

# Joshua P Schimel

## List of Publications by Citations

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184  
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27,238  
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31,382  
ext. citations

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#	Paper	IF	Citations
184	NITROGEN MINERALIZATION: CHALLENGES OF A CHANGING PARADIGM. <i>Ecology</i> , <b>2004</b> , 85, 591-602	4.6	1572
183	Microbial stress-response physiology and its implications for ecosystem function. <i>Ecology</i> , <b>2007</b> , 88, 1386-94	4.04	1510
182	Variations in microbial community composition through two soil depth profiles. <i>Soil Biology and Biochemistry</i> , <b>2003</b> , 35, 167-176	7.5	1156
181	Role of land-surface changes in arctic summer warming. <i>Science</i> , <b>2005</b> , 310, 657-60	33.3	1028
180	The implications of exoenzyme activity on microbial carbon and nitrogen limitation in soil: a theoretical model. <i>Soil Biology and Biochemistry</i> , <b>2003</b> , 35, 549-563	7.5	1018
179	Effects of drying-rewetting frequency on soil carbon and nitrogen transformations. <i>Soil Biology and Biochemistry</i> , <b>2002</b> , 34, 777-787	7.5	753
178	Microbial control over carbon cycling in soil. <i>Frontiers in Microbiology</i> , <b>2012</b> , 3, 348	5.7	674
177	Responses of soil microbial communities to water stress: results from a meta-analysis. <i>Ecology</i> , <b>2012</b> , 93, 930-8	4.6	585
176	The importance of anabolism in microbial control over soil carbon storage. <i>Nature Microbiology</i> , <b>2017</b> , 2, 17105	26.6	567
175	Influence of drying-rewetting frequency on soil bacterial community structure. <i>Microbial Ecology</i> , <b>2003</b> , 45, 63-71	4.4	491
174	LITTER QUALITY AND THE TEMPERATURE SENSITIVITY OF DECOMPOSITION. <i>Ecology</i> , <b>2005</b> , 86, 320-326	4.6	479
173	Winter Biological Processes Could Help Convert Arctic Tundra to Shrubland. <i>BioScience</i> , <b>2005</b> , 55, 17	5.7	473
172	Increased snow depth affects microbial activity and nitrogen mineralization in two Arctic tundra communities. <i>Soil Biology and Biochemistry</i> , <b>2004</b> , 36, 217-227	7.5	464
171	Controls over carbon storage and turnover in high-latitude soils.. <i>Global Change Biology</i> , <b>2000</b> , 6, 196-210	11.4	450
170	A Proposed Mechanism for the Pulse in Carbon Dioxide Production Commonly Observed Following the Rapid Rewetting of a Dry Soil. <i>Soil Science Society of America Journal</i> , <b>2003</b> , 67, 798	2.5	434
169	The ecological coherence of high bacterial taxonomic ranks. <i>Nature Reviews Microbiology</i> , <b>2010</b> , 8, 523-9	22.2	406
168	Temperature controls of microbial respiration in arctic tundra soils above and below freezing. <i>Soil Biology and Biochemistry</i> , <b>2002</b> , 34, 1785-1795	7.5	391

167	Soybean susceptibility to manufactured nanomaterials with evidence for food quality and soil fertility interruption. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, E2451-6	11.5	377
166	Microbial response to freeze-thaw cycles in tundra and taiga soils. <i>Soil Biology and Biochemistry</i> , <b>1996</b> , 28, 1061-1066	7.5	366
165	Drying and rewetting effects on C and N mineralization and microbial activity in surface and subsurface California grassland soils. <i>Soil Biology and Biochemistry</i> , <b>2008</b> , 40, 2281-2289	7.5	365
164	Evidence for negative effects of TiO <sub>2</sub> and ZnO nanoparticles on soil bacterial communities. <i>Environmental Science &amp; Technology</i> , <b>2011</b> , 45, 1659-64	10.3	357
163	Controls on microbial CO <sub>2</sub> production: a comparison of surface and subsurface soil horizons. <i>Global Change Biology</i> , <b>2003</b> , 9, 1322-1332	11.4	321
162	Decomposition and carbon cycling of dead trees in tropical forests of the central Amazon. <i>Oecologia</i> , <b>2000</b> , 122, 380-388	2.9	308
161	Short-term partitioning of ammonium and nitrate between plants and microbes in an annual grassland. <i>Soil Biology and Biochemistry</i> , <b>1989</b> , 21, 409-415	7.5	307
160	The impacts of climate change on ecosystem structure and function. <i>Frontiers in Ecology and the Environment</i> , <b>2013</b> , 11, 474-482	5.5	301
159	Long-term warming restructures Arctic tundra without changing net soil carbon storage. <i>Nature</i> , <b>2013</b> , 497, 615-8	50.4	283
158	Moisture effects on microbial activity and community structure in decomposing birch litter in the Alaskan taiga. <i>Soil Biology and Biochemistry</i> , <b>1999</b> , 31, 831-838	7.5	260
157	Episodic rewetting enhances carbon and nitrogen release from chaparral soils. <i>Soil Biology and Biochemistry</i> , <b>2005</b> , 37, 2195-2204	7.5	254
156	Seasonal variation in enzyme activities and temperature sensitivities in Arctic tundra soils. <i>Global Change Biology</i> , <b>2009</b> , 15, 1631-1639	11.4	253
155	Microbial activity of tundra and taiga soils at sub-zero temperatures. <i>Soil Biology and Biochemistry</i> , <b>1995</b> , 27, 1231-1234	7.5	245
154	Tundra Plant Uptake of Amino Acid and NH <sub>4</sub> <sup>+</sup> Nitrogen in Situ: Plants Complete Well for Amino Acid N. <i>Ecology</i> , <b>1996</b> , 77, 2142-2147	4.6	238
153	Spatial and temporal effects on plant-microbial competition for inorganic nitrogen in a California annual grassland. <i>Soil Biology and Biochemistry</i> , <b>1989</b> , 21, 1059-1066	7.5	237
152	Beyond clay: towards an improved set of variables for predicting soil organic matter content. <i>Biogeochemistry</i> , <b>2018</b> , 137, 297-306	3.8	236
151	Life in Dry Soils: Effects of Drought on Soil Microbial Communities and Processes. <i>Annual Review of Ecology, Evolution, and Systematics</i> , <b>2018</b> , 49, 409-432	13.5	235
150	Interactions between Carbon and Nitrogen Mineralization and Soil Organic Matter Chemistry in Arctic Tundra Soils. <i>Ecosystems</i> , <b>2003</b> , 6, 129-143	3.9	225

149	Influence of balsam poplar tannin fractions on carbon and nitrogen dynamics in Alaskan taiga floodplain soils. <i>Soil Biology and Biochemistry</i> , <b>2001</b> , 33, 1827-1839	7.5	220
148	Plant transport and methane production as controls on methane flux from arctic wet meadow tundra. <i>Biogeochemistry</i> , <b>1995</b> , 28, 183-200	3.8	214
147	Microbial community structure and global trace gases. <i>Global Change Biology</i> , <b>1998</b> , 4, 745-758	11.4	210
146	Identification of soil bacteria susceptible to TiO <sub>2</sub> and ZnO nanoparticles. <i>Applied and Environmental Microbiology</i> , <b>2012</b> , 78, 6749-58	4.8	195
145	Ancient trees in Amazonia. <i>Nature</i> , <b>1998</b> , 391, 135-136	50.4	195
144	Water balance creates a threshold in soil pH at the global scale. <i>Nature</i> , <b>2016</b> , 540, 567-569	50.4	186
143	Stoichiometric flexibility as a regulator of carbon and nutrient cycling in terrestrial ecosystems under change. <i>New Phytologist</i> , <b>2012</b> , 196, 68-78	9.8	175
142	Bacterial and fungal community structure in Arctic tundra tussock and shrub soils. <i>FEMS Microbiology Ecology</i> , <b>2007</b> , 59, 428-35	4.3	170
141	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. <i>Canadian Journal of Botany</i> , <b>1996</b> , 74, 84-90		168
140	Nitrogen transfer between decomposing leaves of different N status. <i>Soil Biology and Biochemistry</i> , <b>2007</b> , 39, 1428-1436	7.5	167
139	Predicting the temperature dependence of microbial respiration in soil: A continental-scale analysis. <i>Global Biogeochemical Cycles</i> , <b>2006</b> , 20, n/a-n/a	5.9	164
138	A theoretical analysis of microbial eco-physiological and diffusion limitations to carbon cycling in drying soils. <i>Soil Biology and Biochemistry</i> , <b>2014</b> , 73, 69-83	7.5	162
137	Sinks for nitrogen inputs in terrestrial ecosystems: a meta-analysis of <sup>15</sup> N tracer field studies. <i>Ecology</i> , <b>2012</b> , 93, 1816-29	4.6	162
136	Identification of heterotrophic nitrification in a sierran forest soil. <i>Applied and Environmental Microbiology</i> , <b>1984</b> , 48, 802-6	4.8	160
135	The Role of Balsam Poplar Secondary Chemicals in Controlling Soil Nutrient Dynamics through Succession in the Alaskan Taiga. <i>Biogeochemistry</i> , <b>1998</b> , 42, 221-234	3.8	159
134	Changing microbial substrate use in Arctic tundra soils through a freeze-thaw cycle. <i>Soil Biology and Biochemistry</i> , <b>2005</b> , 37, 1411-1418	7.5	153
133	Does adding microbial mechanisms of decomposition improve soil organic matter models? A comparison of four models using data from a pulsed rewetting experiment. <i>Soil Biology and Biochemistry</i> , <b>2009</b> , 41, 1923-1934	7.5	148
132	Carbon and Nitrogen Cycling in Snow-Covered Environments. <i>Geography Compass</i> , <b>2011</b> , 5, 682-699	2.4	142

131	Seasonal and episodic moisture controls on plant and microbial contributions to soil respiration. <i>Oecologia</i> , <b>2011</b> , 167, 265-78	2.9	139
130	A Proposed Mechanism for the Pulse in Carbon Dioxide Production Commonly Observed Following the Rapid Rewetting of a Dry Soil. <i>Soil Science Society of America Journal</i> , <b>2003</b> , 67, 798-805	2.5	138
129	Nitrogen Cycling and the Spread of Shrubs Control Changes in the Carbon Balance of Arctic Tundra Ecosystems. <i>BioScience</i> , <b>2005</b> , 55, 408	5.7	136
128	Persistence of soil organic carbon caused by functional complexity. <i>Nature Geoscience</i> , <b>2020</b> , 13, 529-534	4.3	131
127	Different NH <sub>4</sub> <sup>+</sup> -inhibition patterns of soil CH <sub>4</sub> consumption: A result of distinct CH <sub>4</sub> -oxidizer populations across sites?. <i>Soil Biology and Biochemistry</i> , <b>1997</b> , 29, 13-21	7.5	130
126	Respiration from coarse wood litter in central Amazon forests. <i>Biogeochemistry</i> , <b>2001</b> , 52, 115-131	3.8	130
125	The seasonal dynamics of amino acids and other nutrients in Alaskan Arctic tundra soils. <i>Biogeochemistry</i> , <b>2005</b> , 73, 359-380	3.8	116
124	Ecological nanotoxicology: integrating nanomaterial hazard considerations across the subcellular, population, community, and ecosystems levels. <i>Accounts of Chemical Research</i> , <b>2013</b> , 46, 813-22	24.3	115
123	Drivers of microbial respiration and net N mineralization at the continental scale. <i>Soil Biology and Biochemistry</i> , <b>2013</b> , 60, 65-76	7.5	114
122	Substrate and environmental controls on microbial assimilation of soil organic carbon: a framework for Earth system models. <i>Ecology Letters</i> , <b>2014</b> , 17, 547-55	10	110
121	Low-concentration kinetics of atmospheric CH <sub>4</sub> oxidation in soil and mechanism of NH <sub>4</sub> <sup>+</sup> inhibition. <i>Applied and Environmental Microbiology</i> , <b>1998</b> , 64, 4291-8	4.8	110
120	Moisture control over atmospheric CH <sub>4</sub> consumption and CO <sub>2</sub> production in diverse Alaskan soils. <i>Soil Biology and Biochemistry</i> , <b>1998</b> , 30, 1127-1132	7.5	107
119	Minerals in the rhizosphere: overlooked mediators of soil nitrogen availability to plants and microbes. <i>Biogeochemistry</i> , <b>2018</b> , 139, 103-122	3.8	104
118	Understanding how microbiomes influence the systems they inhabit. <i>Nature Microbiology</i> , <b>2018</b> , 3, 977-986	22.6	101
117	Linking microbial community structure and microbial processes: an empirical and conceptual overview. <i>FEMS Microbiology Ecology</i> , <b>2015</b> , 91,	4.3	100
116	Soil nitrogen availability and transformations differ between the summer and the growing season in a California grassland. <i>Applied Soil Ecology</i> , <b>2011</b> , 48, 185-192	5	100
115	Characterization of pasture biophysical properties and the impact of grazing intensity using remotely sensed data. <i>Remote Sensing of Environment</i> , <b>2007</b> , 109, 314-327	13.2	99
114	Detecting microbial N-limitation in tussock tundra soil: Implications for Arctic soil organic carbon cycling. <i>Soil Biology and Biochemistry</i> , <b>2012</b> , 55, 78-84	7.5	98

113	Controls on Soil Carbon Dioxide and Methane Fluxes in a Variety of Taiga Forest Stands in Interior Alaska. <i>Ecosystems</i> , <b>2000</b> , 3, 269-282	3.9	98
112	When structure means conservation: Effect of aggregate structure in controlling microbial responses to rewetting events. <i>Soil Biology and Biochemistry</i> , <b>2012</b> , 44, 1-8	7.5	97
111	Reduction in microbial activity in Birch litter due to drying and rewetting event. <i>Soil Biology and Biochemistry</i> , <b>1994</b> , 26, 403-406	7.5	96
110	Multiple models and experiments underscore large uncertainty in soil carbon dynamics. <i>Biogeochemistry</i> , <b>2018</b> , 141, 109-123	3.8	95
109	Mechanisms underlying export of N from high-elevation catchments during seasonal transitions. <i>Biogeochemistry</i> , <b>2003</b> , 64, 1-24	3.8	90
108	The Millennial model: in search of measurable pools and transformations for modeling soil carbon in the new century. <i>Biogeochemistry</i> , <b>2018</b> , 137, 51-71	3.8	85
107	Seasonal protein dynamics in Alaskan arctic tundra soils. <i>Soil Biology and Biochemistry</i> , <b>2005</b> , 37, 1469-1475	7.5	83
106	Inorganic N incorporation by coniferous forest floor material. <i>Soil Biology and Biochemistry</i> , <b>1989</b> , 21, 41-46	7.5	82
105	Potential mechanisms and environmental controls of TiO <sub>2</sub> nanoparticle effects on soil bacterial communities. <i>Environmental Science &amp; Technology</i> , <b>2013</b> , 47, 14411-7	10.3	79
104	Rivers and Soils: Parallels in Carbon and Nutrient Processing Stream and soil ecologists can learn much by understanding each others' perspective. <i>BioScience</i> , <b>1998</b> , 48, 104-108	5.7	79
103	Nitrogen turnover and availability during succession from alder to poplar in Alaskan taiga forests. <i>Soil Biology and Biochemistry</i> , <b>1995</b> , 27, 743-752	7.5	79
102	Soybean plants modify metal oxide nanoparticle effects on soil bacterial communities. <i>Environmental Science &amp; Technology</i> , <b>2014</b> , 48, 13489-96	10.3	77
101	Marine Macrophyte Wrack Inputs and Dissolved Nutrients in Beach Sands. <i>Estuaries and Coasts</i> , <b>2011</b> , 34, 839-850	2.8	77
100	Decomposition and biomass incorporation of <sup>14</sup> C-labeled glucose and phenolics in taiga forest floor: effect of substrate quality, successional state, and season. <i>Soil Biology and Biochemistry</i> , <b>1993</b> , 25, 1379-1389	7.5	75
99	Seasonal patterns of microbial extracellular enzyme activities in an arctic tundra soil: Identifying direct and indirect effects of long-term summer warming. <i>Soil Biology and Biochemistry</i> , <b>2013</b> , 66, 119-129	7.5	73
98	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. <i>Microbial Ecology</i> , <b>2003</b> , 46, 216-27	4.4	73
97	Plant versus microbial controls on soil aggregate stability in a seasonally dry ecosystem. <i>Geoderma</i> , <b>2016</b> , 272, 39-50	6.7	72
96	Estimating decay dynamics for enzyme activities in soils from different ecosystems. <i>Soil Biology and Biochemistry</i> , <b>2017</b> , 114, 5-11	7.5	71

95	A cross-seasonal comparison of active and total bacterial community composition in Arctic tundra soil using bromodeoxyuridine labeling. <i>Soil Biology and Biochemistry</i> , <b>2011</b> , 43, 287-295	7.5	71
94	Five reasons to use bacteria when assessing manufactured nanomaterial environmental hazards and fates. <i>Current Opinion in Biotechnology</i> , <b>2014</b> , 27, 73-8	11.4	70
93	Damage assessment for soybean cultivated in soil with either CeO or ZnO manufactured nanomaterials. <i>Science of the Total Environment</i> , <b>2017</b> , 579, 1756-1768	10.2	69
92	Separating cellular metabolism from exoenzyme activity in soil organic matter decomposition. <i>Soil Biology and Biochemistry</i> , <b>2014</b> , 71, 68-75	7.5	69
91	Global pattern and controls of soil microbial metabolic quotient. <i>Ecological Monographs</i> , <b>2017</b> , 87, 429-441	11.4	68
90	Long-Term Effects of Multiwalled Carbon Nanotubes and Graphene on Microbial Communities in Dry Soil. <i>Environmental Science &amp; Technology</i> , <b>2016</b> , 50, 3965-74	10.3	68
89	Evaluation of hyperspectral data for pasture estimate in the Brazilian Amazon using field and imaging spectrometers. <i>Remote Sensing of Environment</i> , <b>2008</b> , 112, 1569-1583	13.2	67
88	Persulfate Digestion and Simultaneous Colorimetric Analysis of Carbon and Nitrogen in Soil Extracts. <i>Soil Science Society of America Journal</i> , <b>2004</b> , 68, 669-676	2.5	65
87	Aridity and plant uptake interact to make dryland soils hotspots for nitric oxide (NO) emissions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, E2608-16	11.5	65
86	Shrub encroachment in Arctic tundra: <i>Betula nana</i> effects on above- and belowground litter decomposition. <i>Ecology</i> , <b>2017</b> , 98, 1361-1376	4.6	64
85	Drying/rewetting cycles mobilize old C from deep soils from a California annual grassland. <i>Soil Biology and Biochemistry</i> , <b>2011</b> , 43, 1101-1103	7.5	62
84	Soil-plant N processes in a High Arctic ecosystem, NW Greenland are altered by long-term experimental warming and higher rainfall. <i>Global Change Biology</i> , <b>2013</b> , 19, 3529-39	11.4	61
83	Modeling coupled enzymatic and solute transport controls on decomposition in drying soils. <i>Soil Biology and Biochemistry</i> , <b>2016</b> , 95, 275-287	7.5	58
82	Nitrogen Incorporation and Flow Through a Coniferous Forest Soil Profile. <i>Soil Science Society of America Journal</i> , <b>1989</b> , 53, 779-784	2.5	55
81	Soil carbon and nitrogen dynamics throughout the summer drought in a California annual grassland. <i>Soil Biology and Biochemistry</i> , <b>2017</b> , 115, 54-62	7.5	54
80	Abiotic nitrate incorporation in soil: is it real?. <i>Biogeochemistry</i> , <b>2007</b> , 84, 161-169	3.8	54
79	Agglomeration Determines Effects of Carbonaceous Nanomaterials on Soybean Nodulation, Dinitrogen Fixation Potential, and Growth in Soil. <i>ACS Nano</i> , <b>2017</b> , 11, 5753-5765	16.7	53
78	The Influence of Soil Biodiversity on Hydrological Pathways and the Transfer of Materials between Terrestrial and Aquatic Ecosystems. <i>Ecosystems</i> , <b>2001</b> , 4, 421-429	3.9	53



77	Linking NO and N <sub>2</sub> O emission pulses with the mobilization of mineral and organic N upon rewetting dry soils. <i>Soil Biology and Biochemistry</i> , <b>2017</b> , 115, 461-466	7.5	51
76	Static osmolyte concentrations in microbial biomass during seasonal drought in a California grassland. <i>Soil Biology and Biochemistry</i> , <b>2013</b> , 57, 356-361	7.5	51
75	Cold-season Production of CO <sub>2</sub> in Arctic Soils: Can Laboratory and Field Estimates Be Reconciled through a Simple Modeling Approach?. <i>Arctic, Antarctic, and Alpine Research</i> , <b>2006</b> , 38, 249-256	1.8	45
74	Biogeochemical Models: Implicit versus Explicit Microbiology <b>2001</b> , 177-183		45
73	Microbial growth in Arctic tundra soil at -2°C. <i>Environmental Microbiology Reports</i> , <b>2009</b> , 1, 162-6	3.7	44
72	New Directions in Microbial Ecology <sup>1</sup> . <i>Ecology</i> , <b>2007</b> , 88, 1343-1344	4.6	43
71	Effects of substrate supply, pH, and char on net nitrogen mineralization and nitrification along a wildfire-structured age gradient in chaparral. <i>Soil Biology and Biochemistry</i> , <b>2016</b> , 95, 87-99	7.5	42
70	Improving understanding of soil organic matter dynamics by triangulating theories, measurements, and models. <i>Biogeochemistry</i> , <b>2018</b> , 140, 1-13	3.8	42
69	Assessing Nitrogen-Saturation in a Seasonally Dry Chaparral Watershed: Limitations of Traditional Indicators of N-Saturation. <i>Ecosystems</i> , <b>2014</b> , 17, 1286-1305	3.9	42
68	Responses of a tundra system to warming using SCAMPS: a stoichiometrically coupled, acclimating microbial-plant-soil model. <i>Ecological Monographs</i> , <b>2014</b> , 84, 151-170	9	42
67	Changes in cytoplasmic carbon and nitrogen pools in a soil bacterium and a fungus in response to salt stress. <i>Applied and Environmental Microbiology</i> , <b>1989</b> , 55, 1635-7	4.8	40
66	Decadal-scale Dynamics of Water, Carbon and Nitrogen in a California Chaparral Ecosystem: DAYCENT Modeling Results. <i>Biogeochemistry</i> , <b>2006</b> , 77, 217-245	3.8	39
65	Carbonaceous Nanomaterials Have Higher Effects on Soybean Rhizosphere Prokaryotic Communities During the Reproductive Growth Phase than During Vegetative Growth. <i>Environmental Science &amp; Technology</i> , <b>2018</b> , 52, 6636-6646	10.3	38
64	Cloud shading and fog drip influence the metabolism of a coastal pine ecosystem. <i>Global Change Biology</i> , <b>2013</b> , 19, 484-97	11.4	37
63	Mineralization responses at near-zero temperatures in three alpine soils. <i>Biogeochemistry</i> , <b>2007</b> , 84, 233-245	3.8	36
62	Evaluating soil microbial carbon use efficiency explicitly as a function of cellular processes: implications for measurements and models. <i>Biogeochemistry</i> , <b>2018</b> , 140, 269-283	3.8	34
61	Microbial community composition and soil nitrogen cycling: is there really a connection? <b>2005</b> , 171-188		33
60	Effects of altered dry season length and plant inputs on soluble soil carbon. <i>Ecology</i> , <b>2018</b> , 99, 2348-2362	4.6	32



59	Soil heterogeneity in lumped mineralization-immobilization models. <i>Soil Biology and Biochemistry</i> , <b>2008</b> , 40, 1137-1148	7.5	32
58	Frontiers in Ecosystem Ecology from a Community Perspective: The Future is Boundless and Bright. <i>Ecosystems</i> , <b>2016</b> , 19, 753-770	3.9	31
57	Seasonal variation in nitrogen uptake and turnover in two high-elevation soils: mineralization responses are site-dependent. <i>Biogeochemistry</i> , <b>2009</b> , 93, 253-270	3.8	31
56	Abiotic nitrate incorporation, anaerobic microsites, and the ferrous wheel. <i>Biogeochemistry</i> , <b>2008</b> , 91, 223-227	3.8	31
55	Invasive Grasses Increase Nitrogen Availability in California Grassland Soils. <i>Invasive Plant Science and Management</i> , <b>2010</b> , 3, 40-47	1	30
54	Effects of starch additions on N turnover in Sitka spruce forest floor. <i>Plant and Soil</i> , <b>1992</b> , 139, 139-143	4.2	30
53	Stratification of Soil Ecological Processes: A Study of the Birch Forest Floor in the Alaskan Taiga. <i>Oikos</i> , <b>1998</b> , 81, 63	4	29
52	Towards a predictive understanding of belowground process responses to climate change: have we moved any closer?. <i>Functional Ecology</i> , <b>2008</b> , 22, 937-940	5.6	27
51	Microbial ecology: Linking omics to biogeochemistry. <i>Nature Microbiology</i> , <b>2016</b> , 1, 15028	26.6	25
50	Slow turnover and production of fungal hyphae during a Californian dry season. <i>Soil Biology and Biochemistry</i> , <b>2010</b> , 42, 1657-1660	7.5	25
49	Playing scales in the methane cycle: from microbial ecology to the globe. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 12400-1	11.5	25
48	Persulfate Digestion and Simultaneous Colorimetric Analysis of Carbon and Nitrogen in Soil Extracts <b>2004</b> , 68, 669		25
47	Acidity and organic matter promote abiotic nitric oxide production in drying soils. <i>Global Change Biology</i> , <b>2017</b> , 23, 1735-1747	11.4	24
46	Temporal nutrient variation in soil and vegetation of post-forest pastures as a function of soil order, pasture age, and management, Rondônia, Brazil. <i>Agriculture, Ecosystems and Environment</i> , <b>2007</b> , 118, 159-172	5.7	24
45	Factors Regulating Nitrogen Retention During the Early Stages of Recovery from Fire in Coastal Chaparral Ecosystems. <i>Ecosystems</i> , <b>2016</b> , 19, 910-926	3.9	23
44	Assessing interactions of hydrophilic nanoscale TiO <sub>2</sub> with soil water. <i>Journal of Nanoparticle Research</i> , <b>2013</b> , 15, 1	2.3	23
43	Terrestrial Ecosystems at Toolik Lake, Alaska <b>2014</b> , 90-142		23
42	Assumptions and errors in the 15NH <sub>4</sub> <sup>+</sup> pool dilution technique for measuring mineralization and immobilization. <i>Soil Biology and Biochemistry</i> , <b>1996</b> , 28, 827-828	7.5	22

41	Cellular and extracellular C contributions to respiration after wetting dry soil. <i>Biogeochemistry</i> , <b>2020</b> , 147, 307-324	3.8	21
40	Adding an empirical factor to better represent the rewetting pulse mechanism in a soil biogeochemical model. <i>Geoderma</i> , <b>2010</b> , 159, 440-451	6.7	20
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36	An open-source database for the synthesis of soil radiocarbon data: International Soil Radiocarbon Database (ISRaD) version 1.0. <i>Earth System Science Data</i> , <b>2020</b> , 12, 61-76	10.5	18
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34	Cooperation of earthworm and arbuscular mycorrhizae enhanced plant N uptake by balancing absorption and supply of ammonia. <i>Soil Biology and Biochemistry</i> , <b>2018</b> , 116, 351-359	7.5	17
33	Understanding and eliminating iron interference in colorimetric nitrate and nitrite analysis. <i>Environmental Monitoring and Assessment</i> , <b>2010</b> , 165, 633-41	3.1	16
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26	Shifting patterns of microbial N-metabolism across seasons in upland Alaskan tundra soils. <i>Soil Biology and Biochemistry</i> , <b>2017</b> , 105, 96-107	7.5	10
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23	Analysis of run-to-run variation of bar-coded pyrosequencing for evaluating bacterial community shifts and individual taxa dynamics. <i>PLoS ONE</i> , <b>2014</b> , 9, e99414	3.7	10
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21	What's in a name? The importance of soil taxonomy for ecology and biogeochemistry. <i>Frontiers in Ecology and the Environment</i> , <b>2013</b> , 11, 405-406	5.5	9
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11	Dichromate Digestion and Simultaneous Colorimetry of Microbial Carbon and Nitrogen. <i>Soil Science Society of America Journal</i> , <b>1998</b> , 62, 937-941	2.5	4
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9	Beyond bulk: Density fractions explain heterogeneity in global soil carbon abundance and persistence. <i>Global Change Biology</i> , <b>2021</b> ,	11.4	3
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