

# Carl Bernacchi

## List of Publications by Year in descending order

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140  
papers

13,053  
citations

36271

51  
h-index

24961

109  
g-index

143  
all docs

143  
docs citations

143  
times ranked

11896  
citing authors

#	ARTICLE	IF	CITATIONS
1	Elevated CO <sub>2</sub> effects on plant carbon, nitrogen, and water relations: six important lessons from FACE. <i>Journal of Experimental Botany</i> , 2009, 60, 2859-2876.	2.4	1,343
2	Fitting photosynthetic carbon dioxide response curves for C <sub>3</sub> leaves. <i>Plant, Cell and Environment</i> , 2007, 30, 1035-1040.	2.8	1,084
3	Gas exchange measurements, what can they tell us about the underlying limitations to photosynthesis? Procedures and sources of error. <i>Journal of Experimental Botany</i> , 2003, 54, 2393-2401.	2.4	969
4	Temperature Response of Mesophyll Conductance. Implications for the Determination of Rubisco Enzyme Kinetics and for Limitations to Photosynthesis in Vivo. <i>Plant Physiology</i> , 2002, 130, 1992-1998.	2.3	659
5	A meta-analysis of elevated [CO <sub>2</sub> ] effects on soybean ( <i>Glycine max</i> ) physiology, growth and yield. <i>Global Change Biology</i> , 2002, 8, 695-709.	4.2	426
6	In vivo temperature response functions of parameters required to model RuBP-limited photosynthesis. <i>Plant, Cell and Environment</i> , 2003, 26, 1419-1430.	2.8	391
7	The Costs of Photorespiration to Food Production Now and in the Future. <i>Annual Review of Plant Biology</i> , 2016, 67, 107-129.	8.6	277
8	Decreases in Stomatal Conductance of Soybean under Open-Air Elevation of [CO <sub>2</sub> ] Are Closely Coupled with Decreases in Ecosystem Evapotranspiration. <i>Plant Physiology</i> , 2007, 143, 134-144.	2.3	233
9	Intensifying drought eliminates the expected benefits of elevated carbon dioxide for soybean. <i>Nature Plants</i> , 2016, 2, 16132.	4.7	229
10	ECOSTRESS: NASA's Next Generation Mission to Measure Evapotranspiration From the International Space Station. <i>Water Resources Research</i> , 2020, 56, e2019WR026058.	1.7	220
11	Carbon budget of mature no-till ecosystem in North Central Region of the United States. <i>Agricultural and Forest Meteorology</i> , 2005, 130, 59-69.	1.9	195
12	Leaf photosynthesis and carbohydrate dynamics of soybeans grown throughout their life-cycle under Free-Air Carbon dioxide Enrichment. <i>Plant, Cell and Environment</i> , 2004, 27, 449-458.	2.8	182
13	The effect of increasing temperature on crop photosynthesis: from enzymes to ecosystems. <i>Journal of Experimental Botany</i> , 2021, 72, 2822-2844.	2.4	182
14	The growth of soybean under free air [CO <sub>2</sub> ] enrichment (FACE) stimulates photosynthesis while decreasing in vivo Rubisco capacity. <i>Planta</i> , 2005, 220, 434-446.	1.6	181
15	Towards a multiscale crop modelling framework for climate change adaptation assessment. <i>Nature Plants</i> , 2020, 6, 338-348.	4.7	181
16	Increased C availability at elevated carbon dioxide concentration improves N assimilation in a legume. <i>Plant, Cell and Environment</i> , 2006, 29, 1651-1658.	2.8	172
17	Reduced Nitrogen Losses after Conversion of Row Crop Agriculture to Perennial Biofuel Crops. <i>Journal of Environmental Quality</i> , 2013, 42, 219-228.	1.0	171
18	Will photosynthesis of maize ( <i>Zea mays</i> ) in the US Corn Belt increase in future [CO <sub>2</sub> ] rich atmospheres? An analysis of diurnal courses of CO <sub>2</sub> uptake under free-air concentration enrichment (FACE). <i>Global Change Biology</i> , 2004, 10, 951-962.	4.2	167

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19	Global Warming Can Negate the Expected CO <sub>2</sub> Stimulation in Photosynthesis and Productivity for Soybean Grown in the Midwestern United States. <i>Plant Physiology</i> , 2013, 162, 410-423.	2.3	161
20	Productivity of North American grasslands is increased under future climate scenarios despite rising aridity. <i>Nature Climate Change</i> , 2016, 6, 710-714.	8.1	153
21	Modelling C <sub>3</sub> photosynthesis from the chloroplast to the ecosystem. <i>Plant, Cell and Environment</i> , 2013, 36, 1641-1657.	2.8	145
22	Incorporation of crop phenology in Simple Biosphere Model (SiBcrop) to improve land-atmosphere carbon exchanges from croplands. <i>Biogeosciences</i> , 2009, 6, 969-986.	1.3	144
23	Sun-induced Chlorophyll Fluorescence, Photosynthesis, and Light Use Efficiency of a Soybean Field from Seasonally Continuous Measurements. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2018, 123, 610-623.	1.3	138
24	An In Vivo Analysis of the Effect of Season-Long Open-Air Elevation of Ozone to Anticipated 2050 Levels on Photosynthesis in Soybean. <i>Plant Physiology</i> , 2004, 135, 2348-2357.	2.3	135
25	Hourly and seasonal variation in photosynthesis and stomatal conductance of soybean grown at future CO <sub>2</sub> and ozone concentrations for 3 years under fully open-air field conditions. <i>Plant, Cell and Environment</i> , 2006, 29, 2077-2090.	2.8	132
26	Altered Belowground Carbon Cycling Following Land-Use Change to Perennial Bioenergy Crops. <i>Ecosystems</i> , 2013, 16, 508-520.	1.6	132
27	Greenness indices from digital cameras predict the timing and seasonal dynamics of canopy-scale photosynthesis. <i>Ecological Applications</i> , 2015, 25, 99-115.	1.8	129
28	Representativeness of Eddy-Covariance flux footprints for areas surrounding AmeriFlux sites. <i>Agricultural and Forest Meteorology</i> , 2021, 301-302, 108350.	1.9	125
29	High-throughput field phenotyping using hyperspectral reflectance and partial least squares regression (PLSR) reveals genetic modifications to photosynthetic capacity. <i>Remote Sensing of Environment</i> , 2019, 231, 111176.	4.6	123
30	A regional comparison of water use efficiency for miscanthus, switchgrass and maize. <i>Agricultural and Forest Meteorology</i> , 2012, 164, 82-95.	1.9	120
31	Long-term growth of soybean at elevated [CO <sub>2</sub> ] does not cause acclimation of stomatal conductance under fully open-air conditions. <i>Plant, Cell and Environment</i> , 2006, 29, 1794-1800.	2.8	119
32	Carbon exchange by establishing biofuel crops in Central Illinois. <i>Agriculture, Ecosystems and Environment</i> , 2011, 144, 319-329.	2.5	115
33	Photosynthesis, Light Use Efficiency, and Yield of Reduced-Chlorophyll Soybean Mutants in Field Conditions. <i>Frontiers in Plant Science</i> , 2017, 8, 549.	1.7	114
34	Canopy warming caused photosynthetic acclimation and reduced seed yield in maize grown at ambient and elevated [CO <sub>2</sub> ]. <i>Global Change Biology</i> , 2015, 21, 4237-4249.	4.2	111
35	Photosynthesis and stomatal conductance responses of poplars to free-air CO <sub>2</sub> enrichment (PopFACE) during the first growth cycle and immediately following coppice. <i>New Phytologist</i> , 2003, 159, 609-621.	3.5	110
36	Heat waves imposed during early pod development in soybean ( <i>Glycine max</i> ) cause significant yield loss despite a rapid recovery from oxidative stress. <i>Global Change Biology</i> , 2015, 21, 3114-3125.	4.2	108

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37	Redefining droughts for the U.S. Corn Belt: The dominant role of atmospheric vapor pressure deficit over soil moisture in regulating stomatal behavior of Maize and Soybean. <i>Agricultural and Forest Meteorology</i> , 2020, 287, 107930.	1.9	90
38	Terrestrial Ecosystems in a Changing Environment: A Dominant Role for Water. <i>Annual Review of Plant Biology</i> , 2015, 66, 599-622.	8.6	89
39	Hyperspectral Leaf Reflectance as Proxy for Photosynthetic Capacities: An Ensemble Approach Based on Multiple Machine Learning Algorithms. <i>Frontiers in Plant Science</i> , 2019, 10, 730.	1.7	89
40	Can fast-growing plantation trees escape biochemical down-regulation of photosynthesis when grown throughout their complete production cycle in the open air under elevated carbon dioxide?. <i>Plant, Cell and Environment</i> , 2006, 29, 1235-1244.	2.8	87
41	Cropland carbon fluxes in the United States: increasing geospatial resolution of inventory-based carbon accounting. <i>Ecological Applications</i> , 2010, 20, 1074-1086.	1.8	86
42	Improved temperature response functions for models of Rubisco-limited photosynthesis. <i>Plant, Cell and Environment</i> , 2001, 24, 253-259.	2.8	85
43	Deriving high-spatiotemporal-resolution leaf area index for agroecosystems in the U.S. Corn Belt using Planet Labs CubeSat and STAIR fusion data. <i>Remote Sensing of Environment</i> , 2020, 239, 111615.	4.6	84
44	Consensus, uncertainties and challenges for perennial bioenergy crops and land use. <i>GCB Bioenergy</i> , 2018, 10, 150-164.	2.5	80
45	Simulated heat waves during maize reproductive stages alter reproductive growth but have no lasting effect when applied during vegetative stages. <i>Agriculture, Ecosystems and Environment</i> , 2017, 240, 162-170.	2.5	73
46	Water use efficiency of perennial and annual bioenergy crops in central Illinois. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 581-589.	1.3	71
47	Future carbon dioxide concentration decreases canopy evapotranspiration and soil water depletion by field-grown maize. <i>Global Change Biology</i> , 2013, 19, 1572-1584.	4.2	71
48	Radiance-based NIR as a proxy for GPP of corn and soybean. <i>Environmental Research Letters</i> , 2020, 15, 034009.	2.2	63
49	Ecohydrological responses of dense canopies to environmental variability: 1. Interplay between vertical structure and photosynthetic pathway. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	61
50	Expression of cyanobacterial FBP/SBPase in soybean prevents yield depression under future climate conditions. <i>Journal of Experimental Botany</i> , 2017, 68, erw435.	2.4	61
51	Impacts of elevated CO <sub>2</sub> concentration on the productivity and surface energy budget of the soybean and maize agroecosystem in the Midwest USA. <i>Global Change Biology</i> , 2013, 19, 2838-2852.	4.2	60
52	Dissecting the nonlinear response of maize yield to high temperature stress with model-data integration. <i>Global Change Biology</i> , 2019, 25, 2470-2484.	4.2	56
53	Estimating photosynthetic traits from reflectance spectra: A synthesis of spectral indices, numerical inversion, and partial least square regression. <i>Plant, Cell and Environment</i> , 2020, 43, 1241-1258.	2.8	56
54	A comparison of canopy evapotranspiration for maize and two perennial grasses identified as potential bioenergy crops. <i>GCB Bioenergy</i> , 2010, 2, 157-168.	2.5	55

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55	Gap filling strategies and error in estimating annual soil respiration. <i>Global Change Biology</i> , 2013, 19, 1941-1952.	4.2	54
56	Plot-level rapid screening for photosynthetic parameters using proximal hyperspectral imaging. <i>Journal of Experimental Botany</i> , 2020, 71, 2312-2328.	2.4	54
57	The conversion of the corn/soybean ecosystem to no-till agriculture may result in a carbon sink. <i>Global Change Biology</i> , 2005, 11, 051013014052001-???	4.2	52
58	Biomass allocation in old-field annual species grown in elevated CO <sub>2</sub> environments: no evidence for optimal partitioning. <i>Global Change Biology</i> , 2000, 6, 855-863.	4.2	51
59	The influence of photosynthetic acclimation to rising CO <sub>2</sub> and warmer temperatures on leaf and canopy photosynthesis models. <i>Global Biogeochemical Cycles</i> , 2015, 29, 194-206.	1.9	51
60	A physical model-based method for retrieving urban land surface temperatures under cloudy conditions. <i>Remote Sensing of Environment</i> , 2019, 230, 111191.	4.6	51
61	The impacts of <i>Miscanthus</i> — <i>giganteus</i> production on the Midwest US hydrologic cycle. <i>GCB Bioenergy</i> , 2010, 2, 180-191.	2.5	50
62	Yield response of field-grown soybean exposed to heat waves under current and elevated [CO <sub>2</sub> ]. <i>Global Change Biology</i> , 2019, 25, 4352-4368.	4.2	47
63	Gross primary production is stimulated for three <i>Populus</i> species grown under free-air CO <sub>2</sub> enrichment from planting through canopy closure. <i>Global Change Biology</i> , 2005, 11, 644-656.	4.2	45
64	Nitrogen deposition and greenhouse gas emissions from grasslands: uncertainties and future directions. <i>Global Change Biology</i> , 2016, 22, 1348-1360.	4.2	45
65	CO <sub>2</sub> uptake and ecophysiological parameters of the grain crops of midcontinent North America: Estimates from flux tower measurements. <i>Agriculture, Ecosystems and Environment</i> , 2013, 164, 162-175.	2.5	42
66	Are we approaching a water ceiling to maize yields in the United States?. <i>Ecosphere</i> , 2019, 10, e02773.	1.0	42
67	The important but weakening maize yield benefit of grain filling prolongation in the US Midwest. <i>Global Change Biology</i> , 2018, 24, 4718-4730.	4.2	41
68	Increased temperatures may safeguard the nutritional quality of crops under future elevated CO <sub>2</sub> concentrations. <i>Plant Journal</i> , 2019, 97, 872-886.	2.8	41
69	Productivity and Carbon Dioxide Exchange of Leguminous Crops: Estimates from Flux Tower Measurements. <i>Agronomy Journal</i> , 2014, 106, 545-559.	0.9	40
70	Civil disobedience movements such as School Strike for the Climate are raising public awareness of the climate change emergency. <i>Global Change Biology</i> , 2020, 26, 1042-1044.	4.2	40
71	Essential outcomes for COP26. <i>Global Change Biology</i> , 2022, 28, 1-3.	4.2	40
72	Elevated CO <sub>2</sub> and temperature increase soil C losses from a soybean-maize ecosystem. <i>Global Change Biology</i> , 2017, 23, 435-445.	4.2	39

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73	Satellite footprint data from OCO-2 and TROPOMI reveal significant spatio-temporal and inter-vegetation type variabilities of solar-induced fluorescence yield in the U.S. Midwest. Remote Sensing of Environment, 2020, 241, 111728.	4.6	38
74	Elevated CO <sub>2</sub> significantly delays reproductive development of soybean under Free-Air Concentration Enrichment (FACE). Journal of Experimental Botany, 2009, 60, 2945-2951.	2.4	37
75	Biochemical acclimation, stomatal limitation and precipitation patterns underlie decreases in photosynthetic stimulation of soybean ( <i>Glycine max</i> ) at elevated [CO <sub>2</sub> ] and temperatures under fully open air field conditions. Plant Science, 2014, 226, 136-146.	1.7	37
76	Biophysical impacts of climate-smart agriculture in the Midwestern United States. Plant, Cell and Environment, 2015, 38, 1913-1930.	2.8	37
77	Modeling the Temperature Dependence of C <sub>3</sub> Photosynthesis. Advances in Photosynthesis and Respiration, 2009, , 231-246.	1.0	37
78	The influence of drought and heat stress on long-term carbon fluxes of bioenergy crops grown in the Midwestern USA. Plant, Cell and Environment, 2016, 39, 1928-1940.	2.8	36
79	Quantifying high-temperature stress on soybean canopy photosynthesis: The unique role of sun-induced chlorophyll fluorescence. Global Change Biology, 2021, 27, 2403-2415.	4.2	36
80	Rising ozone concentrations decrease soybean evapotranspiration and water use efficiency whilst increasing canopy temperature. New Phytologist, 2012, 195, 164-171.	3.5	33
81	Alternative pathway to photorespiration protects growth and productivity at elevated temperatures in a model crop. Plant Biotechnology Journal, 2022, 20, 711-721.	4.1	33
82	Assessing the potential to decrease the Gulf of Mexico hypoxic zone with Midwest US perennial cellulosic feedstock production. GCB Bioenergy, 2017, 9, 858-875.	2.5	31
83	Candidate perennial bioenergy grasses have a higher albedo than annual row crops. GCB Bioenergy, 2016, 8, 818-825.	2.5	30
84	Influence of transient flooding on methane fluxes from subtropical pastures. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 965-977.	1.3	29
85	The carbon and nitrogen cycle impacts of reverting perennial bioenergy switchgrass to an annual maize crop rotation. GCB Bioenergy, 2020, 12, 941-954.	2.5	29
86	Photosynthesis in a CO <sub>2</sub> -Rich Atmosphere. Advances in Photosynthesis and Respiration, 2012, , 733-768.	1.0	28
87	Threshold Dynamics in Soil Carbon Storage for Bioenergy Crops. Environmental Science & Technology, 2014, 48, 12090-12098.	4.6	28
88	Ecohydrological responses of dense canopies to environmental variability: 2. Role of acclimation under elevated CO <sub>2</sub> . Journal of Geophysical Research, 2010, 115, .	3.3	27
89	Soybean leaf hydraulic conductance does not acclimate to growth at elevated [CO <sub>2</sub> ] or temperature in growth chambers or in the field. Annals of Botany, 2013, 112, 911-918.	1.4	27
90	Predicting the risk of soybean rust in Minnesota based on an integrated atmospheric model. International Journal of Biometeorology, 2009, 53, 509-521.	1.3	26

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91	A physiological signal derived from sun-induced chlorophyll fluorescence quantifies crop physiological response to environmental stresses in the U.S. Corn Belt. <i>Environmental Research Letters</i> , 2021, 16, 124051.	2.2	25
92	The biophysical link between climate, water, and vegetation in bioenergy agro-ecosystems. <i>Biomass and Bioenergy</i> , 2014, 71, 187-201.	2.9	24
93	Seasonal Controls of CO <sub>2</sub> and CH <sub>4</sub> Dynamics in a Temporarily Flooded Subtropical Wetland. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2019JG005257.	1.3	24
94	Ecosystem-scale biogeochemical fluxes from three bioenergy crop candidates: How energy sorghum compares to maize and miscanthus. <i>GCB Bioenergy</i> , 2021, 13, 445-458.	2.5	24
95	The impact of water management practices on subtropical pasture methane emissions and ecosystem service payments. <i>Ecological Applications</i> , 2017, 27, 1199-1209.	1.8	23
96	On the Long-Term Hydroclimatic Sustainability of Perennial Bioenergy Crop Expansion over the United States. <i>Journal of Climate</i> , 2017, 30, 2535-2557.	1.2	23
97	Grazing alters net ecosystem C fluxes and the global warming potential of a subtropical pasture. <i>Ecological Applications</i> , 2018, 28, 557-572.	1.8	23
98	A review of transformative strategies for climate mitigation by grasslands. <i>Science of the Total Environment</i> , 2021, 799, 149466.	3.9	23
99	Growth of soybean at future tropospheric ozone concentrations decreases canopy evapotranspiration and soil water depletion. <i>Environmental Pollution</i> , 2011, 159, 1464-1472.	3.7	22
100	Canopy warming accelerates development in soybean and maize, offsetting the delay in soybean reproductive development by elevated CO <sub>2</sub> concentrations. <i>Plant, Cell and Environment</i> , 2018, 41, 2806-2820.	2.8	22
101	A reporting format for leaf-level gas exchange data and metadata. <i>Ecological Informatics</i> , 2021, 61, 101232.	2.3	22
102	Evaluation of DeNitrification DeComposition model for estimating ammonia fluxes from chemical fertilizer application. <i>Agricultural and Forest Meteorology</i> , 2017, 237-238, 123-134.	1.9	21
103	Season-long ammonia flux measurements above fertilized corn in central Illinois, USA, using relaxed eddy accumulation. <i>Agricultural and Forest Meteorology</i> , 2017, 239, 202-212.	1.9	21
104	The conversion of the corn/soybean ecosystem to no-till agriculture may result in a carbon sink. <i>Global Change Biology</i> , 2006, 12, 1585-1586.	4.2	20
105	Enhanced evapotranspiration was observed during extreme drought from <i>Miscanthus</i> , opposite of other crops. <i>GCB Bioenergy</i> , 2017, 9, 1306-1319.	2.5	20
106	Allometric analysis reveals relatively little variation in nitrogen versus biomass accrual in four plant species exposed to varying light, nutrients, water and CO <sub>2</sub> . <i>Plant, Cell and Environment</i> , 2007, 30, 1216-1222.	2.8	19
107	Predicting Canopy Temperatures and Infrared Heater Energy Requirements for Warming Field Plots. <i>Agronomy Journal</i> , 2015, 107, 129-141.	0.9	19
108	The inverse relationship between solar-induced fluorescence yield and photosynthetic capacity: benefits for field phenotyping. <i>Journal of Experimental Botany</i> , 2021, 72, 1295-1306.	2.4	19

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109	Predicting biochemical acclimation of leaf photosynthesis in soybean under in-field canopy warming using hyperspectral reflectance. <i>Plant, Cell and Environment</i> , 2022, 45, 80-94.	2.8	19
110	Inconsistency of mesophyll conductance estimate causes the inconsistency for the estimates of maximum rate of Rubisco carboxylation among the linear, rectangular and non-rectangular hyperbola biochemical models of leaf photosynthesis. A case study of CO <sub>2</sub> enrichment and leaf aging effects in soybean. <i>Plant Science</i> , 2014, 226, 49-60.	1.7	18
111	A Comparative Analysis of Anthropogenic CO <sub>2</sub> Emissions at City Level Using OCO <sub>2</sub> Observations: A Global Perspective. <i>Earth's Future</i> , 2019, 7, 1058-1070.	2.4	18
112	Development of a data-assimilation system to forecast agricultural systems: A case study of constraining soil water and soil nitrogen dynamics in the APSIM model. <i>Science of the Total Environment</i> , 2022, 820, 153192.	3.9	18
113	Advances in field-based high-throughput photosynthetic phenotyping. <i>Journal of Experimental Botany</i> , 2022, 73, 3157-3172.	2.4	17
114	Uncertainty in measurements of the photorespiratory CO <sub>2</sub> compensation point and its impact on models of leaf photosynthesis. <i>Photosynthesis Research</i> , 2017, 132, 245-255.	1.6	16
115	Seasonal Evolution of Canopy Stomatal Conductance for a Prairie and Maize Field in the Midwestern United States from Continuous Carbonyl Sulfide Fluxes. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085652.	1.5	16
116	Can improved canopy light transmission ameliorate loss of photosynthetic efficiency in the shade? An investigation of natural variation in <i>Sorghum bicolor</i> . <i>Journal of Experimental Botany</i> , 2021, 72, 4965-4980.	2.4	16
117	Monitoring agroecosystem productivity and phenology at a national scale: A metric assessment framework. <i>Ecological Indicators</i> , 2021, 131, 108147.	2.6	16
118	Importance of biophysical effects on climate warming mitigation potential of biofuel crops over the conterminous United States. <i>GCB Bioenergy</i> , 2017, 9, 577-590.	2.5	15
119	Parameterizing Perennial Bioenergy Crops in Version 5 of the Community Land Model Based on Site-Level Observations in the Central Midwestern United States. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001719.	1.3	15
120	Impacts of herbaceous bioenergy crops on atmospheric volatile organic composition and potential consequences for global climate change. <i>GCB Bioenergy</i> , 2013, 5, 375-383.	2.5	12
121	Ammonia flux measurements above a corn canopy using relaxed eddy accumulation and a flux gradient system. <i>Agricultural and Forest Meteorology</i> , 2019, 264, 104-113.	1.9	12
122	Limitations to photosynthesis at different temperatures in the leaves of <i>Citrus limon</i> . <i>Brazilian Journal of Plant Physiology</i> , 2007, 19, 141-147.	0.5	11
123	Soybean photosynthetic and biomass responses to carbon dioxide concentrations ranging from pre-industrial to the distant future. <i>Journal of Experimental Botany</i> , 2020, 71, 3690-3700.	2.4	11
124	Difference in seasonal peak timing of soybean far-red SIF and GPP explained by canopy structure and chlorophyll content. <i>Remote Sensing of Environment</i> , 2022, 279, 113104.	4.6	11
125	Conversion of grazed pastures to energy cane as a biofuel feedstock alters the emission of GHGs from soils in Southeastern United States. <i>Biomass and Bioenergy</i> , 2018, 108, 312-322.	2.9	9
126	The Role of Management on Methane Emissions From Subtropical Wetlands Embedded in Agricultural Ecosystems. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 2694-2708.	1.3	9



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127	Emerging approaches to measure photosynthesis from the leaf to the ecosystem. <i>Emerging Topics in Life Sciences</i> , 2021, 5, 261-274.	1.1	9
128	Attributing differences of solar-induced chlorophyll fluorescence (SIF)-gross primary production (GPP) relationships between two C4 crops: corn and miscanthus. <i>Agricultural and Forest Meteorology</i> , 2022, 323, 109046.	1.9	9
129	Implementation of the effect of urease inhibitor on ammonia emissions following urea-based fertilizer application at a <i>Zea mays</i> field in central Illinois: A study with SURFATM-NH3 model. <i>Agricultural and Forest Meteorology</i> , 2019, 269-270, 78-87.	1.9	8
130	Drought imprints on crops can reduce yield loss: Nature's insights for food security. <i>Food and Energy Security</i> , 2022, 11, e332.	2.0	8
131	High-throughput characterization, correlation, and mapping of leaf photosynthetic and functional traits in the soybean ( <i>Glycine max</i> ) nested association mapping population. <i>Genetics</i> , 2022, , .	1.2	8
132	A realistic meteorological assessment of perennial biofuel crop deployment: a Southern Great Plains perspective. <i>GCB Bioenergy</i> , 2017, 9, 1024-1041.	2.5	6
133	Recent Warming Has Resulted in Smaller Gains in Net Carbon Uptake in Northern High Latitudes. <i>Journal of Climate</i> , 2019, 32, 5849-5863.	1.2	6
134	A reply to "Comment on "Carbon budget of mature no-till ecosystem in North Central Region of the United States" by Dobermann et al." <i>Agricultural and Forest Meteorology</i> , 2006, 136, 85-87.	1.9	5
135	Focus on Ecophysiology. <i>Plant Physiology</i> , 2016, 172, 619-621.	2.3	5
136	Nitrous oxide fluxes over establishing biofuel crops: Characterization of temporal variability using the cross-wavelet analysis. <i>GCB Bioenergy</i> , 2020, 12, 756-770.	2.5	4
137	Enhanced drought resistance of vegetation growth in cities due to urban heat, CO <sub>2</sub> domes and O <sub>3</sub> troughs. <i>Environmental Research Letters</i> , 2021, 16, 124052.	2.2	4
138	Photosynthesis, yield, energy balance, and water use of intercropped maize and soybean. <i>Plant Direct</i> , 2021, 5, e365.	0.8	3
139	Patch-Burn Grazing Impacts Forage Resources in Subtropical Humid Grazing Lands. <i>Rangeland Ecology and Management</i> , 2022, 84, 10-21.	1.1	3
140	Substantial carbon loss respired from a corn-soybean agroecosystem highlights the importance of careful management as we adapt to changing climate. <i>Environmental Research Letters</i> , 2022, 17, 054029.	2.2	2