Eric A Davidson

List of Publications by Year
in descending order

230 papers	44,192 citations	3334 91 h-index	2280 200 g-index
248 all docs	248 docs citations	248 times ranked	29907 citing authors

#	Article	IF	Citations
1	Temperature sensitivity of soil carbon decomposition and feedbacks to climate change. Nature, 2006, 440, 165-173.	27.8	5,114
2	Global assessment of nitrogen deposition effects on terrestrial plant diversity: a synthesis. Ecological Applications, 2010, 20, 30-59.	3.8	2,063
3	Managing nitrogen for sustainable development. Nature, 2015, 528, 51-59.	27.8	1,635
4	Soil water content and temperature as independent or confounded factors controlling soil respiration in a temperate mixed hardwood forest. Global Change Biology, 1998, 4, 217-227.	9.5	1,598
5	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
6	Temperature and soil organic matter decomposition rates - synthesis of current knowledge and a way forward. Global Change Biology, 2011, 17, 3392-3404.	9.5	1,143
7	On the variability of respiration in terrestrial ecosystems: moving beyond Q 10. Global Change Biology, 2006, 12, 154-164.	9.5	1,055
8	The Amazon basin in transition. Nature, 2012, 481, 321-328.	27.8	922
9	Positive Feedbacks in the Fire Dynamic of Closed Canopy Tropical Forests. Science, 1999, 284, 1832-1835.	12.6	847
10	The contribution of manure and fertilizer nitrogen to atmospheric nitrous oxide since 1860. Nature Geoscience, 2009, 2, 659-662.	12.9	842
11	A comprehensive quantification of global nitrous oxide sources and sinks. Nature, 2020, 586, 248-256.	27.8	814
12	Changes in soil carbon inventories following cultivation of previously untilled soils. Biogeochemistry, 1993, 20, 161-193.	3.5	781
13	Testing a Conceptual Model of Soil Emissions of Nitrous and Nitric Oxides. BioScience, 2000, 50, 667.	4.9	743
14	Global agriculture and nitrous oxide emissions. Nature Climate Change, 2012, 2, 410-416.	18.8	729
15	Title is missing!. Biogeochemistry, 2000, 48, 53-69.	3.5	705
16	Satellite-based modeling of gross primary production in an evergreen needleleaf forest. Remote Sensing of Environment, 2004, 89, 519-534.	11.0	682
17	Minimizing artifacts and biases in chamber-based measurements of soil respiration. Agricultural and Forest Meteorology, 2002, 113, 21-37.	4.8	622
18	Abrupt increases in Amazonian tree mortality due to droughtâ€“fire interactions. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6347-6352.	7.1	576

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19	Title is missing!. Biogeochemistry, 2000, 51, 33-69.	3.5	524
20	Measuring gross nitrogen mineralization, and nitrification by 15 N isotopic pool dilution in intact soil cores. Journal of Soil Science, 1991, 42, 335-349.	1.2	500
21	Belowground cycling of carbon in forests and pastures of eastern Amazonia. Global Biogeochemical Cycles, 1995, 9, 515-528.	4.9	429
22	Soil warming and organic carbon content. Nature, 2000, 408, 789-790.	27.8	413
23	Processes Regulating Soil Emissions of NO and N^2O in a Seasonally Dry Tropical Forest. Ecology, 1993, 74, 130-139.	3.2	410
24	A global inventory of nitric oxide emissions from soils. , 1997, 48, 37-50.		403
25	Chronic nitrogen additions reduce total soil respiration and microbial respiration in temperate forest soils at the Harvard Forest. Forest Ecology and Management, 2004, 196, 43-56.	3.2	400
26	Recuperation of nitrogen cycling in Amazonian forests following agricultural abandonment. Nature, 2007, 447, 995-998.	27.8	381
27	Internal Cycling of Nitrate in Soils of a Mature Coniferous Forest. Ecology, 1992, 73, 1148-1156.	3.2	377
28	Sources of Nitric Oxide and Nitrous Oxide following Wetting of Dry Soil. Soil Science Society of America Journal, 1992, 56, 95-102.	2.2	370
29	The<scp>D</scp>ual<scp>A</scp>rrhenius and<scp>M</scp>ichaelisâ€“<scp>M</scp>enten kinetics model for decomposition of soil organic matter at hourly to seasonal time scales. Global Change Biology, 2012, 18, 371-384.	9.5	349
30	Toward more realistic projections of soil carbon dynamics by Earth system models. Global Biogeochemical Cycles, 2016, 30, 40-56.	4.9	343
31	Nitrogen Mineralization, Immobilization, and Nitrification. Soil Science Society of America Book Series, 0, , 985-1018.	0.3	329
32	Spatial and temporal variability in forest-atmosphere CO2 exchange. Global Change Biology, 2004, 10, 1689-1706.	9.5	318
33	The effects of partial throughfall exclusion on canopy processes, aboveground production, and biogeochemistry of an Amazon forest. Journal of Geophysical Research, 2002, 107, LBA 53-1.	3.3	316
34	Process modeling of controls on nitrogen trace gas emissions from soils worldwide. Journal of Geophysical Research, 1996, 101, 1361-1377.	3.3	312
35	Drought effects on litterfall, wood production and belowground carbon cycling in an Amazon forest: results of a throughfall reduction experiment. Philosophical Transactions of the Royal Society B: Biological Sciences, 2008, 363, 1839-1848.	4.0	286
36	Explicitly representing soil microbial processes in Earth system models. Global Biogeochemical Cycles, 2015, 29, 1782-1800.	4.9	286

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37	A mechanism of abiotic immobilization of nitrate in forest ecosystems: the ferrous wheel hypothesis. Global Change Biology, 2003, 9, 228-236.	9.5	277
38	Seasonal patterns and environmental control of carbon dioxide and water vapour exchange in an ecotonal boreal forest. Global Change Biology, 1999, 5, 891-902.	9.5	275
39	Land use change and biogeochemical controls of nitrogen oxide emissions from soils in eastern Amazonia. Global Biogeochemical Cycles, 1999, 13, 31-46.	4.9	275
40	Key ecological responses to nitrogen are altered by climate change. Nature Climate Change, 2016, 6, 836-843.	18.8	261
41	Belowground carbon allocation in forests estimated from litterfall and IRGA-based soil respiration measurements. Agricultural and Forest Meteorology, 2002, 113, 39-51.	4.8	260
42	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
43	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
44	NITROGEN AND PHOSPHORUS LIMITATION OF BIOMASS GROWTH IN A TROPICAL SECONDARY FOREST. , 2004, 14, 150-163.		250
45	Deep root function in soil water dynamics in cerrado savannas of central Brazil. Functional Ecology, 2005, 19, 574-581.	3.6	246
46	Inventories and scenarios of nitrous oxide emissions. Environmental Research Letters, 2014, 9, 105012.	5.2	243
47	Effects of an experimental drought on soil emissions of carbon dioxide, methane, nitrous oxide, and nitric oxide in a moist tropical forest. Global Change Biology, 2004, 10, 718-730.	9.5	239
48	The age of fine-root carbon in three forests of the eastern United States measured by radiocarbon. Oecologia, 2001, 129, 420-429.	2.0	235
49	Acceleration of global N2O emissions seen from two decades of atmospheric inversion. Nature Climate Change, 2019, 9, 993-998.	18.8	229
50	Land-Use Change and Biogeochemical Controls of Methane Fluxes in Soils of Eastern Amazonia. Ecosystems, 2000, 3, 41-56.	3.4	225
51	Missing sinks, feedbacks, and understanding the role of terrestrial ecosystems in the global carbon balance. Global Biogeochemical Cycles, 1998, 12, 25-34.	4.9	222
52	Interannual variation of soil respiration in two New England forests. Global Biogeochemical Cycles, 2001, 15, 337-350.	4.9	220
53	Global soil nitrous oxide emissions since the preindustrial era estimated by an ensemble of terrestrial biosphere models: Magnitude, attribution, and uncertainty. Global Change Biology, 2019, 25, 640-659.	9.5	214
54	Seasonality of temperate forest photosynthesis and daytime respiration. Nature, 2016, 534, 680-683.	27.8	196

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55	Distinguishing between Nitrification and Denitrification as Sources of Gaseous Nitrogen Production in Soil. Applied and Environmental Microbiology, 1986, 52, 1280-1286.	3.1	194
56	A comparison of manual and automated systems for soil CO2 flux measurements: trade-offs between spatial and temporal resolution. Journal of Experimental Botany, 2003, 54, 891-899.	4.8	193
57	Drying and Wetting Effects on Carbon Dioxide Release from Organic Horizons. Soil Science Society of America Journal, 2003, 67, 1888-1896.	2.2	192
58	Stoichiometric patterns in foliar nutrient resorption across multiple scales. New Phytologist, 2012, 196, 173-180.	7.3	190
59	Soil moisture depletion under simulated drought in the Amazon: impacts on deep root uptake. New Phytologist, 2010, 187, 592-607.	7.3	181
60	A distinct seasonal pattern of the ratio of soil respiration to total ecosystem respiration in a spruce-dominated forest. Global Change Biology, 2006, 12, 230-239.	9.5	170
61	Site and temporal variation of soil respiration in European beech, Norway spruce, and Scots pine forests. Global Change Biology, 2002, 8, 1205-1216.	9.5	167
62	Classifying successional forests using Landsat spectral properties and ecological characteristics in eastern AmazÃ´nia. Remote Sensing of Environment, 2003, 87, 470-481.	11.0	165
63	Coordinated approaches to quantify longâ€term ecosystem dynamics in response to global change. Global Change Biology, 2011, 17, 843-854.	9.5	165
64	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
65	Environmental Parameters Regulating Gaseous Nitrogen Losses from Two Forested Ecosystems via Nitrification and Denitrification. Applied and Environmental Microbiology, 1986, 52, 1287-1292.	3.1	163
66	Using modelâ€data fusion to interpret past trends, and quantify uncertainties in future projections, of terrestrial ecosystem carbon cycling. Global Change Biology, 2012, 18, 2555-2569.	9.5	161
67	Testing the Hole-in-the-Pipe Model of nitric and nitrous oxide emissions from soils using the TRAGNET Database. Global Biogeochemical Cycles, 2000, 14, 1035-1043.	4.9	158
68	Rapid abiotic transformation of nitrate in an acid forest soil. Biogeochemistry, 2001, 54, 131-146.	3.5	157
69	The potential ecological costs and cobenefits of REDD: a critical review and case study from the Amazon region. Global Change Biology, 2009, 15, 2803-2824.	9.5	157
70	Soil emissions of nitric oxide in a seasonally dry tropical forest of MÃ©xico. Journal of Geophysical Research, 1991, 96, 15439-15445.	3.3	156
71	Estimating parameters of a forest ecosystem C model with measurements of stocks and fluxes as joint constraints. Oecologia, 2010, 164, 25-40.	2.0	153
72	Carbon dioxide and nitrogenous gases in the soil atmosphere. Journal of Geochemical Exploration, 1990, 38, 13-41.	3.2	145

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73	Effects of an experimental drought and recovery on soil emissions of carbon dioxide, methane, nitrous oxide, and nitric oxide in a moist tropical forest. Global Change Biology, 2008, 14, 2582-2590.	9.5	145
74	Nitrogen Oxide Fluxes and Nitrogen Cycling during Postagricultural Succession and Forest Fertilization in the Humid Tropics. Ecosystems, 2001, 4, 67-84.	3.4	141
75	Soil Water Content and the Ratio of Nitrous Oxide to Nitric Oxide Emitted from Soil. , 1993, , 369-386.		141
76	The Millennial model: in search of measurable pools and transformations for modeling soil carbon in the new century. Biogeochemistry, 2018, 137, 51-71.	3.5	139
77	NUTRIENT LOSS AND REDISTRIBUTION AFTER FOREST CLEARING ON A HIGHLY WEATHERED SOIL IN AMAZONIA. , 2004, 14, 177-199.		135
78	Vertical partitioning of CO2 production within a temperate forest soil. Global Change Biology, 2006, 12, 944-956.	9.5	135
79	Effect of summer throughfall exclusion, summer drought, and winter snow cover on methane fluxes in a temperate forest soil. Soil Biology and Biochemistry, 2006, 38, 1388-1395.	8.8	134
80	Gas diffusivity and production of CO₂ in deep soils of the eastern Amazon. Tellus, Series B: Chemical and Physical Meteorology, 2022, 47, 550.	1.6	132
81	ECOLOGICAL RESEARCH IN THE LARGE-SCALE BIOSPHEREâ€“ ATMOSPHERE EXPERIMENT IN AMAZONIA: EARLY RESULTS. , 2004, 14, 3-16.		130
82	Changes in Canopy Processes Following Whole-Forest Canopy Nitrogen Fertilization of a Mature Spruce-Hemlock Forest. Ecosystems, 2007, 10, 1133-1147.	3.4	129
83	Climate change impacts of US reactive nitrogen. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7671-7675.	7.1	126
84	Control of cation concentrations in stream waters by surface soil processes in an Amazonian watershed. Nature, 2001, 410, 802-805.	27.8	125
85	Isotopic variability of N2O emissions from tropical forest soils. Global Biogeochemical Cycles, 2000, 14, 525-535.	4.9	124
86	Assessing available carbon: Comparison of techniques across selected forest soils. Communications in Soil Science and Plant Analysis, 1987, 18, 45-64.	1.4	122
87	INFLUENCE OF LEAF-CUTTING ANT NESTS ON SECONDARY FOREST GROWTH AND SOIL PROPERTIES IN AMAZONIA. Ecology, 2003, 84, 1265-1276.	3.2	122
88	More Food, Low Pollution (Mo Fo Lo Po): A Grand Challenge for the 21st Century. Journal of Environmental Quality, 2015, 44, 305-311.	2.0	122
89	A World of Cobenefits: Solving the Global Nitrogen Challenge. Earth's Future, 2019, 7, 865-872.	6.3	122
90	Comparing simple respiration models for eddy flux and dynamic chamber data. Agricultural and Forest Meteorology, 2006, 141, 219-234.	4.8	120

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91	Nutrients in synergy. Nature, 2007, 449, 1000-1001.	27.8	115
92	Short-term soil respiration and nitrogen immobilization response to nitrogen applications in control and nitrogen-enriched temperate forests. Forest Ecology and Management, 2004, 196, 57-70.	3.2	114
93	Legacy of fire slows carbon accumulation in Amazonian forest regrowth. Frontiers in Ecology and the Environment, 2005, 3, 365-369.	4.0	111
94	THE ENIGMA OF PROGRESS IN DENITRIFICATION RESEARCH. , 2006, 16, 2057-2063.		110
95	Quantification of global and national nitrogen budgets for crop production. Nature Food, 2021, 2, 529-540.	14.0	108
96	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
97	Diel patterns of autotrophic and heterotrophic respiration among phenological stages. Global Change Biology, 2013, 19, 1151-1159.	9.5	106
98	Soil respiration at mean annual temperature predicts annual total across vegetation types and biomes. Biogeosciences, 2010, 7, 2147-2157.	3.3	99
99	Biotic Feedbacks in the Warming of the Earth. Climatic Change, 1998, 40, 495-518.	3.6	98
100	Globally significant changes in biological processes of the Amazon Basin: results of the Large-scale Biosphere-Atmosphere Experiment. Global Change Biology, 2004, 10, 519-529.	9.5	96
101	Quantifying Nutrient Budgets for Sustainable Nutrient Management. Global Biogeochemical Cycles, 2020, 34, e2018GB006060.	4.9	96
102	The role of nitrogen in climate change and the impacts of nitrogenâ€“climate interactions in the United States: foreword to thematic issue. Biogeochemistry, 2013, 114, 1-10.	3.5	95
103	A conceptual and practical approach to data quality and analysis procedures for highâ€frequency soil respiration measurements. Functional Ecology, 2008, 22, 1000-1007.	3.6	94
104	High temporal frequency measurements of greenhouse gas emissions from soils. Biogeosciences, 2014, 11, 2709-2720.	3.3	92
105	Direct extraction of microbial biomass nitrogen from forest and grassland soils of california. Soil Biology and Biochemistry, 1989, 21, 773-778.	8.8	90
106	An integrated greenhouse gas assessment of an alternative to slashâ€andâ€burn agriculture in eastern Amazonia. Global Change Biology, 2008, 14, 998-1007.	9.5	89
107	The Susceptibility of Southeastern Amazon Forests to Fire: Insights from a Large-Scale Burn Experiment. BioScience, 2015, 65, 893-905.	4.9	89
108	Regional application of an ecosystem production model for studies of biogeochemistry in Brazilian Amazonia. Global Change Biology, 1998, 4, 315-333.	9.5	87

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109	CO2 flux from soil in pastures and forests in southwestern Amazonia. Global Change Biology, 2004, 10, 833-843.	9.5	87
110	Soil carbon dynamics in regrowing forest of eastern Amazonia. Global Change Biology, 1999, 5, 693-702.	9.5	85
111	Moisture and substrate availability constrain soil trace gas fluxes in an eastern Amazonian regrowth forest. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	83
112	Soil respiration in a northeastern US temperate forest: a 22â€year synthesis. Ecosphere, 2013, 4, 1-28.	2.2	83
113	Distribution of nitrogen-15 tracers applied to the canopy of a mature spruce-hemlock stand, Howland, Maine, USA. Oecologia, 2009, 160, 589-599.	2.0	80
114	Three scales of temporal resolution from automated soil respiration measurements. Agricultural and Forest Meteorology, 2009, 149, 2012-2021.	4.8	76
115	Rate my data: quantifying the value of ecological data for the development of models of the terrestrial carbon cycle. Ecological Applications, 2013, 23, 273-286.	3.8	74
116	Watershed responses to Amazon soya bean cropland expansion and intensification. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120425.	4.0	71
117	Estimating regional carbon stocks and spatially covarying edaphic factors using soil maps at three scales. Biogeochemistry, 1993, 22, 107-131.	3.5	70
118	Former land-use and tree species affect nitrogen oxide emissions from a tropical dry forest. Oecologia, 2002, 130, 297-308.	2.0	68
119	Global mapping of crop-specific emission factors highlights hotspots of nitrous oxide mitigation. Nature Food, 2021, 2, 886-893.	14.0	68
120	Carbon budget of the Harvard Forest Longâ€Term Ecological Research site: pattern, process, and response to global change. Ecological Monographs, 2020, 90, e01423.	5.4	67
121	Uncertain sinks in the shrubs. Nature, 2002, 418, 593-594.	27.8	64
122	Sources of nitrous oxide production following wetting of dry soil. FEMS Microbiology Ecology, 1991, 8, 117-124.	2.7	63
123	Nitrogen and phosphorus additions negatively affect tree species diversity in tropical forest regrowth trajectories. Ecology, 2010, 91, 2121-2131.	3.2	63
124	Quantitative assessment of agricultural sustainability reveals divergent priorities among nations. One Earth, 2021, 4, 1262-1277.	6.8	63
125	Using O₂ to study the relationships between soil CO₂ efflux and soil respiration. Biogeosciences, 2015, 12, 2089-2099.	3.3	62
126	A bigâ€microsite framework for soil carbon modeling. Global Change Biology, 2014, 20, 3610-3620.	9.5	60

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127	Foundation species loss affects vegetation structure more than ecosystem function in a northeastern USA forest. PeerJ, 2013, 1, e41.	2.0	60
128	Deep soils modify environmental consequences of increased nitrogen fertilizer use in intensifying Amazon agriculture. Scientific Reports, 2018, 8, 13478.	3.3	56
129	The Economic and Environmental Consequences of Implementing Nitrogen-Efficient Technologies and Management Practices in Agriculture. Journal of Environmental Quality, 2015, 44, 312-324.	2.0	55
130	Representative concentration pathways and mitigation scenarios for nitrous oxide. Environmental Research Letters, 2012, 7, 024005.	5.2	52
131	Impacts of human alteration of the nitrogen cycle in the US on radiative forcing. Biogeochemistry, 2013, 114, 25-40.	3.5	51
132	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
133	Roads as nitrogen deposition hot spots. Biogeochemistry, 2013, 114, 149-163.	3.5	49
134	Different quantification approaches for nitrogen use efficiency lead to divergent estimates with varying advantages. Nature Food, 2021, 2, 241-245.	14.0	49
135	Spatial variation in vegetation structure coupled to plant available water determined by two-dimensional soil resistivity profiling in a Brazilian savanna. Oecologia, 2007, 153, 417-430.	2.0	48
136	Nitrogenâ€induced terrestrial eutrophication: cascading effects and impacts on ecosystem services. Ecosphere, 2017, 8, e01877.	2.2	48
137	Measurement of Nitrous Oxide Dissolved in Soil Solution. Soil Science Society of America Journal, 1988, 52, 1201-1203.	2.2	47
138	Soil nitrogen cycling and nitrogen oxide emissions along a pasture chronosequence in the humid tropics of Costa Rica. Soil Biology and Biochemistry, 1999, 31, 387-394.	8.8	47
139	Spatial covariation of soil organic carbon, clay content, and drainage class at a regional scale. Landscape Ecology, 1995, 10, 349-362.	4.2	46
140	Pasture soils as carbon sink. Nature, 1995, 376, 472-473.	27.8	46
141	Phosphorus cycling in a small watershed in the Brazilian Cerrado: impacts of frequent burning. Biogeochemistry, 2011, 105, 105-118.	3.5	46
142	Dissolved CO₂ in small catchment streams of eastern Amazonia: A minor pathway of terrestrial carbon loss. Journal of Geophysical Research, 2010, 115, .	3.3	43
143	Prolonged tropical forest degradation due to compounding disturbances: Implications for CO₂ and H₂O fluxes. Global Change Biology, 2019, 25, 2855-2868.	9.5	43
144	Nitrous Oxide Emission Controls and Inorganic Nitrogen Dynamics in Fertilized Tropical Agricultural Soils. Soil Science Society of America Journal, 1996, 60, 1145-1152.	2.2	42

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145	Unexpected results of a pilot throughfall exclusion experiment on soil emissions of CO 2 , CH 4 , N 2 O, and NO in eastern Amazonia. Biology and Fertility of Soils, 2002, 36, 102-108.	4.3	42
146	Leaf-cutting ant (Atta Sexdens) and nutrient cycling: deep soil inorganic nitrogen stocks, mineralization, and nitrification in Eastern Amazonia. Soil Biology and Biochemistry, 2003, 35, 1219-1222.	8.8	42
147	Landâ€use effects on the chemical attributes of lowâ€order streams in the eastern Amazon. Journal of Geophysical Research, 2010, 115, .	3.3	41
148	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
149	Fertile forest experiments. Nature, 2001, 411, 431-433.	27.8	40
150	The effects of drought on Amazonian rain forests. Geophysical Monograph Series, 2009, , 429-449.	0.1	39
151	Merging a mechanistic enzymatic model of soil heterotrophic respiration into an ecosystem model in two AmeriFlux sites of northeastern USA. Agricultural and Forest Meteorology, 2018, 252, 155-166.	4.8	39
152	Ecosystem modeling and dynamic effects of deforestation on trace gas fluxes in Amazon tropical forests. Forest Ecology and Management, 2001, 152, 97-117.	3.2	38
153	Processes for Production and Consumption of Gaseous Nitrogen Oxides in Soil. ASA Special Publication, 0, , 79-93.	0.8	38
154	Soil heterogeneity can mask the effects of ammonium availability on nitrification. Soil Biology and Biochemistry, 1994, 26, 1449-1453.	8.8	37
155	Contribution of soil respiration in tropical, temperate, and boreal forests to the18O enrichment of atmospheric O2. Global Biogeochemical Cycles, 2003, 17, n/a-n/a.	4.9	36
156	A parsimonious modular approach to building a mechanistic belowground carbon and nitrogen model. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 2418-2434.	3.0	36
157	Simultaneous numerical representation of soil microsite production and consumption of carbon dioxide, methane, and nitrous oxide using probability distribution functions. Global Change Biology, 2020, 26, 200-218.	9.5	36
158	Nitrogen in Runoff from Residential Roads in a Coastal Area. Water, Air, and Soil Pollution, 2010, 210, 3-13.	2.4	35
159	Endogenous circadian regulation of carbon dioxide exchange in terrestrial ecosystems. Global Change Biology, 2012, 18, 1956-1970.	9.5	35
160	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
161	Partitioning soil respiration: quantifying the artifacts of the trenching method. Biogeochemistry, 2018, 140, 53-63.	3.5	34
162	Fates and Use Efficiency of Nitrogen Fertilizer in Maize Cropping Systems and Their Responses to Technologies and Management Practices: A Global Analysis on Field ¹⁵N Tracer Studies. Earth's Future, 2021, 9, e2020EF001514.	6.3	34

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163	Dissolved rainfall inputs and streamwater outputs in an undisturbed watershed on highly weathered soils in the Brazilian cerrado. Hydrological Processes, 2006, 20, 2615-2639.	2.6	33
164	MODEL ESTIMATES OF REGIONAL NITRIC OXIDE EMISSIONS FROM SOILS OF THE SOUTHEASTERN UNITED STATES. , 1998, 8, 748-759.		32
165	Iron interference in the quantification of nitrate in soil extracts and its effect on hypothesized abiotic immobilization of nitrate. Biogeochemistry, 2008, 90, 65-73.	3.5	31
166	Modeling the effects of throughfall reduction on soil water content in a Brazilian Oxisol under a moist tropical forest. Water Resources Research, 2007, 43, .	4.2	30
167	Fluxes of CH4, CO2, NO, and N2O in an improved fallow agroforestry system in eastern Amazonia. Agriculture, Ecosystems and Environment, 2008, 126, 113-121.	5.3	30
168	Emissions of Nitrous Oxide and Nitric Oxide from Soils of Native and Exotic Ecosystems of the Amazon and Cerrado Regions of Brazil. Scientific World Journal, The, 2001, 1, 312-319.	2.1	29
169	New approaches to modeling denitrification. Biogeochemistry, 2009, 93, 1-5.	3.5	29
170	Nutrients in the nexus. Journal of Environmental Studies and Sciences, 2016, 6, 25-38.	2.0	29
171	N-related greenhouse gases in North America: innovations for a sustainable future. Current Opinion in Environmental Sustainability, 2014, 9-10, 1-8.	6.3	28
172	Evaluation of the Most Probable Number Method for Enumerating Denitrifying Bacteria. Soil Science Society of America Journal, 1985, 49, 642-645.	2.2	27
173	Loss of nutrients from terrestrial ecosystems to streams and the atmosphere following land use change in Amazonia. Geophysical Monograph Series, 2004, , 147-158.	0.1	27
174	Changes in Carbon Storage and Net Carbon Exchange One Year After an Initial Shelterwood Harvest at Howland Forest, ME. Environmental Management, 2004, 33, S9.	2.7	26
175	Constrained partitioning of autotrophic and heterotrophic respiration reduces model uncertainties of forest ecosystem carbon fluxes but not stocks. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 2476-2492.	3.0	25
176	Estimating Seasonal Changes in Volumetric Soil Water Content at Landscape Scales in a Savanna Ecosystem Using Two-Dimensional Resistivity Profiling. Earth Interactions, 2008, 12, 1-25.	1.5	24
177	Predicting decadal trends and transient responses of radiocarbon storage and fluxes in a temperate forest soil. Biogeosciences, 2012, 9, 3013-3028.	3.3	24
178	Is Temporal Variation of Soil Respiration Linked to the Phenology of Photosynthesis?. , 2009, , 187-199.		23
179	Six years of ecosystem-atmosphere greenhouse gas fluxes measured in a sub-boreal forest. Scientific Data, 2019, 6, 117.	5.3	23
180	Oligotrophic Tillandsia circinnata Schlecht (Bromeliaceae): An Assessment of Its Patterns of Mineral Allocation and Reproduction. American Journal of Botany, 1979, 66, 386.	1.7	22

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181	Effects of Varying Salinity on Phytoplankton Growth in a Low-Salinity Coastal Pond Under Two Nutrient Conditions. Biological Bulletin, 2002, 203, 260-261.	1.8	22
182	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
183	Objective indicators of pasture degradation from spectral mixture analysis of Landsat imagery. Journal of Geophysical Research, 2008, 113, .	3.3	21
184	Equivalent water thickness in savanna ecosystems: MODIS estimates based on ground and EO-1 Hyperion data. International Journal of Remote Sensing, 2011, 32, 7423-7440.	2.9	19
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