Stan D Wullschleger

List of Publications by Year
in descending order

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229 papers	16,683 citations	12303 69 h-index	18075 120 g-index
232 all docs	232 docs citations	232 times ranked	16022 citing authors

#	Article	IF	Citations
1	Biochemical Limitations to Carbon Assimilation in C3Plantsâ€"A Retrospective Analysis of theA/CiCurves from 109 Species. Journal of Experimental Botany, 1993, 44, 907-920.	2.4	952
2	Tree responses to rising CO2in field experiments: implications for the future forest. Plant, Cell and Environment, 1999, 22, 683-714.	2.8	691
3	A comparison of methods for determining forest evapotranspiration and its components: sap-flow, soil water budget, eddy covariance and catchment water balance. Agricultural and Forest Meteorology, 2001, 106, 153-168.	1.9	626
4	A review of whole-plant water use studies in tree. Tree Physiology, 1998, 18, 499-512.	1.4	503
5	Plant water relations at elevated CO2 - implications for water-limited environments. Plant, Cell and Environment, 2002, 25, 319-331.	2.8	352
6	Photosynthetic acclimation in trees to rising atmospheric CO2: A broader perspective. Photosynthesis Research, 1994, 39, 369-388.	1.6	345
7	Productivity and compensatory responses of yellow-poplar trees in elevated C02. Nature, 1992, 357, 322-324.	13.7	343
8	Switchgrass as a sustainable bioenergy crop. Bioresource Technology, 1996, 56, 83-93.	4.8	339
9	The relationship of leaf photosynthetic traits â€“ V_{cmax} and J_{max} â€“ to leaf nitrogen, leaf phosphorus, and specific leaf area: a metaâ€analysis and modeling study. Ecology and Evolution, 2014, 4, 3218-3235.	0.8	338
10	The unseen iceberg: plant roots in arctic tundra. New Phytologist, 2015, 205, 34-58.	3.5	260
11	Application of genomics-assisted breeding for generation of climate resilient crops: progress and prospects. Frontiers in Plant Science, 2015, 6, 563.	1.7	243
12	Plant functional types in Earth system models: past experiences and future directions for application of dynamic vegetation models in high-latitude ecosystems. Annals of Botany, 2014, 114, 1-16.	1.4	240
13	Biomass Production in Switchgrass across the United States: Database Description and Determinants of Yield. Agronomy Journal, 2010, 102, 1158-1168.	0.9	232
14	OAK FOREST CARBON AND WATER SIMULATIONS: MODEL INTERCOMPARISONS AND EVALUATIONS AGAINST INDEPENDENT DATA. Ecological Monographs, 2004, 74, 443-489.	2.4	225
15	Root structural and functional dynamics in terrestrial biosphere models â€“ evaluation and recommendations. New Phytologist, 2015, 205, 59-78.	3.5	214
16	A roadmap for research on crassulacean acid metabolism (<scp>CAM</scp>) to enhance sustainable food and bioenergy production in a hotter, drier world. New Phytologist, 2015, 207, 491-504.	3.5	211
17	Direct and indirect effects of atmospheric conditions and soil moisture on surface energy partitioning revealed by a prolonged drought at a temperate forest site. Journal of Geophysical Research, 2006, 111, .	3.3	191
18	Transpiration from a multi-species deciduous forest as estimated by xylem sap flow techniques. Forest Ecology and Management, 2001, 143, 205-213.	1.4	188

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19	Acclimation of photosynthesis and respiration to simulated climatic warming in northern and southern populations of Acer saccharum: laboratory and field evidence. Tree Physiology, 2000, 20, 87-96.	1.4	185
20	Reliable estimation of biochemical parameters from C₃ leaf photosynthesisâ€“intercellular carbon dioxide response curves. Plant, Cell and Environment, 2010, 33, 1852-1874.	2.8	180
21	Foliar gas exchange responses of two deciduous hardwoods during 3 years of growth in elevated CO2: no loss of photosynthetic enhancement. Plant, Cell and Environment, 1993, 16, 797-807.	2.8	164
22	Soil Carbon Inventories under a Bioenergy Crop (Switchgrass): Measurement Limitations. Journal of Environmental Quality, 1999, 28, 1359-1365.	1.0	159
23	Sensitivity of stomatal and canopy conductance to elevated CO 2 concentrationÂâ€“Âinteracting variables and perspectives of scale. New Phytologist, 2002, 153, 485-496.	3.5	158
24	Does elevated atmospheric CO2concentration inhibit mitochondrial respiration in green plants?. Plant, Cell and Environment, 1999, 22, 649-657.	2.8	153
25	Microbes in thawing permafrost: the unknown variable in the climate change equation. ISME Journal, 2012, 6, 709-712.	4.4	153
26	Elevated CO2 enhances leaf senescence during extreme drought in a temperate forest. Tree Physiology, 2011, 31, 117-130.	1.4	152
27	Phytosequestration: Carbon Biosequestration by Plants and the Prospects of Genetic Engineering. BioScience, 2010, 60, 685-696.	2.2	149
28	Radial variation in sap velocity as a function of stem diameter and sapwood thickness in yellow-poplar trees. Tree Physiology, 2000, 20, 511-518.	1.4	141
29	Analysis of preservative-treated wood by multivariate analysis of laser-induced breakdown spectroscopy spectra. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2005, 60, 1179-1185.	1.5	139
30	Detection of Xylem Cavitation in Corn under Field Conditions. Plant Physiology, 1986, 82, 597-599.	2.3	137
31	ATMOSPHERE: Plant Respiration in a Warmer World. Science, 2006, 312, 536-537.	6.0	137
32	Phenotypic variation in growth and biomass distribution for two advanced-generation pedigrees of hybrid poplar. Canadian Journal of Forest Research, 2005, 35, 1779-1789.	0.8	134
33	Environmental and stomatal control of photosynthetic enhancement in the canopy of a sweetgum (Liquidambar styraciflua L.) plantation during 3 years of CO2 enrichment. Plant, Cell and Environment, 2002, 25, 379-393.	2.8	131
34	The Potential Response of Terrestrial Carbon Storage to Changes in Climate and Atmospheric CO2. Climatic Change, 1997, 35, 199-227.	1.7	127
35	Quantifying and relating land-surface and subsurface variability in permafrost environments using LiDAR and surface geophysical datasets. Hydrogeology Journal, 2013, 21, 149-169.	0.9	127
36	Soil Carbon Dynamics beneath Switchgrass as Indicated by Stable Isotope Analysis. Journal of Environmental Quality, 2000, 29, 645-653.	1.0	126

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37	Hydraulic limitation of tree height: a critique. Functional Ecology, 2000, 14, 4-11.	1.7	122
38	Physiological responses of two soybean [Glycine max (L.) Merr] cultivars to short-term flooding. Environmental and Experimental Botany, 1990, 30, 85-92.	2.0	118
39	Diversity among Populations of Switchgrass Based on RAPD Markers. Crop Science, 1996, 36, 1017-1022.	0.8	115
40	Temperatureâ€controlled openâ€top chambers for global change research. Global Change Biology, 1997, 3, 259-267.	4.2	115
41	Environmental control of whole-plant transpiration, canopy conductance and estimates of the decoupling coefficient for large red maple trees. Agricultural and Forest Meteorology, 2000, 104, 157-168.	1.9	111
42	Interactive effects of ozone and climate on tree growth and water use in a southern Appalachian forest in the USA. New Phytologist, 2007, 174, 109-124.	3.5	109
43	Respiratory responses of higher plants to atmospheric CO2 enrichment. Physiologia Plantarum, 1994, 90, 221-229.	2.6	106
44	Differential priming of soil carbon driven by soil depth and root impacts on carbon availability. Soil Biology and Biochemistry, 2014, 69, 147-156.	4.2	105
45	Photosynthetic Carbon Production and Use by Developing Cotton Leaves and Bolls. Crop Science, 1990, 30, 1259-1264.	0.8	102
46	Connecting genes, coexpression modules, and molecular signatures to environmental stress phenotypes in plants. BMC Systems Biology, 2008, 2, 16.	3.0	102
47	Reviews and syntheses: Four decades of modeling methane cycling in terrestrial ecosystems. Biogeosciences, 2016, 13, 3735-3755.	1.3	102
48	Sap velocity and canopy transpiration in a sweetgum stand exposed to free-air CO2 enrichment (FACE). New Phytologist, 2001, 150, 489-498.	3.5	101
49	Toward a Mechanistic Modeling of Nitrogen Limitation on Vegetation Dynamics. PLoS ONE, 2012, 7, e37914.	1.1	99
50	Growth and maintenance respiration in leaves of Liriodendron tulipifera L. exposed to long-term carbon dioxide enrichment in the field. New Phytologist, 1992, 121, 515-523.	3.5	96
51	Ecohydrologic impact of reduced stomatal conductance in forests exposed to elevated CO₂. Ecohydrology, 2011, 4, 196-210.	1.1	96
52	Globalâ€scale environmental control of plant photosynthetic capacity. Ecological Applications, 2015, 25, 2349-2365.	1.8	95
53	NET PRIMARY PRODUCTIVITY OF A CO2-ENRICHED DECIDUOUS FOREST AND THE IMPLICATIONS FOR CARBON STORAGE. , 2002, 12, 1261-1266.		91
54	Laser-induced breakdown spectroscopy for the environmental determination of total carbon and nitrogen in soils. Applied Optics, 2003, 42, 2072.	2.1	91

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55	High resolution applications of laser-induced breakdown spectroscopy for environmental and forensic applications. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2007, 62, 1426-1432.	1.5	91
56	A global scale mechanistic model of photosynthetic capacity (LUNA V1.0). Geoscientific Model Development, 2016, 9, 587-606.	1.3	88
57	Leaf respiration at different canopy positions in sweetgum (Liquidambar styraciflua) grown in ambient and elevated concentrations of carbon dioxide in the field. Tree Physiology, 2002, 22, 1157-1166.	1.4	87
58	Sensitivity of canopy transpiration to altered precipitation in an upland oak forest: evidence from a long-term field manipulation study. Global Change Biology, 2006, 12, 97-109.	4.2	87
59	Interactive effects of ozone and climate on water use, soil moisture content and streamflow in a southern Appalachian forest in the USA. New Phytologist, 2007, 174, 125-136.	3.5	86
60	Measuring stem water content in four deciduous hardwoods with a time-domain reflectometer. Tree Physiology, 1996, 16, 809-815.	1.4	85
61	Importance of changing CO2, temperature, precipitation, and ozone on carbon and water cycles of an upland-oak forest: incorporating experimental results into model simulations. Global Change Biology, 2005, 11, 1402-1423.	4.2	83
62	Increased growth efficiency of Quercus alba trees in a CO 2 â€enriched atmosphere. New Phytologist, 1995, 131, 91-97.	3.5	80
63	Bioenergy crop models: descriptions, data requirements, and future challenges. GCB Bioenergy, 2012, 4, 620-633.	2.5	79
64	Indexing Permafrost Soil Organic Matter Degradation Using High-Resolution Mass Spectrometry. PLoS ONE, 2015, 10, e0130557.	1.1	78
65	Variation in root architecture among switchgrass cultivars impacts root decomposition rates. Soil Biology and Biochemistry, 2013, 58, 198-206.	4.2	77
66	The impacts of recent permafrost thaw on landâ€“atmosphere greenhouse gas exchange. Environmental Research Letters, 2014, 9, 045005.	2.2	74
67	Molecular Insights into Arctic Soil Organic Matter Degradation under Warming. Environmental Science & Technology, 2018, 52, 4555-4564.	4.6	74
68	Prospects for enhancing carbon sequestration and reclamation of degraded lands with fossil-fuel combustion by-products. Journal of Environmental Management, 2004, 8, 425-438.	1.7	72
69	Intra-annual changes in biomass, carbon, and nitrogen dynamics at 4-year old switchgrass field trials in west Tennessee, USAâ˜†. Agriculture, Ecosystems and Environment, 2010, 136, 177-184.	2.5	72
70	Environmental controls on water use efficiency during severe drought in an Ozark Forest in Missouri, USA. Global Change Biology, 2010, 16, 2252-2271.	4.2	71
71	Comparative physiology and transcriptional networks underlying the heat shock response in Populus trichocarpa, Arabidopsis thaliana and Glycine max. Plant, Cell and Environment, 2011, 34, 1488-1506.	2.8	71
72	Photosynthetic Rates and Ploidy Levels among Populations of Switchgrass. Crop Science, 1996, 36, 306-312.	0.8	70

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73	Historical variations in terrestrial biospheric carbon storage. Global Biogeochemical Cycles, 1997, 11, 99-109.	1.9	70
74	Stoichiometry and temperature sensitivity of methanogenesis and <scp>CO</scp>₂ production from saturated polygonal tundra in Barrow, Alaska. Global Change Biology, 2015, 21, 722-737.	4.2	68
75	Active layer hydrology in an arctic tundra ecosystem: quantifying water sources and cycling using water stable isotopes. Hydrological Processes, 2016, 30, 4972-4986.	1.1	68
76	Novel Multivariate Analysis for Soil Carbon Measurements Using Laserâ€Induced Breakdown Spectroscopy. Soil Science Society of America Journal, 2010, 74, 87-93.	1.2	67
77	Osmotic adjustment in tissues of tall fescue in response to water deficit. Environmental and Experimental Botany, 1990, 30, 149-156.	2.0	66
78	Respiratory cost of leaf growth and maintenance in white oak saplings exposed to atmospheric CO₂ enrichment. Canadian Journal of Forest Research, 1992, 22, 1717-1721.	0.8	66
79	Global transpiration data from sap flow measurements: the SAPFLUXNET database. Earth System Science Data, 2021, 13, 2607-2649.	3.7	65
80	Diel rewiring and positive selection of ancient plant proteins enabled evolution of CAM photosynthesis in Agave. BMC Genomics, 2018, 19, 588.	1.2	64
81	Empirical geographic modeling of switchgrass yields in the United States. GCB Bioenergy, 2010, 2, 248-257.	2.5	63
82	Osmotic Adjustment in Cotton (Gossypium hirsutum L.) Leaves and Roots in Response to Water Stress. Plant Physiology, 1987, 84, 1154-1157.	2.3	61
83	Revisiting the sequencing of the first tree genome: Populus trichocarpa. Tree Physiology, 2013, 33, 357-364.	1.4	61
84	Missing pieces to modeling the Arctic-Boreal puzzle. Environmental Research Letters, 2018, 13, 020202.	2.2	61
85	A model of heat transfer in sapwood and implications for sap flux density measurements using thermal dissipation probes. Tree Physiology, 2011, 31, 669-679.	1.4	60
86	<scp>S</scp>phagnum physiology in the context of changing climate: emergent influences of genomics, modelling and hostâ€microbiome interactions on understanding ecosystem function. Plant, Cell and Environment, 2015, 38, 1737-1751.	2.8	60
87	Warming increases methylmercury production in an Arctic soil. Environmental Pollution, 2016, 214, 504-509.	3.7	60
88	Climateâ€resilient agroforestry: physiological responses to climate change and engineering of crassulacean acid metabolism (<scp>CAM</scp>) as a mitigation strategy. Plant, Cell and Environment, 2015, 38, 1833-1849.	2.8	59
89	Terrestrial biosphere models underestimate photosynthetic capacity and CO₂ assimilation in the Arctic. New Phytologist, 2017, 216, 1090-1103.	3.5	59
90	Effects of warming on the degradation and production of low-molecular-weight labile organic carbon in an Arctic tundra soil. Soil Biology and Biochemistry, 2016, 95, 202-211.	4.2	57

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91	A comment on â€œAppropriate experimental ecosystem warming methods by ecosystem, objective, and practicalityâ€•by Aronson and McNulty. Agricultural and Forest Meteorology, 2010, 150, 497-498.	1.9	56
92	A microbial functional groupâ€based module for simulating methane production and consumption: Application to an incubated permafrost soil. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1315-1333.	1.3	56
93	Photosynthesis of individual field-grown cotton leaves during ontogeny. Photosynthesis Research, 1990, 23, 163-170.	1.6	53
94	Whole-plant water flux in understory red maple exposed to altered precipitation regimes. Tree Physiology, 1998, 18, 71-79.	1.4	53
95	On the relationship between stomatal characters and atmospheric CO2. Geophysical Research Letters, 2003, 30, .	1.5	53
96	Geochemical drivers of organic matter decomposition in arctic tundra soils. Biogeochemistry, 2015, 126, 397-414.	1.7	53
97	Large CO₂ and CH₄ emissions from polygonal tundra during spring thaw in northern Alaska. Geophysical Research Letters, 2017, 44, 504-513.	1.5	53
98	Extrapolating active layer thickness measurements across Arctic polygonal terrain using LiDAR and NDVI data sets. Water Resources Research, 2014, 50, 6339-6357.	1.7	51
99	Review and model-based analysis of factors influencing soil carbon sequestration under hybrid poplar. Biomass and Bioenergy, 2011, 35, 214-226.	2.9	48
100	Canopy development and photosynthesis of cotton as influenced by nitrogen nutrition. Journal of Plant Nutrition, 1990, 13, 1141-1154.	0.9	47
101	Photosynthetic and Respiratory Activity of Fruiting Forms within the Cotton Canopy. Plant Physiology, 1990, 94, 463-469.	2.3	46
102	Comparing the Performance of Forest gap Models in North America. Climatic Change, 2001, 51, 349-388.	1.7	45
103	Influences of biomass heat and biochemical energy storages on the land surface fluxes and radiative temperature. Journal of Geophysical Research, 2007, 112, .	3.3	45
104	Genomic aspects of research involving polyploid plants. Plant Cell, Tissue and Organ Culture, 2011, 104, 387-397.	1.2	45
105	Anatomical considerations related to photosynthesis in cotton (Gossypium hirsutumL.) leaves, bracts, and the capsule wall. Journal of Experimental Botany, 1994, 45, 111-118.	2.4	44
106	Microtopographic and depth controls on active layer chemistry in Arctic polygonal ground. Geophysical Research Letters, 2015, 42, 1808-1817.	1.5	44
107	Poplar Genomics: State of the Science. Critical Reviews in Plant Sciences, 2009, 28, 285-308.	2.7	42
108	A method for experimental heating of intact soil profiles for application to climate change experiments. Global Change Biology, 2011, 17, 1083-1096.	4.2	42

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109	Response of â€œAlamoâ€•switchgrass tissue chemistry and biomass to nitrogen fertilization in West Tennessee, USA. Agriculture, Ecosystems and Environment, 2011, 140, 289-297.	2.5	42
110	Growth and maintenance respiration in stems of Quercus alba after four years of CO2 enrichment. Physiologia Plantarum, 1995, 93, 47-54.	2.6	41
111	Pathways of anaerobic organic matter decomposition in tundra soils from Barrow, Alaska. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2345-2359.	1.3	41
112	Diurnal and seasonal changes in stem increment and water use by yellow poplar trees in response to environmental stress. Tree Physiology, 2003, 23, 1125-1136.	1.4	40
113	Growth and physiology of Northern Red Oak: Preliminary comparisons of mature tree and seedling responses to ozone. Environmental Pollution, 1994, 83, 215-221.	3.7	39
114	Iron (Oxyhydr)Oxides Serve as Phosphate Traps in Tundra and Boreal Peat Soils. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 227-246.	1.3	38
115	Alder Distribution and Expansion Across a Tundra Hillslope: Implications for Local N Cycling. Frontiers in Plant Science, 2019, 10, 1099.	1.7	37
116	Impact of verticillium wilt on net photosynthesis, respiration and photorespiration in field-grown cotton (Gossypium hirsutum L.). Physiological and Molecular Plant Pathology, 1990, 37, 271-280.	1.3	36
117	Energetic Costs of Tissue Construction in Yellow-poplar and White Oak Trees Exposed to Long-term CO2Enrichment. Annals of Botany, 1997, 80, 289-297.	1.4	36
118	Gene expression profiling: opening the black box of plant ecosystem responses to global change. Global Change Biology, 2009, 15, 1201-1213.	4.2	35
119	Biases of CO₂ storage in eddy flux measurements in a forest pertinent to vertical configurations of a profile system and CO₂ density averaging. Journal of Geophysical Research, 2007, 112, .	3.3	34
120	Microsatellite primer resource for Populus developed from the mapped sequence scaffolds of the Nisquallyâ€1 genome. New Phytologist, 2009, 181, 498-503.	3.5	34
121	Mapping Arctic Plant Functional Type Distributions in the Barrow Environmental Observatory Using WorldView-2 and LiDAR Datasets. Remote Sensing, 2016, 8, 733.	1.8	34
122	Are seedlings reasonable surrogates for trees? An analysis of ozone impacts on Quercus rubra. Water, Air, and Soil Pollution, 1995, 85, 1317-1324.	1.1	33
123	Needle age and season influence photosynthetic temperature response and total annual carbon uptake in maturePicea marianatrees. Annals of Botany, 2015, 116, 821-832.	1.4	33
124	Impacts of temperature and soil characteristics on methane production and oxidation in Arctic tundra. Biogeosciences, 2018, 15, 6621-6635.	1.3	33
125	High-resolution analysis of stem increment and sap flow for loblolly pine trees attacked by southern pine beetle. Canadian Journal of Forest Research, 2004, 34, 2387-2393.	0.8	32
126	Investigation of laser-induced breakdown spectroscopy and multivariate analysis for differentiating inorganic and organic C in a variety of soils. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2013, 87, 100-107.	1.5	32

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127	Below-Ground Processes in Gap Models for Simulating Forest Response to Global Change. Climatic Change, 2001, 51, 449-473.	1.7	31
128	Influences of nitrogen fertilization and climate regime on the above-ground biomass yields of miscanthus and switchgrass: A meta-analysis. Renewable and Sustainable Energy Reviews, 2019, 108, 303-311.	8.2	31
129	Pathways and transformations of dissolved methane and dissolved inorganic carbon in Arctic tundra watersheds: Evidence from analysis of stable isotopes. Global Biogeochemical Cycles, 2015, 29, 1893-1910.	1.9	30
130	Tree Responses to Elevated CO2 and Implications for Forests. , 1996, , 1-21.		29
131	Water Flow Through Cotton Roots in Relation to Xylem Anatomy. Journal of Experimental Botany, 1987, 38, 1866-1874.	2.4	28
132	Modeling the belowground response of plants and soil biota to edaphic and climatic changeâ€"What can we expect to gain?. Plant and Soil, 1994, 165, 149-160.	1.8	28
133	Evidence for Light-Dependent Recycling of Respired Carbon Dioxide by the Cotton Fruit. Plant Physiology, 1991, 97, 574-579.	2.3	27
134	Genomics and the tree physiologist. Tree Physiology, 2002, 22, 1273-1276.	1.4	27
135	Microbial Community and Functional Gene Changes in Arctic Tundra Soils in a Microcosm Warming Experiment. Frontiers in Microbiology, 2017, 8, 1741.	1.5	26
136	In search of the missing carbon sink: a model of terrestrial biospheric response to land-use change and atmospheric CO2. Tellus, Series B: Chemical and Physical Meteorology, 1995, 47, 501-519.	0.8	25
137	Initial characterization of shade avoidance response suggests functional diversity between Populus phytochrome B genes. New Phytologist, 2012, 196, 726-737.	3.5	25
138	Functional Genomics of Drought Tolerance in Bioenergy Crops. Critical Reviews in Plant Sciences, 2014, 33, 205-224.	2.7	25
139	Forest responses to CO2 enrichment and climate warming. Water, Air, and Soil Pollution, 1993, 70, 309-323.	1.1	24
140	Carbon sequestration via wood harvest and storage: An assessment of its harvest potential. Climatic Change, 2013, 118, 245-257.	1.7	24
141	Guidelines and considerations for designing field experiments simulating precipitation extremes in forest ecosystems. Methods in Ecology and Evolution, 2018, 9, 2310-2325.	2.2	24
142	The Role of Synthetic Biology in Atmospheric Greenhouse Gas Reduction: Prospects and Challenges. Biodesign Research, 2020, 2020, .	0.8	24
143	The occurrence of an internal cuticle in cotton (Gossypium hirsutum L.) leaf stomates. Environmental and Experimental Botany, 1989, 29, 229-235.	2.0	23
144	In search of the missing carbon sink: a model of terrestrial biospheric response to land-use change and atmospheric CO₂. Tellus, Series B: Chemical and Physical Meteorology, 2022, 47, 501.	0.8	23

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145	Elemental Analysis of Environmental and Biological Samples Using Laserâ€Induced Breakdown Spectroscopy and Pulsed Raman Spectroscopy. Journal of Dispersion Science and Technology, 2005, 25, 687-694.	1.3	23
146	Growth and maintenance respiration in leaves of northern red oak seedlings and mature trees after 3 years of ozone exposure. Plant, Cell and Environment, 1996, 19, 577-584.	2.8	22
147	Global simulation of bioenergy crop productivity: analytical framework and case study for switchgrass. GCB Bioenergy, 2014, 6, 14-25.	2.5	22
148	Isotopic identification of soil and permafrost nitrate sources in an Arctic tundra ecosystem. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 1000-1017.	1.3	22
149	Biophysical drivers of seasonal variability in Sphagnum gross primary production in a northern temperate bog. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 1078-1097.	1.3	22
150	Trait covariance: the functional warp of plant diversity?. New Phytologist, 2017, 216, 976-980.	3.5	22
151	Mechanistic Modeling of Microtopographic Impacts on CO₂ and CH₄ Fluxes in an Alaskan Tundra Ecosystem Using the CLMâ€Microbe Model. Journal of Advances in Modeling Earth Systems, 2019, 11, 4288-4304.	1.3	22
152	A reporting format for leaf-level gas exchange data and metadata. Ecological Informatics, 2021, 61, 101232.	2.3	22
153	Soil carbon, after 3 years, under short-rotation woody crops grown under varying nutrient and water availability. Biomass and Bioenergy, 2007, 31, 793-801.	2.9	21
154	Modeling anaerobic soil organic carbon decomposition in Arctic polygon tundra: insights into soil geochemical influences on carbon mineralization. Biogeosciences, 2019, 16, 663-680.	1.3	21
155	Effects of harvest management practices on forest biomass and soil carbon in eucalypt forests in New South Wales, Australia: Simulations with the forest succession model LINKAGES. Forest Ecology and Management, 2008, 255, 2407-2415.	1.4	20
156	Differential Detection of Genetic Loci Underlying Stem and Root Lignin Content in Populus. PLoS ONE, 2010, 5, e14021.	1.1	20
157	Temperature sensitivity of mineral-enzyme interactions on the hydrolysis of cellobiose and indican by Î²-glucosidase. Science of the Total Environment, 2019, 686, 1194-1201.	3.9	20
158	Implication of ectomycorrhizal fungi in the cytokinin relations of loblolly pine (Pinus taeda L.)*. New Phytologist, 1990, 116, 681-688.	3.5	19
159	An Improved Approach for Mapping Quantitative Trait Loci in a Pseudo-Testcross: Revisiting a Poplar Mapping Study. Bioinformatics and Biology Insights, 2010, 4, BBI.S4153.	1.0	18
160	Remote Monitoring of Freezeâ€“Thaw Transitions in Arctic Soils Using the Complex Resistivity Method. Vadose Zone Journal, 2013, 12, 1-13.	1.3	18
161	Interdisciplinary research in climate and energy sciences. Wiley Interdisciplinary Reviews: Energy and Environment, 2016, 5, 49-56.	1.9	18
162	Water Deficit Effects on the Cotton Leaf Cuticle and the Efficiency of Defoliants. Journal of Production Agriculture, 1991, 4, 260-265.	0.4	17

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163	Canopy Leaf Area Development and Ageâ€Class Dynamics in Cotton. Crop Science, 1992, 32, 451-456.	0.8	17
164	Emerging Use of Gene Expression Microarrays in Plant Physiology. Comparative and Functional Genomics, 2003, 4, 216-224.	2.0	17
165	Field measurement of leaf water potential with a temperature-corrected in situ thermocouple psychrometer. Plant, Cell and Environment, 1988, 11, 199-203.	2.8	16
166	Evaluation of an untargeted nano-liquid chromatography-mass spectrometry approach to expand coverage of low molecular weight dissolved organic matter in Arctic soil. Scientific Reports, 2019, 9, 5810.	1.6	16
167	Plant Biosystems Design Research Roadmap 1.0. Biodesign Research, 2020, 2020, .	0.8	16
168	Evapotranspiration across plant types and geomorphological units in polygonal Arctic tundra. Journal of Hydrology, 2017, 553, 816-825.	2.3	15
169	PopulusResponses to Edaphic and Climatic Cues: Emerging Evidence from Systems Biology Research. Critical Reviews in Plant Sciences, 2009, 28, 368-374.	2.7	14
170	Terrestrial biosphere models may overestimate Arctic <scp>CO</scp>₂ assimilation if they do not account for decreased quantum yield and convexity at low temperature. New Phytologist, 2019, 223, 167-179.	3.5	14
171	Simulated Patterns of Forest Succession and Productivity as a Consequence of Altered Precipitation. Ecological Studies, 2003, , 433-446.	0.4	14
172	Water use efficiency as a function of leaf age and position within the cotton canopy. Plant and Soil, 1989, 120, 79-85.	1.8	13
173	Importance of feedback loops between soil inorganic nitrogen and microbial communities in the heterotrophic soil respiration response to global warming. Nature Reviews Microbiology, 2011, 9, 222-222.	13.6	13
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