Joshua P Schimel

List of Publications by Year
in descending order

188 papers	35,221 citations	3721 89 h-index	3476 182 g-index
195 all docs	195 docs citations	195 times ranked	24475 citing authors

#	Article	IF	Citations
1	MICROBIAL STRESS-RESPONSE PHYSIOLOGY AND ITS IMPLICATIONS FOR ECOSYSTEM FUNCTION. Ecology, 2007, 88, 1386-1394.	1.5	1,935
2	NITROGEN MINERALIZATION: CHALLENGES OF A CHANGING PARADIGM. Ecology, 2004, 85, 591-602.	1.5	1,926
3	Variations in microbial community composition through two soil depth profiles. Soil Biology and Biochemistry, 2003, 35, 167-176.	4.2	1,409
4	The importance of anabolism in microbial control over soil carbon storage. Nature Microbiology, 2017, 2, 17105.	5.9	1,288
5	The implications of exoenzyme activity on microbial carbon and nitrogen limitation in soil: a theoretical model. Soil Biology and Biochemistry, 2003, 35, 549-563.	4.2	1,237
6	Role of Land-Surface Changes in Arctic Summer Warming. Science, 2005, 310, 657-660.	6.0	1,186
7	Microbial control over carbon cycling in soil. Frontiers in Microbiology, 2012, 3, 348.	1.5	978
8	Effects of dryingâ€"rewetting frequency on soil carbon and nitrogen transformations. Soil Biology and Biochemistry, 2002, 34, 777-787.	4.2	874
9	Responses of soil microbial communities to water stress: results from a metaâ€analysis. Ecology, 2012, 93, 930-938.	1.5	830
10	Influence of Drying-Rewetting Frequency on Soil Bacterial Community Structure. Microbial Ecology, 2003, 45, 63-71.	1.4	583
11	LITTER QUALITY AND THE TEMPERATURE SENSITIVITY OF DECOMPOSITION. Ecology, 2005, 86, 320-326.	1.5	566
12	The ecological coherence of high bacterial taxonomic ranks. Nature Reviews Microbiology, 2010, 8, 523-529.	13.6	562
13	Winter Biological Processes Could Help Convert Arctic Tundra to Shrubland. BioScience, 2005, 55, 17.	2.2	557
14	Increased snow depth affects microbial activity and nitrogen mineralization in two Arctic tundra communities. Soil Biology and Biochemistry, 2004, 36, 217-227.	4.2	530
15	Controls over carbon storage and turnover in high-latitude soils. Global Change Biology, 2000, 6, 196-210.	4.2	525
16	Life in Dry Soils: Effects of Drought on Soil Microbial Communities and Processes. Annual Review of Ecology, Evolution, and Systematics, 2018, 49, 409-432.	3.8	486
17	A Proposed Mechanism for the Pulse in Carbon Dioxide Production Commonly Observed Following the Rapid Rewetting of a Dry Soil. Soil Science Society of America Journal, 2003, 67, 798.	1.2	466
18	Drying and rewetting effects on C and N mineralization and microbial activity in surface and subsurface California grassland soils. Soil Biology and Biochemistry, 2008, 40, 2281-2289.	4.2	450

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19	Evidence for Negative Effects of TiO₂ and ZnO Nanoparticles on Soil Bacterial Communities. Environmental Science & Technology, 2011, 45, 1659-1664.	4.6	437
20	Soybean susceptibility to manufactured nanomaterials with evidence for food quality and soil fertility interruption. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2451-6.	3.3	436
21	The impacts of climate change on ecosystem structure and function. Frontiers in Ecology and the Environment, 2013, 11, 474-482.	1.9	433
22	Temperature controls of microbial respiration in arctic tundra soils above and below freezing. Soil Biology and Biochemistry, 2002, 34, 1785-1795.	4.2	427
23	Beyond clay: towards an improved set of variables for predicting soil organic matter content. Biogeochemistry, 2018, 137, 297-306.	1.7	423
24	Microbial response to freeze-thaw cycles in tundra and taiga soils. Soil Biology and Biochemistry, 1996, 28, 1061-1066.	4.2	421
25	Controls on microbial CO2 production: a comparison of surface and subsurface soil horizons. Global Change Biology, 2003, 9, 1322-1332.	4.2	377
26	Persistence of soil organic carbon caused by functional complexity. Nature Geoscience, 2020, 13, 529-534.	5.4	363
27	Decomposition and carbon cycling of dead trees in tropical forests of the central Amazon. Oecologia, 2000, 122, 380-388.	0.9	360
28	Water balance creates a threshold in soil pH at the global scale. Nature, 2016, 540, 567-569.	13.7	358
29	Long-term warming restructures Arctic tundra without changing net soil carbon storage. Nature, 2013, 497, 615-618.	13.7	350
30	Short-term partitioning of ammonium and nitrate between plants and microbes in an annual grassland. Soil Biology and Biochemistry, 1989, 21, 409-415.	4.2	345
31	Episodic rewetting enhances carbon and nitrogen release from chaparral soils. Soil Biology and Biochemistry, 2005, 37, 2195-2204.	4.2	305
32	Seasonal variation in enzyme activities and temperature sensitivities in Arctic tundra soils. Global Change Biology, 2009, 15, 1631-1639.	4.2	296
33	Moisture effects on microbial activity and community structure in decomposing birch litter in the Alaskan taiga. Soil Biology and Biochemistry, 1999, 31, 831-838.	4.2	294
34	Tundra Plant Uptake of Amino Acid and NH4+Nitrogen in Situ: Plants Complete Well for Amino Acid N. Ecology, 1996, 77, 2142-2147.	1.5	285
35	Microbial activity of tundra and taiga soils at sub-zero temperatures. Soil Biology and Biochemistry, 1995, 27, 1231-1234.	4.2	261
36	Microbial community structure and global trace gases. Global Change Biology, 1998, 4, 745-758.	4.2	258

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37	Interactions between Carbon and Nitrogen Mineralization and Soil Organic Matter Chemistry in Arctic Tundra Soils. Ecosystems, 2003, 6, 129-143.	1.6	258
38	Influence of balsam poplar tannin fractions on carbon and nitrogen dynamics in Alaskan taiga floodplain soils. Soil Biology and Biochemistry, 2001, 33, 1827-1839.	4.2	254
39	Spatial and temporal effects on plant-microbial competition for inorganic nitrogen in a california annual grassland. Soil Biology and Biochemistry, 1989, 21, 1059-1066.	4.2	250
40	Stoichiometric flexibility as a regulator of carbon and nutrient cycling in terrestrial ecosystems under change. New Phytologist, 2012, 196, 68-78.	3.5	249
41	Ancient trees in Amazonia. Nature, 1998, 391, 135-136.	13.7	244
42	Plant transport and methane production as controls on methane flux from arctic wet meadow tundra. Biogeochemistry, 1995, 28, 183-200.	1.7	241
43	Identification of Soil Bacteria Susceptible to TiO ₂ and ZnO Nanoparticles. Applied and Environmental Microbiology, 2012, 78, 6749-6758.	1.4	225
44	Predicting the temperature dependence of microbial respiration in soil: A continental-scale analysis. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	1.9	222
45	Bacterial and fungal community structure in Arctic tundra tussock and shrub soils. FEMS Microbiology Ecology, 2007, 59, 428-435.	1.3	221
46	A theoretical analysis of microbial eco-physiological and diffusion limitations to carbon cycling in drying soils. Soil Biology and Biochemistry, 2014, 73, 69-83.	4.2	220
47	A Proposed Mechanism for the Pulse in Carbon Dioxide Production Commonly Observed Following the Rapid Rewetting of a Dry Soil. Soil Science Society of America Journal, 2003, 67, 798-805.	1.2	219
48	Identification of Heterotrophic Nitrification in a Sierran Forest Soil. Applied and Environmental Microbiology, 1984, 48, 802-806.	1.4	206
49	Title is missing!. Biogeochemistry, 1998, 42, 221-234.	1.7	203
50	Minerals in the rhizosphere: overlooked mediators of soil nitrogen availability to plants and microbes. Biogeochemistry, 2018, 139, 103-122.	1.7	203
51	Effects of balsam poplar (<i>Populus balsamifera</i>) tannins and low molecular weight phenolics on microbial activity in taiga floodplain soil: implications for changes in N cycling during succession. Canadian Journal of Botany, 1996, 74, 84-90.	1.2	196
52	Nitrogen transfer between decomposing leaves of different N status. Soil Biology and Biochemistry, 2007, 39, 1428-1436.	4.2	196
53	Sinks for nitrogen inputs in terrestrial ecosystems: a metaâ€analysis of ¹⁵N tracer field studies. Ecology, 2012, 93, 1816-1829.	1.5	192
54	Rice, microbes and methane. Nature, 2000, 403, 375-377.	13.7	186

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55	Changing microbial substrate use in Arctic tundra soils through a freeze-thaw cycle. Soil Biology and Biochemistry, 2005, 37, 1411-1418.	4.2	183
56	Carbon and Nitrogen Cycling in Snow-Covered Environments. Geography Compass, 2011, 5, 682-699.	1.5	177
57	Respiration from coarse wood litter in central Amazon forests. Biogeochemistry, 2001, 52, 115-131.	1.7	173
58	Seasonal and episodic moisture controls on plant and microbial contributions to soil respiration. Oecologia, 2011, 167, 265-278.	0.9	169
59	Multiple models and experiments underscore large uncertainty in soil carbon dynamics. Biogeochemistry, 2018, 141, 109-123.	1.7	169
60	Understanding how microbiomes influence the systems they inhabit. Nature Microbiology, 2018, 3, 977-982.	5.9	169
61	Does adding microbial mechanisms of decomposition improve soil organic matter models? A comparison of four models using data from a pulsed rewetting experiment. Soil Biology and Biochemistry, 2009, 41, 1923-1934.	4.2	166
62	Drivers of microbial respiration and net N mineralization at the continental scale. Soil Biology and Biochemistry, 2013, 60, 65-76.	4.2	156
63	Nitrogen Cycling and the Spread of Shrubs Control Changes in the Carbon Balance of Arctic Tundra Ecosystems. BioScience, 2005, 55, 408.	2.2	154
64	Substrate and environmental controls on microbial assimilation of soil organic carbon: a framework for Earth system models. Ecology Letters, 2014, 17, 547-555.	3.0	148
65	Linking microbial community structure and microbial processes: an empirical and conceptual overview. FEMS Microbiology Ecology, 2015, 91, fiv113.	1.3	143
66	Different NH4+-inhibition patterns of soil CH4 consumption: A result of distinct CH4-oxidizer populations across sites?. Soil Biology and Biochemistry, 1997, 29, 13-21.	4.2	141
67	The Millennial model: in search of measurable pools and transformations for modeling soil carbon in the new century. Biogeochemistry, 2018, 137, 51-71.	1.7	139
68	The seasonal dynamics of amino acids and other nutrients in Alaskan Arctic tundra soils. Biogeochemistry, 2005, 73, 359-380.	1.7	137
69	Soil nitrogen availability and transformations differ between the summer and the growing season in a California grassland. Applied Soil Ecology, 2011, 48, 185-192.	2.1	130
70	Detecting microbial N-limitation in tussock tundra soil: Implications for Arctic soil organic carbon cycling. Soil Biology and Biochemistry, 2012, 55, 78-84.	4.2	129
71	Low-Concentration Kinetics of Atmospheric CH ₄ Oxidation in Soil and Mechanism of NH ₄ ⁺ Inhibition. Applied and Environmental Microbiology, 1998, 64, 4291-4298.	1.4	128
72	Ecological Nanotoxicology: Integrating Nanomaterial Hazard Considerations Across the Subcellular, Population, Community, and Ecosystems Levels. Accounts of Chemical Research, 2013, 46, 813-822.	7.6	125

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73	When structure means conservation: Effect of aggregate structure in controlling microbial responses to rewetting events. Soil Biology and Biochemistry, 2012, 44, 1-8.	4.2	120
74	Characterization of pasture biophysical properties and the impact of grazing intensity using remotely sensed data. Remote Sensing of Environment, 2007, 109, 314-327.	4.6	119
75	Moisture control over atmospheric CH4 consumption and CO2 production in diverse Alaskan soils. Soil Biology and Biochemistry, 1998, 30, 1127-1132.	4.2	118
76	Marine Macrophyte Wrack Inputs and Dissolved Nutrients in Beach Sands. Estuaries and Coasts, 2011, 34, 839-850.	1.0	114
77	Controls on Soil Carbon Dioxide and Methane Fluxes in a Variety of Taiga Forest Stands in Interior Alaska. Ecosystems, 2000, 3, 269-282.	1.6	113
78	Plant versus microbial controls on soil aggregate stability in a seasonally dry ecosystem. Geoderma, 2016, 272, 39-50.	2.3	106
79	Global pattern and controls of soil microbial metabolic quotient. Ecological Monographs, 2017, 87, 429-441.	2.4	106
80	Estimating decay dynamics for enzyme activities in soils from different ecosystems. Soil Biology and Biochemistry, 2017, 114, 5-11.	4.2	106
81	Reduction in microbial activity in Birch litter due to drying and rewetting event. Soil Biology and Biochemistry, 1994, 26, 403-406.	4.2	104
82	Mechanisms underlying export of N from high-elevation catchments during seasonal transitions. Biogeochemistry, 2003, 64, 1-24.	1.7	100
83	Damage assessment for soybean cultivated in soil with either CeO2 or ZnO manufactured nanomaterials. Science of the Total Environment, 2017, 579, 1756-1768.	3.9	100
84	Soybean Plants Modify Metal Oxide Nanoparticle Effects on Soil Bacterial Communities. Environmental Science & Technology, 2014, 48, 13489-13496.	4.6	99
85	Separating cellular metabolism from exoenzyme activity in soil organic matter decomposition. Soil Biology and Biochemistry, 2014, 71, 68-75.	4.2	97
86	Potential Mechanisms and Environmental Controls of TiO₂ Nanoparticle Effects on Soil Bacterial Communities. Environmental Science & Technology, 2013, 47, 14411-14417.	4.6	95
87	Persulfate Digestion and Simultaneous Colorimetric Analysis of Carbon and Nitrogen in Soil Extracts. Soil Science Society of America Journal, 2004, 68, 669-676.	1.2	94
88	Seasonal protein dynamics in Alaskan arctic tundra soils. Soil Biology and Biochemistry, 2005, 37, 1469-1475.	4.2	94
89	Seasonal patterns of microbial extracellular enzyme activities in an arctic tundra soil: Identifying direct and indirect effects of long-term summer warming. Soil Biology and Biochemistry, 2013, 66, 119-129.	4.2	94
90	Nitrogen turnover and availability during succession from alder to poplar in Alaskan taiga forests. Soil Biology and Biochemistry, 1995, 27, 743-752.	4.2	93

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91	Long-Term Effects of Multiwalled Carbon Nanotubes and Graphene on Microbial Communities in Dry Soil. Environmental Science & Technology, 2016, 50, 3965-3974.	4.6	91
92	Decomposition and biomass incorporation of 14c-labeled glucose and phenolics in taiga forest floor: effect of substrate quality, successional state, and season. Soil Biology and Biochemistry, 1993, 25, 1379-1389.	4.2	89
93	Aridity and plant uptake interact to make dryland soils hotspots for nitric oxide (NO) emissions. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E2608-16.	3.3	89
94	Inorganic N incorporation by coniferous forest floor material. Soil Biology and Biochemistry, 1989, 21, 41-46.	4.2	87
95	Rivers and Soils: Parallels in Carbon and Nutrient Processing. BioScience, 1998, 48, 104-108.	2.2	87
96	Comparison of subsurface and surface soil bacterial communities in california grassland as assessed by terminal restriction fragment length polymorphisms of PCR-amplified 16S rRNA genes. Microbial Ecology, 2003, 46, 216-227.	1.4	87
97	Shrub encroachment in Arctic tundra: <i>Betula nana</i> effects on aboveâ€•and belowground litter decomposition. Ecology, 2017, 98, 1361-1376.	1.5	85
98	A cross-seasonal comparison of active and total bacterial community composition in Arctic tundra soil using bromodeoxyuridine labeling. Soil Biology and Biochemistry, 2011, 43, 287-295.	4.2	83
99	Improving understanding of soil organic matter dynamics by triangulating theories, measurements, and models. Biogeochemistry, 2018, 140, 1-13.	1.7	83
100	Evaluation of hyperspectral data for pasture estimate in the Brazilian Amazon using field and imaging spectrometers. Remote Sensing of Environment, 2008, 112, 1569-1583.	4.6	82
101	Five reasons to use bacteria when assessing manufactured nanomaterial environmental hazards and fates. Current Opinion in Biotechnology, 2014, 27, 73-78.	3.3	82
102	Soil carbon and nitrogen dynamics throughout the summer drought in a California annual grassland. Soil Biology and Biochemistry, 2017, 115, 54-62.	4.2	82
103	Linking NO and N2O emission pulses with the mobilization of mineral and organic N upon rewetting dry soils. Soil Biology and Biochemistry, 2017, 115, 461-466.	4.2	81
104	Soilâ€“plant N processes in a High Arctic ecosystem, <scp>NW</scp> Greenland are altered by longâ€term experimental warming and higher rainfall. Global Change Biology, 2013, 19, 3529-3539.	4.2	80
105	Agglomeration Determines Effects of Carbonaceous Nanomaterials on Soybean Nodulation, Dinitrogen Fixation Potential, and Growth in Soil. ACS Nano, 2017, 11, 5753-5765.	7.3	80
106	Drying/rewetting cycles mobilize old C from deep soils from a California annual grassland. Soil Biology and Biochemistry, 2011, 43, 1101-1103.	4.2	75
107	Nitrogen Incorporation and Flow Through a Coniferous Forest Soil Profile. Soil Science Society of America Journal, 1989, 53, 779-784.	1.2	74
108	Modeling coupled enzymatic and solute transport controls on decomposition in drying soils. Soil Biology and Biochemistry, 2016, 95, 275-287.	4.2	72

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109	Microbes and global carbon. Nature Climate Change, 2013, 3, 867-868.	8.1	68
110	Beyond bulk: Density fractions explain heterogeneity in global soil carbon abundance and persistence. Global Change Biology, 2022, 28, 1178-1196.	4.2	67
111	The Influence of Soil Biodiversity on Hydrological Pathways and the Transfer of Materials between Terrestrial and Aquatic Ecosystems. Ecosystems, 2001, 4, 421-429.	1.6	66
112	A holistic framework integrating plant-microbe-mineral regulation of soil bioavailable nitrogen. Biogeochemistry, 2021, 154, 211-229.	1.7	63
113	Static osmolyte concentrations in microbial biomass during seasonal drought in a California grassland. Soil Biology and Biochemistry, 2013, 57, 356-361.	4.2	61
114	Effects of altered dry season length and plant inputs on soluble soil carbon. Ecology, 2018, 99, 2348-2362.	1.5	60
115	Evaluating soil microbial carbon use efficiency explicitly as a function of cellular processes: implications for measurements and models. Biogeochemistry, 2018, 140, 269-283.	1.7	59
116	Effects of substrate supply, pH, and char on net nitrogen mineralization and nitrification along a wildfire-structured age gradient in chaparral. Soil Biology and Biochemistry, 2016, 95, 87-99.	4.2	57
117	Microbial growth in Arctic tundra soil at â^'2Â°C. Environmental Microbiology Reports, 2009, 1, 162-166.	1.0	56
118	Abiotic nitrate incorporation in soil: is it real?. Biogeochemistry, 2007, 84, 161-169.	1.7	55
119	Responses of a tundra system to warming using SCAMPS: a stoichiometrically coupled, acclimating microbeâ€“plantâ€“soil model. Ecological Monographs, 2014, 84, 151-170.	2.4	55
120	Assessing Nitrogen-Saturation in a Seasonally Dry Chaparral Watershed: Limitations of Traditional Indicators of N-Saturation. Ecosystems, 2014, 17, 1286-1305.	1.6	55
121	Carbonaceous Nanomaterials Have Higher Effects on Soybean Rhizosphere Prokaryotic Communities During the Reproductive Growth Phase than During Vegetative Growth. Environmental Science & Technology, 2018, 52, 6636-6646.	4.6	54
122	Biogeochemical Models. , 2001, , 177-183.		51
123	New Directions in Microbial Ecology1. Ecology, 2007, 88, 1343-1344.	1.5	51
124	Changes in Cytoplasmic Carbon and Nitrogen Pools in a Soil Bacterium and a Fungus in Response to Salt Stress. Applied and Environmental Microbiology, 1989, 55, 1635-1637.	1.4	51
125	Cold-season Production of CO2in Arctic Soils: Can Laboratory and Field Estimates Be Reconciled through a Simple Modeling Approach?. Arctic, Antarctic, and Alpine Research, 2006, 38, 249-256.	0.4	50
126	An open-source database for the synthesis of soil radiocarbon data: International Soil Radiocarbon Database (ISRaD) version 1.0. Earth System Science Data, 2020, 12, 61-76.	3.7	48

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127	Microbial community composition and soil nitrogen cycling: is there really a connection?. , 2005, , 171-188.		46
128	Microbial ecology: Linking omics to biogeochemistry. Nature Microbiology, 2016, 1, 15028.	5.9	46
129	Cloud shading and fog drip influence the metabolism of a coastal pine ecosystem. Global Change Biology, 2013, 19, 484-497.	4.2	43
130	Decadal-scale Dynamics of Water, Carbon and Nitrogen in a California Chaparral Ecosystem: DAYCENT Modeling Results. Biogeochemistry, 2006, 77, 217-245.	1.7	41
131	Seasonal variation in nitrogen uptake and turnover in two high-elevation soils: mineralization responses are site-dependent. Biogeochemistry, 2009, 93, 253-270.	1.7	40
132	Frontiers in Ecosystem Ecology from a Community Perspective: The Future is Boundless and Bright. Ecosystems, 2016, 19, 753-770.	1.6	40
133	Persulfate Digestion and Simultaneous Colorimetric Analysis of Carbon and Nitrogen in Soil Extracts. Soil Science Society of America Journal, 2004, 68, 669.	1.2	40
134	Invasive Grasses Increase Nitrogen Availability in California Grassland Soils. Invasive Plant Science and Management, 2010, 3, 40-47.	0.5	39
135	Soil heterogeneity in lumped mineralizationâ€“immobilization models. Soil Biology and Biochemistry, 2008, 40, 1137-1148.	4.2	38
136	Cellular and extracellular C contributions to respiration after wetting dry soil. Biogeochemistry, 2020, 147, 307-324.	1.7	38
137	Mineralization responses at near-zero temperatures in three alpine soils. Biogeochemistry, 2007, 84, 233-245.	1.7	37
138	Abiotic nitrate incorporation, anaerobic microsites, and the ferrous wheel. Biogeochemistry, 2008, 91, 223-227.	1.7	35
139	Acidity and organic matter promote abiotic nitric oxide production in drying soils. Global Change Biology, 2017, 23, 1735-1747.	4.2	35
140	Towards a predictive understanding of belowground process responses to climate change: have we moved any closer?. Functional Ecology, 2008, 22, 937-940.	1.7	34
141	Cooperation of earthworm and arbuscular mycorrhizae enhanced plant N uptake by balancing absorption and supply of ammonia. Soil Biology and Biochemistry, 2018, 116, 351-359.	4.2	33
142	Effects of starch additions on N turnover in Sitka spruce forest floor. Plant and Soil, 1992, 139, 139-143.	1.8	32
143	Stratification of Soil Ecological Processes: A Study of the Birch Forest Floor in the Alaskan Taiga. Oikos, 1998, 81, 63.	1.2	32
144	Playing scales in the methane cycle: From microbial ecology to the globe. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12400-12401.	3.3	31

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145	Factors Regulating Nitrogen Retention During the Early Stages of Recovery from Fire in Coastal Chaparral Ecosystems. Ecosystems, 2016, 19, 910-926.	1.6	29
146	Terrestrial Ecosystems at Toolik Lake, Alaska. , 2014, , 90-142.		29
147	Nitrogen cycling and export in California chaparral: the role of climate in shaping ecosystem responses to fire. Ecological Monographs, 2017, 87, 76-90.	2.4	28
148	Improving Nitrite Analysis in Soils: Drawbacks of the Conventional 2 M KCl Extraction. Soil Science Society of America Journal, 2015, 79, 1237-1242.	1.2	27
149	Temporal nutrient variation in soil and vegetation of post-forest pastures as a function of soil order, pasture age, and management, RondÃ´nia, Brazil. Agriculture, Ecosystems and Environment, 2007, 118, 159-172.	2.5	26
150	Slow turnover and production of fungal hyphae during a Californian dry season. Soil Biology and Biochemistry, 2010, 42, 1657-1660.	4.2	26
151	Estimating microbial carbon use efficiency in soil: Isotope-based and enzyme-based methods measure fundamentally different aspects of microbial resource use. Soil Biology and Biochemistry, 2022, 169, 108677.	4.2	26
152	Adding an empirical factor to better represent the rewetting pulse mechanism in a soil biogeochemical model. Geoderma, 2010, 159, 440-451.	2.3	25
153	Assessing interactions of hydrophilic nanoscale TiO2 with soil water. Journal of Nanoparticle Research, 2013, 15, 1.	0.8	25
154	Biotic versus Abiotic Controls on Bioavailable Soil Organic Carbon. Soil Systems, 2018, 2, 10.	1.0	25
155	Partitioning sources of CO2 emission after soil wetting using high-resolution observations and minimal models. Soil Biology and Biochemistry, 2020, 143, 107753.	4.2	23
156	Rainfall intensification increases the contribution of rewetting pulses to soil heterotrophic respiration. Biogeosciences, 2020, 17, 4007-4023.	1.3	23
157	Assumptions and errors in the 15NH4+ pool dilution technique for measuring mineralization and immobilization. Soil Biology and Biochemistry, 1996, 28, 827-828.	4.2	22
158	Understanding and eliminating iron interference in colorimetric nitrate and nitrite analysis. Environmental Monitoring and Assessment, 2010, 165, 633-641.	1.3	19
159	Grassland community composition drives small-scale spatial patterns in soil properties and processes. Geoderma, 2012, 170, 269-279.	2.3	18
160	Environmental controls on extracellular polysaccharide accumulation in a California grassland soil. Soil Biology and Biochemistry, 2018, 125, 86-92.	4.2	17
161	Limited effects of early snowmelt on plants, decomposers, and soil nutrients in Arctic tundra soils. Ecology and Evolution, 2019, 9, 1820-1844.	0.8	17
162	What's in a name? The importance of soil taxonomy for ecology and biogeochemistry. Frontiers in Ecology and the Environment, 2013, 11, 405-406.	1.9	15

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163	Shifting patterns of microbial N-metabolism across seasons in upland Alaskan tundra soils. Soil Biology and Biochemistry, 2017, 105, 96-107.	4.2	15
164	Soybeans Grown with Carbonaceous Nanomaterials Maintain Nitrogen Stoichiometry by Assimilating Soil Nitrogen to Offset Impaired Dinitrogen Fixation. ACS Nano, 2020, 14, 585-594.	7.3	15
165	Errors in â€˜Overestimation of gross N transformation rates in grassland soilsâ€¦â€™. Soil Biology and Biochemistry, 2001, 33, 1433-1435.	4.2	14
166	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.	1.7	14
167	Mars after the viking missions: Is life still possible?. Icarus, 1991, 91, 199-206.	1.1	13
168	Vegetation Leachate During Arctic Thaw Enhances Soil Microbial Phosphorus. Ecosystems, 2016, 19, 477-489.	1.6	13
169	Amino acids dominate diffusive nitrogen fluxes across soil depths in acidic tussock tundra. New Phytologist, 2021, 231, 2162-2173.	3.5	13
170	Facile new synthesis and purification of 5,10-methenyltetrahydrofolate from folic acid. Analytical Biochemistry, 1980, 103, 255-257.	1.1	12
171	Controls on Methane Flux from Terrestrial Ecosystems. ASA Special Publication, 2015, , 167-182.	0.8	12
172	Analysis of Run-to-Run Variation of Bar-Coded Pyrosequencing for Evaluating Bacterial Community Shifts and Individual Taxa Dynamics. PLoS ONE, 2014, 9, e99414.	1.1	10
173	Ecophysiology of the soil microbial biomass and its relation to the soil microbial N pool. Soil Use and Management, 1990, 6, 86-88.	2.6	8
174	Effect of CH4-starvation on atmospheric CH4 oxidizers in Taiga and temperate forest soils. Soil Biology and Biochemistry, 1998, 30, 1463-1467.	4.2	8
175	Effects of carbonaceous nanomaterials on soil-grown soybeans under combined heat and insect stresses. Environmental Chemistry, 2019, 16, 482.	0.7	7
176	Pushing the limits for amplifying BrdU-labeled DNA encoding 16S rRNA: DNA polymerase as the determining factor. Journal of Microbiological Methods, 2010, 83, 312-316.	0.7	5
177	Soil bacterial communities vary more by season than with over two decades of experimental warming in Arctic tussock tundra. Elementa, 2021, 9, .	1.1	5
178	Dichromate Digestion and Simultaneous Colorimetry of Microbial Carbon and Nitrogen. Soil Science Society of America Journal, 1998, 62, 937-941.	1.2	4
179	Soil heterogeneity and the distribution of native grasses in California: Can soil properties inform restoration plans?. Ecosphere, 2014, 5, 1-14.	1.0	4
180	Analysis of Kjeldahl digests by the salicylate method: Optimizing pH and buffering improves both sensitivity and precision. Communications in Soil Science and Plant Analysis, 1996, 27, 2549-2560.	0.6	3

#	Article	IF	Citations
181	The Democracy of Dirt: Relating Micro-Scale Dynamics to Macro-Scale Ecosystem Function. Advances in Environmental Microbiology, 2021, , 89-102.	0.1	3
182	Measuring soil microbial parameters relevant for soil carbon fluxes. , 2010, , 169-186.		2
183	High resolution measurements reveal abiotic and biotic mechanisms of elevated nitric oxide emission after wetting dry soil. Soil Biology and Biochemistry, 2021, 160, 108316.	4.2	2
184	Testing microbial models with data from a 14C glucose tracer experiment. Soil Biology and Biochemistry, 2022, 172, 108781.	4.2	2
185	Reply to Lombi et al.: Clear effects of manufactured nanomaterials to soybean. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, .	3.3	1
186	Plant community regulates decomposer response to freezing more strongly than the rate or extent of the freezing regime. Ecosphere, 2019, 10, e02608.	1.0	1
187	New Section: Synthesis and Emerging Ideas. Biogeochemistry, 2005, 75, v-vi.	1.7	0
188	Ecosystem metabolomics of dissolved organic matter from arctic soil pore water across seasonal transitions. , 2022, , 91-106.		0