nitrogen translocation in dry soil. Soil Biology and Biochemistry, 2016, 103, 380-387.	4.2	10
35	Fungal biomass and extracellular enzyme activities in coarse woody debris of 13 tree species in the early phase of decomposition. Forest Ecology and Management, 2016, 378, 181-192.	1.4	51
36	Temperature response of soil respiration largely unaltered with experimental warming. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13797-13802.	3.3	308

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37	Succession of soil microbial communities and enzyme activities in artificial soils. <i>Pedobiologia</i> , 2016, 59, 93-104.	0.5	21
38	Evidence for the importance of litter as a co-substrate for MCPA dissipation in an agricultural soil. <i>Environmental Science and Pollution Research</i> , 2016, 23, 4164-4175.	2.7	9
39	Modelling in situ activities of enzymes as a tool to explain seasonal variation of soil respiration from agro-ecosystems. <i>Soil Biology and Biochemistry</i> , 2015, 81, 291-303.	4.2	48
40	Additive effects of earthworms, nitrogen-rich litter and elevated soil temperature on N ₂ O emission and nitrate leaching from an arable soil. <i>Applied Soil Ecology</i> , 2015, 86, 55-61.	2.1	34
41	Can current moisture responses predict soil CO ₂ efflux under altered precipitation regimes? A synthesis of manipulation experiments. <i>Biogeosciences</i> , 2014, 11, 2991-3013.	1.3	74
42	Corrigendum to "Can current moisture responses predict soil CO ₂ efflux under altered precipitation regimes? A synthesis of manipulation experiments". <i>Biogeosciences</i> , 2014, 11, 3307-3308.	1.3	10
43	Micro-scale modeling of pesticide degradation coupled to carbon turnover in the detritosphere: model description and sensitivity analysis. <i>Biogeochemistry</i> , 2014, 117, 185-204.	1.7	20
44	Field-scale manipulation of soil temperature and precipitation change soil CO ₂ flux in a temperate agricultural ecosystem. <i>Agriculture, Ecosystems and Environment</i> , 2013, 165, 88-97.	2.5	83
45	Impacts of temperature increase and change in precipitation pattern on crop yield and yield quality of barley. <i>Food Chemistry</i> , 2013, 136, 1470-1477.	4.2	101
46	Succession of bacterial and fungal 4-chloro-2-methylphenoxyacetic acid degraders at the soil-litter interface. <i>FEMS Microbiology Ecology</i> , 2013, 86, 85-100.	1.3	20
47	The influence of the herbicide 2-methyl-4-chlorophenoxyacetic acid (MCPA) on the mineralization of litter-derived alkanes and the abundance of the alkane monooxygenase gene (<i>alkB</i>) in the detritosphere of <i>Pisum sativum</i> (L.). <i>Biology and Fertility of Soils</i> , 2012, 48, 933-940.	2.3	2
48	Land-use intensity modifies spatial distribution and function of soil microorganisms in grasslands. <i>Pedobiologia</i> , 2011, 54, 341-351.	0.5	29
49	Influence of land-use intensity on the spatial distribution of N-cycling microorganisms in grassland soils. <i>FEMS Microbiology Ecology</i> , 2011, 77, 95-106.	1.3	70
50	Small-scale Diversity and Succession of Fungi in the Detritosphere of Rye Residues. <i>Microbial Ecology</i> , 2010, 59, 130-140.	1.4	65
51	Regulation of bacterial and fungal MCPA degradation at the soil-litter interface. <i>Soil Biology and Biochemistry</i> , 2010, 42, 1879-1887.	4.2	42
52	Microbial biomass and enzyme activities under reduced nitrogen deposition in a spruce forest soil. <i>Applied Soil Ecology</i> , 2009, 43, 11-21.	2.1	73
53	Dynamics of litter carbon turnover and microbial abundance in a rye detritosphere. <i>Soil Biology and Biochemistry</i> , 2008, 40, 1306-1321.	4.2	145
54	Micro-scale modelling of carbon turnover driven by microbial succession at a biogeochemical interface. <i>Soil Biology and Biochemistry</i> , 2008, 40, 864-878.	4.2	75

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55	Soil carbon preservation through habitat constraints and biological limitations on decomposer activity. <i>Journal of Plant Nutrition and Soil Science</i> , 2008, 171, 27-35.	1.1	156
56	Endogeic earthworms alter carbon translocation by fungi at the soil-litter interface. <i>Soil Biology and Biochemistry</i> , 2007, 39, 2854-2864.	4.2	53
57	Rhizosphere bacteria affected by transgenic potatoes with antibacterial activities compared with the effects of soil, wild-type potatoes, vegetation stage and pathogen exposure. <i>FEMS Microbiology Ecology</i> , 2006, 56, 219-235.	1.3	143
58	Mechanisms of solute transport affect small-scale abundance and function of soil microorganisms in the detritusphere. <i>European Journal of Soil Science</i> , 2006, 57, 583-595.	1.8	112
59	Micro-scale distribution of microorganisms and microbial enzyme activities in a soil with long-term organic amendment. <i>European Journal of Soil Science</i> , 2003, 54, 715-724.	1.8	115
60	Nitrogen Cycle Enzymes. <i>Soil Science Society of America Book Series</i> , 0, , 211-245.	0.3	19