Environmental and stoichiometric controls on microbia

New Phytologist

196, 79-91

DOI: 10.1111/j.1469-8137.2012.04225.x

Citation Report

#	Article	IF	Citations
1	The Role of Plants in the Effects of Global Change on Nutrient Availability and Stoichiometry in the Plant-Soil System Â. Plant Physiology, 2012, 160, 1741-1761.	4.8	279
2	Introduction to a <scp>V</scp>irtual <scp>S</scp>pecial <scp>I</scp>ssue on ecological stoichiometry and global change. New Phytologist, 2012, 196, 649-651.	7.3	23
3	Ecoenzymatic Stoichiometry and Ecological Theory. Annual Review of Ecology, Evolution, and Systematics, 2012, 43, 313-343.	8.3	582
4	Causes of variation in mineral soil C content and turnover in differently managed beech dominated forests. Plant and Soil, 2013, 370, 625-639.	3.7	21
5	Global soil carbon projections are improved by modelling microbial processes. Nature Climate Change, 2013, 3, 909-912.	18.8	772
6	Soil carbon dynamics: The effects of nitrogen input, intake demand and off-take by animals. Science of the Total Environment, 2013, 465, 205-215.	8.0	22
7	Soil organic carbon stock changes in Swedish forest soilsâ€"A comparison of uncertainties and their sources through a national inventory and two simulation models. Ecological Modelling, 2013, 251, 221-231.	2.5	46
8	Soil microbial responses to warming and increased precipitation and their implications for ecosystem C cycling. Oecologia, 2013, 173, 1125-1142.	2.0	89
9	Carbon use efficiency of microbial communities: stoichiometry, methodology and modelling. Ecology Letters, 2013, 16, 930-939.	6.4	627
10	Using metabolic tracer techniques to assess the impact of tillage and straw management on microbial carbon use efficiency in soil. Soil Biology and Biochemistry, 2013, 66, 139-145.	8.8	37
11	The <scp>M</scp>icrobial <scp>E</scp>fficiencyâ€<scp>M</scp>atrix <scp>S</scp>tabilization (<scp>MEMS</scp>) framework integrates plant litter decomposition with soil organic matter stabilization: do labile plant inputs form stable soil organic matter?. Global Change Biology, 2013, 19, 988-995.	9.5	1,962
12	Altered precipitation regime affects the function and composition of soil microbial communities on multiple time scales. Ecology, 2013, 94, 2334-2345.	3.2	134
13	Soil Respiration and Soil Organic Matter Decomposition in Response to Climate Change. Developments in Environmental Science, 2013, 13, 131-149.	0.5	11
14	Legacies of native climate regime govern responses of boreal soil microbes to litter stoichiometry and temperature. Soil Biology and Biochemistry, 2013, 66, 204-213.	8.8	34
15	Microbial growth responses upon rewetting soil dried for four days or one year. Soil Biology and Biochemistry, 2013, 66, 188-192.	8.8	141
16	Estimating the critical N:C from litter decomposition data and its relation to soil organic matter stoichiometry. Soil Biology and Biochemistry, 2013, 67, 312-318.	8.8	57
17	Carbon use efficiency and storage in terrestrial ecosystems. New Phytologist, 2013, 199, 7-9.	7.3	79
18	The temperature response of soil microbial efficiency and its feedback to climate. Nature Climate Change, 2013, 3, 395-398.	18.8	604

#	Article	IF	Citations
19	Competition between roots and microorganisms for nitrogen: mechanisms and ecological relevance. New Phytologist, 2013, 198, 656-669.	7.3	976
20	Exploring relationships between enzyme activities and leaf litter decomposition in a wet tropical forest. Soil Biology and Biochemistry, 2013, 64, 89-95.	8.8	75
21	Thermal adaptation of decomposer communities in warming soils. Frontiers in Microbiology, 2013, 4, 333.	3.5	270
22	Up Against The Wall: The Effects of Climate Warming on Soil Microbial Diversity and The Potential for Feedbacks to The Carbon Cycle. Diversity, 2013, 5, 409-425.	1.7	31
23	Thermal acclimation in widespread heterotrophic soil microbes. Ecology Letters, 2013, 16, 469-477.	6.4	164
24	Responses of belowground carbon allocation dynamics to extended shading in mountain grassland. New Phytologist, 2013, 198, 116-126.	7.3	84
25	An experimental test of the hypothesis of nonâ€homeostatic consumer stoichiometry in a plant litterâ€“microbe system. Ecology Letters, 2013, 16, 764-772.	6.4	219
26	Labile compounds in plant litter reduce the sensitivity of decomposition to warming and altered precipitation. New Phytologist, 2013, 200, 122-133.	7.3	68
27	Plant soil interactions alter carbon cycling in an upland grassland soil. Frontiers in Microbiology, 2013, 4, 253.	3.5	39
28	Tradeoffs in microbial carbon allocation may mediate soil carbon storage in future climates. Frontiers in Microbiology, 2013, 4, 261.	3.5	12
29	The implications of microbial and substrate limitation for the fates of carbon in different organic soil horizon types of boreal forest ecosystems: a mechanistically based model analysis. Biogeosciences, 2014, 11, 4477-4491.	3.3	20
30	Nitrogen Deposition Enhances Carbon Sequestration by Plantations in Northern China. PLoS ONE, 2014, 9, e87975.	2.5	24
31	Linking Annual N2O Emission in Organic Soils to Mineral Nitrogen Input as Estimated by Heterotrophic Respiration and Soil C/N Ratio. PLoS ONE, 2014, 9, e96572.	2.5	10
32	Integrating microbial physiology and physio-chemical principles in soils with the MIcrobial-MIneral Carbon Stabilization (MIMICS) model. Biogeosciences, 2014, 11, 3899-3917.	3.3	243
33	Implications of carbon saturation model structures for simulated nitrogen mineralization dynamics. Biogeosciences, 2014, 11, 6725-6738.	3.3	25
34	Decomposition trajectories of diverse litter types: a model selection analysis. Methods in Ecology and Evolution, 2014, 5, 173-182.	5.2	51
35	Modeling adaptation of carbon use efficiency in microbial communities. Frontiers in Microbiology, 2014, 5, 571.	3.5	106
36	Microbial carbon mineralization in tropical lowland and montane forest soils of Peru. Frontiers in Microbiology, 2014, 5, 720.	3.5	31

#	Article	IF	Citations
37	Nutrient availability as the key regulator of global forest carbon balance. Nature Climate Change, 2014, 4, 471-476.	18.8	383
38	Substrate and environmental controls on microbial assimilation of soil organic carbon: a framework for Earth system models. Ecology Letters, 2014, 17, 547-555.	6.4	148
39	Microbial community dynamics alleviate stoichiometric constraints during litter decay. Ecology Letters, 2014, 17, 680-690.	6.4	302
40	Microbial respiration and ecoenzyme activity in sediments from the Gulf of Mexico hypoxic zone. Aquatic Microbial Ecology, 2014, 72, 105-116.	1.8	6
41	Stoichiometric imbalances between terrestrial decomposer communities and their resources: mechanisms and implications of microbial adaptations to their resources. Frontiers in Microbiology, 2014, 5, 22.	3.5	501
42	Microbial Community Stratification Linked to Utilization of Carbohydrates and Phosphorus Limitation in a Boreal Peatland at Marcell Experimental Forest, Minnesota, USA. Applied and Environmental Microbiology, 2014, 80, 3518-3530.	3.1	114
43	Microbial Growth and Carbon Use Efficiency in the Rhizosphere and Root-Free Soil. PLoS ONE, 2014, 9, e93282.	2.5	169
44	Physiological shifts in the microbial community drive changes in enzyme activity in a perennial agroecosystem. Biogeochemistry, 2014, 117, 67-79.	3.5	52
45	Soil carbon sensitivity to temperature and carbon use efficiency compared across microbial-ecosystem models of varying complexity. Biogeochemistry, 2014, 119, 67-84.	3.5	89
46	Bacterial growth efficiency varies in soils under different land management practices. Soil Biology and Biochemistry, 2014, 69, 282-290.	8.8	60
47	Soil nitrogen dynamics and crop residues. A review. Agronomy for Sustainable Development, 2014, 34, 429-442.	5.3	256
48	Plant rhizosphere influence on microbial C metabolism: the role of elevated CO2, N availability and root stoichiometry. Biogeochemistry, 2014, 117, 229-240.	3.5	52
49	Adjustment of microbial nitrogen use efficiency to carbon:nitrogen imbalances regulates soil nitrogen cycling. Nature Communications, 2014, 5, 3694.	12.8	594
50	Thermal acclimation of organic matter decomposition in an artificial forest soil is related to shifts in microbial community structure. Soil Biology and Biochemistry, 2014, 71, 1-12.	8.8	77
51	Soil warming alters microbial substrate use in alpine soils. Global Change Biology, 2014, 20, 1327-1338.	9.5	97
52	Stoichiometric controls upon low molecular weight carbon decomposition. Soil Biology and Biochemistry, 2014, 79, 50-56.	8.8	62
53	Priming of soil organic carbon by malic acid addition is differentially affected by nutrient availability. Soil Biology and Biochemistry, 2014, 77, 158-169.	8.8	72
54	High clay content accelerates the decomposition of fresh organic matter in artificial soils. Soil Biology and Biochemistry, 2014, 77, 100-108.	8.8	89

#	Article	IF	Citations
55	Accelerated microbial turnover but constant growth efficiency with warming in soil. Nature Climate Change, 2014, 4, 903-906.	18.8	266
56	Ecoenzymatic stoichiometry and microbial processing of organic matter in northern bogs and fens reveals a common P-limitation between peatland types. Biogeochemistry, 2014, 120, 203-224.	3.5	129
57	Growth and death of bacteria and fungi underlie rainfallâ€induced carbon dioxide pulses from seasonally dried soil. Ecology, 2014, 95, 1162-1172.	3.2	161
58	Microbial community composition explains soil respiration responses to changing carbon inputs along an <scp>A</scp>ndesâ€toâ€<scp>A</scp>mazon elevation gradient. Journal of Ecology, 2014, 102, 1058-1071.	4.0	181
59	Functional stoichiometry of soil microbial communities after amendment with stabilised organic matter. Soil Biology and Biochemistry, 2014, 76, 170-178.	8.8	42
60	Differential effects of pH on temperature sensitivity of organic carbon and nitrogen decay. Soil Biology and Biochemistry, 2014, 76, 193-200.	8.8	57
61	Ecoenzymatic stoichiometry of microbial nutrient acquisition in tropical soils. Biogeochemistry, 2014, 117, 101-113.	3.5	340
62	Assessing five evolving microbial enzyme models against field measurements from a semiarid savannah-What are the mechanisms of soil respiration pulses?. Geophysical Research Letters, 2014, 41, 6428-6434.	4.0	42
63	Uncertainty in the fate of soil organic carbon: A comparison of three conceptually different decomposition models at a larch plantation. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1892-1905.	3.0	11
64	Incorporating microbial ecology concepts into global soil mineralization models to improve predictions of carbon and nitrogen fluxes. Global Biogeochemical Cycles, 2014, 28, 223-238.	4.9	28
65	Microbial physiology and soil CO₂ efflux after 9Âyears of soil warming in a temperate forest â€“ no indications for thermal adaptations. Global Change Biology, 2015, 21, 4265-4277.	9.5	104
66	Short-term parasite-infection alters already the biomass, activity and functional diversity of soil microbial communities. Scientific Reports, 2014, 4, 6895.	3.3	17
67	Interactive effects of plants, decomposers, herbivores, and predators on nutrient cycling. , 2015, , 233-259.		8
68	Plant diversity drives soil microbial biomass carbon in grasslands irrespective of global environmental change factors. Global Change Biology, 2015, 21, 4076-4085.	9.5	134
69	Integrating plant litter quality, soil organic matter stabilization, and the carbon saturation concept. Global Change Biology, 2015, 21, 3200-3209.	9.5	456
70	Application of a twoâ€pool model to soil carbon dynamics under elevated <scp>CO</scp>₂. Global Change Biology, 2015, 21, 4293-4297.	9.5	18
71	Exotic grasses and nitrate enrichment alter soil carbon cycling along an urbanâ€“rural tropical forest gradient. Global Change Biology, 2015, 21, 4481-4496.	9.5	14
72	Representing life in the Earth system with soil microbial functional traits in the MIMICS model. Geoscientific Model Development, 2015, 8, 1789-1808.	3.6	154

#	Article	IF	Citations
73	Convergent modelling of past soil organic carbon stocks but divergent projections. Biogeosciences, 2015, 12, 4373-4383.	3.3	41
74	Reviews and syntheses: Soil resources and climate jointly drive variations in microbial biomass carbon and nitrogen in China's forest ecosystems. Biogeosciences, 2015, 12, 6751-6760.	3.3	32
75	The complex relationship between microbial growth rate and yield and its implications for ecosystem processes. Frontiers in Microbiology, 2015, 6, 615.	3.5	170
76	SHIMMER (1.0): a novel mathematical model for microbial and biogeochemical dynamics in glacier forefield ecosystems. Geoscientific Model Development, 2015, 8, 3441-3470.	3.6	9
77	Carbon availability regulates soil respiration response to nitrogen and temperature. Soil Biology and Biochemistry, 2015, 88, 158-164.	8.8	69
78	Grass invasion effects on forest soil carbon depend on landscape-level land use patterns. Ecology, 2015, 96, 2265-2279.	3.2	32
79	Soil C:N stoichiometry controls carbon sink partitioning between above-ground tree biomass and soil organic matter in high fertility forests. IForest, 2015, 8, 195-206.	1.4	40
80	Investigating microbial transformations of soil organic matter: synthesizing knowledge from disparate fields to guide new experimentation. Soil, 2015, 1, 313-330.	4.9	21
82	Decay rates of leaf litters from arbuscular mycorrhizal trees are more sensitive to soil effects than litters from ectomycorrhizal trees. Journal of Ecology, 2015, 103, 1454-1463.	4.0	85
83	Social dynamics within decomposer communities lead to nitrogen retention and organic matter build-up in soils. Nature Communications, 2015, 6, 8960.	12.8	80
84	Modelling in situ activities of enzymes as a tool to explain seasonal variation of soil respiration from agro-ecosystems. Soil Biology and Biochemistry, 2015, 81, 291-303.	8.8	48
85	Annual burning of a tallgrass prairie inhibits C and N cycling in soil, increasing recalcitrant pyrogenic organic matter storage while reducing N availability. Global Change Biology, 2015, 21, 2321-2333.	9.5	66
86	Combination of nitrogen and phosphorus fertilization enhance ecosystem carbon sequestration in a nitrogen-limited temperate plantation of Northern China. Forest Ecology and Management, 2015, 341, 59-66.	3.2	35
87	The physiology and ecological implications of efficient growth. ISME Journal, 2015, 9, 1481-1487.	9.8	155
88	Soil microbial community composition does not predominantly determine the variance of heterotrophic soil respiration across four subtropical forests. Scientific Reports, 2015, 5, 7854.	3.3	28
89	Effects of soil water content, temperature and experimental nitrogen deposition on nitric oxide (NO) efflux from semiarid shrubland soil. Journal of Arid Environments, 2015, 117, 67-74.	2.4	21
90	Root exudate carbon mitigates nitrogen loss in a semi-arid soil. Soil Biology and Biochemistry, 2015, 88, 380-389.	8.8	63
91	Contribution of sorption, DOC transport and microbial interactions to the 14C age of a soil organic carbon profile: Insights from a calibrated process model. Soil Biology and Biochemistry, 2015, 88, 390-402.	8.8	122

#	Article	IF	Citations
92	High carbon use efficiency in soil microbial communities is related to balanced growth, not storage compound synthesis. Soil Biology and Biochemistry, 2015, 89, 35-43.	8.8	74
93	Regulation of CO ₂ and N ₂ O fluxes by coupled carbon and nitrogen availability. Environmental Research Letters, 2015, 10, 034008.	5.2	54
94	The application of ecological stoichiometry to plantâ€“microbialâ€“soil organic matter transformations. Ecological Monographs, 2015, 85, 133-155.	5.4	735
95	A new conceptual model on the fate and controls of fresh and pyrolized plant litter decomposition. Biogeochemistry, 2015, 124, 27-44.	3.5	78
96	Two decades of warming increases diversity of a potentially lignolytic bacterial community. Frontiers in Microbiology, 2015, 6, 480.	3.5	73
97	Effects of litter traits, soil biota, and soil chemistry on soil carbon stocks at a common garden with 14 tree species. Biogeochemistry, 2015, 123, 313-327.	3.5	77
98	Plant diversity increases soil microbial activity and soil carbon storage. Nature Communications, 2015, 6, 6707.	12.8	949
99	Microbial physiology and necromass regulate agricultural soil carbon accumulation. Soil Biology and Biochemistry, 2015, 91, 279-290.	8.8	235
100	Crop yield and soil organic matter after long-term straw return to soil in China. Nutrient Cycling in Agroecosystems, 2015, 102, 371-381.	2.2	140
101	Living roots magnify the response of soil organic carbon decomposition to temperature in temperate grassland. Global Change Biology, 2015, 21, 1368-1375.	9.5	26
102	Short-term nitrogen mineralization from warm-season cover crops in organic farming systems. Plant and Soil, 2015, 396, 353-367.	3.7	22
103	Impact of long-term N additions upon coupling between soil microbial community structure and activity, and nutrient-use efficiencies. Soil Biology and Biochemistry, 2015, 91, 151-159.	8.8	151
104	Effect of added nitrogen on plant litter decomposition depends on initial soil carbon and nitrogen stoichiometry. Soil Biology and Biochemistry, 2015, 91, 160-168.	8.8	77
105	Scaling microbial biomass, metabolism and resource supply. Biogeochemistry, 2015, 122, 175-190.	3.5	65
106	Physiological and Biochemical Methods for Studying Soil Biota and Their Functions. , 2015, , 187-222.		17
107	Do microorganism stoichiometric alterations affect carbon sequestration in paddy soil subjected to phosphorus input?. Ecological Applications, 2015, 25, 866-879.	3.8	18
108	Microbial respiration per unit biomass increases with carbon-to-nutrient ratios in forest soils. Soil Biology and Biochemistry, 2015, 81, 128-133.	8.8	147
109	Interactions between temperature and nutrients across levels of ecological organization. Global Change Biology, 2015, 21, 1025-1040.	9.5	210

#	Article	IF	Citations
110	Microbial community structure mediates response of soil C decomposition to litter addition and warming. Soil Biology and Biochemistry, 2015, 80, 175-188.	8.8	180
111	Temperature sensitivity of heterotrophic soil CO2 production increases with increasing carbon substrate uptake rate. Soil Biology and Biochemistry, 2015, 80, 45-52.	8.8	36
112	Microbial dormancy improves development and experimental validation of ecosystem model. ISME Journal, 2015, 9, 226-237.	9.8	113
113	Comparing models of microbialâ€“substrate interactions and their response to warming. Biogeosciences, 2016, 13, 1733-1752.	3.3	34
114	Temperature-mediated changes in microbial carbon use efficiency and ¹³C discrimination. Biogeosciences, 2016, 13, 3319-3329.	3.3	15
115	(A)synchronous Availabilities of N and P Regulate the Activity and Structure of the Microbial Decomposer Community. Frontiers in Microbiology, 2015, 6, 1507.	3.5	19
116	Enzymatic Strategies and Carbon Use Efficiency of a Litter-Decomposing Fungus Grown on Maize Leaves, Stems, and Roots. Frontiers in Microbiology, 2016, 7, 1315.	3.5	52
117	Carbon Availability Modifies Temperature Responses of Heterotrophic Microbial Respiration, Carbon Uptake Affinity, and Stable Carbon Isotope Discrimination. Frontiers in Microbiology, 2016, 7, 2083.	3.5	20
118	Soil Functional Zone Management: A Vehicle for Enhancing Production and Soil Ecosystem Services in Row-Crop Agroecosystems. Frontiers in Plant Science, 2016, 7, 65.	3.6	30
119	Fire affects root decomposition, soil food web structure, and carbon flow in tallgrass prairie. Soil, 2016, 2, 199-210.	4.9	21
120	Biomass or growth? How to measure soil food webs to understand structure and function. Soil Biology and Biochemistry, 2016, 102, 45-47.	8.8	32
121	Historical precipitation predictably alters the shape and magnitude of microbial functional response to soil moisture. Global Change Biology, 2016, 22, 1957-1964.	9.5	79
122	Terrestrial nitrogen cycling in Earth system models revisited. New Phytologist, 2016, 210, 1165-1168.	7.3	35
123	Distinct respiratory responses of soils to complex organic substrate areÂgoverned predominantly by soil architecture and its microbial community. Soil Biology and Biochemistry, 2016, 103, 493-501.	8.8	17
124	Landscape position influences soil respiration variability and sensitivity to physiological drivers in mixedâ€use lands of Southern California, USA. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 2530-2543.	3.0	11
125	Are variations in heterotrophic soil respiration related to changes in substrate availability and microbial biomass carbon in the subtropical forests?. Scientific Reports, 2016, 5, 18370.	3.3	38
126	Synergistic Processing of Biphenyl and Benzoate: Carbon Flow Through the Bacterial Community in Polychlorinated-Biphenyl-Contaminated Soil. Scientific Reports, 2016, 6, 22145.	3.3	55
127	Disentangling the influence of earthworms in sugarcane rhizosphere. Scientific Reports, 2016, 6, 38923.	3.3	38

#	Article	IF	Citations
128	Experimental warming of a mountain tundra increases soil CO2 effluxes and enhances CH4 and N2O uptake at Changbai Mountain, China. Scientific Reports, 2016, 6, 21108.	3.3	32
129	Microbial respiration, but not biomass, responded linearly to increasing light fraction organic matter input: Consequences for carbon sequestration. Scientific Reports, 2016, 6, 35496.	3.3	40
130	Carbon and nitrogen additions induce distinct priming effects along an organic-matter decay continuum. Scientific Reports, 2016, 6, 19865.	3.3	81
131	No synergistic effects of water and nitrogen addition on soil microbial communities and soil respiration in a temperate desert. Catena, 2016, 142, 126-133.	5.0	33
132	Soil microbial carbon use efficiency and biomass turnover in a long-term fertilization experiment in a temperate grassland. Soil Biology and Biochemistry, 2016, 97, 168-175.	8.8	205
133	Role of Microbial Inoculants in Nutrient Use Efficiency. , 2016, , 133-142.		6
134	Investigating the controls on soil organic matter decomposition in tussock tundra soil and permafrost after fire. Soil Biology and Biochemistry, 2016, 99, 108-116.	8.8	23
135	Toward a Predictive Understanding of Earthâ€™s Microbiomes to Address 21st Century Challenges. MBio, 2016, 7, .	4.1	124
136	Ecological stoichiometry controls the transformation and retention of plant-derived organic matter to humus in response to nitrogen fertilisation. Soil Biology and Biochemistry, 2016, 99, 117-127.	8.8	35
137	Differences in substrate use efficiency: impacts of microbial community composition, land use management, and substrate complexity. Biology and Fertility of Soils, 2016, 52, 547-559.	4.3	62
138	Microbial community structures and metabolic profiles response differently to physiochemical properties between three landfill cover soils. Environmental Science and Pollution Research, 2016, 23, 15483-15494.	5.3	15
139	Mechanisms driving the soil organic matter decomposition response to nitrogen enrichment in grassland soils. Soil Biology and Biochemistry, 2016, 99, 54-65.	8.8	205
140	Is the fate of glucose-derived carbon more strongly driven by nutrient availability, soil texture, or microbial biomass size?. Soil Biology and Biochemistry, 2016, 103, 201-212.	8.8	51
141	Modeling coupled pesticide degradation and organic matter turnover: From gene abundance to process rates. Soil Biology and Biochemistry, 2016, 103, 349-364.	8.8	22
142	Can highly weathered soils under conservation agriculture be C saturated?. Catena, 2016, 147, 638-649.	5.0	26
143	Substrate quality influences organic matter accumulation in the soil silt and clay fraction. Soil Biology and Biochemistry, 2016, 103, 138-148.	8.8	65
144	Diversity of leaf litter leachates from temperate forest trees and its consequences for soil microbial activity. Biogeochemistry, 2016, 129, 373-388.	3.5	54
145	Local-scale determinants of elemental stoichiometry of soil in an old-growth temperate forest. Plant and Soil, 2016, 408, 401-414.	3.7	11

#	Article	IF	Citations
146	Resource stoichiometry and the biogeochemical consequences of nitrogen deposition in a mixed deciduous forest. Ecology, 2016, 97, 3369-3378.	3.2	62
147	Nitrogen deposition may enhance soil carbon storage via change of soil respiration dynamic during a spring freeze-thaw cycle period. Scientific Reports, 2016, 6, 29134.	3.3	19
148	Carbon dioxide, nitrous oxide and methane emissions from the Waimate District (New Zealand) pasture soils as influenced by irrigation, effluent dispersal and earthworms. Cogent Environmental Science, 2016, 2, 1256564.	1.6	6
149	Microbial carbon use efficiency: accounting for population, community, and ecosystem-scale controls over the fate of metabolized organic matter. Biogeochemistry, 2016, 127, 173-188.	3.5	249
150	Element cycling as driven by stoichiometric homeostasis of soil microorganisms. Basic and Applied Ecology, 2016, 17, 471-478.	2.7	118
151	Eco-enzymatic stoichiometry and enzymatic vectors reveal differential C, N, P dynamics in decaying litter along a land-use gradient. Biogeochemistry, 2016, 129, 21-36.	3.5	106
152	Potential effects of warming on soil respiration and carbon sequestration in a subtropical forest. Plant and Soil, 2016, 409, 247-257.	3.7	27
153	Plant functional groups, grasses versus forbs, differ in their impact on soil carbon dynamics with nitrogen fertilization. European Journal of Soil Biology, 2016, 75, 79-87.	3.2	15
154	Organic nitrogen storage in mineral soil: Implications for policy and management. Science of the Total Environment, 2016, 551-552, 116-126.	8.0	111
155	Stoichiometry of microbial carbon use efficiency in soils. Ecological Monographs, 2016, 86, 172-189.	5.4	253
156	Tamm Review: Sequestration of carbon from coarse woody debris in forest soils. Forest Ecology and Management, 2016, 377, 1-15.	3.2	101
157	Multivariate regulation of soil CO₂ and N₂O pulse emissions from agricultural soils. Global Change Biology, 2016, 22, 1286-1298.	9.5	57
158	Dual, differential isotope labeling shows the preferential movement of labile plant constituents into mineralâ€bonded soil organic matter. Global Change Biology, 2016, 22, 2301-2312.	9.5	102
159	Comparative Toxicities of Salts on Microbial Processes in Soil. Applied and Environmental Microbiology, 2016, 82, 2012-2020.	3.1	127
160	Soil Microbial Community-Level Physiological Profiling as Related to Carbon and Nitrogen Availability Under Different Land Uses. Pedosphere, 2016, 26, 216-225.	4.0	9
161	Impact of long-term cropping of glyphosate-resistant transgenic soybean [Glycine max (L.) Merr.] on soil microbiome. Transgenic Research, 2016, 25, 425-440.	2.4	44
162	Microbial carbon use efficiency and biomass turnover times depending on soil depth â€“ Implications for carbon cycling. Soil Biology and Biochemistry, 2016, 96, 74-81.	8.8	289
163	Typhoon enhancement of N and P release from litter and changes in the litter N:P ratio in a subtropical tidal wetland. Environmental Research Letters, 2016, 11, 014003.	5.2	17

#	Article	IF	Citations
164	Controls and dynamics of biochar decomposition and soil microbial abundance, composition, and carbon use efficiency during long-term biochar-amended soil incubations. Biology and Fertility of Soils, 2016, 52, 1-14.	4.3	100
165	Ecological importance of soil bacterivores for ecosystem functions. Plant and Soil, 2016, 398, 1-24.	3.7	251
166	Impacts of willow and miscanthus bioenergy buffers on biogeochemical N removal processes along the soilâ€“groundwater continuum. GCB Bioenergy, 2017, 9, 246-261.	5.6	45
167	Impact of root diversity upon coupling between soil C and N accumulation and bacterial community dynamics and activity: Result of a 30 year rotation experiment. Geoderma, 2017, 292, 87-95.	5.1	32
168	Compound driven differences in N2 and N2O emission from soil; the role of substrate use efficiency and the microbial community. Soil Biology and Biochemistry, 2017, 106, 90-98.	8.8	49
169	Consequences of drought tolerance traits for microbial decomposition in the DEMENT model. Soil Biology and Biochemistry, 2017, 107, 104-113.	8.8	60
170	Uncertain future soil carbon dynamics under global change predicted by models constrained by total carbon measurements. Ecological Applications, 2017, 27, 1001-1009.	3.8	26
171	Improvement in the biochemical and chemical properties of badland soils by thorny bamboo. Scientific Reports, 2017, 7, 40561.	3.3	21
172	Plant, microbial and ecosystem carbon use efficiencies interact to stabilize microbial growth as a fraction of gross primary production. New Phytologist, 2017, 214, 1518-1526.	7.3	62
173	A simple method for measuring fungal metabolic quotient and comparing carbon use efficiency of different isolates: Application to Mediterranean leaf litter fungi. Plant Biosystems, 2017, 151, 371-376.	1.6	12
174	Temperature sensitivity of substrate-use efficiency can result from altered microbial physiology without change to community composition. Soil Biology and Biochemistry, 2017, 109, 59-69.	8.8	44
175	Homeâ€field advantages of litter decomposition increase with increasing N deposition rates: a litter and soil perspective. Functional Ecology, 2017, 31, 1792-1801.	3.6	36
176	Winter ecology of a subalpine grassland: Effects of snow removal on soil respiration, microbial structure and function. Science of the Total Environment, 2017, 590-591, 316-324.	8.0	54
177	Labile carbon and nitrogen additions affect soil organic matter decomposition more strongly than temperature. Applied Soil Ecology, 2017, 114, 152-160.	4.3	50
178	Aquifer heat storage: abundance and diversity of the microbial community with acetate at increased temperatures. Environmental Earth Sciences, 2017, 76, 1.	2.7	5
179	Increasing soil carbon storage: mechanisms, effects of agricultural practices and proxies. A review. Agronomy for Sustainable Development, 2017, 37, 1.	5.3	292
180	Contrasting effects of nitrogen addition on soil respiration in two Mediterranean ecosystems. Environmental Science and Pollution Research, 2017, 24, 26160-26171.	5.3	15
181	Physico-chemical protection, rather than biochemical composition, governs the responses of soil organic carbon decomposition to nitrogen addition in a temperate agroecosystem. Science of the Total Environment, 2017, 598, 282-288.	8.0	37

#	Article	IF	Citations
182	Microbial energy and matter transformation in agricultural soils. Soil Biology and Biochemistry, 2017, 111, 176-192.	8.8	61
183	Plantâ€“microbial competition for nitrogen increases microbial activities and carbon loss in invaded soils. Oecologia, 2017, 184, 583-596.	2.0	17
184	Mechanistic modeling of microbial interactions at pore to profile scale resolve methane emission dynamics from permafrost soil. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 1216-1238.	3.0	21
185	The short-term effects of liming on organic carbon mineralisation in two acidic soils as affected by different rates and application depths of lime. Biology and Fertility of Soils, 2017, 53, 431-443.	4.3	49
186	Review and analysis of strengths and weaknesses of agro-ecosystem models for simulating C and N fluxes. Science of the Total Environment, 2017, 598, 445-470.	8.0	157
187	Response and feedback of C mineralization to P availability driven by soil microorganisms. Soil Biology and Biochemistry, 2017, 105, 111-120.	8.8	86
188	Differential sensitivity of total and active soil microbial communities to drought and forest management. Global Change Biology, 2017, 23, 4185-4203.	9.5	150
189	The impacts of organic amendments: Do they confer stability against drought on the soil microbial community?. Soil Biology and Biochemistry, 2017, 113, 173-183.	8.8	62
190	Differentiating between root- and leaf-litter controls on the structure and stability of soil micro-food webs. Soil Biology and Biochemistry, 2017, 113, 192-200.	8.8	21
191	Impact of vegetation community on litter decomposition: Evidence from a reciprocal transplant study with 13 C labeled plant litter. Soil Biology and Biochemistry, 2017, 112, 248-257.	8.8	29
192	Historical climate controls soil respiration responses to current soil moisture. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6322-6327.	7.1	136
193	Partial drying accelerates bacterial growth recovery to rewetting. Soil Biology and Biochemistry, 2017, 112, 269-276.	8.8	81
194	Agronomic fortification of rice grains with secondary and micronutrients under differing crop management and soil moisture regimes in the north Indian Plains. Paddy and Water Environment, 2017, 15, 745-760.	1.8	25
195	Use of ¹³Câ€•and phosphate ¹⁸Oâ€labeled substrate for studying phosphorus and carbon cycling in soils: a proof of concept. Rapid Communications in Mass Spectrometry, 2017, 31, 969-977.	1.5	8
196	Changes in substrate availability drive carbon cycle response to chronic warming. Soil Biology and Biochemistry, 2017, 110, 68-78.	8.8	73
197	Stoichiometric responses of soil microflora to nutrient additions for two temperate forest soils. Biology and Fertility of Soils, 2017, 53, 397-406.	4.3	63
198	The effect of temperature and substrate quality on the carbon use efficiency of saprotrophic decomposition. Plant and Soil, 2017, 414, 113-125.	3.7	41
199	Nitrogen leaching following clear-cutting and soil scarification at a Scots pine site â€“ A modelling study of a fertilization experiment. Forest Ecology and Management, 2017, 385, 281-294.	3.2	6

#	Article	IF	Citations
200	Degradation and Microbial Uptake of C₆₀ Fullerols in Contrasting Agricultural Soils. Environmental Science & Technology, 2017, 51, 1387-1394.	10.0	21
201	Stoichiometric plasticity of microbial communities is similar between litter and soil in a tropical rainforest. Scientific Reports, 2017, 7, 12498.	3.3	23
202	Tree functional diversity influences belowground ecosystem functioning. Applied Soil Ecology, 2017, 120, 160-168.	4.3	27
203	Substrate-induced respiration responses to nitrogen and/or phosphorus additions in soils from different climatic and land use conditions. European Journal of Soil Biology, 2017, 83, 27-33.	3.2	4
204	Trends in soil microbial communities during secondary succession. Soil Biology and Biochemistry, 2017, 115, 92-99.	8.8	123
205	The Ecology of Soil Carbon: Pools, Vulnerabilities, and Biotic and Abiotic Controls. Annual Review of Ecology, Evolution, and Systematics, 2017, 48, 419-445.	8.3	584
206	Biochemical proxies indicate differences in soil C cycling induced by long-term tillage and residue management in a tropical agroecosystem. Plant and Soil, 2017, 420, 315-329.	3.7	16
207	Patterns and mechanisms of responses by soil microbial communities to nitrogen addition. Soil Biology and Biochemistry, 2017, 115, 433-441.	8.8	314
208	Variations in soil microbial community composition and enzymatic activities in response to increased N deposition and precipitation in Inner Mongolian grassland. Applied Soil Ecology, 2017, 119, 275-285.	4.3	43
209	Physical and biogeochemical controls on soil respiration along a topographical gradient in a semiarid forest. Agricultural and Forest Meteorology, 2017, 247, 1-11.	4.8	22
210	Long-term litter manipulation alters soil organic matter turnover in a temperate deciduous forest. Science of the Total Environment, 2017, 607-608, 865-875.	8.0	42
211	A synoptic survey of microbial respiration, organic matter decomposition, and carbon efflux in U.S. streams and rivers. Limnology and Oceanography, 2017, 62, S147-S159.	3.1	11
212	Microbial technology with major potentials for the urgent environmental needs of the next decades. Microbial Biotechnology, 2017, 10, 988-994.	4.2	13
213	Optimal metabolic regulation along resource stoichiometry gradients. Ecology Letters, 2017, 20, 1182-1191.	6.4	118
215	The effect of <scp>C:N</scp> ratios on the fate of carbon from straw and green manure in soil. European Journal of Soil Science, 2017, 68, 988-998.	3.9	25
216	Elevated moisture stimulates carbon loss from mineral soils by releasing protected organic matter. Nature Communications, 2017, 8, 1774.	12.8	168
217	Michaelis-Menten kinetics of soil respiration feedbacks to nitrogen deposition and climate change in subtropical forests. Scientific Reports, 2017, 7, 1752.	3.3	13
218	Responses of nitrous oxide emissions from crop rotation systems to four projected future climate change scenarios on a black Vertosol in subtropical Australia. Climatic Change, 2017, 142, 545-558.	3.6	9

#	Article	IF	Citations
219	Residue addition and liming history interactively enhance mineralization of native organic carbon in acid soils. Biology and Fertility of Soils, 2017, 53, 61-75.	4.3	35
220	Comparing microbial carbon sequestration and priming in the subsoil versus topsoil of a Qinghai-Tibetan alpine grassland. Soil Biology and Biochemistry, 2017, 104, 141-151.	8.8	72
221	Combined effects of reduced irrigation and water quality on the soil microbial community of a citrus orchard under semi-arid conditions. Soil Biology and Biochemistry, 2017, 104, 226-237.	8.8	94
222	Soil with high organic carbon concentration continues to sequester carbon with increasing carbon inputs. Geoderma, 2017, 285, 151-163.	5.1	19
223	Soil enzyme activity and stoichiometry in forest ecosystems along the North-South Transect in eastern China (NSTEC). Soil Biology and Biochemistry, 2017, 104, 152-163.	8.8	245
224	Enhanced decomposition and nitrogen mineralization sustain rapid growth of Eucalyptus regnans after wildfire. Journal of Ecology, 2017, 105, 229-236.	4.0	16
226	ORCHILEAK (revision 3875): a new model branch to simulate carbon transfers along the terrestrialâ€“aquatic continuum of the Amazon basin. Geoscientific Model Development, 2017, 10, 3821-3859.	3.6	40
227	Flexible Carbon-Use Efficiency across Litter Types and during Decomposition Partly Compensates Nutrient Imbalancesâ€”Results from Analytical Stoichiometric Models. Frontiers in Microbiology, 2017, 8, 661.	3.5	46
228	Resource Legacies of Organic and Conventional Management Differentiate Soil Microbial Carbon Use. Frontiers in Microbiology, 2017, 8, 2293.	3.5	38
230	Field-Based Estimates of Global Warming Potential in Bioenergy Systems of Hawaii: Crop Choice and Deficit Irrigation. PLoS ONE, 2017, 12, e0168510.	2.5	12
231	Short-term carbon input increases microbial nitrogen demand, but not microbial nitrogen mining, in a set of boreal forest soils. Biogeochemistry, 2017, 136, 261-278.	3.5	22
232	CO2 fixation in above-ground biomass of summer maize under different tillage and straw management treatments. Scientific Reports, 2017, 7, 16888.	3.3	7
233	Predicting Gross Nitrogen Mineralization and Potentially Mineralizable Nitrogen using Soil Organic Matter Properties. Soil Science Society of America Journal, 2017, 81, 1115-1126.	2.2	28
234	Tracking the fate of fresh carbon in the Arctic tundra: Will shrub expansion alter responses of soil organic matter to warming?. Soil Biology and Biochemistry, 2018, 120, 134-144.	8.8	40
235	Initial Soil Organic Matter Content Influences the Storage and Turnover of Litter, Root and Soil Carbon in Grasslands. Ecosystems, 2018, 21, 1377-1389.	3.4	21
236	Nitrogen-rich compounds constitute an increasing proportion of organic matter with depth in Oi-Oe-Oa-A horizons of temperate forests. Geoderma, 2018, 323, 1-12.	5.1	10
237	Catalytic power of enzymes decreases with temperature: New insights for understanding soil C cycling and microbial ecology under warming. Global Change Biology, 2018, 24, 4238-4250.	9.5	75
238	Geothermally warmed soils reveal persistent increases in the respiratory costs of soil microbes contributing to substantial C losses. Biogeochemistry, 2018, 138, 245-260.	3.5	17

#	Article	IF	Citations
239	Tree mycorrhizal type predicts withinâ€site variability in the storage and distribution of soil organic matter. Global Change Biology, 2018, 24, 3317-3330.	9.5	167
240	Differential effects of warming and nitrogen fertilization on soil respiration and microbial dynamics in switchgrass croplands. GCB Bioenergy, 2018, 10, 565-576.	5.6	21
241	Soil microbial biomass size and soil carbon influence the priming effect from carbon inputs depending on nitrogen availability. Soil Biology and Biochemistry, 2018, 119, 41-49.	8.8	124
242	The role of species turnover in structuring bacterial communities in a local scale in theÂcactus rhizosphere. Plant and Soil, 2018, 425, 101-112.	3.7	10
243	Longâ€term deepened snow promotes tundra evergreen shrub growth and summertime ecosystem net <scp>CO</scp>₂ gain but reduces soil carbon and nutrient pools. Global Change Biology, 2018, 24, 3508-3525.	9.5	39
244	Incorporation of shoot versus root-derived 13C and 15N into mineral-associated organic matter fractions: results of a soil slurry incubation with dual-labelled plant material. Biogeochemistry, 2018, 137, 379-393.	3.5	57
245	Controls on microbially regulated soil organic carbon decomposition at the regional scale. Soil Biology and Biochemistry, 2018, 118, 59-68.	8.8	35
246	Bacterial rather than fungal community composition is associated with microbial activities and nutrient-use efficiencies in a paddy soil with short-term organic amendments. Plant and Soil, 2018, 424, 335-349.	3.7	88
247	N-fertilizer-driven association between the arbuscular mycorrhizal fungal community and diazotrophic community impacts wheat yield. Agriculture, Ecosystems and Environment, 2018, 254, 191-201.	5.3	57
248	The phosphorusâ€rich signature of fire in the soilâ€“plant system: a global metaâ€analysis. Ecology Letters, 2018, 21, 335-344.	6.4	91
249	Effect of in-situ aged and fresh biochar on soil hydraulic conditions and microbial C use under drought conditions. Scientific Reports, 2018, 8, 6852.	3.3	84
250	Acceleration or deceleration of litter decomposition by herbivory depends on nutrient availability through intraspecific differences in induced plant resistance traits. Journal of Ecology, 2018, 106, 2380-2394.	4.0	20
251	On Upscaling of Soil Microbial Processes and Biogeochemical Fluxes From Aggregates to Landscapes. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 1526-1547.	3.0	29
252	Priming effects induced by glucose and decaying plant residues on SOM decomposition: A three-source 13C/14C partitioning study. Soil Biology and Biochemistry, 2018, 121, 138-146.	8.8	55
253	Model formulation of microbial CO2 production and efficiency can significantly influence short and long term soil C projections. ISME Journal, 2018, 12, 1395-1403.	9.8	13
254	Soil organic matter quality exerts a stronger control than stoichiometry on microbial substrate use efficiency along a latitudinal transect. Soil Biology and Biochemistry, 2018, 121, 212-220.	8.8	104
255	Effects of temperature and root additions on soil carbon and nitrogen mineralization in a predominantly permafrost peatland. Catena, 2018, 165, 381-389.	5.0	46
256	Chronic Nitrogen Enrichment at the Watershed Scale Does Not Enhance Microbial Phosphorus Limitation. Ecosystems, 2018, 21, 178-189.	3.4	14

#	Article	IF	Citations
257	Rate of warming affects temperature sensitivity of anaerobic peat decomposition and greenhouse gas production. Global Change Biology, 2018, 24, e259-e274.	9.5	45
258	Effects of forest degradation on microbial communities and soil carbon cycling: A global metaâ€analysis. Global Ecology and Biogeography, 2018, 27, 110-124.	5.8	114
259	Driving Factors Behind Litter Decomposition and Nutrient Release at Temperate Forest Edges. Ecosystems, 2018, 21, 755-771.	3.4	13
260	Ecoenzymatic stoichiometry and microbial nutrient limitation in rhizosphere soil in the arid area of the northern Loess Plateau, China. Soil Biology and Biochemistry, 2018, 116, 11-21.	8.8	243
261	Soil carbon cycling proxies: Understanding their critical role in predicting climate change feedbacks. Global Change Biology, 2018, 24, 895-905.	9.5	61
262	Relationship between microbial composition and substrate use efficiency in a tropical soil. Geoderma, 2018, 315, 96-103.	5.1	41
263	Microbial ecoenzyme stoichiometry, nutrient limitation, and organic matter decomposition in wetlands of the conterminous United States. Wetlands Ecology and Management, 2018, 26, 425-439.	1.5	26
264	Enhanced conversion of newly-added maize straw to soil microbial biomass C under plastic film mulching and organic manure management. Geoderma, 2018, 313, 154-162.	5.1	36
265	Alive and kicking: Why dormant soil microorganisms matter. Soil Biology and Biochemistry, 2018, 116, 419-430.	8.8	181
266	Microaggregates in soils. Journal of Plant Nutrition and Soil Science, 2018, 181, 104-136.	1.9	567
268	Modelling Dissolved Organic Carbon Production in Coniferous Forest Soils. Soil Science Society of America Journal, 2018, 82, 1392-1403.	2.2	4
269	Modeling the effects of litter stoichiometry and soil mineral N availability on soil organic matter formation using CENTURY-CUE (v1.0). Geoscientific Model Development, 2018, 11, 4779-4796.	3.6	27
270	Differential Gene Expression in the Model Actinomycete Streptomyces coelicolor A3(2) Supports Nitrogen Mining Dependent on the Plant Carbon to Nitrogen Ratio. Agriculture (Switzerland), 2018, 8, 192.	3.1	1
271	Responses of Nitrogen-Cycling Microorganisms to Dazomet Fumigation. Frontiers in Microbiology, 2018, 9, 2529.	3.5	49
272	Nitrogen availability regulates topsoil carbon dynamics after permafrost thaw by altering microbial metabolic efficiency. Nature Communications, 2018, 9, 3951.	12.8	135
273	Reviews and syntheses: Carbon use efficiency from organisms to ecosystems â€“ definitions, theories, and empirical evidence. Biogeosciences, 2018, 15, 5929-5949.	3.3	98
274	Plastic film mulch promotes high alfalfa production with phosphorus-saving and low risk of soil nitrogen loss. Field Crops Research, 2018, 229, 44-54.	5.1	26
275	A considerable fraction of soil-respired CO2 is not emitted directly to the atmosphere. Scientific Reports, 2018, 8, 13518.	3.3	34

#	Article	IF	Citations
276	Microbial temperature sensitivity and biomass change explain soil carbon loss with warming. Nature Climate Change, 2018, 8, 885-889.	18.8	230
277	Nutrient supply enhanced wheat residue-carbon mineralization, microbial growth, and microbial carbon-use efficiency when residues were supplied at high rate in contrasting soils. Soil Biology and Biochemistry, 2018, 126, 168-178.	8.8	57
278	Integrating genome-scale metabolic models into the prediction of microbial kinetics in natural environments. Geochimica Et Cosmochimica Acta, 2018, 242, 102-122.	3.9	9
279	Impacts of moisture, soil respiration, and agricultural practices on methanogenesis in upland soils as measured with stable isotope pool dilution. Soil Biology and Biochemistry, 2018, 127, 239-251.	8.8	30
280	Thinning Can Reduce Losses in Carbon Use Efficiency and Carbon Stocks in Managed Forests Under Warmer Climate. Journal of Advances in Modeling Earth Systems, 2018, 10, 2427-2452.	3.8	56
281	A plantâ€“microbe interaction framework explaining nutrient effects on primary production. Nature Ecology and Evolution, 2018, 2, 1588-1596.	7.8	100
282	Soil C:N:P stoichiometry responds to vegetation change from grassland to woodland. Biogeochemistry, 2018, 140, 341-357.	3.5	49
283	Evaluating soil microbial carbon use efficiency explicitly as a function of cellular processes: implications for measurements and models. Biogeochemistry, 2018, 140, 269-283.	3.5	59
284	Resistance of soil protein depolymerization rates to eight years of elevated CO2, warming, and summer drought in a temperate heathland. Biogeochemistry, 2018, 140, 255-267.	3.5	13
285	Land use driven change in soil pH affects microbial carbon cycling processes. Nature Communications, 2018, 9, 3591.	12.8	380
286	Biotic responses buffer warmingâ€induced soil organic carbon loss in Arctic tundra. Global Change Biology, 2018, 24, 4946-4959.	9.5	21
287	Following the Turnover of Soil Bioavailable Phosphate in Mediterranean Savanna by Oxygen Stable Isotopes. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 1850-1862.	3.0	17
288	Two contrasting seasonal patterns in microbial nitrogen immobilization from temperate ecosystems. Ecological Indicators, 2018, 93, 164-172.	6.3	5
289	The extent and pathways of nitrogen loss in turfgrass systems: Age impacts. Science of the Total Environment, 2018, 637-638, 746-757.	8.0	14
290	Soil microbial CNP and respiration responses to organic matter and nutrient additions: Evidence from a tropical soil incubation. Soil Biology and Biochemistry, 2018, 122, 141-149.	8.8	62
291	Representation of dissolved organic carbon in the JULES land surface model (vn4.4_JULES-DOCM). Geoscientific Model Development, 2018, 11, 593-609.	3.6	21
292	ORCHIDEE-SOM: modeling soil organic carbon (SOC) and dissolved organic carbon (DOC) dynamics along vertical soil profiles in Europe. Geoscientific Model Development, 2018, 11, 937-957.	3.6	52
293	Plant Communities as Modulators of Soil Carbon Storage. , 2018, , 29-71.		1

#	Article	IF	Citations
294	Why does mineral fertilization increase soil carbon stocks in temperate grasslands?. Agriculture, Ecosystems and Environment, 2018, 265, 144-155.	5.3	54
295	A moisture function of soil heterotrophic respiration that incorporates microscale processes. Nature Communications, 2018, 9, 2562.	12.8	124
296	Tree Mortality From Insect Infestation Enhances Carbon Stabilization in Southern Appalachian Forest Soils. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2121-2134.	3.0	14
297	Ecosystem Carbon Use Efficiency Is Insensitive to Nitrogen Addition in an Alpine Meadow. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 2388-2398.	3.0	12
298	Seasonal Effects on Microbial Community Structure and Nitrogen Dynamics in Temperate Forest Soil. Forests, 2018, 9, 153.	2.1	37
299	Microbial carbon use efficiency and priming effect regulate soil carbon storage under nitrogen deposition by slowing soil organic matter decomposition. Geoderma, 2018, 332, 37-44.	5.1	99
300	Substrate Influences Temperature Sensitivity of Dissolved Organic Carbon (DOC) and Nitrogen (DON) Mineralization in Arid Agricultural Soils. Soil Systems, 2018, 2, 28.	2.6	4
301	Plant litter quality affects the accumulation rate, composition, and stability of mineral-associated soil organic matter. Soil Biology and Biochemistry, 2018, 125, 115-124.	8.8	123
302	The continuing relevance of â€œolderâ€•mycorrhiza literature: insights from the work of John Laker Harley (1911â€“1990). Mycorrhiza, 2018, 28, 577-586.	2.8	6
303	Tree genotype and seasonal effects on soil properties and biogeochemical functioning in Mediterranean pine forests. European Journal of Soil Science, 2018, 69, 1087-1097.	3.9	5
304	Differential responses of carbonâ€‐degrading enzyme activities to warming: Implications for soil respiration. Global Change Biology, 2018, 24, 4816-4826.	9.5	131
305	Local root status: a neglected bio-factor that regulates the home-field advantage of leaf litter decomposition. Plant and Soil, 2018, 431, 175-189.	3.7	14
306	Dynamic, Intermediate Soil Carbon Pools May Drive Future Responsiveness to Environmental Change. Journal of Environmental Quality, 2018, 47, 607-616.	2.0	12
307	Temperature acclimation and adaptation of enzyme physiology in Neurospora discreta. Fungal Ecology, 2018, 35, 78-86.	1.6	17
308	Diffusion limitations and Michaelisâ€“Menten kinetics as drivers of combined temperature and moisture effects on carbon fluxes of mineral soils. Biogeosciences, 2018, 15, 5031-5045.	3.3	17
309	Divergent accumulation of microbial necromass and plant lignin components in grassland soils. Nature Communications, 2018, 9, 3480.	12.8	192
310	Organic amendments increase crop yields by improving microbe-mediated soil functioning of agroecosystems: A meta-analysis. Soil Biology and Biochemistry, 2018, 124, 105-115.	8.8	251
311	A metaâ€‐analysis of temperature sensitivity as a microbial trait. Global Change Biology, 2018, 24, 4211-4224.	9.5	54

#	Article	IF	Citations
312	Microbial Modulators and Mechanisms of Soil Carbon Storage. , 2018, , 73-115.		10
313	Soil Nutrients and Soil Carbon Storage. , 2018, , 167-205.		8
314	SOM and Microbesâ€"What Is Left From Microbial Life. , 2018, , 125-163.		18
315	Changes of soil microbial and enzyme activities are linked to soil C, N and P stoichiometry in afforested ecosystems. Forest Ecology and Management, 2018, 427, 289-295.	3.2	101
316	Importance of Bacterial Maintenance Respiration in a Subarctic Estuary: a Proof of Concept from the Field. Microbial Ecology, 2019, 77, 574-586.	2.8	10
317	Soil carbon pools and fluxes vary across a burn severity gradient three years after wildfire in Sierra Nevada mixed-conifer forest. Geoderma, 2019, 333, 10-22.	5.1	27
318	Temperature adaptability of soil respiration in short-term incubation experiments. Journal of Soils and Sediments, 2019, 19, 557-565.	3.0	13
319	Zones of influence for soil organic matter dynamics: A conceptual framework for data and models. Global Change Biology, 2019, 25, 3996-4007.	9.5	13
320	Nitrogen addition reduces soil respiration but increases the relative contribution of heterotrophic component in an alpine meadow. Functional Ecology, 2019, 33, 2239-2253.	3.6	54
321	Microbial carbon use efficiency predicted from genome-scale metabolic models. Nature Communications, 2019, 10, 3568.	12.8	87
322	Implication of Viral Infections for Greenhouse Gas Dynamics in Freshwater Wetlands: Challenges and Perspectives. Frontiers in Microbiology, 2019, 10, 1962.	3.5	14
323	Leveraging Environmental Research and Observation Networks to Advance Soil Carbon Science. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 1047-1055.	3.0	24
324	Dynamics of soil microbial C:N:P stoichiometry and its driving mechanisms following natural vegetation restoration after farmland abandonment. Science of the Total Environment, 2019, 693, 133613.	8.0	79
325	Soil Microbial Biomass Size and Nitrogen Availability Regulate the Incorporation of Residue Carbon into Dissolved Organic Pool and Microbial Biomass. Soil Science Society of America Journal, 2019, 83, 1083-1092.	2.2	9
326	Respiration response to different tillage intensities in transplanted soil columns. Geoderma, 2019, 352, 289-297.	5.1	11
327	Xylemâ€"phloem hydraulic coupling explains multiple osmoregulatory responses to salt stress. New Phytologist, 2019, 224, 644-662.	7.3	25
328	Reviews and syntheses: influences of landscape structure and land uses on local to regional climate and air quality. Biogeosciences, 2019, 16, 2369-2408.	3.3	22
329	Balancing nutrient stoichiometry facilitates the fate of wheat residueâ€'carbon in physically defined soil organic matter fractions. Geoderma, 2019, 354, 113883.	5.1	35

#	Article	IF	Citations
330	Soil organic carbon recovery in tropical tree plantations may depend on restoration of soil microbial composition and function. Geoderma, 2019, 353, 70-80.	5.1	17
331	What do we know about soil carbon destabilization?. Environmental Research Letters, 2019, 14, 083004.	5.2	106
332	Environmental constraintsâ€™ sensitivity of soil organic carbon decomposition to temperature, management practices and climate change. Ecological Indicators, 2019, 107, 105644.	6.3	21
333	Microbial utilization of low molecular weight organic carbon substrates in cultivated peats in response to warming and soil degradation. Soil Biology and Biochemistry, 2019, 139, 107629.	8.8	33
334	Microbial responses to warming enhance soil carbon loss following translocation across a tropical forest elevation gradient. Ecology Letters, 2019, 22, 1889-1899.	6.4	65
335	Leaf litter identity alters the timing of lotic nutrient dynamics. Freshwater Biology, 2019, 64, 2247-2259.	2.4	13
336	ORCHIDEE MICT-LEAK (r5459), a global model for the production, transport, and transformation of dissolved organic carbon from Arctic permafrost regions â€“ Part 1: Rationale, model description, and simulation protocol. Geoscientific Model Development, 2019, 12, 3503-3521.	3.6	12
337	Bacterial metabolic state more accurately predicts antibiotic lethality than growth rate. Nature Microbiology, 2019, 4, 2109-2117.	13.3	171
338	The global soil community and its influence on biogeochemistry. Science, 2019, 365, .	12.6	586
339	A Simple Modelling Framework for Shallow Subsurface Water Storage and Flow. Water (Switzerland), 2019, 11, 1725.	2.7	1
340	Nutrient scarcity strengthens soil fauna control over leaf litter decomposition in tropical rainforests. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20191300.	2.6	18
341	Soil CO₂ and O₂ Concentrations Illuminate the Relative Importance of Weathering and Respiration to Seasonal Soil Gas Fluctuations. Soil Science Society of America Journal, 2019, 83, 1167-1180.	2.2	13
342	Soil organic matter decomposition and carbon sequestration in temperate coniferous forest soils affected by soluble and insoluble spruce needle fractions. Soil Biology and Biochemistry, 2019, 138, 107595.	8.8	16
343	Straw and biochar strongly affect functional diversity of microbial metabolism in paddy soils. Journal of Integrative Agriculture, 2019, 18, 1474-1485.	3.5	35
344	The microbial community size, structure, and process rates along natural gradients of soil salinity. Soil Biology and Biochemistry, 2019, 138, 107607.	8.8	47
345	Do corn-soybean rotations enhance decomposition of soil organic matter?. Plant and Soil, 2019, 444, 427-442.	3.7	31
346	Constraining Carbon and Nutrient Flows in Soil With Ecological Stoichiometry. Frontiers in Ecology and Evolution, 2019, 7, .	2.2	33
347	Soil microbial communities with greater investment in resource acquisition have lower growth yield. Soil Biology and Biochemistry, 2019, 132, 36-39.	8.8	98

#	Article	IF	Citations
348	Substrate quality and concentration control decomposition and microbial strategies in a model soil system. Biogeochemistry, 2019, 144, 47-59.	3.5	22
349	Effect of land use and carbonates on organic matter stabilization and microbial communities in Mediterranean soils. Geoderma, 2019, 351, 103-115.	5.1	38
350	Environmental effects on soil microbial nitrogen use efficiency are controlled by allocation of organic nitrogen to microbial growth and regulate gross N mineralization. Soil Biology and Biochemistry, 2019, 135, 304-315.	8.8	90
351	Impacts of an invasive grass on soil organic matter pools vary across a tree-mycorrhizal gradient. Biogeochemistry, 2019, 144, 149-164.	3.5	16
352	Quorum sensing modulates microbial efficiency by regulating bacterial investment in nutrient acquisition enzymes. Soil Biology and Biochemistry, 2019, 136, 107514.	8.8	15
353	Mineralogy dictates the initial mechanism of microbial necromass association. Geochimica Et Cosmochimica Acta, 2019, 260, 161-176.	3.9	51
354	Soil multifunctionality is affected by the soil environment and by microbial community composition and diversity. Soil Biology and Biochemistry, 2019, 136, 107521.	8.8	217
355	Soil nutrient stocks are maintained over multiple rotations in Brazilian Eucalyptus plantations. Forest Ecology and Management, 2019, 448, 364-375.	3.2	24
356	Bayesian inference and predictive performance of soil respiration models in the presence of model discrepancy. Geoscientific Model Development, 2019, 12, 2009-2032.	3.6	5
357	Enrichment of Lignin-Derived Carbon in Mineral-Associated Soil Organic Matter. Environmental Science & Technology, 2019, 53, 7522-7531.	10.0	63
358	The Polyextremophilic Bacterium Clostridium paradoxum Attains Piezophilic Traits by Modulating Its Energy Metabolism and Cell Membrane Composition. Applied and Environmental Microbiology, 2019, 85, .	3.1	18
359	Interactive effects of grazing and global change factors on soil and ecosystem respiration in grassland ecosystems: A global synthesis. Journal of Applied Ecology, 2019, 56, 2007-2019.	4.0	42
360	Integrating Aquatic and Terrestrial Perspectives to Improve Insights Into Organic Matter Cycling at the Landscape Scale. Frontiers in Earth Science, 2019, 7, .	1.8	22
361	Soil carbon sequestration of Mollisols and Oxisols under grassland and tree plantations in South America - A review. Geoderma Regional, 2019, 18, e00226.	2.1	6
362	Long-term fertilization and manuring with different organics alter stability of carbon in colloidal organo-mineral fraction in soils of varying clay mineralogy. Science of the Total Environment, 2019, 684, 682-693.	8.0	42
363	Changing perspectives on terrestrial nitrogen cycling: The importance of weathering and evolved resourceâ€use traits for understanding ecosystem responses to global change. Functional Ecology, 2019, 33, 1818-1829.	3.6	14
364	The fate of litter-derived dissolved organic carbon in forest soils: results from an incubation experiment. Biogeochemistry, 2019, 144, 133-147.	3.5	17
365	American chestnut soil carbon and nitrogen dynamics: Implications for ecosystem response following restoration. Pedobiologia, 2019, 75, 24-33.	1.2	6

#	Article	IF	Citations
366	Stoichiometric controls of soil carbon and nitrogen cycling after long-term nitrogen and phosphorus addition in a mesic grassland in South Africa. Soil Biology and Biochemistry, 2019, 135, 294-303.	8.8	77
367	Carbon use efficiency of mycorrhizal fungal mycelium increases during the growing season but decreases with forest age across a Pinus sylvestris chronosequence. Journal of Ecology, 2019, 107, 2808-2822.	4.0	17
368	Carbon control on terrestrial ecosystem function across contrasting site productivities: the carbon connection revisited. Ecology, 2019, 100, e02695.	3.2	22
369	Response of maize leaf decomposition in litterbags and soil bags to different tillage intensities in a long-term field trial. Applied Soil Ecology, 2019, 141, 38-44.	4.3	12
370	Priming effect of litter mineralization: the role of root exudate depends on its interactions with litter quality and soil condition. Plant and Soil, 2019, 440, 457-471.	3.7	42
371	Impact of Climate Change on Plantâ€“Microbe Interactions under Agroecosystems. , 2019, , 153-179.		11
372	Measuring function and structure of urban headwater streams with citizen scientists. Ecosphere, 2019, 10, e02720.	2.2	4
373	Warming increases the cost of growth in a model vertebrate. Functional Ecology, 2019, 33, 1256-1266.	3.6	28
374	Microbial carbon and nitrogen cycling responses to drought and temperature in differently managed mountain grasslands. Soil Biology and Biochemistry, 2019, 135, 144-153.	8.8	51
375	Unimodal productivityâ€“diversity relationships among bacterial communities in a simple polar soil ecosystem. Environmental Microbiology, 2019, 21, 2523-2532.	3.8	12
376	Litter quantity, litter chemistry, and soil texture control changes in soil organic carbon fractions under bioenergy cropping systems of the North Central U.S.. Biogeochemistry, 2019, 143, 313-326.	3.5	23
377	Climatic Change and Metabolome Fluxes. , 2019, , 179-237.		0
378	Integrating Soil Microbiology into Ecosystem Science. Advances in Environmental Microbiology, 2019, , 65-102.	0.3	1
379	Variation in rhizosphere priming and microbial growth and carbon use efficiency caused by wheat genotypes and temperatures. Soil Biology and Biochemistry, 2019, 134, 54-61.	8.8	20
380	Changes of topsoil under Fagus sylvatica along a small latitudinal-altitudinal gradient. Geoderma, 2019, 344, 164-178.	5.1	22
381	Long-Term Nitrogen Addition Does Not Increase Soil Carbon Storage or Cycling Across Eight Temperate Forest and Grassland Sites on a Sandy Outwash Plain. Ecosystems, 2019, 22, 1592-1605.	3.4	16
382	Alfalfa monocultures promote soil organic carbon accumulation to a greater extent than perennial grass monocultures or grass-alfalfa mixtures. Ecological Engineering, 2019, 131, 53-62.	3.6	20
383	Testing the dependence of microbial growth and carbon use efficiency on nitrogen availability, pH, and organic matter quality. Soil Biology and Biochemistry, 2019, 134, 25-35.	8.8	103

#	Article	IF	Citations
384	Temperature sensitivity of soil organic matter decomposition after forest fire in Canadian permafrost region. Journal of Environmental Management, 2019, 241, 637-644.	7.8	27
385	Coupling and Decoupling of Soil Carbon and Nutrient Cycles Across an Aridity Gradient in the Drylands of Northern China: Evidence From Ecoenzymatic Stoichiometry. Global Biogeochemical Cycles, 2019, 33, 559-569.	4.9	44
386	Global variation of soil microbial carbon-use efficiency in relation to growth temperature and substrate supply. Scientific Reports, 2019, 9, 5621.	3.3	49
387	Effect of crop residue addition on soil organic carbon priming as influenced by temperature and soil properties. Geoderma, 2019, 347, 70-79.	5.1	39
388	Carbon and phosphorus addition effects on microbial carbon use efficiency, soil organic matter priming, gross nitrogen mineralization and nitrous oxide emission from soil. Soil Biology and Biochemistry, 2019, 134, 175-186.	8.8	98
389	Soil microbiomes associated with two dominant Costa Rican tree species, and implications for remediation: A case study from a Costa Rican conservation area. Applied Soil Ecology, 2019, 137, 139-153.	4.3	16
390	Stoichiometry of the soil microbial biomass in response to amendments with varying C/N/P/S ratios. Biology and Fertility of Soils, 2019, 55, 265-274.	4.3	48
391	Nitrogen deposition effect on forest litter decomposition is interactively regulated by endogenous litter quality and exogenous resource supply. Plant and Soil, 2019, 437, 413-426.	3.7	25
392	Multiâ€objective calibration of RothC using measured carbon stocks and auxiliary data of a longâ€term experiment in Switzerland. European Journal of Soil Science, 2019, 70, 819-832.	3.9	14
393	Pathways of soil organic matter formation from above and belowground inputs in a Sorghum bicolor bioenergy crop. GCB Bioenergy, 2019, 11, 971-987.	5.6	43
394	Sensitivity analysis of C and N modules in biogeochemical crop and grassland models following manure addition to soil. European Journal of Soil Science, 2019, 70, 833-846.	3.9	6
396	Metabolic tradeoffs and heterogeneity in microbial responses to temperature determine the fate of litter carbon in simulations of a warmer world. Biogeosciences, 2019, 16, 4875-4888.	3.3	4
397	Reactive Transport Processes that Drive Chemical Weathering: From Making Space for Water to Dismantling Continents. Reviews in Mineralogy and Geochemistry, 2019, 85, 349-380.	4.8	18
398	Microbial Controls on the Biogeochemical Dynamics in the Subsurface. Reviews in Mineralogy and Geochemistry, 2019, 85, 265-302.	4.8	23
399	Ecosystem management and ecological restoration in the Anthropocene: integrating global change, soils, and disturbance in boreal and Mediterranean forests. Developments in Soil Science, 2019, , 259-308.	0.5	12
400	9. Microbial Controls on the Biogeochemical Dynamics in the Subsurface. , 2019, , 265-302.		1
401	12. Reactive Transport Processes that Drive Chemical Weathering: From Making Space for Water to Dismantling Continents. , 2019, , 349-380.		2
402	Changes in the abundance and community composition of different nitrogen cycling groups in response to fumigation with 1,3-dichloropropene. Science of the Total Environment, 2019, 650, 44-55.	8.0	38

#	Article	IF	Citations
403	Nitrogen and phosphorus enrichment accelerates soil organic carbon loss in alpine grassland on the Qinghai-Tibetan Plateau. Science of the Total Environment, 2019, 650, 303-312.	8.0	94
404	Increased microbial anabolism contributes to soil carbon sequestration by mineral fertilization in temperate grasslands. Soil Biology and Biochemistry, 2019, 130, 167-176.	8.8	60
405	Soil organic carbon stability in forests: Distinct effects of tree species identity and traits. Global Change Biology, 2019, 25, 1529-1546.	9.5	104
406	Carbon dioxide emission coupled extracellular enzyme activity at land-water interface predict C-eutrophication and heavy metal contamination in Ganga River, India. Ecological Indicators, 2019, 99, 349-364.	6.3	22
407	Changes in litter quality induced by N deposition alter soil microbial communities. Soil Biology and Biochemistry, 2019, 130, 33-42.	8.8	77
408	Reduced carbon use efficiency and increased microbial turnover with soil warming. Global Change Biology, 2019, 25, 900-910.	9.5	70
409	Microbial growth and carbon use efficiency in soil: Links to fungal-bacterial dominance, SOC-quality and stoichiometry. Soil Biology and Biochemistry, 2019, 131, 195-205.	8.8	193
410	Organic management increases soil nitrogen but not carbon content in a tropical citrus orchard with pronounced N2O emissions. Journal of Environmental Management, 2019, 234, 326-335.	7.8	21
411	Pathways of mineralâ€associated soil organic matter formation: Integrating the role of plant carbon source, chemistry, and point of entry. Global Change Biology, 2019, 25, 12-24.	9.5	323
412	Carbon and nitrogen inputs differentially affect priming of soil organic matter in tropical lowland and montane soils. Soil Biology and Biochemistry, 2019, 129, 212-222.	8.8	81
413	Growth explains microbial carbon use efficiency across soils differing in land use and geology. Soil Biology and Biochemistry, 2019, 128, 45-55.	8.8	127
414	Câ€“Nâ€“P Decoupling Processes Linked to Arable Cropping Management Systems in Relation With Intensification of Production. , 2019, , 35-53.		5
415	Clarifying the interpretation of carbon use efficiency in soil through methods comparison. Soil Biology and Biochemistry, 2019, 128, 79-88.	8.8	164
416	Temperature sensitivity of soil heterotrophic respiration is altered by carbon substrate along the development of Quercus Mongolica forest in northeast China. Applied Soil Ecology, 2019, 133, 52-61.	4.3	15
417	Evaluation of the RothC model as a prognostic tool for the prediction of SOC trends in response to management practices on arable land. Geoderma, 2019, 337, 463-478.	5.1	30
418	Concentration and mineralization of organic carbon in forest soils along a climatic gradient. Forest Ecology and Management, 2019, 432, 246-255.	3.2	30
419	Soil physicochemical and microbial drivers of temperature sensitivity of soil organic matter decomposition under boreal forests. Pedosphere, 2020, 30, 528-534.	4.0	10
420	Decomposition of labile and recalcitrant coniferous litter fractions affected by temperature during the growing season. Journal of Forestry Research, 2020, 31, 1115-1121.	3.6	5

#	Article	IF	Citations
421	Defining trait-based microbial strategies with consequences for soil carbon cycling under climate change. ISME Journal, 2020, 14, 1-9.	9.8	470
422	Glucose triggers strong taxonâ€specific responses in microbial growth and activity: insights from <scp>DNA</scp> and <scp>RNA qSIP</scp>. Ecology, 2020, 101, e02887.	3.2	20
423	Land-use alters the temperature response of microbial carbon-use efficiency in soils â€“ a consumption-based approach. Soil Biology and Biochemistry, 2020, 140, 107639.	8.8	18
424	Tropical Rainforest Restoration Plantations Are Slow to Restore the Soil Biological and Organic Carbon Characteristics of Old Growth Rainforest. Microbial Ecology, 2020, 79, 432-442.	2.8	11
425	The nutrient release rate accounts for the effect of organic matter type on soil microbial carbon use efficiency of a Pinus tabulaeformis forest in northern China. Journal of Soils and Sediments, 2020, 20, 352-364.	3.0	7
426	Increased microbial growth, biomass, and turnover drive soil organic carbon accumulation at higher plant diversity. Global Change Biology, 2020, 26, 669-681.	9.5	217
427	Short-term warming shifts microbial nutrient limitation without changing the bacterial community structure in an alpine timberline of the eastern Tibetan Plateau. Geoderma, 2020, 360, 113985.	5.1	48
428	Soil microbial biomass increases along elevational gradients in the tropics and subtropics but not elsewhere. Global Ecology and Biogeography, 2020, 29, 345-354.	5.8	30
429	Soil microbial activity and community composition as influenced by application of pig biogas slurry in paddy field in southeast China. Paddy and Water Environment, 2020, 18, 15-25.	1.8	12
430	The role of soil redox conditions in microbial phosphorus cycling in humid tropical forests. Ecology, 2020, 101, e02928.	3.2	26
431	Rhizodeposition mediates the effect of nitrogen and phosphorous availability on microbial carbon use efficiency and turnover rate. Soil Biology and Biochemistry, 2020, 142, 107705.	8.8	36
432	Temperature sensitivity of soil organic matter mineralization decreases with longâ€term N fertilization: Evidence from four Q₁₀ estimation approaches. Land Degradation and Development, 2020, 31, 683-693.	3.9	29
433	Ecoenzymatic stoichiometry reveals microbial phosphorus limitation decreases the nitrogen cycling potential of soils in semi-arid agricultural ecosystems. Soil and Tillage Research, 2020, 197, 104463.	5.6	95
434	Soil carbon loss with warming: New evidence from carbonâ€degrading enzymes. Global Change Biology, 2020, 26, 1944-1952.	9.5	141
435	Elucidating microbial carbon utilization and nitrous oxide dynamics with 13C-substrates and N2O isotopomers in contrasting horticultural soils. Applied Soil Ecology, 2020, 147, 103401.	4.3	6
436	Microbial carbon limitation: The need for integrating microorganisms into our understanding of ecosystem carbon cycling. Global Change Biology, 2020, 26, 1953-1961.	9.5	239
437	Responses of soil carbon decomposition to drying-rewetting cycles: A meta-analysis. Geoderma, 2020, 361, 114069.	5.1	55
438	Disentangling the effects of driving forces on soil bacterial and fungal communities under shrub encroachment on the Guizhou Plateau of China. Science of the Total Environment, 2020, 709, 136207.	8.0	28

#	Article	IF	Citations
439	Mechanisms underlying limited soil carbon gains in perennial and coverâ€cropped bioenergy systems revealed by stable isotopes. GCB Bioenergy, 2020, 12, 101-117.	5.6	23
440	Tree derived soil carbon is enhanced by tree species richness and functional diversity. Plant and Soil, 2020, 446, 457-469.	3.7	7
441	Nutrient stoichiometry and labile carbon content of organic amendments control microbial biomass and carbon-use efficiency in a poorly structured sodic-subsoil. Biology and Fertility of Soils, 2020, 56, 219-233.	4.3	52
442	Warmingâ€induced global soil carbon loss attenuated by downward carbon movement. Global Change Biology, 2020, 26, 7242-7254.	9.5	28
443	Shift in plant-soil interactions along a lakeshore hydrological gradient. Science of the Total Environment, 2020, 742, 140254.	8.0	13
444	Microbial growth and carbon use efficiency show seasonal responses in a multifactorial climate change experiment. Communications Biology, 2020, 3, 584.	4.4	30
445	Ecophysiological Study of Paraburkholderia sp. Strain 1N under Soil Solution Conditions: Dynamic Substrate Preferences and Characterization of Carbon Use Efficiency. Applied and Environmental Microbiology, 2020, 86, .	3.1	8
446	Mineralization of organic carbon and formation of microbial biomass in soil: Effects of clay content and composition and the mechanisms involved. Soil Biology and Biochemistry, 2020, 151, 108036.	8.8	36
447	Greater microbial carbon use efficiency and carbon sequestration in soils: Amendment of biochar versus crop straws. GCB Bioenergy, 2020, 12, 1092-1103.	5.6	35
448	Adaptive pathways of soil microorganisms to stoichiometric imbalances regulate microbial respiration following afforestation in the Loess Plateau, China. Soil Biology and Biochemistry, 2020, 151, 108048.	8.8	75
449	Physical mechanisms for soil moisture effects on microbial carbon-use efficiency in a sandy loam soil in the western United States. Soil Biology and Biochemistry, 2020, 150, 107969.	8.8	31
450	Early adoption of no-till mitigates soil organic carbon and nitrogen losses due to land use change. Soil and Tillage Research, 2020, 204, 104728.	5.6	19
451	Soil extracellular enzyme stoichiometry reflects the shift from P- to N-limitation of microorganisms with grassland restoration. Soil Biology and Biochemistry, 2020, 149, 107928.	8.8	114
452	Carbon use efficiency and microbial functional diversity in a temperate Luvisol and a tropical Nitisol after millet litter and N addition. Biology and Fertility of Soils, 2020, 56, 1139-1150.	4.3	15
453	The Transition From Stochastic to Deterministic Bacterial Community Assembly During Permafrost Thaw Succession. Frontiers in Microbiology, 2020, 11, 596589.	3.5	29
454	Soil fertility and bacterial community composition in a semiarid Mediterranean agricultural soil under longâ€term tillage management. Soil Use and Management, 2020, 36, 604-615.	4.9	12
455	Land conversion from cropland to grassland alleviates climate warming effects on nutrient limitation: Evidence from soil enzymatic activity and stoichiometry. Global Ecology and Conservation, 2020, 24, e01328.	2.1	10
456	Response of Ecoenzymatic Stoichiometry to Soil Physicochemical Properties after Afforestation on Loess Hilly Region. Eurasian Soil Science, 2020, 53, 1669-1675.	1.6	4

#	Article	IF	Citations
457	Aspen Soils Retain More Dissolved Organic Carbon Than Conifer Soils in a Sorption Experiment. Frontiers in Forests and Global Change, 2020, 3, .	2.3	6
458	Linkage Between Dissolved Organic Matter Transformation, Bacterial Carbon Production, and Diversity in a Shallow Oligotrophic Aquifer: Results From Flow-Through Sediment Microcosm Experiments. Frontiers in Microbiology, 2020, 11, 543567.	3.5	26
459	Dynamic Stability of Soil Carbon: Reassessing the â€œPermanenceâ€•of Soil Carbon Sequestration. Frontiers in Environmental Science, 2020, 8, .	3.3	80
460	Effects of diversity, climate and litter on soil organic carbon storage in subtropical forests. Forest Ecology and Management, 2020, 476, 118479.	3.2	26
461	Sources and priming of soil N2O and CO2 production: Nitrogen and simulated exudate additions. Soil Biology and Biochemistry, 2020, 149, 107942.	8.8	36
462	Potential of crop-livestock integration to enhance carbon sequestration and agroecosystem functioning in semi-arid croplands. Soil Biology and Biochemistry, 2020, 149, 107936.	8.8	44
463	Potassium fertilization combined with crop straw incorporation alters soil potassium fractions and availability in northwest China: An incubation study. PLoS ONE, 2020, 15, e0236634.	2.5	6
464	Microbial diversity drives carbon use efficiency in a model soil. Nature Communications, 2020, 11, 3684.	12.8	217
465	Spatio-temporal variations of vegetation carbon use efficiency and potential driving meteorological factors in the Yangtze River Basin. Journal of Mountain Science, 2020, 17, 1959-1973.	2.0	12
466	Increase in abundance and decrease in richness of soil microbes following Hurricane Otto in three primary forest types in the Northern Zone of Costa Rica. PLoS ONE, 2020, 15, e0231187.	2.5	6
467	Short-term impacts of pomace application and Pseudomonas bacteria on soil available phosphorus. Biocatalysis and Agricultural Biotechnology, 2020, 28, 101742.	3.1	8
468	Quantifying microbial metabolism in soils using calorespirometry â€” A bioenergetics perspective. Soil Biology and Biochemistry, 2020, 148, 107945.	8.8	15
469	Microbial macroecology: In search of mechanisms governing microbial biogeographic patterns. Global Ecology and Biogeography, 2020, 29, 1870-1886.	5.8	55
470	Plant invasion alters the Michaelisâ€“Menten kinetics of microbial extracellular enzymes and soil organic matter chemistry along soil depth. Biogeochemistry, 2020, 150, 181-196.	3.5	8
471	Fungal Community, Not Substrate Quality, Drives Soil Microbial Function in Northeastern U.S. Temperate Forests. Frontiers in Forests and Global Change, 2020, 3, .	2.3	6
472	Soil Organic Matter Mineralization as Driven by Nutrient Stoichiometry in Soils Under Differently Managed Forest Stands. Frontiers in Forests and Global Change, 2020, 3, .	2.3	30
473	Biodegradation of Pesticides at the Limit: Kinetics and Microbial Substrate Use at Low Concentrations. Frontiers in Microbiology, 2020, 11, 2107.	3.5	21
474	Residue decomposition and priming of soil organic carbon following different NPK fertilizer histories. Soil Science Society of America Journal, 2020, 84, 1898-1909.	2.2	10

#	Article	IF	Citations
475	Effect of land-use types on edaphic properties and plant species diversity in Mediterranean agroecosystem. Saudi Journal of Biological Sciences, 2020, 27, 3676-3690.	3.8	11
476	History and Trends in Ecological Stoichiometry Research from 1992 to 2019: A Scientometric Analysis. Sustainability, 2020, 12, 8909.	3.2	2
477	Modeled Microbial Dynamics Explain the Apparent Temperature Sensitivity of Wetland Methane Emissions. Global Biogeochemical Cycles, 2020, 34, e2020GB006678.	4.9	34
478	Microbial carbon source utilization in rice rhizosphere and nonâ€rhizosphere soils in a 34â€year fertilized paddy field. Journal of Basic Microbiology, 2020, 60, 1004-1013.	3.3	10
479	Vegetation type rather than climate modulates the variation in soil enzyme activities and stoichiometry in subalpine forests in the eastern Tibetan Plateau. Geoderma, 2020, 374, 114424.	5.1	61
480	Role of biochar and organic substrates in enhancing the functional characteristics and microbial community in a saline soil. Journal of Environmental Management, 2020, 269, 110737.	7.8	61
481	A soil microbial model to analyze decoupled microbial growth and respiration during soil drying and rewetting. Soil Biology and Biochemistry, 2020, 148, 107871.	8.8	29
482	CO2 and N2O emissions in response to dolomite application are moisture dependent in an acidic paddy soil. Journal of Soils and Sediments, 2020, 20, 3136-3147.	3.0	12
483	Which slope aspect and gradient provides the best afforestation-driven soil carbon sequestration on the China's Loess Plateau?. Ecological Engineering, 2020, 147, 105782.	3.6	24
484	Nitrogen deposition enhances plant-microbe interactions in a semiarid grassland: The role of soil physicochemical properties. Geoderma, 2020, 373, 114446.	5.1	32
485	Quantifying microbial growth and carbon use efficiency in dry soil environments via ¹⁸O water vapor equilibration. Global Change Biology, 2020, 26, 5333-5341.	9.5	27
486	A novel extracellular enzyme stoichiometry method to evaluate soil heavy metal contamination: Evidence derived from microbial metabolic limitation. Science of the Total Environment, 2020, 738, 139709.	8.0	45
487	Non-monotonic and distinct temperature responses of respiration of soil microbial functional groups. Soil Biology and Biochemistry, 2020, 148, 107902.	8.8	8
488	Traitâ€based approaches reveal fungal adaptations to nutrientâ€limiting conditions. Environmental Microbiology, 2020, 22, 3548-3560.	3.8	18
489	Effect of controlled-release urea fertilizers for oilseed rape (Brassica napus L.) on soil carbon storage and CO2 emission. Environmental Science and Pollution Research, 2020, 27, 31983-31994.	5.3	7
490	Soil Microbial Community and Its Interaction with Soil Carbon Dynamics Following a Wetland Drying Process in Mu Us Sandy Land. International Journal of Environmental Research and Public Health, 2020, 17, 4199.	2.6	10
491	Effect of monospecific and mixed litters on bacterial communities' structure and functions under contrasting Mediterranean climate conditions. Applied Soil Ecology, 2020, 155, 103681.	4.3	4
492	Jena Soil Model (JSM v1.0; revision 1934): a microbial soil organic carbon model integrated with nitrogen and phosphorus processes. Geoscientific Model Development, 2020, 13, 783-803.	3.6	29

#	Article	IF	Citations
493	Distinct Assembly Processes and Microbial Communities Constrain Soil Organic Carbon Formation. One Earth, 2020, 2, 349-360.	6.8	74
494	Carbon Use Efficiency and Its Temperature Sensitivity Covary in Soil Bacteria. MBio, 2020, 11, .	4.1	52
495	Woodchip and biochar amendments differentially influence microbial responses, but do not enhance plant recovery in disturbed semiarid soils. Restoration Ecology, 2020, 28, S381.	2.9	12
496	Modeling the processes of soil moisture in regulating microbial and carbon-nitrogen cycling. Journal of Hydrology, 2020, 585, 124777.	5.4	27
497	Soil carbon balance by priming differs with single versus repeated addition of glucose and soil fertility level. Soil Biology and Biochemistry, 2020, 148, 107913.	8.8	33
498	Different responses of soil hydrolases and oxidases to extreme drought in an alpine peatland on the Qinghai-Tibet Plateau, China. European Journal of Soil Biology, 2020, 99, 103195.	3.2	19
499	Meshes in mesocosms control solute and biota exchange in soils: A step towards disentangling (a)biotic impacts on the fate of thawing permafrost. Applied Soil Ecology, 2020, 151, 103537.	4.3	5
500	Nutrient addition reduces carbon sequestration in a Tibetan grassland soil: Disentangling microbial and physical controls. Soil Biology and Biochemistry, 2020, 144, 107764.	8.8	95
501	Global meta-analyses show that conservation tillage practices promote soil fungal and bacterial biomass. Agriculture, Ecosystems and Environment, 2020, 293, 106841.	5.3	63
502	Review of drought impacts on carbon cycling in grassland ecosystems. Frontiers of Earth Science, 2020, 14, 462-478.	2.1	15
503	Microbial carbon use efficiency, biomass turnover, and necromass accumulation in paddy soil depending on fertilization. Agriculture, Ecosystems and Environment, 2020, 292, 106816.	5.3	76
504	Carbon and nitrogen recycling from microbial necromass to cope with C:N stoichiometric imbalance by priming. Soil Biology and Biochemistry, 2020, 142, 107720.	8.8	206
505	A meta-analysis of global cropland soil carbon changes due to cover cropping. Soil Biology and Biochemistry, 2020, 143, 107735.	8.8	212
506	Assessing strategies to enhance soil carbon sequestration with the DSSATâ€CENTURY model. European Journal of Soil Science, 2020, 71, 1034-1049.	3.9	14
507	Soil quality shapes the composition of microbial community stress response and core cell metabolism functional genes. Applied Soil Ecology, 2020, 148, 103483.	4.3	11
508	Microbial dynamics and soil physicochemical properties explain largeâ€scale variations in soil organic carbon. Global Change Biology, 2020, 26, 2668-2685.	9.5	56
509	Pyrolysis temperature of biochar affects ecoenzymatic stoichiometry and microbial nutrient-use efficiency in a bamboo forest soil. Geoderma, 2020, 363, 114162.	5.1	53
510	Spatial Control of Carbon Dynamics in Soil by Microbial Decomposer Communities. Frontiers in Environmental Science, 2020, 8, .	3.3	15

#	Article	IF	Citations
511	Soil moisture mediates microbial carbon and phosphorus metabolism during vegetation succession in a semiarid region. Soil Biology and Biochemistry, 2020, 147, 107814.	8.8	140
512	Microbial carbon use efficiency in grassland soils subjected to nitrogen and phosphorus additions. Soil Biology and Biochemistry, 2020, 146, 107815.	8.8	58
513	Evaluation of the 18O-H2O incubation method for measurement of soil microbial carbon use efficiency. Soil Biology and Biochemistry, 2020, 145, 107802.	8.8	20
514	Evidence for preferential protein depolymerization in wetland soils in response to external nitrogen availability provided by a novel FTIR routine. Biogeosciences, 2020, 17, 499-514.	3.3	11
515	Does stimulating ground arthropods enhance nutrient cycling in conventionally managed corn fields?. Agriculture, Ecosystems and Environment, 2020, 297, 106934.	5.3	5
516	Microbial carbon source utilization in rice rhizosphere and nonrhizosphere soils with short-term manure N input rate in paddy field. Scientific Reports, 2020, 10, 6487.	3.3	17
517	Rhizosphere priming effects differ between Norway spruce (Picea abies) and Scots pine seedlings cultivated under two levels of light intensity. Soil Biology and Biochemistry, 2020, 145, 107788.	8.8	9
518	Prevalent root-derived phenolics drive shifts in microbial community composition and prime decomposition in forest soil. Soil Biology and Biochemistry, 2020, 145, 107797.	8.8	69
519	Assessment of depthâ€dependent microbial carbonâ€use efficiency in longâ€term fertilized paddy soil using an <scp>¹⁸Oâ€“H₂O</scp> approach. Land Degradation and Development, 2021, 32, 199-207.	3.9	8
520	Nitrogen availability regulates deep soil priming effect by changing microbial metabolic efficiency in a subtropical forest. Journal of Forestry Research, 2021, 32, 713-723.	3.6	25
521	Extracellular enzyme stoichiometry reveals the carbon and phosphorus limitations of microbial metabolisms in the rhizosphere and bulk soils in alpine ecosystems. Plant and Soil, 2021, 458, 7-20.	3.7	107
522	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO₂. New Phytologist, 2021, 229, 2413-2445.	7.3	286
523	The decomposition of green leaf litter is less temperature sensitive than that of senescent leaf litter: An incubation study. Geoderma, 2021, 381, 114691.	5.1	16
524	Home-field advantage in soil respiration and its resilience to drying and rewetting cycles. Science of the Total Environment, 2021, 750, 141736.	8.0	6
525	The effects of nutrient limitations on microbial respiration and organic matter decomposition in a Florida Spodosol as influenced by historical forest management practices. Forest Ecology and Management, 2021, 479, 118592.	3.2	16
526	Biochar aging increased microbial carbon use efficiency but decreased biomass turnover time. Geoderma, 2021, 382, 114710.	5.1	26
527	Leaching of dissolved organic carbon from mineral soils plays a significant role in the terrestrial carbon balance. Global Change Biology, 2021, 27, 1083-1096.	9.5	47
528	Effects of soil organism interactions and temperature on carbon use efficiency in three different forest soils. Soil Ecology Letters, 2021, 3, 156-166.	4.5	14

#	Article	IF	Citations
529	Microbial metabolic efficiency functions as a mediator to regulate rhizosphere priming effects. Science of the Total Environment, 2021, 759, 143488.	8.0	12
530	Microbial carbon use efficiency during plant residue decomposition: Integrating multi-enzyme stoichiometry and C balance approach. Applied Soil Ecology, 2021, 159, 103820.	4.3	11
531	Soil fungal mycelia have unexpectedly flexible stoichiometric C:N and C:P ratios. Ecology Letters, 2021, 24, 208-218.	6.4	41
532	Warming and microbial uptake influence the fate of added soil carbon across a Hawai'ian weathering gradient. Soil Biology and Biochemistry, 2021, 153, 108080.	8.8	8
533	Linking soil nutrient cycling and microbial community with vegetation cover in riparian zone. Geoderma, 2021, 384, 114801.	5.1	33
534	Microbial metabolic efficiency and community stability in high and low fertility soils following wheat residue addition. Applied Soil Ecology, 2021, 159, 103848.	4.3	14
535	Modeling temperature sensitivity of soil organic matter decomposition: Splitting the pools. Soil Biology and Biochemistry, 2021, 153, 108108.	8.8	10
536	Plants and earthworms control soil carbon and water quality trade-offs in turfgrass mesocosms. Science of the Total Environment, 2021, 753, 141884.	8.0	2
537	Temperature sensitivity (Q) of stable, primed and easily available organic matter pools during decomposition in paddy soil. Applied Soil Ecology, 2021, 157, 103752.	4.3	27
538	Response Mechanism of Soil Microbial Stoichiometry Imbalance in a Boreal Forest: A Review. Hans Journal of Soil Science, 2021, 09, 45-53.	0.0	0
539	Microbial carbon-use efficiency and straw-induced priming effect within soil aggregates are regulated by tillage history and balanced nutrient supply. Biology and Fertility of Soils, 2021, 57, 409-420.	4.3	35
540	Controls on soil microbial carbon use efficiency over long-term ecosystem development. Biogeochemistry, 2021, 152, 309-325.	3.5	17
541	Temperature sensitivity of litter and soil organic matter decomposition: perspective of soil microbial community structure and function. , 2021, , 1-43.		1
542	Adsorption: An Important Phenomenon in Controlling Soil Properties and Carbon Stabilization. , 2021, , 205-241.		0
543	Long-term litter type treatments alter soil carbon composition but not microbial carbon utilization in a mixed pine-oak forest. Biogeochemistry, 2021, 152, 327-343.	3.5	10
544	Aggregate Distribution and the Associated Carbon in Norfolk Soils under Long-term Conservation Tillage and Short-term Cover Cropping. Communications in Soil Science and Plant Analysis, 2021, 52, 859-870.	1.4	2
545	Machine learning in the Australian critical zone. , 2021, , 43-78.		1
546	Temporal changes in global soil respiration since 1987. Nature Communications, 2021, 12, 403.	12.8	57

#	Article	IF	Citations
547	Inactive and inefficient: Warming and drought effect on microbial carbon processing in alpine grassland at depth. Global Change Biology, 2021, 27, 2241-2253.	9.5	48
548	Largeâ€scale importance of microbial carbon use efficiency and necromass to soil organic carbon. Global Change Biology, 2021, 27, 2039-2048.	9.5	128
549	Evaluation of Microbe-Driven Soil Organic Matter Quantity and Quality by Thermodynamic Theory. MBio, 2021, 12, .	4.1	7
550	Canopy mitigates the effects of nitrogen deposition on soil carbon-related processes in a subtropical forest. Science of the Total Environment, 2021, 757, 143847.	8.0	8
551	Frequent Fire Reduces the Magnitude of Positive Interactions Between an Invasive Grass and Soil Microbes in Temperate Forests. Ecosystems, 2021, 24, 1738-1755.	3.4	5
552	Influence of Different Types of Land Use on Prokaryotic Communities and Organic Matter Stabilization in Soddy-Podzolic Soil. Eurasian Soil Science, 2021, 54, 264-270.	1.6	3
553	Integration of remote-sensing based metrics and econometric models to assess the socio-economic contributions of carbon sequestration in unmanaged tropical dry forests. Environmental and Sustainability Indicators, 2021, 9, 100100.	3.3	9
554	Relative efficacy and stability of biological and synthetic nitrification inhibitors in a highly nitrifying soil: Evidence of apparent nitrification inhibition by linoleic acid and linolenic acid. European Journal of Soil Science, 2021, 72, 2356-2371.	3.9	11
555	Plant productivity is a key driver of soil respiration response to climate change in a nutrient-limited soil.. Basic and Applied Ecology, 2021, 50, 155-168.	2.7	8
556	Changes in microbial utilization and fate of soil carbon following the addition of different fractions of anaerobic digestate to soils. European Journal of Soil Science, 2021, 72, 2398-2413.	3.9	10
557	Soil organic carbon fractions, C-cycling associated hydrolytic enzymes, and microbial carbon metabolism vary with stand age in Cunninghamia lanceolate (Lamb.) Hook plantations. Forest Ecology and Management, 2021, 482, 118887.	3.2	26
558	Experimental nitrogen fertilisation globally accelerates, then slows decomposition of leaf litter. Ecology Letters, 2021, 24, 802-811.	6.4	41
559	Effects of nitrogen fertilization on the rhizosphere priming. Plant and Soil, 2021, 462, 489-503.	3.7	11
560	Seasonality of gross ammonification and nitrification altered by precipitation in a semi-arid grassland of Northern China. Soil Biology and Biochemistry, 2021, 154, 108146.	8.8	17
561	Global synthesis for the scaling of soil microbial nitrogen to phosphorus in terrestrial ecosystems. Environmental Research Letters, 2021, 16, 044034.	5.2	8
562	Microbial carbon source utilization in rice rhizosphere soil with different tillage practice in a double cropping rice field. Scientific Reports, 2021, 11, 5048.	3.3	4
563	Shortâ€term effects of combined organic amendments on soil organic carbon sequestration in a rainâ€fed winter wheat system. Agronomy Journal, 2021, 113, 2150-2164.	1.8	9
565	Effect of Cover Crop Type and Application Rate on Soil Nitrogen Mineralization and Availability in Organic Rice Production. Sustainability, 2021, 13, 2866.	3.2	6

#	Article	IF	Citations
566	Landâ€use change alters the stocks of carbon, nitrogen, and phosphorus in a Haplic Cambisol in the Brazilian semiâ€arid region. Soil Use and Management, 2022, 38, 953-963.	4.9	11
567	Warming impairs trophic transfer efficiency in a long-term field experiment. Nature, 2021, 592, 76-79.	27.8	62
568	Microbial carbon use efficiency, biomass residence time and temperature sensitivity across ecosystems and soil depths. Soil Biology and Biochemistry, 2021, 154, 108117.	8.8	26
569	Long-term measurements in a mixed-grass prairie reveal a change in soil organic carbon recalcitrance and its environmental sensitivity under warming. Oecologia, 2021, 197, 989-1002.	2.0	1
570	Four years of litter input manipulation changes soil microbial characteristics in a temperate mixed forest. Biogeochemistry, 2021, 154, 371-383.	3.5	11
571	Exploring Trait Trade-Offs for Fungal Decomposers in a Southern California Grassland. Frontiers in Microbiology, 2021, 12, 655987.	3.5	6
573	Drought-induced and seasonal variation in carbon use efficiency is associated with fungi:bacteria ratio and enzyme production in a grassland ecosystem. Soil Biology and Biochemistry, 2021, 155, 108159.	8.8	29
574	Substrate control of sulphur utilisation and microbial stoichiometry in soil: Results of 13C, 15N, 14C, and 35S quad labelling. ISME Journal, 2021, 15, 3148-3158.	9.8	29
575	Can moisture affect temperature dependences of microbial growth and respiration?. Soil Biology and Biochemistry, 2021, 156, 108223.	8.8	51
576	Invasive plant-derived dissolved organic matter alters microbial communities and carbon cycling in soils. Soil Biology and Biochemistry, 2021, 156, 108191.	8.8	31
577	Stoichiometric imbalance and microbial community regulate microbial elements use efficiencies under nitrogen addition. Soil Biology and Biochemistry, 2021, 156, 108207.	8.8	74
578	Increased Above- and Belowground Plant Input Can Both Trigger Microbial Nitrogen Mining in Subarctic Tundra Soils. Ecosystems, 2022, 25, 105-121.	3.4	8
579	A holistic framework integrating plant-microbe-mineral regulation of soil bioavailable nitrogen. Biogeochemistry, 2021, 154, 211-229.	3.5	63
580	Post-fire effects of soil heating intensity and pyrogenic organic matter on microbial anabolism. Biogeochemistry, 2021, 154, 555-571.	3.5	4
581	Correlations among soil biochemical parameters, crop yield, and soil respiration vary with growth stage and soil depth under fertilization. Agronomy Journal, 2021, 113, 2450-2462.	1.8	10
582	Latitudinal and depth patterns of soil microbial biomass carbon, nitrogen, and phosphorus in grasslands of an agroâ€pastoral ecotone. Land Degradation and Development, 2021, 32, 3833-3846.	3.9	19
583	How soil biota regulate C cycling and soil C pools in diversified crop rotations. Soil Biology and Biochemistry, 2021, 156, 108219.	8.8	75
584	Antagonistic and additive interactions dominate the responses of belowground carbon-cycling processes to nitrogen and phosphorus additions. Soil Biology and Biochemistry, 2021, 156, 108216.	8.8	18

#	Article	IF	Citations
585	Spatio-Temporal Dynamics of Soil Microbial Communities in a Pasture: A Case Study of Bromus inermis Pasture in Eastern Nebraska. , 0, , .		0
586	Nonadditive Effects on Decomposition of a Mixture of Rice Straw and Groundnut Stover Applied to a Sandy Soil. Agronomy, 2021, 11, 1030.	3.0	3
587	Solid-state fermentation of stale bread by an edible fungus in a semi-continuous plug-flow bioreactor. Biochemical Engineering Journal, 2021, 169, 107959.	3.6	9
588	Nitrogen availability modulates the impacts of plant invasion on the chemical composition of soil organic matter. Soil Biology and Biochemistry, 2021, 156, 108195.	8.8	14
589	Plant- or microbial-derived? A review on the molecular composition of stabilized soil organic matter. Soil Biology and Biochemistry, 2021, 156, 108189.	8.8	363
590	Linkages of litter and soil C:N:P stoichiometry with soil microbial resource limitation and community structure in a subtropical broadleaf forest invaded by Moso bamboo. Plant and Soil, 2021, 465, 473-490.	3.7	37
591	Plastic film mulching mitigates the straw-induced soil greenhouse gas emissions in summer maize field. Applied Soil Ecology, 2021, 162, 103876.	4.3	21
592	Asymmetric responses of terrestrial C:N:P stoichiometry to precipitation change. Global Ecology and Biogeography, 2021, 30, 1724-1735.	5.8	17
593	Evidence for large microbial-mediated losses of soil carbon under anthropogenic warming. Nature Reviews Earth & Environment, 2021, 2, 507-517.	29.7	85
595	Litter microbial responses to climate change: How do inland or coastal context and litter type matter across the Mediterranean?. Ecological Indicators, 2021, 125, 107505.	6.3	3
596	LDPE microplastics affect soil microbial communities and nitrogen cycling. Science of the Total Environment, 2021, 773, 145640.	8.0	174
597	Maize and soybean experience fierce competition from soil microorganisms for the uptake of organic and inorganic nitrogen and sulphur: A pot test using 13C, 15N, 14C, and 35S labelling. Soil Biology and Biochemistry, 2021, 157, 108260.	8.8	11
598	Pyrogenic conversion of rice straw and wood to biochar increases aromaticity and carbon accumulation in soil. Carbon Management, 2021, 12, 385-397.	2.4	8
599	Systematic variation in the temperature dependence of bacterial carbon use efficiency. Ecology Letters, 2021, 24, 2123-2133.	6.4	22
600	Carbon supplyâ€“consumption balance in plant roots: effects of carbon use efficiency and root anatomical plasticity. New Phytologist, 2022, 233, 1542-1547.	7.3	15
601	A small-scale test for rapid assessment of the soil development potential in post-mining soils. Soil and Tillage Research, 2021, 211, 105016.	5.6	5
602	Long-term manuring increases microbial carbon use efficiency and mitigates priming effect via alleviated soil acidification and resource limitation. Biology and Fertility of Soils, 2021, 57, 925-934.	4.3	45
603	The fate of primed soil carbon between biomass immobilization and respiration is controlled by nutrient availability. European Journal of Soil Biology, 2021, 105, 103332.	3.2	6

#	Article	IF	Citations
604	Stoichiometric models of microbial metabolic limitation in soil systems. Global Ecology and Biogeography, 2021, 30, 2297-2311.	5.8	64
605	Seasonal Variations in Litter Layersâ€™ Characteristics Control Microbial Respiration and Microbial Carbon Utilization Under Mature Pine, Cedar, and Beech Forest Stands in the Eastern Mediterranean Karstic Ecosystems. Microbial Ecology, 2022, 84, 153-167.	2.8	10
606	Physical protection regulates microbial thermal responses to chronic soil warming. Soil Biology and Biochemistry, 2021, 159, 108298.	8.8	5
607	Exploring the Drivers Controlling the Priming Effect and Its Magnitude in Aquatic Systems. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG006201.	3.0	8
608	The Exudation of Surplus Products Links Plant Functional Traits and Plant-Microbial Stoichiometry. Land, 2021, 10, 840.	2.9	13
609	Soil texture affects the coupling of litter decomposition and soil organic matter formation. Soil Biology and Biochemistry, 2021, 159, 108302.	8.8	56
610	The impacts of a logging road on the soil microbial communities, and carbon and nitrogen components in a Northern Zone Costa Rican forest. Applied Soil Ecology, 2021, 164, 103937.	4.3	4
611	Impact of common sample pre-treatments on key soil microbial properties. Soil Biology and Biochemistry, 2021, 160, 108321.	8.8	29
612	Antibiotics and temperature interact to disrupt soil communities and nutrient cycling. Soil Biology and Biochemistry, 2021, 163, 108437.	8.8	22
613	Latitudinal patterns of soil extracellular enzyme activities and their controlling factors in Pinus massoniana plantations in subtropical China. Forest Ecology and Management, 2021, 495, 119358.	3.2	15
614	Ecological memory of recurrent drought modifies soil processes via changes in soil microbial community. Nature Communications, 2021, 12, 5308.	12.8	108
615	A critical perspective on interpreting amplicon sequencing data in soil ecological research. Soil Biology and Biochemistry, 2021, 160, 108357.	8.8	36
616	Legacy effect of warming on the heterotrophic respiration of alpine grassland on the Qinghai-Tibet Plateau. Applied Soil Ecology, 2021, 166, 104093.	4.3	3
617	Stoichiometric regulations of soil respiration and its temperature sensitivity under erosion and deposition conditions. Agriculture, Ecosystems and Environment, 2021, 319, 107507.	5.3	6
618	Functions of elements in soil microorganisms. Microbiological Research, 2021, 252, 126832.	5.3	55
619	Microbial necromass as the source of soil organic carbon in global ecosystems. Soil Biology and Biochemistry, 2021, 162, 108422.	8.8	235
620	Soil microbial community responses to long-term nitrogen addition at different soil depths in a typical steppe. Applied Soil Ecology, 2021, 167, 104054.	4.3	28
621	The magnitude and direction of priming were driven by soil moisture and temperature in a temperate forest soil of China. Pedobiologia, 2021, 89, 150769.	1.2	13

#	Article	IF	Citations
622	Effects of degraded grassland conversion to mango plantation on soil CO2 fluxes. Applied Soil Ecology, 2021, 167, 104045.	4.3	5
623	Water availability regulates tree mixture effects on total and heterotrophic soil respiration: A threeâ€year field experiment. Geoderma, 2021, 402, 115259.	5.1	6
624	Active microbial biomass decreases, but microbial growth potential remains similar across soil depth profiles under deeply-vs. shallow-rooted plants. Soil Biology and Biochemistry, 2021, 162, 108401.	8.8	13
625	Nitrous oxide fluxes from long-term limed soils following P and glucose addition: Nonlinear response to liming rates and interaction from added P. Science of the Total Environment, 2021, 797, 148933.	8.0	8
626	Responses of soil microbial biomass carbon and dissolved organic carbon to drying-rewetting cycles: A meta-analysis. Catena, 2021, 207, 105610.	5.0	28
627	Effects of chicken farming on soil extracellular enzyme activity and microbial nutrient limitation in Lei bamboo forest (Phyllostachys praecox) in subtropical China. Applied Soil Ecology, 2021, 168, 104106.	4.3	6
628	Straw application coupled with N and P supply enhanced microbial biomass, enzymatic activity, and carbon use efficiency in saline soil. Applied Soil Ecology, 2021, 168, 104128.	4.3	12
629	Differences in the flow of spruce-derived needle leachates and root exudates through a temperate coniferous forest mineral topsoil. Geoderma, 2022, 405, 115441.	5.1	6
630	Temporal changes of microbial community structure and nitrogen cycling processes during the aerobic degradation of phenanthrene. Chemosphere, 2022, 286, 131709.	8.2	31
631	Stoichiometry of Plant Litter Decomposition in Stream Ecosystems. , 2021, , 23-49.		1
632	Microbial Potential for Carbon Fixation and Stabilization. , 2021, , 125-168.		1
633	Nitrogen-Use Efficiency Under Changing Climatic Conditions. , 2019, , 181-240.		7
634	Functional dynamics of energy variables and their impacts on growth and population attributes of a woody perennial at arid wasteland. Australian Journal of Botany, 2014, 62, 490.	0.6	7
637	Excess of Organic Carbon in Mountain Spruce Forest Soils after Bark Beetle Outbreak Altered Microbial N Transformations and Mitigated N-Saturation. PLoS ONE, 2015, 10, e0134165.	2.5	34
638	Topsoil and Deep Soil Organic Carbon Concentration and Stability Vary with Aggregate Size and Vegetation Type in Subtropical China. PLoS ONE, 2015, 10, e0139380.	2.5	53
639	Using light stable isotopes to understand nutrient cycling in soils and how these isotopic techniques can be leveraged to investigate the ecology and biology of insects â€“ A review. Bodenkultur, 2018, 68, 237-248.	0.2	2
640	A comparison of soil respiration, carbon balance and root carbon use efficiency in two managed Moso bamboo forests in subtropical China. Annals of Forest Research, 2014, 59, 1.	1.1	11
641	Eucalyptus in Malaysia: Review on Environmental Impacts. Journal of Landscape Ecology(Czech) Tj ETQq1 1 0.784314 rgBT /Overlock	0.9	9

#	Article	IF	Citations
642	DOM and bacterial growth efficiency in oligotrophic groundwater: absence of priming and co-limitation by organic carbon and phosphorus. Aquatic Microbial Ecology, 2018, 81, 55-71.	1.8	41
643	Advances in the carbon use efficiency of forest. Chinese Journal of Plant Ecology, 2014, 37, 1043-1058.	0.6	9
644	Underestimation of boreal soil carbon stocks by mathematical soil carbon models linked to soil nutrient status. Biogeosciences, 2016, 13, 4439-4459.	3.3	16
645	Microbial dormancy and its impacts on northern temperate and boreal terrestrial ecosystem carbon budget. Biogeosciences, 2020, 17, 4591-4610.	3.3	7
646	Reviews and syntheses: The mechanisms underlying carbon storage in soil. Biogeosciences, 2020, 17, 5223-5242.	3.3	101
656	Variation of soil microbial carbon use efficiency (CUE) and its Influence mechanism in the context of global environmental change: a review. PeerJ, 2021, 9, e12131.	2.0	21
657	Organic Amendments Alter Long-Term Turnover and Stability of Soil Carbon: Perspectives from a Data-Model Integration. Agronomy, 2021, 11, 2134.	3.0	0
658	Evaluation of denitrification and decomposition from three biogeochemical models using laboratory measurements of N₂, N₂O and CO₂. Biogeosciences, 2021, 18, 5681-5697.	3.3	5
661	Dynamic Global Vegetation Models. , 2019, , 843-863.		2
663	Role of Microorganisms in Managing Climate Change Impacts. , 2019, , 1-16.		1
664	Integrating McGill Wetland Model (MWM) with peat cohort tracking and microbial controls. Science of the Total Environment, 2022, 806, 151223.	8.0	5
665	Ecological stoichiometry as a foundation for omics-enabled biogeochemical models of soil organic matter decomposition. Biogeochemistry, 2022, 157, 31-50.	3.5	9
666	Trade-off between microbial carbon use efficiency and microbial phosphorus limitation under salinization in a tidal wetland. Catena, 2022, 209, 105809.	5.0	34
667	Microbial Indicator of Soil Health: Conventional to Modern Approaches. Microorganisms for Sustainability, 2020, , 213-233.	0.7	3
671	Improving a Biogeochemical Model to Simulate Microbialâ€mediated Carbon Dynamics in Agricultural ecosystems. Journal of Advances in Modeling Earth Systems, 2021, 13, e2021MS002752.	3.8	1
673	Nitrogen addition increases the ecological and human health risks of PAHs in different fractions of soil in sewage-irrigated area. Science of the Total Environment, 2022, 811, 151420.	8.0	7
674	Ecoenzymatic stoichiometry reveals phosphorus addition alleviates microbial nutrient limitation and promotes soil carbon sequestration in agricultural ecosystems. Journal of Soils and Sediments, 2022, 22, 536-546.	3.0	25
677	Clonal teak litter in tropical soil: decomposition, nutrient cycling, and biochemical composition. Revista Brasileira De Ciencia Do Solo, 2020, 45, .	1.3	2

#	Article	IF	Citations
678	Lowering soil greenhouse gas emissions without sacrificing yields by increasing crop rotation diversity in the North China Plain. Field Crops Research, 2022, 276, 108366.	5.1	19
679	Manufacturing triple-isotopically labeled microbial necromass to track C, N and P cycles in terrestrial ecosystems. Applied Soil Ecology, 2022, 171, 104322.	4.3	2
680	Temperature sensitivity of organic matter mineralization as affected by soil edaphic properties and substrate quality. Catena, 2022, 210, 105901.	5.0	3
681	Potential gross nitrogen mineralization and its linkage with microbial respiration along a forest transect in eastern China. Applied Soil Ecology, 2022, 171, 104347.	4.3	4
682	Effect of P availability on straw-induced priming effect was mainly regulated by fungi in croplands. Applied Microbiology and Biotechnology, 2021, 105, 9403-9418.	3.6	8
683	Multisubstrate DNA stable isotope probing reveals guild structure of bacteria that mediate soil carbon cycling. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	33
684	Modeling persistence of coarse woody debris residuals in boreal forests as an ecological property. Ecosphere, 2021, 12, e03792.	2.2	1
685	The effect of plant invasion on soil microbial carbonâ€use efficiency in semiâ€arid grasslands of the Rocky Mountain West. Journal of Ecology, 2022, 110, 479-493.	4.0	8
686	Embracing the dynamic nature of soil structure: A paradigm illuminating the role of life in critical zones of the Anthropocene. Earth-Science Reviews, 2022, 225, 103873.	9.1	35
687	The stimulatory effect of elevated CO2 on soil respiration is unaffected by N addition. Science of the Total Environment, 2021, 813, 151907.	8.0	3
688	Thresholds in aridity and soil carbon-to-nitrogen ratio govern the accumulation of soil microbial residues. Communications Earth & Environment, 2021, 2, .	6.8	23
689	Energetic scaling in microbial growth. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	14
690	Climatic Controls on Soil Carbon Accumulation and Loss in a Dryland Ecosystems. Journal of Geophysical Research G: Biogeosciences, 2021, 126, .	3.0	3
692	Growth of Soil Microbes is Not Limited by the Availability of Nitrogen and Phosphorus. SSRN Electronic Journal, 0, , .	0.4	0
693	Hierarchical feedbacks of vegetation and soil carbon pools to climate constraints in Brazilian ecosystems. Revista Brasileira De Ciencia Do Solo, 2021, 45, .	1.3	0
694	Comprehensive impacts of diversified cropping on soil health and sustainability. Agroecology and Sustainable Food Systems, 2022, 46, 331-363.	1.9	14
695	Historical forest disturbance reduces soil microbial efficiency across multiple carbon sources. Soil Biology and Biochemistry, 2022, 165, 108542.	8.8	1
696	Soil protists: An untapped microbial resource of agriculture and environmental importance. Pedosphere, 2022, 32, 184-197.	4.0	23

#	Article	IF	Citations
697	Changes in precipitation regime lead to acceleration of the N cycle and dramatic N2O emission. Science of the Total Environment, 2022, 808, 152140.	8.0	20
698	Plant-microbial linkages underpin carbon sequestration in contrasting mountain tundra vegetation types. Soil Biology and Biochemistry, 2022, 165, 108530.	8.8	15
699	Soil Clay Content, Biochar Production Temperature and Aging Affected Biochar Stability and its Priming Effect on Soil Organic Carbon Mineralization. SSRN Electronic Journal, 0, , .	0.4	0
700	Biogels in Soils: Plant Mucilage as a Biofilm Matrix That Shapes the Rhizosphere Microbial Habitat. Frontiers in Plant Science, 2021, 12, 798992.	3.6	13
701	Temperature Sensitivity of Soil Organic Carbon Mineralization under Contrasting Long-Term Fertilization Regimes on Loess Soils. Journal of Soil Science and Plant Nutrition, 2022, 22, 1915-1927.	3.4	1
702	Volatile and Dissolved Organic Carbon Sources Have Distinct Effects on Microbial Activity, Nitrogen Content, and Bacterial Communities in Soil. Microbial Ecology, 2023, 85, 659-668.	2.8	4
703	Exchangeable Ca2+ content and soil aggregate stability control the soil organic carbon content in degraded Horqin grassland. Ecological Indicators, 2022, 134, 108507.	6.3	12
704	Wood Ash Based Treatment of Anaerobic Digestate: State-of-the-Art and Possibilities. Processes, 2022, 10, 147.	2.8	7
705	Permafrost Active Layer Microbes From Ny Ã…lesund, Svalbard (79Â°N) Show Autotrophic and Heterotrophic Metabolisms With Diverse Carbon-Degrading Enzymes. Frontiers in Microbiology, 2021, 12, 757812.	3.5	7
706	The path less taken: Long-term N additions slow leaf litter decomposition and favor the physical transfer pathway of soil organic matter formation. Soil Biology and Biochemistry, 2022, 166, 108567.	8.8	15
707	Testing the environmental controls of microbial nitrogen-mining induced by semi-continuous labile carbon additions in the subarctic. Soil Biology and Biochemistry, 2022, 166, 108562.	8.8	12
708	Rhizosphere effects on soil organic carbon processes in terrestrial ecosystems: A meta-analysis. Geoderma, 2022, 412, 115739.	5.1	24
709	Soil carbon sequestration â€“ An interplay between soil microbial community and soil organic matter dynamics. Science of the Total Environment, 2022, 815, 152928.	8.0	63
710	Energetic Return on Investment Determines Overall Soil Microbial Activity. SSRN Electronic Journal, 0, , .	0.4	0
711	Deconstructing the microbial necromass continuum to inform soil carbon sequestration. Functional Ecology, 2022, 36, 1396-1410.	3.6	52
712	Effects of Nitrogen Addition on Microbial Carbon Use Efficiency of Soil Aggregates in Abandoned Grassland on the Loess Plateau of China. Forests, 2022, 13, 276.	2.1	3
714	Persistent soil carbon enhanced in Mollisols by well-managed grasslands but not annual grain or dairy forage cropping systems. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	60
715	Perennial cereal grain cultivation: Implication on soil organic matter and related soil microbial parameters. Applied Soil Ecology, 2022, 174, 104414.	4.3	16

#	Article	IF	Citations
716	Microbial Necromass in Soilsâ€"Linking Microbes to Soil Processes and Carbon Turnover. Frontiers in Environmental Science, 2021, 9, .	3.3	53
717	Dominant Plant Species Alter Stoichiometric Imbalances between Soil Microbes and Their Resources in an Alpine Grassland: Implications for Soil Microbial Respiration. SSRN Electronic Journal, 0, , .	0.4	0
718	Relationship between organic matter and microbial biomass in different vegetation types. , 2022, , 225-245.		1
719	Soil microorganisms regulate extracellular enzyme production to maximize their growth rate. Biogeochemistry, 2022, 158, 303-312.	3.5	18
720	A new approach to simulate peat accumulation, degradation and stability in a global land surface scheme (JULES vn5.8_accumulate_soil) for northern and temperate peatlands. Geoscientific Model Development, 2022, 15, 1633-1657.	3.6	6
722	Soil enzymes in response to climate warming: Mechanisms and feedbacks. Functional Ecology, 2022, 36, 1378-1395.	3.6	44
723	Fast-decaying plant litter enhances soil carbon in temperate forests but not through microbial physiological traits. Nature Communications, 2022, 13, 1229.	12.8	92
724	Global distribution, formation and fate of mineralâ€associated soil organic matter under a changing climate: A traitâ€based perspective. Functional Ecology, 2022, 36, 1411-1429.	3.6	53
727	Short-term effects of labile organic C addition on soil microbial response to temperature in a temperate steppe. Soil Biology and Biochemistry, 2022, 167, 108589.	8.8	11
728	Responses of soil microbial carbon use efficiency to warming: Review and prospects. Soil Ecology Letters, 2022, 4, 307-318.	4.5	12
729	On maintenance and metabolisms in soil microbial communities. Plant and Soil, 2022, 476, 385-396.	3.7	12
730	Soil carbon and microbes in the warming tropics. Functional Ecology, 2022, 36, 1338-1354.	3.6	8
731	Soil nitrogen and water management by winter-killed catch crops. Soil, 2022, 8, 269-281.	4.9	7
732	Nitrogen addition mediates the effect of soil microbial diversity on microbial carbon use efficiency under longâ€term tillage practices. Land Degradation and Development, 2022, 33, 2258-2275.	3.9	7
733	Oxygen gas derived oxygen does not affect the accuracy of 18O-labelled water approach for microbial carbon use efficiency. Soil Biology and Biochemistry, 2022, 168, 108649.	8.8	1
734	Organic and inorganic sulfur and nitrogen uptake by co-existing grassland plant species competing with soil microorganisms. Soil Biology and Biochemistry, 2022, 168, 108627.	8.8	7
735	Soil enzyme activity and stoichiometry in secondary grasslands along a climatic gradient of subtropical China. Science of the Total Environment, 2022, 825, 154019.	8.0	20
736	Irrigation effects on the formation of soil organic matter from aboveground plant litter inputs in semiarid agricultural systems. Geoderma, 2022, 416, 115804.	5.1	7

#	Article	IF	Citations
737	Biochar stability and impact on soil organic carbon mineralization depend on biochar processing, aging and soil clay content. Soil Biology and Biochemistry, 2022, 169, 108657.	8.8	60
738	Spatial heterogeneity of soil carbon exchanges and their drivers in a boreal forest. Science of the Total Environment, 2022, 831, 154876.	8.0	5
739	Microbial growth rates, carbon use efficiency and enzyme activities during post-agricultural soil restoration. Catena, 2022, 214, 106226.	5.0	22
740	Decreasing microbial phosphorus limitation increases soil carbon release. Geoderma, 2022, 419, 115868.	5.1	39
741	Permafrost thaw with warming reduces microbial metabolic capacities in subsurface soils. Molecular Ecology, 2022, 31, 1403-1415.	3.9	12
742	Soil Organic Carbon Dynamics in Two Rice Cultivation Systems Compared to an Agroforestry Cultivation System. Agronomy, 2022, 12, 17.	3.0	1
744	Pronounced temporal changes in soil microbial community and nitrogen transformation caused by benzalkonium chloride. Journal of Environmental Sciences, 2023, 126, 827-835.	6.1	5
745	Growth of soil microbes is not limited by the availability of nitrogen and phosphorus in a Mediterranean oak-savanna. Soil Biology and Biochemistry, 2022, 169, 108680.	8.8	4
746	Optimizing Carbon Sequestration Through Cover Cropping in Mediterranean Agroecosystems: Synthesis of Mechanisms and Implications for Management. Frontiers in Agronomy, 2022, 4, .	3.3	4
747	Latitudinal patterns of light and heavy organic matter fractions in arid and semi-arid soils. Catena, 2022, 215, 106293.	5.0	6
767	Variation in Root Exudate Composition Influences Soil Microbiome Membership and Function. Applied and Environmental Microbiology, 2022, 88, e0022622.	3.1	30
768	Twenty years of litter manipulation reveals that above-ground litter quantity and quality controls soil organic matter molecular composition. Biogeochemistry, 2022, 159, 393-411.	3.5	11
769	Explicit spatial modeling at the pore scale unravels the interplay of soil organic carbon storage and structure dynamics. Global Change Biology, 2022, 28, 4589-4604.	9.5	16
770	Soil organic carbon accrual due to more efficient microbial utilization of plant inputs at greater long-term soil moisture. Geochimica Et Cosmochimica Acta, 2022, 327, 170-185.	3.9	12
771	Susceptibility of new soil organic carbon to mineralization during dry-wet cycling in soils from contrasting ends of a precipitation gradient. Soil Biology and Biochemistry, 2022, 169, 108681.	8.8	11
772	Adaptation of soil micro-food web to elemental limitation: evidence from the forest-steppe ecotone. Soil Biology and Biochemistry, 2022, 170, 108698.	8.8	17
773	Contrasting patterns of microbial nutrient limitations between rhizosphere and bulk soil during stump sprout restoration in a clear-cut oak forest. Forest Ecology and Management, 2022, 515, 120241.	3.2	5
774	Effects of C:N imbalance on soil microbial physiology in subtropical tree plantations associated with ectomycorrhizal and arbuscular mycorrhizal fungi. Geoderma, 2022, 422, 115932.	5.1	9

#	Article	IF	Citations
775	Methanotrophy Alleviates Nitrogen Constraint of Carbon Turnover by Rice Root-Associated Microbiomes. Frontiers in Microbiology, 2022, 13, .	3.5	2
776	Increased soil organic carbon response to fertilization is associated with increasing microbial carbon use efficiency: Data synthesis. Soil Biology and Biochemistry, 2022, 171, 108731.	8.8	8
777	Belowground responses to altered precipitation regimes in two semi-arid grasslands. Soil Biology and Biochemistry, 2022, 171, 108725.	8.8	18
778	Nitrogen addition to soil affects microbial carbon use efficiency: Metaâ€analysis of similarities and differences in <scp>¹³C</scp> and <scp>¹⁸O</scp> approaches. Global Change Biology, 2022, 28, 4977-4988.	9.5	23
779	Effect of different decay classes of Eucalyptus stump substrates on microbial resource limitation and carbon-use efficiency. Plant and Soil, 2022, 478, 651-669.	3.7	6
780	Nitrogen input enhances microbial carbon use efficiency by altering plantâ€“microbeâ€“mineral interactions. Global Change Biology, 2022, 28, 4845-4860.	9.5	36
781	Carbon cycle in the microbial ecosystems of biological soil crusts. Soil Biology and Biochemistry, 2022, 171, 108729.	8.8	20
782	Effects of afforestation on soil microbial diversity and enzyme activity: A meta-analysis. Geoderma, 2022, 423, 115961.	5.1	19
783	Microbial trait-based approaches for agroecosystems. Advances in Agronomy, 2022, , 259-299.	5.2	1
784	Soil Organic Matter Quality, Rather than Quantity, Drives Spatial Variation of Soil Microbial Basal Respiration in Boreal Forests. SSRN Electronic Journal, 0, , .	0.4	0
785	High initial soil organic matter level combined with aboveground plant residues increased microbial carbon use efficiency but accelerated soil priming effect. Biogeochemistry, 2022, 160, 1-15.	3.5	7
786	Unexpected microbial metabolic responses to elevated temperatures and nitrogen addition in subarctic soils under different land uses. Biogeochemistry, 2022, 160, 105-125.	3.5	5
787	Dynamic utilization of low-molecular-weight organic substrates across a microbial growth rate gradient. Journal of Applied Microbiology, 2022, 133, 1479-1495.	3.1	1
788	Effect of N deposition on the home-field advantage of wood decomposition in a subtropical forest. Ecological Indicators, 2022, 140, 109043.	6.3	5
789	Increased microbial carbon and nitrogen use efficiencies under drought stress in a poplar plantation. Forest Ecology and Management, 2022, 519, 120341.	3.2	5
790	Differential Response of Surface and Deep Soil C, N, and Microbial Processes to Long-Term Pasture Management in a Sub-Tropical Rangeland. SSRN Electronic Journal, 0, , .	0.4	0
792	Tree species composition shapes the assembly of microbial decomposer communities during litter decomposition. Plant and Soil, 2022, 480, 457-472.	3.7	4
793	Optimal growth temperature of Arctic soil bacterial communities increases under experimental warming. Global Change Biology, 2022, 28, 6050-6064.	9.5	16

#	Article	IF	Citations
795	Testing microbial models with data from a 14C glucose tracer experiment. Soil Biology and Biochemistry, 2022, 172, 108781.	8.8	2
796	Response of soil microbial biomass C, N, and P and microbial quotient to agriculture and agricultural abandonment in a meadow steppe of northeast China. Soil and Tillage Research, 2022, 223, 105475.	5.6	7
797	Soil textural control on moisture distribution at the microscale and its effect on added particulate organic matter mineralization. Soil Biology and Biochemistry, 2022, 172, 108777.	8.8	7
798	Long-term warming increased microbial carbon use efficiency and turnover rate under conservation tillage system. Soil Biology and Biochemistry, 2022, 172, 108770.	8.8	14
799	Soil salinity and its associated effects on soil microorganisms, greenhouse gas emissions, crop yield, biodiversity and desertification: A review. Science of the Total Environment, 2022, 843, 156946.	8.0	105
800	Investigating bacterial coupled assimilation of fertilizerâ€'nitrogen and crop residueâ€'carbon in upland soils by DNA-qSIP. Science of the Total Environment, 2022, 845, 157279.	8.0	4
801	Stabilisation of soil organic matter: interactions between clay and microbes. Biogeochemistry, 2022, 160, 145-158.	3.5	28
802	Modeling surface residue decomposition and N release using the Cover Crop Nitrogen Calculator (CC-NCALC). Nutrient Cycling in Agroecosystems, 2022, 124, 81-99.	2.2	2
803	Unexpected high carbon losses in a continental glacier foreland on the Tibetan Plateau. ISME Communications, 2022, 2, .	4.2	4
804	Microbial carbon use efficiency of litter with distinct C/N ratios in soil at different temperatures, including microbial necromass as growth component. Biology and Fertility of Soils, 2022, 58, 761-770.	4.3	7
805	Increasing nitrogen addition rates suppressed long-term litter decomposition in a temperate meadow steppe. Journal of Plant Ecology, 2023, 16, .	2.3	2
806	Bacterial community dynamics explain carbon mineralization and assimilation in soils of different landâ€use history. Environmental Microbiology, 2022, 24, 5230-5247.	3.8	4
807	Microbial Carbon Use Efficiency in Coastal Soils Along a Salinity Gradient Revealed by Ecoenzymatic Stoichiometry. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	3.0	7
808	Partial organic substitution weakens the negative effect of chemical fertilizer on soil micro-food webs. Journal of Integrative Agriculture, 2022, 21, 3037-3050.	3.5	3
809	Fungivorous nematodes drive microbial diversity and carbon cycling in soil. Ecology, 2023, 104, .	3.2	16
810	Arbuscular mycorrhiza fungi colonisation stimulates uptake of inorganic nitrogen and sulphur but reduces utilisation of organic forms in tomato. Soil Biology and Biochemistry, 2022, 172, 108719.	8.8	5
811	Interactive effects of citric acid and mineral fertilization on soil microbial carbon use efficiency in the rhizosphere of two coniferous species. European Journal of Soil Biology, 2022, 112, 103428.	3.2	1
812	Soil organic carbon decomposition responding to warming under nitrogen addition across Chinese vegetable soils. Ecotoxicology and Environmental Safety, 2022, 242, 113932.	6.0	3

#	Article	IF	Citations
813	Soil depth and tillage can characterize the soil microbial responses to drying-rewetting. Soil Biology and Biochemistry, 2022, 173, 108806.	8.8	10
814	Carbon stock stability in drained peatland after simulated plant carbon addition: Strong dependence on deeper soil. Science of the Total Environment, 2022, 848, 157539.	8.0	4
815	Microbial carbon use efficiency of glucose varies with soil clay content: A meta-analysis. Applied Soil Ecology, 2023, 181, 104636.	4.3	12
816	Microbial carbon use efficiency along an altitudinal gradient. Soil Biology and Biochemistry, 2022, 173, 108799.	8.8	11
817	Large-Scale Importance of Microbial Nitrogen Use Efficiency to Soil Inorganic Nitrogen Cycling. SSRN Electronic Journal, 0, , .	0.4	0
818	Microbiogeochemical Traits to Identify Nitrogen Hotspots in Permafrost Regions. Nitrogen, 2022, 3, 458-501.	1.3	5
819	Long-term nitrogen addition increased soil microbial carbon use efficiency in subalpine forests on the eastern edge of the Qinghaiâ€“Tibet Plateau. Plant and Soil, 2023, 482, 553-565.	3.7	2
820	Microbial diversity declines in warmed tropical soil and respiration rise exceed predictions as communities adapt. Nature Microbiology, 2022, 7, 1650-1660.	13.3	39
821	Global Climate Change Effects on Soil Microbial Biomass Stoichiometry in Alpine Ecosystems. Land, 2022, 11, 1661.	2.9	2
822	Silvopastoral use of Nothofagus antarctica forests in Patagonia: impact on soil microorganisms. Agroforestry Systems, 2022, 96, 957-968.	2.0	2
824	Plant-associated fungi support bacterial resilience following water limitation. ISME Journal, 2022, 16, 2752-2762.	9.8	17
825	Soil mineral fraction influences the bacterial abundance: evidence from a mineral and plant materials incubation study. Biogeochemistry, 2022, 161, 273-287.	3.5	1
826	Mineral N suppressed priming effect while increasing microbial C use efficiency and N2O production in sandy soils under long-term conservation management. Biology and Fertility of Soils, 2022, 58, 903-915.	4.3	11
827	Differences in respiration rates and abrasion losses may muddle attribution of breakdown to macroinvertebrates versus microbes in litterbag experiments. River Research and Applications, 0, , .	1.7	0
828	Microbial contribution to organic carbon accumulation in volcanic ash soils. Journal of Soils and Sediments, 0, , .	3.0	0
829	Deforestation for agriculture increases microbial carbon use efficiency in subarctic soils. Biology and Fertility of Soils, 2024, 60, 17-34.	4.3	2
830	Changes in soil microbial metabolic activity following longâ€term forest succession on the central Loess Plateau, China. Land Degradation and Development, 2023, 34, 723-735.	3.9	4
831	Mycorrhizal Types Regulated the Responses of Biomass in Different Plant Organs to N Addition. Agronomy, 2022, 12, 2357.	3.0	0

#	Article	IF	Citations
832	Organic materials with high C/N ratio: more beneficial to soil improvement and soil health. Biotechnology Letters, 2022, 44, 1415-1429.	2.2	4
833	Effect of Bacillus methylotrophicus on Tomato Plug Seedling. Horticulturae, 2022, 8, 947.	2.8	0
834	Carbon and Nitrogen Availability Drives Seasonal Variation in Soil Microbial Communities along an Elevation Gradient. Forests, 2022, 13, 1657.	2.1	8
835	Modelling the Rhizosphere Priming Effect in Combination with Soil Food Webs to Quantify Interaction between Living Plant, Soil Biota and Soil Organic Matter. Plants, 2022, 11, 2605.	3.5	4
836	Manipulated precipitation regulated carbon and phosphorus limitations of microbial metabolisms in a temperate grassland on the Loess Plateau, China. Journal of Arid Land, 2022, 14, 1109-1123.	2.3	1
837	Patterns and controls of foliar nutrient stoichiometry and flexibility across United States forests. Ecology, 2023, 104, .	3.2	5
838	Positive priming effect explained by microbial nitrogen mining and stoichiometric decomposition at different stages. Soil Biology and Biochemistry, 2022, 175, 108852.	8.8	23
839	Responses of soil carbon and nitrogen mineralization to nitrogen addition in a semiarid grassland: The role of season. Catena, 2023, 220, 106719.	5.0	6
840	Seasonal patterns of soil microbial community response to warming and increased precipitation in a semiarid steppe. Applied Soil Ecology, 2023, 182, 104712.	4.3	8
841	Long-term changes in soil chemical properties with cropland-to-orchard conversion on the Loess Plateau, China: Regulatory factors and relations with apple yield. Agricultural Systems, 2023, 204, 103562.	6.1	8
842	Asynchronous responses of microbial CAZymes genes and the net CO2 exchange in alpine peatland following 5 years of continuous extreme drought events. ISME Communications, 2022, 2, .	4.2	3
843	Effects of Biochar on the C Use Efficiency of Soil Microbial Communities: Components and Mechanisms. Environments - MDPI, 2022, 9, 138.	3.3	5
844	Progress on the Effect of Nitrogen on Transformation of Soil Organic Carbon. Processes, 2022, 10, 2425.	2.8	5
845	Biogeochemical consequences of grassland degradation on linked soil, stream, and lake ecosystems in watersheds: A review and case study. Watershed Ecology and the Environment, 2022, , .	1.8	0
846	High stand density promotes soil organic carbon sequestration in Robinia pseudoacacia plantations in the hilly and gully region of the Loess Plateau in China. Agriculture, Ecosystems and Environment, 2023, 343, 108256.	5.3	5
847	Soil management for carbon sequestration. , 2023, , 424-432.		0
848	Soil microbial resource limitation along a subarctic ecotone from birch forest to tundra heath. Soil Biology and Biochemistry, 2023, 177, 108919.	8.8	4
849	Soil aggregate development and associated microbial metabolic limitations alter grassland carbon storage following livestock removal. Soil Biology and Biochemistry, 2023, 177, 108907.	8.8	16

#	Article	IF	Citations
850	Preferential substrate use decreases priming effects in contrasting treeline soils. Biogeochemistry, 2023, 162, 141-161.	3.5	3
851	Interactions between soil organic matter chemical structure and microbial communities determine the spatial variation of soil basal respiration in boreal forests. Applied Soil Ecology, 2023, 183, 104743.	4.3	5
852	High Resilience and Fast Acclimation Processes Allow the Antarctic Moss Bryum argenteum to Increase Its Carbon Gain in Warmer Growing Conditions. Biology, 2022, 11, 1773.	2.8	2
853	Major Groups of Microorganisms Employed in Bioremediation. , 2023, , 141-159.		0
854	Microbiome resilience of Amazonian forests: Agroforest divergence to bacteria and secondary forest succession convergence to fungi. Global Change Biology, 2023, 29, 1314-1327.	9.5	4
855	Alkaline phosphatase as a bio-indicator of phosphorus-eutrophy in freshwater ecosystems: A review. International Journal of Sediment Research, 2022, , .	3.5	1
856	Diversifying and perennializing plants in agroecosystems alters retention of new C and N from crop residues. Ecological Applications, 0, , .	3.8	1
858	Nutrient stoichiometric management promotes carbon sequestration by improving microbial nutrient availability and metabolic efficiency in straw-amended soil. Journal of Soils and Sediments, 2023, 23, 1182-1192.	3.0	2
859	Growth productivity as a determinant of the inoculum effect for bactericidal antibiotics. Science Advances, 2022, 8, .	10.3	5
860	Biotic Interactions in Soil are Underestimated Drivers of Microbial Carbon Use Efficiency. Current Microbiology, 2023, 80, .	2.2	7
861	Bioenergetic control of soil carbon dynamics across depth. Nature Communications, 2022, 13, .	12.8	22
862	Microbial Metabolic Quotient is a Dynamic Indicator of Soil Health: Trends, Implications and Perspectives (Review). Eurasian Soil Science, 2022, 55, 1794-1803.	1.6	8
863	Varied response of carbon dioxide emissions to warming in oxic, anoxic and transitional soil layers in a drained peatland. Communications Earth & Environment, 2022, 3, .	6.8	3
864	Carbonization characteristics of co-pyrolysis of sewage sludge and corn stalks and its agricultural benefits. Journal of Soils and Sediments, 0, , .	3.0	1
865	Contrasting activation energies of litter-associated respiration and P uptake drive lower cumulative P uptake at higher temperatures. Biogeosciences, 2023, 20, 191-204.	3.3	0
866	Methanogenesis and Its Role in Climate-Change Alleviation. Climate Change Management, 2023, , 307-322.	0.8	0
867	Elevational patterns of microbial carbon use efficiency in a subtropical mountain forest. Biology and Fertility of Soils, 2024, 60, 5-15.	4.3	2
868	Constraints on the spatial variations of soil carbon fractions in a mangrove forest in Southeast China. Catena, 2023, 222, 106889.	5.0	8

#	Article	IF	Citations
869	Microbial assemblies with distinct trophic strategies drive changes in soil microbial carbon use efficiency along vegetation primary succession in a glacier retreat area of the southeastern Tibetan Plateau. Science of the Total Environment, 2023, 867, 161587.	8.0	5
870	Plant above-ground biomass and litter quality drive soil microbial metabolic limitations during vegetation restoration of subtropical forests. Soil Ecology Letters, 2023, 5, .	4.5	1
871	Different Response of Soil Microbial Carbon Use Efficiency in Compound of Feldspathic Sandstone and Sand. Agriculture (Switzerland), 2023, 13, 58.	3.1	0
872	Root exclusion methods for partitioning of soil respiration: Review and methodological considerations. Pedosphere, 2023, 33, 683-699.	4.0	6
873	Effects of short- and long-term nutrient addition on microbial carbon use efficiency and carbon accumulation efficiency in the Tibetan alpine grassland. Soil and Tillage Research, 2023, 229, 105657.	5.6	9
874	The phosphorus limitation in the post-fire forest soils increases soil CO2 emission via declining cellular carbon use efficiency and increasing extracellular phosphatase. Catena, 2023, 224, 106968.	5.0	4
875	Phosphorus limitation reduces microbial nitrogen use efficiency by increasing extracellular enzyme investments. Geoderma, 2023, 432, 116416.	5.1	4
876	Ironâ€“organic carbon associations stimulate carbon accumulation in paddy soils by decreasing soil organic carbon priming. Soil Biology and Biochemistry, 2023, 179, 108972.	8.8	8
877	Effects of root litter traits on soil organic matter dynamics depend on decay stage and root branching order. Soil Biology and Biochemistry, 2023, 180, 109008.	8.8	2
878	Soil arthropods promote litter enzyme activity by regulating microbial carbon limitation and ecoenzymatic stoichiometry in a subalpine forest. Science of the Total Environment, 2023, 876, 162789.	8.0	5
879	The distribution of soil C and N along the slope is regulated by vegetation type on the Loess Plateau. Catena, 2023, 226, 107094.	5.0	3
880	Mechanisms underlying the responses of microbial carbon and nitrogen use efficiencies to nitrogen addition are mediated by topography in a subtropical forest. Science of the Total Environment, 2023, 880, 163236.	8.0	5
881	Nitrogen deficiency accelerates soil organic carbon decomposition in temperate degraded grasslands. Science of the Total Environment, 2023, 881, 163424.	8.0	4
882	Nitrogen addition effects on soil mineral-associated carbon differ between the valley and slope in a subtropical karst forest. Geoderma, 2023, 430, 116357.	5.1	4
883	Comparing soil microbial responses to drying-rewetting and freezing-thawing events. Soil Biology and Biochemistry, 2023, 178, 108966.	8.8	2
884	Dominant plant species alter stoichiometric imbalances between soil microbes and their resources in an alpine grassland: Implications for soil microbial respiration. Geoderma, 2023, 431, 116336.	5.1	10
885	Current controversies on mechanisms controlling soil carbon storage: implications for interactions with practitioners and policy-makers. A review. Agronomy for Sustainable Development, 2023, 43, .	5.3	9
886	Linkage between Leafâ€“Litterâ€“Soil, Microbial Resource Limitation, and Carbon-Use Efficiency in Successive Chinese Fir (Cunninghamia lanceolata) Plantations. Forests, 2023, 14, 357.	2.1	2

#	Article	IF	Citations
888	Soil temperature, microbial biomass and enzyme activity are the critical factors affecting soil respiration in different soil layers in Ziwuling Mountains, China. Frontiers in Microbiology, 0, 14, .	3.5	6
889	The Effects of N Addition on Soil Microbial Residues in Croplands and Forests: A Meta-analysis. Journal of Soil Science and Plant Nutrition, 2023, 23, 1449-1458.	3.4	5
890	Temperature and interspecific interactions drive differences in carbon use efficiencies and biomass stoichiometry among aquatic fungi. FEMS Microbiology Ecology, 2023, 99, .	2.7	0
892	Soil microbial respiration is regulated by stoichiometric imbalances: Evidence from a humidity gradient case. Pedosphere, 2023, 33, 905-915.	4.0	0
893	Extensive prokaryotic maintenance respiration in the sea influenced by osmoregulation. Frontiers in Marine Science, 0, 10, .	2.5	1
894	Soil Microbial Responses to Aflatoxin Exposure: Consequences for Biomass, Activity and Catabolic Functionality. Soil Systems, 2023, 7, 23.	2.6	1
896	Effects of nitrogen deposition on carbon and nutrient cycling along a natural soil acidity gradient as revealed by metagenomics. New Phytologist, 2023, 238, 2607-2620.	7.3	4
897	Restricted power: Can microorganisms maintain soil organic matter stability under warming exceeding 2 degrees?. Global Ecology and Biogeography, 2023, 32, 919-930.	5.8	3
898	No Evidence of an Elevation Effect Caused by Temperature Differences on Soil Microbial Properties in a Walnut Fruit Forest in Kyrgyzstan. Journal of Soil Science and Plant Nutrition, 0, , .	3.4	1
899	Nitrogen inhibitors improve soil ecosystem multifunctionality by enhancing soil quality and alleviating microbial nitrogen limitation. Science of the Total Environment, 2023, 880, 163238.	8.0	7
900	Ecoenzymatic stoichiometry reveals soil P limitation under biochar addition in a reclaimed mine area in Shanxi Province, China. Restoration Ecology, 0, , .	2.9	0
901	Adaptation mechanisms of the soil microbial community under stoichiometric imbalances and nutrient-limiting conditions in a subtropical nitrogen-saturated forest. Plant and Soil, 2023, 489, 239-258.	3.7	4
902	The dependent correlation between soil multifunctionality and bacterial community across different farmland soils. Frontiers in Microbiology, 0, 14, .	3.5	0
903	Intracellular carbon storage by microorganisms is an overlooked pathway of biomass growth. Nature Communications, 2023, 14, .	12.8	17
904	Interactions between metabolism and growth can determine the co-existence of Staphylococcus aureus and Pseudomonas aeruginosa. ELife, 0, 12, .	6.0	4
905	Microbial community and soil enzyme activities driving microbial metabolic efficiency patterns in riparian soils of the Three Gorges Reservoir. Frontiers in Microbiology, 0, 14, .	3.5	0
906	Does liming improve microbial carbon use efficiency after maize litter addition in a tropical acidic soil?. Biology and Fertility of Soils, 2023, 59, 619-627.	4.3	3
907	Long-term successive rotation affects soil microbial resource limitation and carbon use efficiency in Chinese fir (Cunninghamia lanceolata) monoculture plantations. Forest Ecology and Management, 2023, 540, 121037.	3.2	2

#	Article	IF	Citations
908	Impact of Induced Natural Organic Carbons on Soil Organic Carbon (SOC), Permeability and Production of Sandy and Clay Soils in Mediterranean Semi-Arid Eco-System. Communications in Soil Science and Plant Analysis, 0, , 1-16.	1.4	0
909	Erosion effects on soil microbial carbon use efficiency in the mollisol cropland in northeast China. Soil Ecology Letters, 2023, 5, .	4.5	2
910	Effects of in situ warming and glucose addition on soil respiration in a temperate forest. Pedosphere, 2023, , .	4.0	0
911	Nutrient and stoichiometry dynamics of decomposing litter in stream ecosystems: A global synthesis. Ecology, 2023, 104, .	3.2	2
912	Compostâ€‰â€‰and biosolids increase long-term soil organic carbon stocks. Canadian Journal of Soil Science, 2023, 103, 483-492.	1.2	2
913	Substrate and community regulations on microbial necromass accumulation from newly added and native soil carbon. Biology and Fertility of Soils, 2023, 59, 763-775.	4.3	3
914	Microbial Adaptations Within Fineâ€Scale Soil Structure Alleviate Phosphorus Limitation on Carbon Sequestration Following Afforestation. Global Biogeochemical Cycles, 2023, 37, .	4.9	0
915	Managing soil organic carbon in tropical agroecosystems: evidence from four long-term experiments in Kenya. Soil, 2023, 9, 301-323.	4.9	5
916	Grass variety selection of microbial community composition is associated with differences in soil CO2 emissions. Applied Soil Ecology, 2023, 190, 104968.	4.3	0
917	Rewetting the hyper-arid Atacama Desert soil reactivates a carbon-starved microbial decomposer community and also triggers archaeal metabolism. Science of the Total Environment, 2023, 892, 164785.	8.0	2
918	Impact of 30 years precipitation regime differences on forest soil physiology and microbial assemblages. Frontiers in Forests and Global Change, 0, 6, .	2.3	3
919	Conservation tillage increases surface soil organic carbon stock by altering fungal communities and enzyme activity. Environmental Science and Pollution Research, 2023, 30, 80901-80915.	5.3	1
920	Throughfall exclusion and fertilization effects on tropical dry forest tree plantations, a large-scale experiment. Biogeosciences, 2023, 20, 2143-2160.	3.3	2
921	Lipidâ€enhanced Oilcane does not impact soil carbon dynamics compared with <scp>wildâ€type</scp> Sugarcane. GCB Bioenergy, 2023, 15, 969-978.	5.6	0
922	Long-term warming of a forest soil reduces microbial biomass and its carbon and nitrogen use efficiencies. Soil Biology and Biochemistry, 2023, 184, 109109.	8.8	3
923	Microbial diversity and functions in saline soils: A review from a biogeochemical perspective. Journal of Advanced Research, 2023, , .	9.5	15
924	Stronger microbial nutrient limitations in subsoil along the precipitation gradient of agroecosystem: insights from soil enzyme activity and stoichiometry. Frontiers in Ecology and Evolution, 0, 11, .	2.2	1
925	Comparison of Native Bacterial and Fungal Bioaugmentation in the Removal of Petroleum from Soil in the Presence of Sorghum. Water, Air, and Soil Pollution, 2023, 234, .	2.4	0

#	Article	IF	Citations
926	The driving mechanism of soil organic carbon biodegradability in the black soil region of Northeast China. Science of the Total Environment, 2023, 884, 163835.	8.0	3
927	Microbial carbon use efficiency promotes global soil carbon storage. Nature, 2023, 618, 981-985.	27.8	77
928	Litter leachates transform soil bacterial composition enhancing nitrogen fixation in alpine meadow. Applied Soil Ecology, 2023, 189, 104979.	4.3	1
929	Introducing N2-fixing tree species into Eucalyptus plantations promotes soil organic carbon sequestration in aggregates by increasing microbial carbon use efficiency. Catena, 2023, 231, 107321.	5.0	7
930	Plant invasion shifts soil microbiome and physico-chemical attributes along an elevational gradient in Kashmir Himalaya. Environmental Science and Pollution Research, 2023, 30, 84283-84299.	5.3	0
931	Carbohydrate metabolism bacteria positive effect determines the increasing soil organic carbon during long-term straw fertilization returning. Pedosphere, 2023, , .	4.0	0
932	Microbial carbon functional responses to compaction and moisture stresses in two contrasting Australian soils. Soil and Tillage Research, 2023, 234, 105825.	5.6	5
933	Early- and later-stage priming effects induced by spruce root fractions are regulated by substrate availability, stoichiometry and C input. Geoderma, 2023, 437, 116610.	5.1	0
934	Far-reaching effects on soil properties and underground microbial ecosystem after the introduction of black locusts in forest. Frontiers in Ecology and Evolution, 0, 11, .	2.2	0
935	Variations in diversity, composition, and species interactions of soil microbial community in response to increased N deposition and precipitation intensity in a temperate grassland. Ecological Processes, 2023, 12, .	3.9	1
936	Carbon Sequestration Strategies in Soil Using Biochar: Advances, Challenges, and Opportunities. Environmental Science & Technology, 2023, 57, 11357-11372.	10.0	11
937	Sources of uncertainty in simulating crop N2O emissions under contrasting environmental conditions. Agricultural and Forest Meteorology, 2023, 340, 109619.	4.8	1
939	Whole-soil-profile warming does not change microbial carbon use efficiency in surface and deep soils. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	7.1	5
940	Agricultural soil plastic as a hidden carbon source stimulates microbial activity and increases carbon dioxide emissions. Resources, Conservation and Recycling, 2023, 198, 107151.	10.8	3
941	The mitigation of microbial carbon and nitrogen limitations by shrub encroachment: extracellular enzyme stoichiometry of the alpine grassland on the Qinghai-Tibetan Plateau. Biogeochemistry, 2023, 165, 205-225.	3.5	0
942	Effect of wood gasification biochar on soil physicochemical properties and enzyme activities, and on crop yield in a wheat-production system with sub-alkaline soil. Biomass and Bioenergy, 2023, 176, 106914.	5.7	2
943	Responses of carbon cycling and soil organic carbon content to nitrogen addition in grasslands globally. Soil Biology and Biochemistry, 2023, 186, 109164.	8.8	5
944	Rhizosphere influence on microbial functions: consequence for temperature sensitivity of soil organic matter decomposition at early stage of plant growth. Plant and Soil, 0, , .	3.7	0

#	Article	IF	Citations
945	Responses of bacterial community composition and diversity to multi-level nitrogen addition at different periods of growing season driven by conditional rare taxa in an alpine meadow. Biology and Fertility of Soils, 2023, 59, 939-952.	4.3	0
946	Increasing plant species diversity enhances microbial necromass carbon content but does not alter its contribution to soil organic carbon pool in a subtropical forest. Soil Biology and Biochemistry, 2023, 187, 109183.	8.8	7
947	The Different Factors Driving SOC Stability under Different N Addition Durations in a Phyllostachys edulis Forest. Forests, 2023, 14, 1890.	2.1	1
949	Microplastics reduced bioavailability and altered toxicity of phenanthrene to maize (Zea mays L.) through modulating rhizosphere microbial community and maize growth. Chemosphere, 2023, 345, 140444.	8.2	1
950	Soil organic carbon accumulation and microbial carbon use efficiency in subalpine coniferous forest as influenced by forest floor vegetative communities. Geoderma, 2023, 438, 116648.	5.1	0
951	Soil organic matter dynamics mediated by arbuscular mycorrhizal fungi â€“ an updated conceptual framework. New Phytologist, 0, , .	7.3	8
952	The Carbon Transfer From Plant to Soil Is More Efficient in Less Productive Ecosystems. Global Biogeochemical Cycles, 2023, 37, .	4.9	2
953	Calcium promotes persistent soil organic matter by altering microbial transformation of plant litter. Nature Communications, 2023, 14, .	12.8	6
954	Regulation of soil Câ€“Nâ€“P stoichiometry by intercropping mitigates microbial resource limitations and contributes to maize productivity. Plant and Soil, 0, , .	3.7	3
955	Adaptability of agricultural soil microbial nutrient utilization regulates community assembly under mulching measures on the Loess Plateau. Agriculture, Ecosystems and Environment, 2023, 357, 108702.	5.3	4
956	Effects of thinning and understorey removal on soil extracellular enzyme activity vary over time during forest recovery after treatment. Plant and Soil, 2023, 492, 457-469.	3.7	3
957	Chemodiversity controls microbial assimilation of soil organic carbon: A theoretical model. Soil Biology and Biochemistry, 2023, 187, 109161.	8.8	1
958	Deciphering the dual role of bacterial communities in stabilizing rhizosphere priming effect under intra-annual change of growing seasons. Science of the Total Environment, 2023, 903, 166777.	8.0	0
959	The effect of afforestation type on soil nitrogen dynamics in the riparian zone of the upper Yangtze River of China. Chemosphere, 2023, 341, 140067.	8.2	0
961	Higher microbial C use efficiency in paddy than in adjacent upland soils: evidence from continental scale. Soil and Tillage Research, 2024, 235, 105891.	5.6	1
962	Methods for Measurement of Microbial Diversity. Livestock Diseases and Management, 2023, , 171-192.	0.5	0
963	Adaptations of soil microbes to stoichiometric imbalances in regulating their carbon use efficiency under a range of different grazing intensities. Applied Soil Ecology, 2024, 193, 105141.	4.3	0
964	Unraveling the persistence of deep podzolized carbon: Insights from organic matter characterization. Science of the Total Environment, 2024, 906, 167382.	8.0	0

#	Article	IF	Citations
967	Interactive effects of microbial functional diversity and carbon availability on decomposition â€“ A theoretical exploration. Ecological Modelling, 2023, 486, 110507.	2.5	0
968	Distinct dynamics of plant- and microbial-derived soil organic matter in relation to varying climate and soil properties in temperate agroecosystems. Geochimica Et Cosmochimica Acta, 2023, , .	3.9	1
969	Spatio-temporal patterns and control mechanism of the ecosystem carbon use efficiency across the Mongolian Plateau. Science of the Total Environment, 2024, 907, 167883.	8.0	1
970	Response of soil extracellular enzyme activity and stoichiometry to short-term warming and phosphorus addition in desert steppe. PeerJ, 0, 11, e16227.	2.0	1
971	Inter-Month Nutrients Dynamic and Plant Growth in Calamagrostis angustifolia Community and Soil after Different Burning Seasons. Fire, 2023, 6, 405.	2.8	0
972	The native SOC increase in woodland and lawn soil amended with biochar surpassed greenhouse â€” A seven-year field trial. Science of the Total Environment, 2023, , 167924.	8.0	0
975	Drivers of legacy soil organic matter decomposition after fire in boreal forests. Ecosphere, 2023, 14, .	2.2	0
976	Influence of Phoebe bournei (Hemsl.) Replanting on Soil Carbon Content and Microbial Processes in a Degraded Fir Forest. Forests, 2023, 14, 2144.	2.1	0
977	Soil extracellular enzyme activity reflects the change of nitrogen to phosphorus limitation of microorganisms during vegetation restoration in semi-arid sandy land of northern China. Frontiers in Environmental Science, 0, 11, .	3.3	0
978	Seasonal dynamics of soil microbial growth, respiration, biomass, and carbon use efficiency in temperate soils. Geoderma, 2023, 440, 116693.	5.1	1
979	Biochar-Associated Free Radicals Reduce Soil Bacterial Diversity: New Insight into Ecoenzymatic Stoichiometry. Environmental Science & Technology, 2023, 57, 20238-20248.	10.0	0
980	Soil climate regulation services: high SOC stock in Podzols and Umbrisols in an alpine grassland (Valle AdamÃ©, Italy). Environmental Earth Sciences, 2023, 82, .	2.7	0
981	Contributions of fine mineral particles and active Al/Fe to stabilization of plant material in neutral-to-alkaline soils of Indo-Gangetic Plain. Geoderma, 2023, 440, 116709.	5.1	0
982	Burying straw interlayers decreases CO2 emissions in deep saline soil. Sustainable Production and Consumption, 2023, 43, 194-203.	11.0	1
983	Herbivores influence biogeochemical processes by alteringÂlitter quality and quantity in a subarctic wetland. Biogeochemistry, 2023, 166, 67-85.	3.5	0
984	Limiting resources for soil microbial growth in climate change simulation treatments in the subarctic. Ecology, 2024, 105, .	3.2	0
985	Long-term grazing exacerbates soil microbial carbon and phosphorus limitations in the desert steppe of Inner Mongolia - A study based on enzyme kinetics. Applied Soil Ecology, 2024, 194, 105192.	4.3	0
986	Mineralisation and priming effects of a biodegradable plastic mulch film in soils: Influence of soil type, temperature and plastic particle size. Soil Biology and Biochemistry, 2024, 189, 109257.	8.8	0

#	Article	IF	Citations
987	Study on the water-carbon coupling coordination function on the eastern edge of the Qinghai-Tibet plateau. Ecological Modelling, 2024, 487, 110572.	2.5	0
988	Responses of C:N:P stoichiometric correlations among plants, soils and microorganisms to warming: A meta-analysis. Science of the Total Environment, 2024, 912, 168827.	8.0	0
990	Carbon and nutrient colimitations control the microbial response to fresh organic carbon inputs in soil at different depths. Geoderma, 2023, 440, 116729.	5.1	0
991	Does metabolic water control the phosphate oxygen isotopes of microbial cells?. Frontiers in Microbiology, 0, 14, .	3.5	0
992	Microbial carbon use efficiency and soil organic carbon stocks across an elevational gradient in the Peruvian Andes. Applied Soil Ecology, 2024, 195, 105228.	4.3	1
993	Soil biomass-related enzyme activity indicates minimal functional changes after 16 years of persistent drought treatment in a Mediterranean holm oak forest. Soil Biology and Biochemistry, 2024, 189, 109281.	8.8	0
994	Responses of soil nitrogen and carbon mineralization rates to fertilization and crop rotation. Journal of Soils and Sediments, 0, , .	3.0	1
995	Biochar-plant interactions enhance nonbiochar carbon sequestration in a rice paddy soil. Communications Earth & Environment, 2023, 4, .	6.8	0
996	Fungi are more important than bacteria for soil carbon loss through priming effects and carbon protection through aggregation. Applied Soil Ecology, 2024, 195, 105245.	4.3	1
997	Microbial carbon and nitrogen limitation in Larix gmelinii forests along an altitudinal gradient: Evidence from ecoenzymatic stoichiometry and vector analysis. Applied Soil Ecology, 2024, 195, 105257.	4.3	0
998	Effects of nitrogen addition on rhizosphere priming: The role of stoichiometric imbalance. Science of the Total Environment, 2024, 914, 169731.	8.0	0
999	Influence of organic matter input and temperature change on soil aggregate-associated respiration and microbial carbon use efficiency in alpine agricultural soils. Soil Ecology Letters, 2024, 6, .	4.5	0
1000	Soil Organic Carbon Lateral Movement Processes Integrated Into a Terrestrial Ecosystem Model. Journal of Advances in Modeling Earth Systems, 2024, 16, .	3.8	0
1001	Global prediction of soil microbial growth rates and carbon use efficiency based on the metabolic theory of ecology. Soil Biology and Biochemistry, 2024, 190, 109315.	8.8	0
1002	Long-term conservation tillage enhances microbial carbon use efficiency by altering multitrophic interactions in soil. Science of the Total Environment, 2024, 915, 170018.	8.0	0
1003	Long-term organic fertilization combined with deep ploughing enhances carbon sequestration in a rainfed sorghum-maize rotation system. Geoderma, 2024, 442, 116778.	5.1	0
1004	Role of an arbuscular mycorrhizal fungus in vegetation restoration as indicated by bacterial diversity and microbial metabolic limitation in soil underlying moss biocrusts. International Biodeterioration and Biodegradation, 2024, 188, 105728.	3.9	1
1005	Biochar reduced the mineralization of native and added soil organic carbon: evidence of negative priming and enhanced microbial carbon use efficiency. Biochar, 2024, 6, .	12.6	0

#	Article	IF	Citations
1006	Biotic metabolism in soil. , 2024, , 247-274.		0
1007	Physiological and biochemical methods for studying soil biota and their functions. , 2024, , 193-227.		0
1008	Coupling scales in processâ€based soil organic carbon modeling including dynamic aggregation. Journal of Plant Nutrition and Soil Science, 2024, 187, 130-142.	1.9	1
1009	Influence of vegetation on soil organic nitrogen composition and mineralization in a subtropical wetland. Ecological Engineering, 2024, 200, 107186.	3.6	0
1010	Microbial carbon capture - evolving trends, interconnections, and recent spotlights of the past three decades. Chemical Engineering Journal, 2024, 482, 148970.	12.7	0
1011	Liming effects on microbial carbon use efficiency and its potential consequences for soil organic carbon stocks. Soil Biology and Biochemistry, 2024, 191, 109342.	8.8	0
1012	Deep soil microbial carbon use efficiency responds stronger to nitrogen deposition than top soil in tropical forests, southern China. Plant and Soil, 0, , .	3.7	0
1013	Microbial mechanisms regulate soil organic carbon mineralization under carbon with varying levels of nitrogen addition in the above-treeline ecosystem. Science of the Total Environment, 2024, 917, 170497.	8.0	0
1014	Spatial biases reduce the ability of Earth system models to simulate soil heterotrophic respiration fluxes. Biogeosciences, 2024, 21, 657-669.	3.3	0
1015	Straw addition and low soil moisture decreased temperature sensitivity and activation energy of soil organic matter. Geoderma, 2024, 442, 116802.	5.1	0
1017	Predictions of rhizosphere microbiome dynamics with a genome-informed and trait-based energy budget model. Nature Microbiology, 2024, 9, 421-433.	13.3	0
1018	SAMM version 1.0: a numerical model for microbial- mediated soil aggregate formation. Geoscientific Model Development, 2024, 17, 931-956.	3.6	0
1019	Drying-rewetting events enhance the priming effect on soil organic matter mineralization by maize straw addition. Catena, 2024, 238, 107872.	5.0	0
1020	A conserved interdomain microbial network underpins cadaver decomposition despite environmental variables. Nature Microbiology, 2024, 9, 595-613.	13.3	1
1021	SOIL CARBON STOCKS NOT LINKED TO ABOVEGROUND LITTER INPUT AND CHEMISTRY OF OLD-GROWTH FOREST AND ADJACENT PRAIRIE. Radiocarbon, 0, , 1-18.	1.8	0
1022	Seasonal effects of drip irrigation on soil quality index, microbial stoichiometry, and carbon use efficiency in an apple orchard. Applied Soil Ecology, 2024, 197, 105324.	4.3	0
1023	Evaluation and optimisation of the soil carbon turnover routine in the MONICA model (version 3.3.1). Geoscientific Model Development, 2024, 17, 1349-1385.	3.6	0
1024	Soil pH drives the relationship between the vertical distribution of soil microbial biomass and soil organic carbon across terrestrial ecosystems: A global synthesis. Catena, 2024, 238, 107873.	5.0	0

#	Article	IF	Citations
1025	The accumulation capacity of microbial residues in the rhizosphere increased along an elevation gradient. Catena, 2024, 238, 107891.	5.0	0
1026	Active microbial population dynamics and life strategies drive the enhanced carbon use efficiency in high-organic matter soils. MBio, 2024, 15, .	4.1	0
1027	Erosion of community complexity increases temperature-dependency of microbial respiration, but not growth, in short-term incubations. Elementa, 2024, 12, .	3.2	0
1028	Effects of precipitation changes on soil heterotrophic respiration and microbial activities in a switchgrass mesocosm experiment. European Journal of Soil Biology, 2024, 120, 103602.	3.2	0
1029	Rewilding by large ungulates contributes to organic carbon storage in soils. Journal of Environmental Management, 2024, 355, 120430.	7.8	0
1030	Different Quality Classes of Decomposing Plant Residues Influence Dissolved Organic Matter Stoichiometry Which Results in Different Soil Microbial Processing. Soil Systems, 2024, 8, 28.	2.6	0
1031	Mineral protection explains the elevational variation of temperature sensitivity of soil carbon decomposition in the Eastern Himalaya. Applied Soil Ecology, 2024, 197, 105346.	4.3	0
1032	Microbial nutrient limitation along a 2-million-year dune chronosequence. Soil Biology and Biochemistry, 2024, 192, 109385.	8.8	0
1033	Dual role of silt and clay in the formation and accrual of stabilized soil organic carbon. Soil Biology and Biochemistry, 2024, 192, 109390.	8.8	0
1034	Soil stoichiometric imbalances constrain microbial-driven C and N dynamics in grassland. Science of the Total Environment, 2024, 924, 171655.	8.0	0
1035	Controls of microbial carbon use efficiency along a latitudinal gradient across Europe. Soil Biology and Biochemistry, 2024, 193, 109394.	8.8	0
1036	Nitrogen deposition caused higher increases in plant-derived organic carbon than microbial-derived organic carbon in forest soils. Science of the Total Environment, 2024, 925, 171752.	8.0	0
1037	Thinning intensity inhibits microbial metabolic limitation and promotes microbial carbon use efficiency in natural secondary forests in the Qinling Mountains. Forest Ecology and Management, 2024, 560, 121812.	3.2	0
1038	Decoupled response of microbial taxa and functions to nutrients: The role of stoichiometry in plantations. Journal of Environmental Management, 2024, 356, 120574.	7.8	0
1039	Metam sodium fumigation in potato production systems has varying effects on soil health indicators. Field Crops Research, 2024, 310, 109353.	5.1	0
1040	How to adequately represent biological processes in modeling multifunctionality of arable soils. Biology and Fertility of Soils, 2024, 60, 263-306.	4.3	0
1041	Early production of switchgrass (Panicum virgatum L.) and willow (Salix spp.) indicates carbon accumulation potential in Appalachian reclaimed mine and agriculture soil. Soil Science Society of America Journal, 0, , .	2.2	0
1042	Soil carbon storage and accessibility drive microbial carbon use efficiency by regulating microbial diversity and key taxa in intercropping ecosystems. Biology and Fertility of Soils, 2024, 60, 437-453.	4.3	0

#	Article	IF	Citations
1043	Beyond growth: The significance of non-growth anabolism for microbial carbon-use efficiency in the light of soil carbon stabilisation. Soil Biology and Biochemistry, 2024, 193, 109400.	8.8	0
1044	Assessing energy fluxes and carbon use in soil as controlled by microbial activity - A thermodynamic perspective A perspective paper. Soil Biology and Biochemistry, 2024, 193, 109403.	8.8	0
1045	Ungulate herbivores promote contrasting modifications of soil properties and organic carbon stabilization in a grazed grassland versus rewilded woodland environment. Agriculture, Ecosystems and Environment, 2024, 367, 108983.	5.3	0
1046	Soil nitrogen availability and microbial carbon use efficiency are dependent more on chemical fertilization than winter drought in a maizeâ€“soybean rotation system. Frontiers in Microbiology, 0, 15, .	3.5	0