

# Scott X Chang

## List of Publications by Year in descending order

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Version: 2024-02-01

362  
papers

15,928  
citations

16451

64  
h-index

31849

101  
g-index

369  
all docs

369  
docs citations

369  
times ranked

13006  
citing authors

#	ARTICLE	IF	CITATIONS
1	Long-term nitrogen fertilization decreases bacterial diversity and favors the growth of <i>Actinobacteria</i> and <i>Proteobacteria</i> in agroecosystems across the globe. <i>Global Change Biology</i> , 2018, 24, 3452-3461.	9.5	436
2	Response of microbial communities to biochar-amended soils: a critical review. <i>Biochar</i> , 2019, 1, 3-22.	12.6	419
3	Technologies and perspectives for achieving carbon neutrality. <i>Innovation(China)</i> , 2021, 2, 100180.	9.1	306
4	Nitrate in groundwater of China: Sources and driving forces. <i>Global Environmental Change</i> , 2013, 23, 1112-1121.	7.8	289
5	Biochar had effects on phosphorus sorption and desorption in three soils with differing acidity. <i>Ecological Engineering</i> , 2014, 62, 54-60.	3.6	287
6	Pyrolysis condition affected sulfamethazine sorption by tea waste biochars. <i>Bioresource Technology</i> , 2014, 166, 303-308.	9.6	279
7	Biochar composition-dependent impacts on soil nutrient release, carbon mineralization, and potential environmental risk: A review. <i>Journal of Environmental Management</i> , 2019, 241, 458-467.	7.8	249
8	SMART biochar technology—A shifting paradigm towards advanced materials and healthcare research. <i>Environmental Technology and Innovation</i> , 2015, 4, 206-209.	6.1	206
9	Determinants of bacterial communities in Canadian agroforestry systems. <i>Environmental Microbiology</i> , 2016, 18, 1805-1816.	3.8	202
10	Status assessment and probabilistic health risk modeling of metals accumulation in agriculture soils across China: A synthesis. <i>Environment International</i> , 2019, 128, 165-174.	10.0	201
11	Biochar properties and lead(II) adsorption capacity depend on feedstock type, pyrolysis temperature, and steam activation. <i>Chemosphere</i> , 2019, 231, 393-404.	8.2	195
12	Contrasting effects of wheat straw and its biochar on greenhouse gas emissions and enzyme activities in a Chernozemic soil. <i>Biology and Fertility of Soils</i> , 2013, 49, 555-565.	4.3	176
13	Long-term intensive management effects on soil organic carbon pools and chemical composition in Moso bamboo ( <i>Phyllostachys pubescens</i> ) forests in subtropical China. <i>Forest Ecology and Management</i> , 2013, 303, 121-130.	3.2	167
14	Elevated temperature shifts soil N cycling from microbial immobilization to enhanced mineralization, nitrification and denitrification across global terrestrial ecosystems. <i>Global Change Biology</i> , 2020, 26, 5267-5276.	9.5	166
15	Soil pH has contrasting effects on gross and net nitrogen mineralizations in adjacent forest and grassland soils in central Alberta, Canada. <i>Soil Biology and Biochemistry</i> , 2013, 57, 848-857.	8.8	162
16	Biochar addition affected the dynamics of ammonia oxidizers and nitrification in microcosms of a coastal alkaline soil. <i>Biology and Fertility of Soils</i> , 2014, 50, 321-332.	4.3	158
17	Effects of plant diversity on microbial biomass and community metabolic profiles in a full-scale constructed wetland. <i>Ecological Engineering</i> , 2010, 36, 62-68.	3.6	149
18	Biochar reduces soil heterotrophic respiration in a subtropical plantation through increasing soil organic carbon recalcitrancy and decreasing carbon-degrading microbial activity. <i>Soil Biology and Biochemistry</i> , 2018, 122, 173-185.	8.8	149

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19	Potential for mitigating global agricultural ammonia emission: A meta-analysis. <i>Environmental Pollution</i> , 2019, 245, 141-148.	7.5	148
20	Biochar increases soil microbial biomass with changes in extra- and intracellular enzyme activities: a global meta-analysis. <i>Biochar</i> , 2020, 2, 65-79.	12.6	146
21	Linking soil fungal community structure and function to soil organic carbon chemical composition in intensively managed subtropical bamboo forests. <i>Soil Biology and Biochemistry</i> , 2017, 107, 19-31.	8.8	139
22	Biochar surface complexation and Ni(II), Cu(II), and Cd(II) adsorption in aqueous solutions depend on feedstock type. <i>Science of the Total Environment</i> , 2020, 712, 136538.	8.0	137
23	Nondestructive and rapid estimation of hardwood foliar nitrogen status using the SPAD-502 chlorophyll meter. <i>Forest Ecology and Management</i> , 2003, 181, 331-338.	3.2	135
24	Substrate type, temperature, and moisture content affect gross and net N mineralization and nitrification rates in agroforestry systems. <i>Biology and Fertility of Soils</i> , 2004, 39, 269-279.	4.3	129
25	Nitrogen Footprint in China: Food, Energy, and Nonfood Goods. <i>Environmental Science &amp; Technology</i> , 2013, 47, 9217-9224.	10.0	122
26	Wheat straw and its biochar have contrasting effects on inorganic N retention and N <sub>2</sub> O production in a cultivated Black Chernozem. <i>Biology and Fertility of Soils</i> , 2012, 48, 941-946.	4.3	121
27	Conservation agriculture practices increase soil microbial biomass carbon and nitrogen in agricultural soils: A global meta-analysis. <i>Soil Biology and Biochemistry</i> , 2018, 121, 50-58.	8.8	121
28	Stand structural diversity rather than species diversity enhances aboveground carbon storage in secondary subtropical forests in Eastern China. <i>Biogeosciences</i> , 2016, 13, 4627-4635.	3.3	119
29	Land cover change effects on soil chemical and biological properties after planting Mongolian pine ( <i>Pinus sylvestris</i> var. <i>mongolica</i> ) in sandy lands in Keerqin, northeastern China. <i>Plant and Soil</i> , 2009, 317, 121-133.	3.7	117
30	The quality and quantity of exogenous organic carbon input control microbial NO <sub>3</sub> <sup>-</sup> immobilization: A meta-analysis. <i>Soil Biology and Biochemistry</i> , 2017, 115, 357-363.	8.8	117
31	Adsorption of ammonium in aqueous solutions by pine sawdust and wheat straw biochars. <i>Environmental Science and Pollution Research</i> , 2018, 25, 25638-25647.	5.3	115
32	Soil extracellular enzyme stoichiometry reflects the shift from P- to N-limitation of microorganisms with grassland restoration. <i>Soil Biology and Biochemistry</i> , 2020, 149, 107928.	8.8	114
33	An integrated analysis on source-exposure risk of heavy metals in agricultural soils near intense electronic waste recycling activities. <i>Environment International</i> , 2019, 133, 105239.	10.0	111
34	Land use change effects on ecosystem carbon balance: From agricultural to hybrid poplar plantation. <i>Agriculture, Ecosystems and Environment</i> , 2011, 141, 342-349.	5.3	108
35	Patterns and drivers of global gross nitrogen mineralization in soils. <i>Global Change Biology</i> , 2021, 27, 5950-5962.	9.5	106
36	Biochar increases soil microbial biomass but has variable effects on microbial diversity: A meta-analysis. <i>Science of the Total Environment</i> , 2020, 749, 141593.	8.0	105

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37	Agricultural ammonia emissions contribute to China's urban air pollution. <i>Frontiers in Ecology and the Environment</i> , 2014, 12, 265-266.	4.0	103
38	Flexible and Self-Healing Aqueous Supercapacitors for Low Temperature Applications: Polyampholyte Gel Electrolytes with Biochar Electrodes. <i>Scientific Reports</i> , 2017, 7, 1685.	3.3	102
39	Spatial vegetation patterns as early signs of desertification: a case study of a desert steppe in Inner Mongolia, China. <i>Landscape Ecology</i> , 2010, 25, 1519-1527.	4.2	100
40	Soil texture and layering effects on water and salt dynamics in the presence of a water table: a review. <i>Environmental Reviews</i> , 2014, 22, 41-50.	4.5	100
41	Negative effects of multiple global change factors on soil microbial diversity. <i>Soil Biology and Biochemistry</i> , 2021, 156, 108229.	8.8	97
42	Liming effects on soil pH and crop yield depend on lime material type, application method and rate, and crop species: a global meta-analysis. <i>Journal of Soils and Sediments</i> , 2019, 19, 1393-1406.	3.0	96
43	Soil compaction and forest floor removal reduced microbial biomass and enzyme activities in a boreal aspen forest soil. <i>Biology and Fertility of Soils</i> , 2008, 44, 471-479.	4.3	95
44	Community-weighted mean of leaf traits and divergence of wood traits predict aboveground biomass in secondary subtropical forests. <i>Science of the Total Environment</i> , 2017, 574, 654-662.	8.0	94
45	Global gross nitrification rates are dominantly driven by soil carbon-to-nitrogen stoichiometry and total nitrogen. <i>Global Change Biology</i> , 2021, 27, 6512-6524.	9.5	94
46	Effects of soil compaction and forest floor removal on soil microbial properties and N transformations in a boreal forest long-term soil productivity study. <i>Forest Ecology and Management</i> , 2005, 217, 158-170.	3.2	92
47	Effects of plant diversity on nutrient retention and enzyme activities in a full-scale constructed wetland. <i>Bioresource Technology</i> , 2010, 101, 1686-1692.	9.6	92
48	Irrigation and fertilization effects on foliar and soil carbon and nitrogen isotope ratios in a loblolly pine stand. <i>Forest Ecology and Management</i> , 2005, 213, 90-101.	3.2	90
49	Grazing intensity affected spatial patterns of vegetation and soil fertility in a desert steppe. <i>Agriculture, Ecosystems and Environment</i> , 2010, 138, 282-292.	5.3	90
50	Synthetic fertilizer and livestock manure differently affect $\delta^{15}N$ in the agricultural landscape: A review. <i>Agriculture, Ecosystems and Environment</i> , 2017, 237, 1-15.	5.3	90
51	Ecosystem carbon stocks and distribution under different land-uses in north central Alberta, Canada. <i>Forest Ecology and Management</i> , 2009, 257, 1776-1785.	3.2	88
52	Nitrogen deposition affects both net and gross soil nitrogen transformations in forest ecosystems: A review. <i>Environmental Pollution</i> , 2019, 244, 608-616.	7.5	88
53	Pyrolysis temperature and steam activation effects on sorption of phosphate on pine sawdust biochars in aqueous solutions. <i>Chemical Speciation and Bioavailability</i> , 2016, 28, 42-50.	2.0	83
54	Fuel, thermal and surface properties of microwave-pyrolyzed biochars depend on feedstock type and pyrolysis temperature. <i>Bioresource Technology</i> , 2021, 320, 124282.	9.6	83

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55	Nitrogen mineralization, N <sub>2</sub> O production and soil microbiological properties as affected by long-term applications of sewage sludge composts. <i>Biology and Fertility of Soils</i> , 2004, 40, 101-109.	4.3	79
56	Methane emissions from the trunks of living trees on upland soils. <i>New Phytologist</i> , 2016, 211, 429-439.	7.3	78
57	Effects of understory removal, N fertilization, and litter layer removal on soil N cycling in a 13-year-old white spruce plantation infested with Canada bluejoint grass. <i>Plant and Soil</i> , 2007, 292, 243-258.	3.7	76
58	Biochar decreases soil N <sub>2</sub> O emissions in Moso bamboo plantations through decreasing labile N concentrations, N-cycling enzyme activities and nitrification/denitrification rates. <i>Geoderma</i> , 2019, 348, 135-145.	5.1	76
59	Biochar heavy metal removal in aqueous solution depends on feedstock type and pyrolysis purging gas. <i>Environmental Pollution</i> , 2021, 281, 117094.	7.5	76
60	Effects of tree harvesting, forest floor removal, and compaction on soil microbial biomass, microbial respiration, and N availability in a boreal aspen forest in British Columbia. <i>Soil Biology and Biochemistry</i> , 2006, 38, 1734-1744.	8.8	75
61	Nitrogen depositions increase soil respiration and decrease temperature sensitivity in a Moso bamboo forest. <i>Agricultural and Forest Meteorology</i> , 2019, 268, 48-54.	4.8	73
62	Bamboo biochar amendment improves the growth and reproduction of <i>Eisenia fetida</i> and the quality of green waste vermicompost. <i>Ecotoxicology and Environmental Safety</i> , 2018, 156, 197-204.	6.0	70
63	Biochar affects the fate of phosphorus in soil and water: A critical review. <i>Chemosphere</i> , 2021, 283, 131176.	8.2	69
64	Grazing and climate effects on soil organic carbon concentration and particle-size association in northern grasslands. <i>Scientific Reports</i> , 2018, 8, 1336.	3.3	68
65	Nitrogen use efficiencies in Chinese agricultural systems and implications for food security and environmental protection. <i>Regional Environmental Change</i> , 2017, 17, 1217-1227.	2.9	67
66	Contrasting effects of bamboo leaf and its biochar on soil CO <sub>2</sub> efflux and labile organic carbon in an intensively managed Chinese chestnut plantation. <i>Biology and Fertility of Soils</i> , 2014, 50, 1109-1119.	4.3	66
67	Organic mulch and fertilization affect soil carbon pools and forms under intensively managed bamboo ( <i>Phyllostachys praecox</i> ) forests in southeast China. <i>Journal of Soils and Sediments</i> , 2010, 10, 739-747.	3.0	65
68	Nickel in soil and water: Sources, biogeochemistry, and remediation using biochar. <i>Journal of Hazardous Materials</i> , 2021, 419, 126421.	12.4	65
69	A global strategy to mitigate the environmental impact of China's ruminant consumption boom. <i>Nature Communications</i> , 2018, 9, 4133.	12.8	64
70	Residue retention promotes soil carbon accumulation in minimum tillage systems: Implications for conservation agriculture. <i>Science of the Total Environment</i> , 2020, 740, 140147.	8.0	64
71	Carboxyl and hydroxyl groups enhance ammonium adsorption capacity of iron (III) chloride and hydrochloric acid modified biochars. <i>Bioresource Technology</i> , 2020, 309, 123390.	9.6	64
72	Liming does not counteract the influence of long-term fertilization on soil bacterial community structure and its co-occurrence pattern. <i>Soil Biology and Biochemistry</i> , 2018, 123, 45-53.	8.8	63

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73	Dissolved soil organic carbon and nitrogen were affected by conversion of native forests to plantations in subtropical China. <i>Canadian Journal of Soil Science</i> , 2010, 90, 27-36.	1.2	62
74	Pine sawdust biochar reduces GHG emission by decreasing microbial and enzyme activities in forest and grassland soils in a laboratory experiment. <i>Science of the Total Environment</i> , 2018, 625, 1247-1256.	8.0	61
75	Mechanistic insights into the (im)mobilization of arsenic, cadmium, lead, and zinc in a multi-contaminated soil treated with different biochars. <i>Environment International</i> , 2021, 156, 106638.	10.0	61
76	Understorey vegetation management affected greenhouse gas emissions and labile organic carbon pools in an intensively managed Chinese chestnut plantation. <i>Plant and Soil</i> , 2014, 376, 363-375.	3.7	60
77	Greenhouse gas emissions from excreta patches of grazing animals and their mitigation strategies. <i>Earth-Science Reviews</i> , 2017, 171, 44-57.	9.1	58
78	Lead(II) adsorption on microwave-pyrolyzed biochars and hydrochars depends on feedstock type and production temperature. <i>Journal of Hazardous Materials</i> , 2021, 412, 125255.	12.4	58
79	Converting native shrub forests to Chinese chestnut plantations and subsequent intensive management affected soil C and N pools. <i>Forest Ecology and Management</i> , 2014, 312, 161-169.	3.2	57
80	Trees increase soil carbon and its stability in three agroforestry systems in central Alberta, Canada. <i>Forest Ecology and Management</i> , 2014, 328, 131-139.	3.2	56
81	Root rather than leaf litter input drives soil carbon sequestration after afforestation on a marginal cropland. <i>Forest Ecology and Management</i> , 2016, 362, 38-45.	3.2	56
82	Land-use type and temperature affect gross nitrogen transformation rates in Chinese and Canadian soils. <i>Plant and Soil</i> , 2010, 334, 377-389.	3.7	55
83	Sulfate adsorption properties of acid-sensitive soils in the Athabasca oil sands region in Alberta, Canada. <i>Chemosphere</i> , 2011, 84, 457-463.	8.2	55
84	Biochar application increased methane emission, soil carbon storage and net ecosystem carbon budget in a 2-year vegetable-rice rotation. <i>Agriculture, Ecosystems and Environment</i> , 2020, 292, 106831.	5.3	55
85	Variations of $\delta^{13}C$ AND $\delta^{15}N$ in <i>Pinus Densiflora</i> Tree-Rings and their Relationship to Environmental Changes in Eastern Korea. <i>Water, Air, and Soil Pollution</i> , 2005, 164, 173-187.	2.4	54
86	Soil compaction and forest litter amendment affect carbon and net nitrogen mineralization in a boreal forest soil. <i>Soil and Tillage Research</i> , 2007, 93, 77-86.	5.6	54
87	Bamboo invasion of broadleaf forests altered soil fungal community closely linked to changes in soil organic C chemical composition and mineral N production. <i>Plant and Soil</i> , 2017, 418, 507-521.	3.7	54
88	Converting natural evergreen broadleaf forests to intensively managed moso bamboo plantations affects the pool size and stability of soil organic carbon and enzyme activities. <i>Biology and Fertility of Soils</i> , 2018, 54, 467-480.	4.3	54
89	Soil microbial biomass and microbial and mineralizable N in a clear-cut chronosequence on northern Vancouver Island, British Columbia. <i>Canadian Journal of Forest Research</i> , 1995, 25, 1595-1607.	1.7	53
90	Water-deficit and high temperature affected water use efficiency and arabinoxylan concentration in spring wheat. <i>Journal of Cereal Science</i> , 2010, 52, 263-269.	3.7	53

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91	Plant community development following reclamation of oil sands mine sites in the boreal forest: a review. <i>Environmental Reviews</i> , 2018, 26, 286-298.	4.5	53
92	Additive negative effects of decadal warming and nitrogen addition on grassland community stability. <i>Journal of Ecology</i> , 2020, 108, 1442-1452.	4.0	53
93	Carbon accumulation in agroforestry systems is affected by tree species diversity, age and regional climate: A global meta-analysis. <i>Global Ecology and Biogeography</i> , 2020, 29, 1817-1828.	5.8	52
94	Carbonization temperature and feedstock type interactively affect chemical, fuel, and surface properties of hydrochars. <i>Bioresource Technology</i> , 2021, 330, 124976.	9.6	52
95	Carbon mineralization of tree leaf litter and crop residues from poplar-based agroforestry systems in Northeast China: A laboratory study. <i>Applied Soil Ecology</i> , 2010, 44, 133-137.	4.3	51
96	Effects of land use type and incubation temperature on greenhouse gas emissions from Chinese and Canadian soils. <i>Journal of Soils and Sediments</i> , 2011, 11, 15-24.	3.0	51
97	Effects of ammonium-based nitrogen addition on soil nitrification and nitrogen gas emissions depend on fertilizer-induced changes in pH in a tea plantation soil. <i>Science of the Total Environment</i> , 2020, 747, 141340.	8.0	51
98	Soil organic and inorganic carbon contents under various land uses across a transect of continental steppes in Inner Mongolia. <i>Catena</i> , 2013, 109, 110-117.	5.0	50
99	Minimum tillage and residue retention increase soil microbial population size and diversity: Implications for conservation tillage. <i>Science of the Total Environment</i> , 2020, 716, 137164.	8.0	50
100	DRAINAGE AFFECTS TREE GROWTH AND C AND N DYNAMICS IN A MINEROTROPHIC PEATLAND. <i>Ecology</i> , 2007, 88, 443-453.	3.2	49
101	Forest and grassland cover types reduce net greenhouse gas emissions from agricultural soils. <i>Science of the Total Environment</i> , 2016, 571, 1115-1127.	8.0	49
102	Soil respiration in four different land use systems in north central Alberta, Canada. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	48
103	Widespread non-microbial methane production by organic compounds and the impact of environmental stresses. <i>Earth-Science Reviews</i> , 2013, 127, 193-202.	9.1	48
104	Wheat straw and its biochar had contrasting effects on soil C and N cycling two growing seasons after addition to a Black Chernozemic soil planted to barley. <i>Biology and Fertility of Soils</i> , 2014, 50, 1291-1299.	4.3	48
105	Carbon pool size and stability are affected by trees and grassland cover types within agroforestry systems of western Canada. <i>Agriculture, Ecosystems and Environment</i> , 2015, 213, 105-113.	5.3	48
106	Recovery of fertilizer-derived inorganic-15N in a vegetable field soil as affected by application of an organic amendment. <i>Plant and Soil</i> , 2004, 263, 191-201.	3.7	47
107	Organic Soils of Canada: Part 1. Wetland Organic soils. <i>Canadian Journal of Soil Science</i> , 2011, 91, 807-822.	1.2	47
108	Coexistence of polyethylene microplastics and biochar increases ammonium sorption in an aqueous solution. <i>Journal of Hazardous Materials</i> , 2021, 405, 124260.	12.4	47

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109	Grain 15N of crops applied with organic and chemical fertilizers in a four-year rotation. <i>Plant and Soil</i> , 2006, 284, 165-174.	3.7	45
110	Site history affects soil and plant 15 N natural abundances ( $\delta^{15}N$ ) in forests of northern Vancouver Island, British Columbia. <i>Functional Ecology</i> , 2000, 14, 273-280.	3.6	44
111	Soil and Crop Response to Wood Ash and Lime Application in Acidic Soils. <i>Agronomy Journal</i> , 2012, 104, 715-721.	1.8	44
112	Nitrogen deposition differentially affects soil gross nitrogen transformations in organic and mineral horizons. <i>Earth-Science Reviews</i> , 2020, 201, 103033.	9.1	44
113	Linking soil carbon availability, microbial community composition and enzyme activities to organic carbon mineralization of a bamboo forest soil amended with pyrogenic and fresh organic matter. <i>Science of the Total Environment</i> , 2021, 801, 149717.	8.0	44
114	Pristine and engineered biochar for the removal of contaminants co-existing in several types of industrial wastewaters: A critical review. <i>Science of the Total Environment</i> , 2022, 809, 151120.	8.0	44
115	Mineralization Potential and Temperature Sensitivity of Soil Organic Carbon under Different Land Uses in the Parkland Region of Alberta, Canada. <i>Soil Science Society of America Journal</i> , 2012, 76, 241-251.	2.2	43
116	Converting paddy fields to Lei bamboo ( <i>Phyllostachys praecox</i> ) stands affected soil nutrient concentrations, labile organic carbon pools, and organic carbon chemical compositions. <i>Plant and Soil</i> , 2013, 367, 249-261.	3.7	43
117	Plant species richness enhances nitrous oxide emissions in microcosms of constructed wetlands. <i>Ecological Engineering</i> , 2014, 64, 108-115.	3.6	43
118	A global synthesis of the effect of water and nitrogen input on maize ( <i>Zea mays</i> ) yield, water productivity and nitrogen use efficiency. <i>Agricultural and Forest Meteorology</i> , 2019, 268, 136-145.	4.8	43
119	Long-term intensive management increased carbon occluded in phytolith (PhytOC) in bamboo forest soils. <i>Scientific Reports</i> , 2014, 4, 3602.	3.3	43
120	Meta-analysis shows that plant mixtures increase soil phosphorus availability and plant productivity in diverse ecosystems. <i>Nature Ecology and Evolution</i> , 2022, 6, 1112-1121.	7.8	43
121	Sensitivity to Acidification of Forest Soils in Two Watersheds with Contrasting Hydrological Regimes in the Oil Sands Region of Alberta. <i>Pedosphere</i> , 2007, 17, 747-757.	4.0	41
122	Soil autotrophic and heterotrophic respiration respond differently to land-use change and variations in environmental factors. <i>Agricultural and Forest Meteorology</i> , 2018, 250-251, 290-298.	4.8	41
123	Temperature sensitivity of soil carbon and nitrogen mineralization: impacts of nitrogen species and land use type. <i>Plant and Soil</i> , 2013, 372, 597-608.	3.7	40
124	Long-term grazing impacts on vegetation diversity, composition, and exotic species presence across an aridity gradient in northern temperate grasslands. <i>Plant Ecology</i> , 2018, 219, 649-663.	1.6	40
125	Positive effects of plant diversity on nitrogen removal in microcosms of constructed wetlands with high ammonium loading. <i>Ecological Engineering</i> , 2015, 82, 614-623.	3.6	39
126	Carbon isotope composition of <i>Phragmites australis</i> in a constructed saline wetland. <i>Aquatic Botany</i> , 2005, 82, 27-38.	1.6	38



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127	Biochar and its manure-based feedstock have divergent effects on soil organic carbon and greenhouse gas emissions in croplands. <i>Science of the Total Environment</i> , 2022, 806, 151337.	8.0	38
128	Effects of monocot and dicot types and species richness in mesocosm constructed wetlands on removal of pollutants from wastewater. <i>Bioresource Technology</i> , 2011, 102, 10260-10265.	9.6	37
129	The effects of plant diversity on nitrous oxide emissions in hydroponic microcosms. <i>Atmospheric Environment</i> , 2013, 77, 544-547.	4.1	37
130	Soil organic carbon stocks in three Canadian agroforestry systems: From surface organic to deeper mineral soils. <i>Forest Ecology and Management</i> , 2018, 417, 103-109.	3.2	36
131	Changes in nitrogen isotopic compositions during composting of cattle feedlot manure: Effects of bedding material type. <i>Bioresource Technology</i> , 2008, 99, 5452-5458.	9.6	35
132	Effects of plant diversity and sand particle size on methane emission and nitrogen removal in microcosms of constructed wetlands. <i>Ecological Engineering</i> , 2016, 95, 390-398.	3.6	35
133	Phosphorus sorption capacity of biochars varies with biochar type and salinity level. <i>Environmental Science and Pollution Research</i> , 2018, 25, 25799-25812.	5.3	35
134	Biochar decreases methanogenic archaea abundance and methane emissions in a flooded paddy soil. <i>Science of the Total Environment</i> , 2021, 752, 141958.	8.0	35
135	Biochar Surface Functionality Plays a Vital Role in (Im)Mobilization and Phytoavailability of Soil Vanadium. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 6864-6874.	6.7	35
136	Soil retention, tree uptake, and tree resorption of $^{15}\text{NH}_4\text{NO}_3$ and $\text{NH}_4^{15}\text{NO}_3$ applied to trembling and hybrid aspens at planting. <i>Canadian Journal of Forest Research</i> , 2005, 35, 823-831.	1.7	34
137	Temporal changes in soil carbon and nitrogen storage in a hybrid poplar chronosequence in northern Alberta. <i>Geoderma</i> , 2008, 144, 613-619.	5.1	34
138	Soil microbial community composition rather than litter quality is linked with soil organic carbon chemical composition in plantations in subtropical China. <i>Journal of Soils and Sediments</i> , 2015, 15, 1094-1103.	3.0	34
139	Functional diversity of decomposers modulates litter decomposition affected by plant invasion along a climate gradient. <i>Journal of Ecology</i> , 2021, 109, 1236-1249.	4.0	34
140	Phosphorus fractions and profile distribution in newly formed wetland soils along a salinity gradient in the Yellow River Delta in China. <i>Journal of Plant Nutrition and Soil Science</i> , 2012, 175, 721-728.	1.9	33
141	Plant diversity decreases net global warming potential integrating multiple functions in microcosms of constructed wetlands. <i>Journal of Cleaner Production</i> , 2018, 184, 718-726.	9.3	33
142	Drought differentially affects autotrophic and heterotrophic soil respiration rates and their temperature sensitivity. <i>Biology and Fertility of Soils</i> , 2019, 55, 275-283.	4.3	33
143	Linking enhanced soil nitrogen mineralization to increased fungal decomposition capacity with Moso bamboo invasion of broadleaf forests. <i>Science of the Total Environment</i> , 2021, 771, 144779.	8.0	33
144	Vector analysis of understory competition, N fertilization, and litter layer removal effects on white spruce growth and nutrition in a 13-year-old plantation. <i>Forest Ecology and Management</i> , 2006, 236, 332-341.	3.2	32

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146	Gross N transformations were little affected by 4years of simulated N and S depositions in an aspen-white spruce dominated boreal forest in Alberta, Canada. <i>Forest Ecology and Management</i> , 2011, 262, 571-578.	3.2	32
147	Gene discovery in cereals through quantitative trait loci and expression analysis in water-use efficiency measured by carbon isotope discrimination. <i>Plant, Cell and Environment</i> , 2011, 34, 2009-2023.	5.7	32
148	Understorey competition affects tree growth and fate of fertilizer-applied 15N in a Coastal British Columbia plantation forest: 6-year results. <i>Canadian Journal of Forest Research</i> , 2000, 30, 1379-1388.	1.7	31
149	Different effects of warming and cooling on the decomposition of soil organic matter in warm-temperate oak forests: a reciprocal translocation experiment. <i>Biogeochemistry</i> , 2014, 121, 551-564.	3.5	30
150	Grazing, regional climate and soil biophysical impacts on microbial enzyme activity in grassland soil of western Canada. <i>Pedobiologia</i> , 2015, 58, 201-209.	1.2	30
151	Carbon storage, net primary production, and net ecosystem production in four major temperate forest types in northeastern China. <i>Canadian Journal of Forest Research</i> , 2016, 46, 143-151.	1.7	30
152	Wheat straw and its biochar differently affect soil properties and field-based greenhouse gas emission in a Chernozemic soil. <i>Biology and Fertility of Soils</i> , 2020, 56, 1023-1036.	4.3	30
153	Organic amendment enhanced microbial nitrate immobilization with negligible denitrification nitrogen loss in an upland soil. <i>Environmental Pollution</i> , 2021, 288, 117721.	7.5	30
154	Interactive effects of N fertilizer source and timing of fertilization leave specific N isotopic signatures in Chinese cabbage and soil. <i>Soil Biology and Biochemistry</i> , 2006, 38, 1682-1689.	8.8	29
155	White spruce foliar $\delta^{13}C$ and $\delta^{15}N$ indicate changed soil N availability by understory removal and N fertilization in a 13-year-old boreal plantation. <i>Plant and Soil</i> , 2012, 361, 375-384.	3.7	29
156	Contrasting decomposition rates and nutrient release patterns in mixed vs singular species litter in agroforestry systems. <i>Journal of Soils and Sediments</i> , 2014, 14, 1071-1081.	3.0	29
157	Textural interfaces affected the distribution of roots, water, and nutrients in some reconstructed forest soils in the Athabasca oil sands region. <i>Ecological Engineering</i> , 2014, 64, 240-249.	3.6	29
158	Understorey management and fertilization affected soil greenhouse gas emissions and labile organic carbon pools in a Chinese chestnut plantation. <i>Forest Ecology and Management</i> , 2015, 337, 126-134.	3.2	29
159	Plant species diversity impacts nitrogen removal and nitrous oxide emissions as much as carbon addition in constructed wetland microcosms. <i>Ecological Engineering</i> , 2016, 93, 144-151.	3.6	29
160	Soil moisture effects on gross nitrification differ between adjacent grassland and forested soils in central Alberta, Canada. <i>Plant and Soil</i> , 2012, 352, 289-301.	3.7	28
161	Responses of seasonal and diurnal soil CO <sub>2</sub> effluxes to land-use change from paddy fields to Lei bamboo ( <i>Phyllostachys praecox</i> ) stands. <i>Atmospheric Environment</i> , 2013, 77, 856-864.	4.1	28
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164	Soil gross nitrogen transformations are related to land-uses in two agroforestry systems. <i>Ecological Engineering</i> , 2019, 127, 431-439.	3.6	28
165	Title is missing!. <i>Agroforestry Systems</i> , 2002, 54, 149-160.	2.0	27
166	Soil respiration and its temperature sensitivity in agricultural and afforested poplar plantation systems in northern Alberta. <i>Biology and Fertility of Soils</i> , 2016, 52, 629-641.	4.3	27
167	Mycorrhizal inoculation and nitrogen fertilization affect the physiology and growth of spring wheat under two contrasting water regimes. <i>Plant and Soil</i> , 2016, 398, 47-57.	3.7	27
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169	Decomposition of trembling aspen leaf litter under long-term nitrogen and sulfur deposition: Effects of litter chemistry and forest floor microbial properties. <i>Forest Ecology and Management</i> , 2018, 412, 53-61.	3.2	26
170	Modified and pristine biochars for remediation of chromium contamination in soil and aquatic systems. <i>Chemosphere</i> , 2022, 303, 134942.	8.2	26
171	Nitrogen and carbon isotope responses of Chinese cabbage and chrysanthemum to the application of liquid pig manure. <i>Plant and Soil</i> , 2007, 295, 67-77.	3.7	25
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174	Trait variability differs between leaf and wood tissues across ecological scales in subtropical forests. <i>Journal of Vegetation Science</i> , 2014, 25, 703-714.	2.2	25
175	Limiting factors for lodgepole pine ( <i>Pinus contorta</i> ) and white spruce ( <i>Picea glauca</i> ) growth differ in some reconstructed sites in the Athabasca oil sands region. <i>Ecological Engineering</i> , 2015, 75, 323-331.	3.6	25
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177	Moso bamboo invasion into broadleaf forests is associated with greater abundance and activity of soil autotrophic bacteria. <i>Plant and Soil</i> , 2018, 428, 163-177.	3.7	25
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179	Relating Tree Ring Chemistry of <i>Pinus densiflora</i> to Precipitation Acidity in an Industrial Area of South Korea. <i>Water, Air, and Soil Pollution</i> , 2009, 199, 95-106.	2.4	24
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182	Coarse Woody Debris Increases Microbial Community Functional Diversity but not Enzyme Activities in Reclaimed Oil Sands Soils. <i>PLoS ONE</i> , 2015, 10, e0143857.	2.5	24
183	Seedling sweetgum ( <i>Liquidambar styraciflua</i> L.) half-sib family response to N and P fertilization: growth, leaf area, net photosynthesis and nutrient uptake. <i>Forest Ecology and Management</i> , 2003, 173, 281-291.	3.2	23
184	Sample storage-induced changes in the quantity and quality of soil labile organic carbon. <i>Scientific Reports</i> , 2015, 5, 17496.	3.3	23
185	Exponential fertilization promotes seedling growth by increasing nitrogen retranslocation in trembling aspen planted for oil sands reclamation. <i>Forest Ecology and Management</i> , 2016, 372, 35-43.	3.2	23
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187	Defoliation intensity and elevated precipitation effects on microbiome and interactome depend on site type in northern mixed-grass prairie. <i>Soil Biology and Biochemistry</i> , 2018, 122, 163-172.	8.8	23
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190	Long-term nitrogen addition does not sustain host tree stem radial growth but doubles the abundance of high biomass ectomycorrhizal fungi. <i>Global Change Biology</i> , 2021, 27, 4125-4138.	9.5	23
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194	Tree architecture varies with forest succession in evergreen broad-leaved forests in Eastern China. <i>Trees - Structure and Function</i> , 2015, 29, 43-57.	1.9	22
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