Susan E Trumbore

List of Publications by Year in descending order

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202 papers	27,777 citations	9786 73 h-index	6300 158 g-index
262 all docs	262 docs citations	262 times ranked	23963 citing authors

#	Article	IF	Citations
1	Persistence of soil organic matter as an ecosystem property. Nature, 2011, 478, 49-56.	27.8	4,243
2	Mineral control of soil organic carbon storage and turnover. Nature, 1997, 389, 170-173.	27.8	1,318
3	The role of deep roots in the hydrological and carbon cycles of Amazonian forests and pastures. Nature, 1994, 372, 666-669.	27.8	1,232
4	Plant diversity increases soil microbial activity and soil carbon storage. Nature Communications, 2015, 6, 6707.	12.8	949
5	AGE OF SOIL ORGANIC MATTER AND SOIL RESPIRATION: RADIOCARBON CONSTRAINTS ON BELOWGROUND C DYNAMICS. , 2000, 10, 399-411.		861
6	Spatial separation of litter decomposition and mycorrhizal nitrogen uptake in a boreal forest. New Phytologist, 2007, 173, 611-620.	7.3	779
7	Forest health and global change. Science, 2015, 349, 814-818.	12.6	697
8	Rapid accumulation and turnover of soil carbon in a re-establishing forest. Nature, 1999, 400, 56-58.	27.8	561
9	The southwest Indian Monsoon over the last 18 000 years. Climate Dynamics, 1996, 12, 213-225.	3.8	558
10	Understanding the roles of nonstructural carbohydrates in forest trees â€“ from what we can measure to what we want to know. New Phytologist, 2016, 211, 386-403.	7.3	532
11	Controls over carbon storage and turnover in high-latitude soils. Global Change Biology, 2000, 6, 196-210.	9.5	525
12	Title is missing!. Biogeochemistry, 2000, 51, 33-69.	3.5	524
13	Rapid climate changes in the tropical Atlantic region during the last deglaciation. Nature, 1996, 380, 51-54.	27.8	486
14	Carbon respired by terrestrial ecosystems - recent progress and challenges. Global Change Biology, 2006, 12, 141-153.	9.5	475
15	Radiocarbon and Soil Carbon Dynamics. Annual Review of Earth and Planetary Sciences, 2009, 37, 47-66.	11.0	473
16	Belowground cycling of carbon in forests and pastures of eastern Amazonia. Global Biogeochemical Cycles, 1995, 9, 515-528.	4.9	429
17	Soil warming and organic carbon content. Nature, 2000, 408, 789-790.	27.8	413
18	Comparison of carbon dynamics in tropical and temperate soils using radiocarbon measurements. Global Biogeochemical Cycles, 1993, 7, 275-290.	4.9	371

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19	Modifying a sealed tube zinc reduction method for preparation of AMS graphite targets: Reducing background and attaining high precision. Nuclear Instruments & Methods in Physics Research B, 2007, 259, 320-329.	1.4	364
20	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO₂. New Phytologist, 2021, 229, 2413-2445.	7.3	286
21	Effects of experimental drought on soil respiration and radiocarbon efflux from a temperate forest soil. Global Change Biology, 2006, 12, 177-193.	9.5	252
22	Sensitivity of decomposition rates of soil organic matter with respect to simultaneous changes in temperature and moisture. Journal of Advances in Modeling Earth Systems, 2015, 7, 335-356.	3.8	252
23	Soil Organic Matter Dynamics Along Gradients in Temperature and Land Use on the Island of Hawaii. Ecology, 1995, 76, 721-733.	3.2	243
24	Radiocarbon Dating of Soil Organic Matter. Quaternary Research, 1996, 45, 282-288.	1.7	226
25	Thirst beats hunger â€“ declining hydration during drought prevents carbon starvation in Norway spruce saplings. New Phytologist, 2013, 200, 340-349.	7.3	220
26	The Amazon Tall Tower Observatory (ATTO): overview of pilot measurements on ecosystem ecology, meteorology, trace gases, and aerosols. Atmospheric Chemistry and Physics, 2015, 15, 10723-10776.	4.9	218
27	An Uncertain Future for Soil Carbon. Science, 2008, 321, 1455-1456.	12.6	197
28	Lethal drought leads to reduction in nonstructural carbohydrates in <scp>N</scp>orway spruce tree roots but not in the canopy. Functional Ecology, 2013, 27, 413-427.	3.6	194
29	The steady-state mosaic of disturbance and succession across an old-growth Central Amazon forest landscape. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3949-3954.	7.1	186
30	Contribution of new photosynthetic assimilates to respiration by perennial grasses and shrubs: residence times and allocation patterns. New Phytologist, 2007, 176, 124-135.	7.3	179
31	Isotopic evidence for the contemporary origin of high-molecular weight organic matter in oceanic environments. Geochimica Et Cosmochimica Acta, 1995, 59, 625-631.	3.9	175
32	Title is missing!. Climatic Change, 1998, 40, 167-188.	3.6	166
33	Toward an integrated monitoring framework to assess the effects of tropical forest degradation and recovery on carbon stocks and biodiversity. Global Change Biology, 2016, 22, 92-109.	9.5	165
34	Gas diffusivity and production of CO2 in deep soils of the eastern Amazon. Tellus, Series B: Chemical and Physical Meteorology, 1995, 47, 550-565.	1.6	163
35	Comparison of Fractionation Methods for Soil Organic Matter ¹⁴C Analysis. Radiocarbon, 1996, 38, 219-229.	1.8	161
36	Forest structure and carbon dynamics in Amazonian tropical rain forests. Oecologia, 2004, 140, 468-479.	2.0	157

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37	Comparative Analysis of Cellulose Preparation Techniques for Use with13C,14C, and18O Isotopic Measurements. Analytical Chemistry, 2005, 77, 7212-7224.	6.5	156
38	Slow growth rates of Amazonian trees: Consequences for carbon cycling. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18502-18507.	7.1	154
39	Influence of soil texture on carbon dynamics and storage potential in tropical forest soils of Amazonia. Global Biogeochemical Cycles, 2003, 17, n/a-n/a.	4.9	151
40	Chars produced by slow pyrolysis and hydrothermal carbonization vary in carbon sequestration potential and greenhouse gases emissions. Soil Biology and Biochemistry, 2013, 62, 137-146.	8.8	150
41	Factors controlling decomposition rates of fine root litter in temperate forests and grasslands. Plant and Soil, 2014, 382, 203-218.	3.7	149
42	Radiocarbon constraints imply reduced carbon uptake by soils during the 21st century. Science, 2016, 353, 1419-1424.	12.6	149
43	Carbon sink for a century. Nature, 2001, 410, 429-429.	27.8	140
44	Partitioning sources of soil respiration in boreal black spruce forest using radiocarbon. Global Change Biology, 2006, 12, 165-176.	9.5	139
45	Vertical partitioning of CO2 production within a temperate forest soil. Global Change Biology, 2006, 12, 944-956.	9.5	135
46	Changing sources of soil respiration with time since fire in a boreal forest. Global Change Biology, 2006, 12, 957-971.	9.5	134
47	Allocation and residence time of photosynthetic products in a boreal forest using a low-level14C pulse-chase labeling technique. Global Change Biology, 2007, 13, 466-477.	9.5	131
48	The Secret Lives of Roots. Science, 2003, 302, 1344-1345.	12.6	126
49	The age distribution of global soil carbon inferred from radiocarbon measurements. Nature Geoscience, 2020, 13, 555-559.	12.9	123
50	Cycling of highâ€molecularâ€weight dissolved organic matter in the Middle Atlantic Bight as revealed by carbon isotopic (¹³C and ¹⁴C) signatures. Limnology and Oceanography, 1996, 41, 1242-1252.	3.1	122
51	Dynamics of fine root carbon in Amazonian tropical ecosystems and the contribution of roots to soil respiration. Global Change Biology, 2006, 12, 217-229.	9.5	122
52	Response of tree biomass and wood litter to disturbance in a Central Amazon forest. Oecologia, 2004, 141, 596-611.	2.0	121
53	Warming accelerates decomposition of decades-old carbon in forest soils. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1753-61.	7.1	118
54	Recent (<4 year old) leaf litter is not a major source of microbial carbon in a temperate forest mineral soil. Soil Biology and Biochemistry, 2010, 42, 1028-1037.	8.8	116

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55	Increased belowground carbon inputs and warming promote loss ofÂsoil organic carbon through complementary microbial responses. Soil Biology and Biochemistry, 2014, 76, 57-69.	8.8	115
56	High temperature causes negative wholeâ€plant carbon balance under mild drought. New Phytologist, 2013, 200, 330-339.	7.3	108
57	Soil Carbon stocks and their rates of accumulation and loss in a boreal forest landscape. Global Biogeochemical Cycles, 1998, 12, 687-701.	4.9	106
58	Long-term controls on soil organic carbon with depth and time: A case study from the Cowlitz River Chronosequence, WA USA. Geoderma, 2015, 247-248, 73-87.	5.1	105
59	Isotopic composition of carbon dioxide from a boreal forest fire: Inferring carbon loss from measurements and modeling. Global Biogeochemical Cycles, 2003, 17, 1-1-1-9.	4.9	101
60	Evidence of old carbon used to grow new fine roots in a tropical forest. New Phytologist, 2009, 182, 710-718.	7.3	100
61	Decomposition of old organic matter as a result of deeper active layers in a snow depth manipulation experiment. Oecologia, 2010, 163, 785-792.	2.0	98
62	How Deep Can Surface Signals Be Traced in the Critical Zone? Merging Biodiversity with Biogeochemistry Research in a Central German Muschelkalk Landscape. Frontiers in Earth Science, 2016, 4, .	1.8	98
63	Factors and processes governing the 14C content of carbonate in desert soils. Earth and Planetary Science Letters, 1994, 125, 385-405.	4.4	97
64	The muddle of ages, turnover, transit, and residence times in the carbon cycle. Global Change Biology, 2017, 23, 1763-1773.	9.5	97
65	Mobilization of aged and biolabile soil carbon by tropical deforestation. Nature Geoscience, 2019, 12, 541-546.	12.9	97
66	Blank Assessment for Ultra-Small Radiocarbon Samples: Chemical Extraction and Separation Versus AMS. Radiocarbon, 2010, 52, 1322-1335.	1.8	92
67	Partitioning sources of soil-respired CO2 and their seasonal variation using a unique radiocarbon tracer. Global Change Biology, 2006, 12, 194-204.	9.5	90
68	Eyes on the future â€“ evidence for tradeâ€offs between growth, storage and defense in Norway spruce. New Phytologist, 2019, 222, 144-158.	7.3	88
69	Late Quaternary climate change from Î´18O records of multiple species of planktonic foraminifera: High-resolution records from the Anoxic Cariaco Basin, Venezuela. Paleoceanography, 1997, 12, 415-427.	3.0	87
70	The Influence of Nutrient Availability on Soil Organic Matter Turnover Estimated by Incubations and Radiocarbon Modeling. Ecosystems, 2005, 8, 352-372.	3.4	87
71	Soil carbon dynamics in regrowing forest of eastern Amazonia. Global Change Biology, 1999, 5, 693-702.	9.5	85
72	Production of CO2 in Soil Profiles of a California Annual Grassland. Ecosystems, 2005, 8, 412-429.	3.4	84

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73	The impact of land use change on C turnover in soils. Global Biogeochemical Cycles, 1999, 13, 47-57.	4.9	83
74	Transport and burial rates of10Be and231Pa in the Pacific Ocean during the Holocene period. Earth and Planetary Science Letters, 1992, 113, 173-189.	4.4	81
75	Drying/rewetting cycles mobilize old C from deep soils from a California annual grassland. Soil Biology and Biochemistry, 2011, 43, 1101-1103.	8.8	75
76	Large-Scale Wind Disturbances Promote Tree Diversity in a Central Amazon Forest. PLoS ONE, 2014, 9, e103711.	2.5	75
77	Fire, fragmentation, and windstorms: A recipe for tropical forest degradation. Journal of Ecology, 2019, 107, 656-667.	4.0	74
78	Functional diversity of microbial communities in pristine aquifers inferred by PLFA- and sequencing-based approaches. Biogeosciences, 2017, 14, 2697-2714.	3.3	72
79	A model for soil 14CO2 and its implications for using 14C to date pedogenic carbonate. Geochimica Et Cosmochimica Acta, 1994, 58, 393-399.	3.9	71
80	Allocation to carbon storage pools in Norway spruce saplings under drought and low CO2. Tree Physiology, 2015, 35, 243-252.	3.1	71
81	Low-density particles as potential nitrogenous foods for benthos. Journal of Marine Research, 1993, 51, 373-389.	0.3	69
82	Tree mortality of a flood-adapted species in response of hydrographic changes caused by an Amazonian river dam. Forest Ecology and Management, 2017, 396, 113-123.	3.2	67
83	Nutrient Addition Prompts Rapid Destabilization of Organic Matter in an Arctic Tundra Ecosystem. Ecosystems, 2008, 11, 16-25.	3.4	66
84	Enhanced Raman multigas sensing â€“ a novel tool for control and analysis of¹³CO₂labeling experiments in environmental research. Analyst, The, 2014, 139, 3879.	3.5	63
85	Vegetation impacts soil water content patterns by shaping canopy water fluxes and soil properties. Hydrological Processes, 2017, 31, 3783-3795.	2.6	62
86	A revised hydrological model for the Central Amazon: The importance of emergent canopy trees in the forest water budget. Agricultural and Forest Meteorology, 2017, 239, 47-57.	4.8	60
87	Past vegetation changes in the Brazilian Pantanal arboreal-grassy savanna ecotone by using carbon isotopes in the soil organic matter. Global Change Biology, 1995, 1, 165-171.	9.5	59
88	Aquifer configuration and geostructural links control the groundwater quality in thin-bedded carbonateâ€“siliciclastic alternations of the Hainich CZE, central Germany. Hydrology and Earth System Sciences, 2017, 21, 6091-6116.	4.9	58
89	Controls on soil carbon storage and turnover in German landscapes. Biogeochemistry, 2014, 119, 435-451.	3.5	57
90	Carbon sequestration potential of hydrothermal carbonization char (hydrochar) in two contrasting soils; results of a 1-year field study. Biology and Fertility of Soils, 2015, 51, 123-134.	4.3	57

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91	ForCent model development and testing using the Enriched Background Isotope Study experiment. Journal of Geophysical Research, 2010, 115, .	3.3	56
92	Detours on the phloem sugar highway: stem carbon storage and remobilization. Current Opinion in Plant Biology, 2018, 43, 89-95.	7.1	56
93	Thiosulfate- and hydrogen-driven autotrophic denitrification by a microbial consortium enriched from groundwater of an oligotrophic limestone aquifer. FEMS Microbiology Ecology, 2018, 94, .	2.7	56
94	Foliar nutrient resorption differs between arbuscular mycorrhizal and ectomycorrhizal trees at local and global scales. Global Ecology and Biogeography, 2018, 27, 875-885.	5.8	55
95	Agricultural acceleration of soil carbonate weathering. Global Change Biology, 2020, 26, 5988-6002.	9.5	55
96	How fresh is maple syrup? Sugar maple trees mobilize carbon stored several years previously during early springtime sapâ€ascent. New Phytologist, 2016, 209, 1410-1416.	7.3	54
97	What's the flux? Unraveling how <scp>CO</scp>₂ fluxes from trees reflect underlying physiological processes. New Phytologist, 2013, 197, 353-355.	7.3	52
98	A dual isotope approach to isolate soil carbon pools of different turnover times. Biogeosciences, 2013, 10, 8067-8081.	3.3	52
99	Online investigation of respiratory quotients in Pinus sylvestris and Picea abies during drought and shading by means of cavity-enhanced Raman multi-gas spectrometry. Analyst, The, 2015, 140, 4473-4481.	3.5	50
100	COSORE: A community database for continuous soil respiration and other soilâ€atmosphere greenhouse gas flux data. Global Change Biology, 2020, 26, 7268-7283.	9.5	50
101	Shifts in soil microbial community structure, nitrogen cycling and the concomitant declining N availability in ageing primary boreal forest ecosystems. Soil Biology and Biochemistry, 2015, 91, 200-211.	8.8	49
102	Fiber-Enhanced Raman Gas Spectroscopy for ¹⁸Oâ€“¹³C-Labeling Experiments. Analytical Chemistry, 2019, 91, 7562-7569.	6.5	49
103	Dynamics of decadally cycling carbon in subsurface soils. Journal of Geophysical Research, 2012, 117, .	3.3	48
104	Nitrogen Loss from Pristine Carbonate-Rock Aquifers of the Hainich Critical Zone Exploratory (Germany) Is Primarily Driven by Chemolithoautotrophic Anammox Processes. Frontiers in Microbiology, 2017, 8, 1951.	3.5	48
105	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.	9.9	48
106	Pasture soils as carbon sink. Nature, 1995, 376, 472-473.	27.8	46
107	Mean age of carbon in fine roots from temperate forests and grasslands with different management. Biogeosciences, 2013, 10, 4833-4843.	3.3	45
108	Multigas Leakage Correction in Static Environmental Chambers Using Sulfur Hexafluoride and Raman Spectroscopy. Analytical Chemistry, 2015, 87, 11137-11142.	6.5	45

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109	Carbon isotopes of dissolved inorganic carbon reflect utilization of different carbon sources by microbial communities in two limestone aquifer assemblages. Hydrology and Earth System Sciences, 2017, 21, 4283-4300.	4.9	45
110	Storage of carbon reserves in spruce trees is prioritized over growth in the face of carbon limitation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	45
111	Variable effects of labile carbon on the carbon use of different microbial groups in black slate degradation. Geochimica Et Cosmochimica Acta, 2011, 75, 2557-2570.	3.9	44
112	Pinus sylvestris switches respiration substrates under shading but not during drought. New Phytologist, 2015, 207, 542-550.	7.3	44
113	Autotrophic fixation of geogenic CO₂ by microorganisms contributes to soil organic matter formation and alters isotope signatures in a wetland mofette. Biogeosciences, 2015, 12, 7169-7183.	3.3	44
114	Impacts of Degradation on Water, Energy, and Carbon Cycling of the Amazon Tropical Forests. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2020JG005677.	3.0	44
115	Windthrows control biomass patterns and functional composition of Amazon forests. Global Change Biology, 2018, 24, 5867-5881.	9.5	43
116	Soil Organic Matter Persistence as a Stochastic Process: Age and Transit Time Distributions of Carbon in Soils. Global Biogeochemical Cycles, 2018, 32, 1574-1588.	4.9	43
117	Prolonged tropical forest degradation due to compounding disturbances: Implications for CO₂ and H₂O fluxes. Global Change Biology, 2019, 25, 2855-2868.	9.5	43
118	Higher tree transpiration due to road-associated edge effects in a tropical moist lowland forest. Agricultural and Forest Meteorology, 2015, 213, 183-192.	4.8	42
119	Accelerator Mass Spectrometric Radiocarbon Measurements on Foraminifera Shells from Deep-Sea Cores. Radiocarbon, 1990, 32, 119-133.	1.8	41
120	Composition of particulate and dissolved organic matter in a disturbed watershed of southeast Brazil (Piracicaba River basin). Water Research, 2002, 36, 2743-2752.	11.3	41
121	Longâ€term changes in forest carbon under temperature and nitrogen amendments in a temperate northern hardwood forest. Global Change Biology, 2013, 19, 2389-2400.	9.5	41
122	Non-structural carbon dynamics and allocation relate to growth rate and leaf habit in California oaks. Tree Physiology, 2015, 35, tpv097.	3.1	41
123	Direct Raman Spectroscopic Measurements of Biological Nitrogen Fixation under Natural Conditions: An Analytical Approach for Studying Nitrogenase Activity. Analytical Chemistry, 2017, 89, 1117-1122.	6.5	41
124	Onsite cavity enhanced Raman spectrometry for the investigation of gas exchange processes in the Earth's critical zone. Analyst, The, 2017, 142, 3360-3369.	3.5	41
125	The shadow of the Balbina dam: A synthesis of over 35 years of downstream impacts on floodplain forests in Central Amazonia. Aquatic Conservation: Marine and Freshwater Ecosystems, 2021, 31, 1117-1135.	2.0	40
126	Bomb-test 90Sr in Pacific and Indian Ocean surface water as recorded by banded corals. Earth and Planetary Science Letters, 1985, 74, 306-314.	4.4	39

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127	Evaluation of structural chemistry and isotopic signatures of refractory soil organic carbon fraction isolated by wet oxidation methods. Biogeochemistry, 2010, 98, 29-44.	3.5	39
128	An optimal defense strategy for phenolic glycoside production in Populus trichocarpa â€“ isotope labeling demonstrates secondary metabolite production in growing leaves. New Phytologist, 2014, 203, 607-619.	7.3	39
129	Modeling radiocarbon dynamics in soils: SoilR version 1.1. Geoscientific Model Development, 2014, 7, 1919-1931.	3.6	38
130	Carbon dioxide emitted from live stems of tropical trees is several years old. Tree Physiology, 2013, 33, 743-752.	3.1	37
131	Flux of carbon from 14C-enriched leaf litter throughout a forest soil mesocosm. Geoderma, 2009, 149, 181-188.	5.1	36
132	Winter's bite: beech trees survive complete defoliation due to spring lateâ€frost damage by mobilizing old C reserves. New Phytologist, 2019, 224, 625-631.	7.3	36
133	Methods of Separating Soil Carbon Pools Affect the Chemistry and Turnover Time of Isolated Fractions. Radiocarbon, 2008, 50, 83-97.	1.8	35
134	Interactions between repeated fire, nutrients, and insect herbivores affect the recovery of diversity in the southern Amazon. Oecologia, 2013, 172, 219-229.	2.0	35
135	Community Composition and Abundance of Bacterial, Archaeal and Nitrifying Populations in Savanna Soils on Contrasting Bedrock Material in Kruger National Park, South Africa. Frontiers in Microbiology, 2016, 7, 1638.	3.5	34
136	A method for measuring methane oxidation rates using lowlevels of 14Câ€labeled methane and accelerator mass spectrometry. Limnology and Oceanography: Methods, 2011, 9, 245-260.	2.0	33
137	Rates of dark CO2 fixation are driven by microbial biomass in a temperate forest soil. Soil Biology and Biochemistry, 2020, 150, 107950.	8.8	33
138	Methane oxidation in the eastern tropical North Pacific Ocean water column. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1078-1092.	3.0	31
139	Plant carbon limitation does not reduce nitrogen transfer from arbuscular mycorrhizal fungi to Plantago lanceolata. Plant and Soil, 2015, 396, 369-380.	3.7	31
140	Phloem flow and sugar transport in <scp>R</scp>icinus communisâ€¦<scp>L</scp>. is inhibited under anoxic conditions of shoot or roots. Plant, Cell and Environment, 2015, 38, 433-447.	5.7	31
141	New Perspectives on CO₂, Temperature, and Light Effects on BVOC Emissions Using Online Measurements by PTR-MS and Cavity Ring-Down Spectroscopy. Environmental Science & Technology, 2018, 52, 13811-13823.	10.0	31
142	Continental-scale controls on soil organic carbon across sub-Saharan Africa. Soil, 2021, 7, 305-332.	4.9	30
143	Bayesian calibration of a soil organic carbon model using Î”¹⁴C measurements of soil organic carbon and heterotrophic respiration as joint constraints. Biogeosciences, 2014, 11, 2147-2168.	3.3	29
144	Living on borrowed time â€“ Amazonian trees use decadeâ€old storage carbon to survive for months after complete stem girdling. New Phytologist, 2018, 220, 111-120.	7.3	29

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145	Floodâ€pulse disturbances as a threat for longâ€living Amazonian trees. New Phytologist, 2020, 227, 1790-1803.	7.3	28
146	Carbon fixation rates in groundwater similar to those in oligotrophic marine systems. Nature Geoscience, 2022, 15, 561-567.	12.9	28
147	Soil methanotroph abundance and community composition are not influenced by substrate availability in laboratory incubations. Soil Biology and Biochemistry, 2016, 101, 184-194.	8.8	27
148	Probability distributions of nonstructural carbon ages and transit times provide insights into carbon allocation dynamics of mature trees. New Phytologist, 2020, 226, 1299-1311.	7.3	27
149	Seasonal variations in the stable oxygen isotope ratio of wood cellulose reveal annual rings of trees in a Central Amazon terra firme forest. Oecologia, 2016, 180, 685-696.	2.0	25
150	Starch and lipid storage strategies in tropical trees relate to growth and mortality. New Phytologist, 2021, 230, 139-154.	7.3	25
151	Is the Consensus Value of ANU Sucrose (IAEA C-6) Too High?. Radiocarbon, 2010, 52, 866-874.	1.8	24
152	Compound-Specific Radiocarbon Analyses of Phospholipid Fatty Acids and N-Alkanes in Ocean Sediments. Radiocarbon, 2010, 52, 1215-1223.	1.8	24
153	No depth-dependence of fine root litter decomposition in temperate beech forest soils. Plant and Soil, 2015, 393, 273-282.	3.7	24
154	¹⁴Câ€Free Carbon Is a Major Contributor to Cellular Biomass in Geochemically Distinct Groundwater of Shallow Sedimentary Bedrock Aquifers. Water Resources Research, 2019, 55, 2104-2121.	4.2	24
155	Timescales of carbon turnover in soils with mixed crystalline mineralogies. Soil, 2017, 3, 17-30.	4.9	23
156	Variability in fireâ€induced change to vegetation physiognomy and biomass in semiâ€arid savanna. Ecosphere, 2018, 9, e02514.	2.2	23
157	Windthrows increase soil carbon stocks in a central Amazon forest. Biogeosciences, 2016, 13, 1299-1308.	3.3	22
158	Soil Carbon Dynamics in Soybean Cropland and Forests in Mato Grosso, Brazil. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 18-31.	3.0	22
159	SIFT-MS optimization for atmospheric trace gas measurements at varying humidity. Atmospheric Measurement Techniques, 2020, 13, 3507-3520.	3.1	22
160	How will a drier climate change carbon sequestration in soils of the deciduous forests of Central Europe?. Biogeochemistry, 2021, 152, 13-32.	3.5	21
161	Comparison of CO₂ and O₂ fluxes demonstrate retention of respired CO₂ in tree stems from a range of tree species. Biogeosciences, 2019, 16, 177-191.	3.3	20
162	Lithium Contamination in AMS Measurements of 14C. Radiocarbon, 1991, 33, 297-301.	1.8	19

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163	Tropical Trees as Time Capsules of Anthropogenic Activity. Trends in Plant Science, 2020, 25, 369-380.	8.8	18
164	Production of constitutive and induced secondary metabolites is coordinated with growth and storage in Norway spruce saplings. Tree Physiology, 2020, 40, 928-942.	3.1	18
165	Predicting biomass of hyperdiverse and structurally complex central Amazonian forests â€“ a virtual approach using extensive field data. Biogeosciences, 2016, 13, 1553-1570.	3.3	17
166	Impacts of leguminous shrub encroachment on neighboring grasses include transfer of fixed nitrogen. Oecologia, 2016, 180, 1213-1222.	2.0	16
167	Rapid response of habitat structure and above-ground carbon storage to altered fire regimes in tropical savanna. Biogeosciences, 2019, 16, 1493-1503.	3.3	16
168	Using radiocarbon-calibrated dendrochronology to improve tree-cutting cycle estimates for timber management in southern Amazon forests. Trees - Structure and Function, 2018, 32, 587-602.	1.9	15
169	Isotope labeling reveals contribution of newly fixed carbon to carbon storage and monoterpenes production under water deficit and carbon limitation. Environmental and Experimental Botany, 2019, 162, 333-344.	4.2	15
170	Early recruitment responses to interactions between frequent fires, nutrients, and herbivory in the southern Amazon. Oecologia, 2015, 178, 807-817.	2.0	14
171	In situ production of core and intact bacterial and archaeal tetraether lipids in groundwater. Organic Geochemistry, 2018, 126, 1-12.	1.8	14
172	Effects of Tropical Deforestation on Surface Energy Balance Partitioning in Southeastern Amazonia Estimated From Maximum Convective Power. Geophysical Research Letters, 2019, 46, 4396-4403.	4.0	14
173	Soil organic matter turnover rates increase to match increased inputs in grazed grasslands. Biogeochemistry, 2021, 156, 145-160.	3.5	14
174	Variable effects of plant colonization on black slate uptake into microbial PLFAs. Geochimica Et Cosmochimica Acta, 2013, 106, 391-403.	3.9	13
175	Influence of Rhizobia Inoculation on Biomass Gain and Tissue Nitrogen Content of Leucaena leucocephala Seedlings under Drought. Forests, 2015, 6, 3686-3703.	2.1	13
176	Processes controlling the 14C content of soil carbon dioxide: Model development. Chemical Geology, 1993, 107, 225-226.	3.3	11
177	Dark CO2 fixation in temperate beech and pine forest soils. Soil Biology and Biochemistry, 2022, 165, 108526.	8.8	11
178	Vertical partitioning of CO₂ production within a temperate forest soil. Global Change Biology, 2007, 13, 922-922.	9.5	10
179	Uptake of an amino acid by ectomycorrhizal fungi in a boreal forest. Soil Biology and Biochemistry, 2008, 40, 1964-1966.	8.8	10
180	Yellow-meadow ant (Lasius flavus) mound development determines soil properties and growth responses of different plant functional types. European Journal of Soil Biology, 2017, 81, 83-93.	3.2	10

#	Article	IF	Citations
181	The size and the age of the metabolically active carbon in tree roots. Plant, Cell and Environment, 2021, 44, 2522-2535.	5.7	10
182	Comparison With Global Soil Radiocarbon Observations Indicates Needed Carbon Cycle Improvements in the E3SM Land Model. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 1098-1114.	3.0	9
183	Age distribution, extractability, and stability of mineral-bound organic carbon in central European soils. Biogeosciences, 2021, 18, 1241-1257.	3.3	9
184	Microbial community responses determine how soilâ€“atmosphere exchange of carbonyl sulfide, carbon monoxide, and nitric oxide responds to soil moisture. Soil, 2019, 5, 121-135.	4.9	8
185	Simultaneous Real-Time Measurement of Isoprene and 2-Methyl-3-Buten-2-ol Emissions From Trees Using SIFT-MS. Frontiers in Plant Science, 2020, 11, 578204.	3.6	7
186	Recovery of Forest Structure Following Large-Scale Windthrows in the Northwestern Amazon. Forests, 2021, 12, 667.	2.1	7
187	Anomalous AMS Radiocarbon Ages for Foraminifera from High-Deposition-Rate Ocean Sediments. Radiocarbon, 1989, 31, 157-162.	1.8	6
188	Criteria for rejection of papers without review. Global Biogeochemical Cycles, 2015, 29, 1123-1123.	4.9	6
189	An age-old problem. Trends in Plant Science, 1999, 4, 385-386.	8.8	5
190	Isolation of Individual Saturated Fatty Acid Methyl Esters Derived From Groundwater Phospholipids by Preparative Highâ€Pressure Liquid Chromatography for Compoundâ€Specific Radiocarbon Analyses. Water Resources Research, 2019, 55, 2521-2531.	4.2	5
191	Soil properties determine how Lasius flavus impact on topsoil organic matter and nutrient distribution in central Germany. Applied Soil Ecology, 2019, 133, 166-176.	4.3	5
192	Geoscientists, Who Have Documented the Rapid and Accelerating Climate Crisis for Decades, Are Now Pleading for Immediate Collective Action. Geophysical Research Letters, 2021, 48, e2021GL096644.	4.0	3
193	Probability Distributions of Radiocarbon in Open Linear Compartmental Systems at Steadyâ€State. Journal of Geophysical Research G: Biogeosciences, 2022, 127, .	3.0	3
194	Effects of mound building Lasius flavus on organic carbon and nutrient fluxes in soils of temperate grassland ecosystems. Pedobiologia, 2021, 84, 150701.	1.2	2
195	Constructing a database of terrestrial radiocarbon measurements. Eos, 2011, 92, 376-376.	0.1	1
196	Confronting Racism to Advance Our Science. AGU Advances, 2021, 2, e2020AV000296.	5.4	1
197	A thank you to our GBC reviewers. Global Biogeochemical Cycles, 2015, 29, 1124-1124.	4.9	0
198	Thank You to Our 2019 Reviewers. AGU Advances, 2020, 1, e2020AV000181.	5.4	0

#	Article	IF	Citations
199	AGU Advances Goes Online. AGU Advances, 2020, 1, e2019AV000105.	5.4	0
200	Thank You to Our 2020 Peer Reviewers. AGU Advances, 2021, 2, e2021AV000426.	5.4	0
201	Impacts of Drying and Rewetting on the Radiocarbon Signature of Respired CO 2 and Implications for Incubating Archived Soils. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG006119.	3.0	0
202	Thank You to Our 2021 Peer Reviewers. AGU Advances, 2022, 3, .	5.4	0