Edward R Brzostek

List of Publications by Year
in descending order

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37
papers

4,522
citations

172386
29
h-index

330025
37
g-index

37
all docs

37
docs citations

37
times ranked

5381
citing authors

#	Article	IF	Citations
1	The mycorrhizalâ€associated nutrient economy: a new framework for predicting carbonâ€“nutrient couplings in temperate forests. New Phytologist, 2013, 199, 41-51.	3.5	737
2	Synthesis and modeling perspectives of rhizosphere priming. New Phytologist, 2014, 201, 31-44.	3.5	436
3	Rhizosphere processes are quantitatively important components of terrestrial carbon and nutrient cycles. Global Change Biology, 2015, 21, 2082-2094.	4.2	424
4	Chronic nitrogen additions suppress decomposition and sequester soil carbon in temperate forests. Biogeochemistry, 2014, 121, 305-316.	1.7	302
5	The role of isohydric and anisohydric species in determining ecosystem-scale response to severe drought. Oecologia, 2015, 179, 641-654.	0.9	213
6	Root carbon inputs to the rhizosphere stimulate extracellular enzyme activity and increase nitrogen availability in temperate forest soils. Biogeochemistry, 2013, 115, 65-76.	1.7	176
7	Dominant mycorrhizal association of trees alters carbon and nutrient cycling by selecting for microbial groups with distinct enzyme function. New Phytologist, 2017, 214, 432-442.	3.5	173
8	Mycorrhizal type determines the magnitude and direction of rootâ€induced changes in decomposition in a temperate forest. New Phytologist, 2015, 206, 1274-1282.	3.5	164
9	Chronic water stress reduces tree growth and the carbon sink of deciduous hardwood forests. Global Change Biology, 2014, 20, 2531-2539.	4.2	148
10	Carbon cost of plant nitrogen acquisition: global carbon cycle impact from an improved plant nitrogen cycle in theÂCommunity Land Model. Global Change Biology, 2016, 22, 1299-1314.	4.2	137
11	Modeling the carbon cost of plant nitrogen acquisition: Mycorrhizal trade-offs and multipath resistance uptake improve predictions of retranslocation. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1684-1697.	1.3	133
12	Greenness indices from digital cameras predict the timing and seasonal dynamics of canopyâ€scale photosynthesis. Ecological Applications, 2015, 25, 99-115.	1.8	129
13	Interactions among plants, bacteria, and fungi reduce extracellular enzyme activities under longâ€term N fertilization. Global Change Biology, 2018, 24, 2721-2734.	4.2	126
14	Feedbacks between plant N demand and rhizosphere priming depend on type of mycorrhizal association. Ecology Letters, 2017, 20, 1043-1053.	3.0	114
15	Fast-decaying plant litter enhances soil carbon in temperate forests but not through microbial physiological traits. Nature Communications, 2022, 13, 1229.	5.8	92
16	Substrate supply, fine roots, and temperature control proteolytic enzyme activity in temperate forest soils. Ecology, 2011, 92, 892-902.	1.5	86
17	Decay rates of leaf litters from arbuscular mycorrhizal trees are more sensitive to soil effects than litters from ectomycorrhizal trees. Journal of Ecology, 2015, 103, 1454-1463.	1.9	85
18	The rhizosphere and hyphosphere differ in their impacts on carbon and nitrogen cycling in forests exposed to elevated <scp>CO</scp>₂. New Phytologist, 2015, 205, 1164-1174.	3.5	84

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19	The effect of experimental warming and precipitation change on proteolytic enzyme activity: positive feedbacks to nitrogen availability are not universal. Global Change Biology, 2012, 18, 2617-2625.	4.2	80
20	Diverse Mycorrhizal Associations Enhance Terrestrial C Storage in a Global Model. Global Biogeochemical Cycles, 2019, 33, 501-523.	1.9	80
21	Rootâ€derived inputs are major contributors to soil carbon in temperate forests, but vary by mycorrhizal type. Ecology Letters, 2021, 24, 626-635.	3.0	75
22	Intact amino acid uptake by northern hardwood and conifer trees. Oecologia, 2009, 160, 129-138.	0.9	69
23	Interactions among decaying leaf litter, root litter and soil organic matter vary with mycorrhizal type. Journal of Ecology, 2018, 106, 502-513.	1.9	67
24	Altered plant carbon partitioning enhanced forest ecosystem carbon storage after 25 years of nitrogen additions. New Phytologist, 2021, 230, 1435-1448.	3.5	51
25	Seasonal variation in the temperature sensitivity of proteolytic enzyme activity in temperate forest soils. Journal of Geophysical Research, 2012, 117, .	3.3	46
26	Treeâ€mycorrhizal associations detected remotely from canopy spectral properties. Global Change Biology, 2016, 22, 2596-2607.	4.2	45
27	Toward a better integration of biological data from precipitation manipulation experiments into Earth system models. Reviews of Geophysics, 2014, 52, 412-434.	9.0	39
28	21stâ€century biogeochemical modeling: Challenges for Centuryâ€based models and where do we go from here?. GCB Bioenergy, 2020, 12, 774-788.	2.5	36
29	An improved approach for remotely sensing water stress impacts on forest C uptake. Global Change Biology, 2014, 20, 2856-2866.	4.2	35
30	Modeling the Carbon Cost of Plant Nitrogen and Phosphorus Uptake Across Temperate and Tropical Forests. Frontiers in Forests and Global Change, 2020, 3, .	1.0	27
31	Differences in microbial community response to nitrogen fertilization result in unique enzyme shifts between arbuscular and ectomycorrhizalâ€dominated soils. Global Change Biology, 2021, 27, 2049-2060.	4.2	24
32	Capturing species-level drought responses in a temperate deciduous forest using ratios of photochemical reflectance indices between sunlit and shaded canopies. Remote Sensing of Environment, 2017, 199, 350-359.	4.6	21
33	Neglecting plantâ€“microbe symbioses leads to underestimation of modeled climate impacts. Biogeosciences, 2019, 16, 457-465.	1.3	20
34	Ectomycorrhizal Plant-Fungal Co-invasions as Natural Experiments for Connecting Plant and Fungal Traits to Their Ecosystem Consequences. Frontiers in Forests and Global Change, 2020, 3, .	1.0	20
35	Interactions between microbial diversity and substrate chemistry determine the fate of carbon in soil. Scientific Reports, 2021, 11, 19320.	1.6	16
36	Mycorrhizal type determines rootâ€“microbial responses to nitrogen fertilization and recovery. Biogeochemistry, 2022, 157, 245-258.	1.7	8

#	ARTICLE	IF	CITATIONS
37	A new bioenergy model that simulates the impacts of plantâ€microbial interactions, soil carbon protection, and mechanistic tillage on soil carbon cycling. GCB Bioenergy, 2022, 14, 346-363.	2.5	4