Stephen P. Long

List of Publications by Year
in descending order

302 papers	44,788 citations	2101 100 h-index	2178 202 g-index
311 all docs	311 docs citations	311 times ranked	26353 citing authors

#	Article	IF	Citations
1	What have we learned from 15 years of freeâ€air CO 2 enrichment (FACE)? A metaâ€analytic review of the responses of photosynthesis, canopy properties and plant production to rising CO 2. New Phytologist, 2005, 165, 351-372.	7.3	3,081
2	MORE EFFICIENT PLANTS: A Consequence of Rising Atmospheric CO2?. Annual Review of Plant Biology, 1997, 48, 609-639.	14.3	1,675
3	RISING ATMOSPHERIC CARBON DIOXIDE: Plants FACE the Future. Annual Review of Plant Biology, 2004, 55, 591-628.	18.7	1,472
4	Improving Photosynthetic Efficiency for Greater Yield. Annual Review of Plant Biology, 2010, 61, 235-261.	18.7	1,410
5	Elevated CO2 effects on plant carbon, nitrogen, and water relations: six important lessons from FACE. Journal of Experimental Botany, 2009, 60, 2859-2876.	4.8	1,343
6	Photoinhibition of Photosynthesis in Nature. Annual Review of Plant Biology, 1994, 45, 633-662.	14.3	1,304
7	Food for Thought: Lower-Than-Expected Crop Yield Stimulation with Rising CO2 Concentrations. Science, 2006, 312, 1918-1921.	12.6	1,299
8	Can improvement in photosynthesis increase crop yields?. Plant, Cell and Environment, 2006, 29, 315-330.	5.7	1,236
9	Feedstocks for Lignocellulosic Biofuels. Science, 2010, 329, 790-792.	12.6	1,070
10	Modification of the response of photosynthetic productivity to rising temperature by atmospheric CO2 concentrations: Has its importance been underestimated?. Plant, Cell and Environment, 1991, 14, 729-739.	5.7	988
11	Improving photosynthesis and crop productivity by accelerating recovery from photoprotection. Science, 2016, 354, 857-861.	12.6	975
12	Gas exchange measurements, what can they tell us about the underlying limitations to photosynthesis? Procedures and sources of error. Journal of Experimental Botany, 2003, 54, 2393-2401.	4.8	969
13	What is the maximum efficiency with which photosynthesis can convert solar energy into biomass?. Current Opinion in Biotechnology, 2008, 19, 153-159.	6.6	897
14	Meeting the Global Food Demand of the Future by Engineering Crop Photosynthesis and Yield Potential. Cell, 2015, 161, 56-66.	28.9	755
15	Redesigning photosynthesis to sustainably meet global food and bioenergy demand. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8529-8536.	7.1	751
16	Meeting US biofuel goals with less land: the potential of Miscanthus. Global Change Biology, 2008, 14, 2000-2014.	9.5	712
17	Temperature Response of Mesophyll Conductance. Implications for the Determination of Rubisco Enzyme Kinetics and for Limitations to Photosynthesis in Vivo. Plant Physiology, 2002, 130, 1992-1998.	4.8	659
18	Chlorophyll Fluorescence as a Probe of the Photosynthetic Competence of Leaves in the Field: A Review of Current Instrumentation. Functional Ecology, 1989, 3, 497.	3.6	563

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19	A quantitative review comparing the yields of two candidate C4 perennial biomass crops in relation to nitrogen, temperature and water. Biomass and Bioenergy, 2004, 27, 21-30.	5.7	499
20	Quantifying the impact of current and future tropospheric ozone on tree biomass, growth, physiology and biochemistry: a quantitative metaâ€•analysis. Global Change Biology, 2009, 15, 396-424.	9.5	470
21	Photosynthesis, Productivity, and Yield of Maize Are Not Affected by Open-Air Elevation of CO2 Concentration in the Absence of Drought. Plant Physiology, 2006, 140, 779-790.	4.8	451
22	A meta-analysis of elevated [CO2] effects on soybean (Glycine max) physiology, growth and yield. Global Change Biology, 2002, 8, 695-709.	9.5	426
23	In vivo temperature response functions of parameters required to model RuBP-limited photosynthesis. Plant, Cell and Environment, 2003, 26, 1419-1430.	5.7	391
24	To what extent do current and projected increases in surface ozone affect photosynthesis and stomatal conductance of trees? A metaâ€•analytic review of the last 3â€ƒdecades of experiments. Plant, Cell and Environment, 2007, 30, 1150-1162.	5.7	355
25	Optimizing the Distribution of Resources between Enzymes of Carbon Metabolism Can Dramatically Increase Photosynthetic Rate: A Numerical Simulation Using an Evolutionary Algorithm. Plant Physiology, 2007, 145, 513-526.	4.8	353
26	More Productive Than Maize in the Midwest: How Does Miscanthus Do It? Â Â. Plant Physiology, 2009, 150, 2104-2115.	4.8	335
27	Genome of the long-living sacred lotus (Nelumbo nucifera Gaertn.). Genome Biology, 2013, 14, R41.	9.6	329
28	How does elevated ozone impact soybean? A meta-analysis of photosynthesis, growth and yield. Plant, Cell and Environment, 2003, 26, 1317-1328.	5.7	319
29	Testing the â€œsourceâ€“sinkâ€• hypothesis of down-regulation of photosynthesis in elevated [CO2] in the field with single gene substitutions in Glycine max. Agricultural and Forest Meteorology, 2004, 122, 85-94.	4.8	311
30	More than taking the heat: crops and global change. Current Opinion in Plant Biology, 2010, 13, 240-247.	7.1	309
31	Primary productivity of planet earth: biological determinants and physical constraints in terrestrial and aquatic habitats. Global Change Biology, 2001, 7, 849-882.	9.5	281
32	The slow reversibility of photosystem II thermal energy dissipation on transfer from high to low light may cause large losses in carbon gain by crop canopies: a theoretical analysis. Journal of Experimental Botany, 2004, 55, 1167-1175.	4.8	258
33	Chlorophyll a fluorescence induction kinetics in leaves predicted from a model describing each discrete step of excitation energy and electron transfer associated with Photosystem II. Planta, 2005, 223, 114-133.	3.2	252
34	FACEâ€•ing the facts: inconsistencies and interdependence among field, chamber and modeling studies of elevated [CO₂] impacts on crop yield and food supply. New Phytologist, 2008, 179, 5-9.	7.3	251
35	Seasonal dynamics of nutrient accumulation and partitioning in the perennial C4-grasses Miscanthus Ã— giganteus and Spartina cynosuroides. Biomass and Bioenergy, 1997, 12, 419-428.	5.7	243
36	Miscanthus for Renewable Energy Generation: European Union Experience and Projections for Illinois. Mitigation and Adaptation Strategies for Global Change, 2004, 9, 433-451.	2.1	240

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37	30 years of freeâ€air carbon dioxide enrichment (FACE): What have we learned about future crop productivity and its potential for adaptation?. Global Change Biology, 2021, 27, 27-49.	9.5	240
38	Decreases in Stomatal Conductance of Soybean under Open-Air Elevation of [CO2] Are Closely Coupled with Decreases in Ecosystem Evapotranspiration. Plant Physiology, 2007, 143, 134-144.	4.8	233
39	Intensifying drought eliminates the expected benefits of elevated carbon dioxide for soybean. Nature Plants, 2016, 2, 16132.	9.3	229
40	Global food insecurity. Treatment of major food crops with elevated carbon dioxide or ozone under large-scale fully open-air conditions suggests recent models may have overestimated future yields. Philosophical Transactions of the Royal Society B: Biological Sciences, 2005, 360, 2011-2020.	4.0	227
41	Effect of the Long-Term Elevation of CO2 Concentration in the Field on the Quantum Yield of Photosynthesis of the C3 Sedge, Scirpus olneyi. Plant Physiology, 1991, 96, 221-226.	4.8	226
42	Farming with crops and rocks to address global climate, food and soil security. Nature Plants, 2018, 4, 138-147.	9.3	226
43	Can perennial C4 grasses attain high efficiencies of radiant energy conversion in cool climates?. Plant, Cell and Environment, 1995, 18, 641-650.	5.7	222
44	Free-air Carbon Dioxide Enrichment (FACE) in Global Change Research: A Review. Advances in Ecological Research, 1999, , 1-56.	2.7	219
45	Acclimation of photosynthetic proteins to rising atmospheric CO2. Photosynthesis Research, 1994, 39, 413-425.	2.9	209
46	Cold Tolerance of C4 photosynthesis in Miscanthus Ã— giganteus: Adaptation in Amounts and Sequence of C4 Photosynthetic Enzymes. Plant Physiology, 2003, 132, 1688-1697.	4.8	202
47	Chilling stress and oxygen metabolizing enzymes in Zea mays and Zea diploperennis*. Plant, Cell and Environment, 1991, 14, 97-104.	5.7	199
48	Acclimation of Photosynthesis to Elevated CO2under Low-Nitrogen Nutrition Is Affected by the Capacity for Assimilate Utilization. Perennial Ryegrass under Free-Air CO2 Enrichment. Plant Physiology, 1998, 118, 683-689.	4.8	190
49	The Sequence of Change within the Photosynthetic Apparatus of Wheat following Short-Term Exposure to Ozone. Plant Physiology, 1991, 95, 529-535.	4.8	189
50	Seasonâ€long elevation of ozone concentration to projected 2050 levels under fully openâ€air conditions substantially decreases the growth and production of soybean. New Phytologist, 2006, 170, 333-343.	7.3	189
51	Would transformation of C3 crop plants with foreign Rubisco increase productivity? A computational analysis extrapolating from kinetic properties to canopy photosynthesis. Plant, Cell and Environment, 2004, 27, 155-165.	5.7	184
52	Leaf photosynthesis and carbohydrate dynamics of soybeans grown throughout their life-cycle under Free-Air Carbon dioxide Enrichment. Plant, Cell and Environment, 2004, 27, 449-458.	5.7	182
53	The Productivity of the C_4 Grass Echinochloa Polystachya on the Amazon Floodplain. Ecology, 1991, 72, 1456-1463.	3.2	181
54	The growth of soybean under free air [CO2] enrichment (FACE) stimulates photosynthesis while decreasing in vivo Rubisco capacity. Planta, 2005, 220, 434-446.	3.2	181

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55	Photosystem II Subunit S overexpression increases the efficiency of water use in a field-grown crop. Nature Communications, 2018, 9, 868.	12.8	181
56	Chilling Damage to Photosynthesis in Young Zea mays. Journal of Experimental Botany, 1983, 34, 177-188.	4.8	172
57	Is stimulation of leaf photosynthesis by elevated carbon dioxide concentration maintained in the long term? A test with Lolium perenne grown for 10 years at two nitrogen fertilization levels under F ree A ir C O2 E nrichment (FACE). Plant, Cell and Environment, 2003, 26, 705-714.	5.7	172
58	Increased C availability at elevated carbon dioxide concentration improves N assimilation in a legume. Plant, Cell and Environment, 2006, 29, 1651-1658.	5.7	172
59	Slow induction of photosynthesis on shade to sun transitions in wheat may cost at least 21% of productivity. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160543.	4.0	172
60	Miscanthus. Advances in Botanical Research, 2010, 56, 75-137.	1.1	169
61	Will photosynthesis of maize (Zea mays) in the US Corn Belt increase in future [CO2] rich atmospheres? An analysis of diurnal courses of CO2 uptake under free-air concentration enrichment (FACE). Global Change Biology, 2004, 10, 951-962.	9.5	167
62	Increased Accumulation of Carbohydrates and Decreased Photosynthetic Gene Transcript Levels in Wheat Grown at an Elevated CO2 Concentration in the Field. Plant Physiology, 1995, 108, 975-983.	4.8	166
63	Seasonal nitrogen dynamics of <i>Miscanthus</i>Ã—<i>giganteus</i> and <i>Panicum virgatum</i>. GCB Bioenergy, 2009, 1, 297-307.	5.6	163
64	The global potential for Agave as a biofuel feedstock. GCB Bioenergy, 2011, 3, 68-78.	5.6	163
65	Measurement of leaf and canopy photosynthetic CO2exchange in the field. Journal of Experimental Botany, 1996, 47, 1629-1642.	4.8	159
66	Can the Cyanobacterial Carbon-Concentrating Mechanism Increase Photosynthesis in Crop Species? A Theoretical Analysis Â Â. Plant Physiology, 2014, 164, 2247-2261.	4.8	159
67	An analysis of ozone damage to historical maize and soybean yields in the United States. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14390-14395.	7.1	159
68	Herbaceous energy crop development: recent progress and future prospects. Current Opinion in Biotechnology, 2008, 19, 202-209.	6.6	156
69	Over-expressing the C3 photosynthesis cycle enzyme Sedoheptulose-1-7 Bisphosphatase improves photosynthetic carbon gain and yield under fully open air CO2fumigation (FACE). BMC Plant Biology, 2011, 11, 123.	3.6	156
70	Next generation of elevated [CO₂] experiments with crops: a critical investment for feeding the future world. Plant, Cell and Environment, 2008, 31, 1317-1324.	5.7	154
71	Accelerating yield potential in soybean: potential targets for biotechnological improvement. Plant, Cell and Environment, 2012, 35, 38-52.	5.7	153
72	Meta-analysis of the effects of management factors on MiscanthusÃ—giganteus growth and biomass production. Agricultural and Forest Meteorology, 2008, 148, 1280-1292.	4.8	152

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73	Photosynthetic CO2 assimilation and rising atmospheric CO2 concentrations. , 1992, , 69-103.		150
74	Effects of free-air CO2 enrichment on the development of the photosynthetic apparatus in wheat, as indicated by changes in leaf proteins. Plant, Cell and Environment, 1995, 18, 855-864.	5.7	146
75	Cool C4 Photosynthesis: Pyruvate Pi Dikinase Expression and Activity Corresponds to the Exceptional Cold Tolerance of Carbon Assimilation in<i>Miscanthus</i>Ã—<i>giganteus</i>Â Â Â. Plant Physiology, 2008, 148, 557-567.	4.8	143
76	An In Vivo Analysis of the Effect of Season-Long Open-Air Elevation of Ozone to Anticipated 2050 Levels on Photosynthesis in Soybean. Plant Physiology, 2004, 135, 2348-2357.	4.8	135
77	Smaller than predicted increase in aboveground net primary production and yield of field-grown soybean under fully open-air [CO2] elevation. Global Change Biology, 2005, 11, 1856-1865.	9.5	134
78	Hourly and seasonal variation in photosynthesis and stomatal conductance of soybean grown at future CO2and ozone concentrations for 3 years under fully open-air field conditions. Plant, Cell and Environment, 2006, 29, 2077-2090.	5.7	132
79	Limits on Yields in the Corn Belt. Science, 2014, 344, 484-485.	12.6	132
80	Seasonal dynamics of aboveâ€•and belowâ€ground biomass and nitrogen partitioning in <i><scp>M</scp>iscanthus</i>ÂÃ—Â<i>giganteus</i> and <i><scp>P</scp>anicum virgatum</i> across three growing seasons. GCB Bioenergy, 2012, 4, 534-544.	5.6	131
81	Brazilian sugarcane ethanol as an expandable green alternative to crude oil use. Nature Climate Change, 2017, 7, 788-792.	18.8	124
82	Very high productivity of the C4 aquatic grass Echinochloa polystachya in the Amazon floodplain confirmed by net ecosystem CO2 flux measurements. Oecologia, 2000, 125, 400-411.	2.0	123
83	Photosynthesis and conductance of spring-wheat leaves: field response to continuous free-air atmospheric CO2 enrichment. Plant, Cell and Environment, 1998, 21, 659-669.	5.7	121
84	Chilling Damage to Photosynthesis in Young Zea mays. Journal of Experimental Botany, 1983, 34, 189-197.	4.8	119
85	Long-term growth of soybean at elevated [CO2] does not cause acclimation of stomatal conductance under fully open-air conditions. Plant, Cell and Environment, 2006, 29, 1794-1800.	5.7	119
86	Yields of <i><scp>M</scp>iscanthus</i>ÂÃ—Â<i>giganteus</i> and <i><scp>P</scp>anicum virgatum</i> decline with stand age in the Midwestern <scp>USA</scp>. GCB Bioenergy, 2014, 6, 1-13.	5.6	119
87	<i>e</i>â€photosynthesis: a comprehensive dynamic mechanistic model of C3 photosynthesis: from light capture to sucrose synthesis. Plant, Cell and Environment, 2013, 36, 1711-1727.	5.7	118
88	Is there potential to adapt soybean (<scp><i>G</i></scp><i>lycine max</i>â€…<scp>M</scp>err.) to future [<scp><scp>CO₂</scp></scp>]? An analysis of the yield response of 18 genotypes in freeâ€air <scp><scp>CO₂</scp></scp> enrichment. Plant, Cell and Environment, 2015, 38, 1765-1774.	5.7	116
89	How does elevated CO 2 or ozone affect the leafâ€area index of soybean when applied independently?. New Phytologist, 2006, 169, 145-155.	7.3	115
90	Decreasing, not increasing, leaf area will raise crop yields under global atmospheric change. Global Change Biology, 2017, 23, 1626-1635.	9.5	112

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91	Leaf photosynthesis in the C4-grassMiscanthusxgiganteus, growing in the cool temperate climate of southern England. Journal of Experimental Botany, 1996, 47, 267-273.	4.8	111
92	Photosynthesis â€" is it limiting to biomass production?. Bioresource Technology, 1985, 8, 119-168.	0.3	110
93	Primary productivity of natural grass ecosystems of the tropics: A reappraisal. Plant and Soil, 1989, 115, 155-166.	3.7	110
94	Photosynthesis and stomatal conductance responses of poplars to freeâ€air CO 2 enrichment (PopFACE) during the first growth cycle and immediately following coppice. New Phytologist, 2003, 159, 609-621.	7.3	110
95	Robust paths to net greenhouse gas mitigation and negative emissions via advanced biofuels. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21968-21977.	7.1	110
96	Water use efficiency of C4 perennial grasses in a temperate climate. Agricultural and Forest Meteorology, 1999, 96, 103-115.	4.8	108
97	Rooting for cassava: insights into photosynthesis and associated physiology as aÂroute to improve yield potential. New Phytologist, 2017, 213, 50-65.	7.3	108
98	Respiratory Oxygen Uptake Is Not Decreased by an Instantaneous Elevation of [CO2], But Is Increased with Long-Term Growth in the Field at Elevated [CO2]. Plant Physiology, 2004, 134, 520-527.	4.8	106
99	Does greater leafâ€level photosynthesis explain the larger solar energy conversion efficiency of Miscanthus relative to switchgrass?. Plant, Cell and Environment, 2009, 32, 1525-1537.	5.7	106
100	Small decreases in SBPase cause a linear decline in the apparent RuBP regeneration rate, but do not affect Rubisco carboxylation capacity. Journal of Experimental Botany, 2001, 52, 1779-1784.	4.8	105
101	Potential mechanisms of low-temperature tolerance of C4 photosynthesis in Miscanthus ï¿½ giganteus: an in vivo analysis. Planta, 2004, 220, 145-155.	3.2	105
102	The interactive effects of elevated CO2 and O3 concentration on photosynthesis in spring wheat. Photosynthesis Research, 1995, 45, 111-119.	2.9	103
103	Low growth temperatures modify the efficiency of light use by photosystem II for CO2 assimilation in leaves of two chilling-tolerant C4 species, Cyperus longus L. and Miscanthus x giganteus. Plant, Cell and Environment, 2006, 29, 720-728.	5.7	103
104	Crops In Silico: Generating Virtual Crops Using an Integrative and Multi-scale Modeling Platform. Frontiers in Plant Science, 2017, 8, 786.	3.6	102
105	C4 photosynthesis in plants from cool temperate regions, with particular reference to Spartina townsendii. Nature, 1975, 257, 622-624.	27.8	100
106	Modeling spatial and dynamic variation in growth, yield, and yield stability of the bioenergy crops <i><scp>M</scp>iscanthusÂ</i>Ã—Â<i>giganteus</i> and <i><scp>P</scp>anicum virgatum</i> across the conterminous <scp>U</scp>nited <scp>S</scp>tates. GCB Bioenergy, 2012, 4, 509-520.	5.6	99
107	Does a Low Nitrogen Supply Necessarily Lead to Acclimation of Photosynthesis to Elevated CO2?. Plant Physiology, 1998, 118, 573-580.	4.8	97
108	Impacts of a 32-billion-gallon bioenergy landscape on land and fossil fuel use in the US. Nature Energy, 2016, 1, .	39.5	97

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109	Variation in photosynthetic induction between rice accessions and its potential for improving productivity. New Phytologist, 2020, 227, 1097-1108.	7.3	97
110	Future atmospheric CO₂ leads to delayed autumnal senescence. Global Change Biology, 2008, 14, 264-275.	9.5	95
111	Photosynthesis across African cassava germplasm is limited by Rubisco and mesophyll conductance at steady state, but by stomatal conductance in fluctuating light. New Phytologist, 2020, 225, 2498-2512.	7.3	92
112	Primary Production in Grasslands and Coniferous Forests with Climate Change: An Overview. , 1991, 1, 139-156.		91
113	The effects of development at sub-optimal growth temperatures on photosynthetic capacity and susceptibility to chilling-dependent photoinhibition in Zea mays. Physiologia Plantarum, 1992, 85, 554-560.	5.2	89
114	Interactive Effects of Elevated Carbon Dioxide and Drought on Wheat. Agronomy Journal, 2006, 98, 354-381.	1.8	89
115	Simultaneous improvement in productivity, water use, and albedo through crop structural modification. Global Change Biology, 2014, 20, 1955-1967.	9.5	88
116	One crop breeding cycle from starvation? How engineering crop photosynthesis for rising CO ₂ and temperature could be one important route to alleviation. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20152578.	2.6	88
117	Potential of global croplands and bioenergy crops for climate change mitigation through deployment for enhanced weathering. Biology Letters, 2017, 13, 20160714.	2.3	88
118	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?. Plant, Cell and Environment, 2006, 29, 1235-1244.	5.7	87
119	A footprint of past climate change on the diversity and population structure of Miscanthus sinensis. Annals of Botany, 2014, 114, 97-107.	2.9	87
120	Does Free-Air Carbon Dioxide Enrichment Affect Photochemical Energy Use by Evergreen Trees in Different Seasons? A Chlorophyll Fluorescence Study of Mature Loblolly Pine1. Plant Physiology, 1999, 120, 1183-1192.	4.8	85
121	Factors underlying genotypic differences in the induction of photosynthesis in soybean [<i>Glycine max</i> (L.) <scp>Merr</scp>.]. Plant, Cell and Environment, 2016, 39, 685-693.	5.7	85
122	Technoâ€economic analysis of biodiesel and ethanol coâ€production from lipidâ€producing sugarcane. Biofuels, Bioproducts and Biorefining, 2016, 10, 299-315.	3.7	85
123	Growth in Elevated CO2 Can Both Increase and Decrease Photochemistry and Photoinhibition of Photosynthesis in a Predictable Manner. <i>Dactylis glomerata</i> Grown in Two Levels of Nitrogen Nutrition. Plant Physiology, 2001, 127, 1204-1211.	4.8	83
124	Will elevated CO2 concentrations protect the yield of wheat from O3 damage?. Plant, Cell and Environment, 1997, 20, 77-84.	5.7	82
125	Does Leaf Position within a Canopy Affect Acclimation of Photosynthesis to Elevated CO2?1. Plant Physiology, 1998, 117, 1037-1045.	4.8	81
126	Transcript expression profiles of Arabidopsis thaliana grown under controlled conditions and open-air elevated concentrations of CO2 and of O3. Field Crops Research, 2004, 90, 47-59.	5.1	78

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127	Toward Cool C₄Crops. Annual Review of Plant Biology, 2013, 64, 701-722.	18.7	78
128	An evaluation of new and established methods to determine Tâ€DNA copy number and homozygosity in transgenic plants.. Plant, Cell and Environment, 2016, 39, 908-917.	5.7	77
129	Title is missing!. Photosynthesis Research, 1999, 59, 1-7.	2.9	75
130	Net carbon storage in a poplar plantation (POPFACE) after three years of free-air CO2 enrichment. Tree Physiology, 2005, 25, 1399-1408.	3.1	74
131	Nitrogen Fertilization Does Significantly Increase Yields of Stands of Miscanthus Ã— giganteus and Panicum virgatum in Multiyear Trials in Illinois. Bioenergy Research, 2014, 7, 408-416.	3.9	71
132	Analysing the responses of photosynthetic CO2 assimilation to long-term elevation of atmospheric CO2 concentration. Plant Ecology, 1993, 104-105, 33-45.	1.2	69
133	Does Long-Term Elevation of CO2 Concentration Increase Photosynthesis in Forest Floor Vegetation? (Indiana Strawberry in a Maryland Forest). Plant Physiology, 1997, 114, 337-344.	4.8	69
134	Elements Required for an Efficient NADP-Malic Enzyme Type C4 Photosynthesis Â Â Â. Plant Physiology, 2014, 164, 2231-2246.	4.8	69
135	A semimechanistic model predicting the growth and production of the bioenergy crop <i>Miscanthus</i>Ã—<i>giganteus:</i> description, parameterization and validation. GCB Bioenergy, 2009, 1, 282-296.	5.6	68
136	Photosynthesis in the fleeting shadows: an overlooked opportunity for increasing crop productivity?. Plant Journal, 2020, 101, 874-884.	5.7	68
137	Sucroseâ€phosphate synthase responds differently to sourceâ€sink relations and to photosynthetic rates:Lolium perenneL. growing at elevatedpCO2in the field. Plant, Cell and Environment, 2000, 23, 597-607.	5.7	67
138	Plants <i>in silico</i>: why, why now and what?â€"an integrative platform for plant systems biology research. Plant, Cell and Environment, 2016, 39, 1049-1057.	5.7	66
139	Into the Shadows and Back into Sunlight: Photosynthesis in Fluctuating Light. Annual Review of Plant Biology, 2022, 73, 617-648.	18.7	66
140	Cost of Abating Greenhouse Gas Emissions with Cellulosic Ethanol. Environmental Science & Technology, 2015, 49, 2512-2522.	10.0	65
141	High C3 photosynthetic capacity and high intrinsic water use efficiency underlies the high productivity of the bioenergy grass Arundo donax. Scientific Reports, 2016, 6, 20694.	3.3	64
142	The Role of Sink Strength and Nitrogen Availability in the Down-Regulation of Photosynthetic Capacity in Field-Grown Nicotiana tabacum L. at Elevated CO2 Concentration. Frontiers in Plant Science, 2017, 8, 998.	3.6	64
143	Technologies to deliver food and climate security through agriculture. Nature Plants, 2021, 7, 250-255.	9.3	63
144	A process-based model to predict the effects of climatic change on leaf isoprene emission rates. Ecological Modelling, 2000, 131, 161-174.	2.5	61

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145	Ecohydrological responses of dense canopies to environmental variability: 1. Interplay between vertical structure and photosynthetic pathway. Journal of Geophysical Research, 2010, 115, .	3.3	61
146	Expression of cyanobacterial FBP/SBPase in soybean prevents yield depression under future climate conditions. Journal of Experimental Botany, 2017, 68, erw435.	4.8	61
147	Variation in acclimation of photosynthesis in Trifolium repens after eight years of exposure to Free Air CO2 Enrichment (FACE). Journal of Experimental Botany, 2003, 54, 2769-2774.	4.8	60
148	LIMITATIONS OF PHOTOSYNTHESIS IN DIFFERENT REGIONS OF THE ZEA MAYS LEAF. New Phytologist, 1981, 89, 179-190.	7.3	56
149	Does photosynthetic acclimation to elevated CO2 increase photosynthetic nitrogen-use efficiency? A study of three native UK grassland species in open-top chambers. Functional Ecology, 1999, 13, 21-28.	3.6	56
150	An assessment of saltmarsh erosion in Essex, England, with reference to the Dengie Peninsula. Biological Conservation, 1986, 35, 377-387.	4.1	55
151	How do elevated CO₂ and O₃ affect the interception and utilization of radiation by a soybean canopy?. Global Change Biology, 2008, 14, 556-564.	9.5	54
152	Towards oilcane: Engineering hyperaccumulation of triacylglycerol into sugarcane stems. GCB Bioenergy, 2020, 12, 476-490.	5.6	54
153	The relationship between carbon dioxide fixation and chlorophyll a fluorescence during induction of photosynthesis in maize leaves at different temperatures and carbon dioxide concentrations. Planta, 1984, 160, 550-558.	3.2	53
154	Elevated concentrations of atmospheric CO 2 protect against and compensate for O 3 damage to photosynthetic tissues of fieldâ€grown wheat. New Phytologist, 2000, 146, 427-435.	7.3	53
155	Enhancing soybean photosynthetic CO 2 assimilation using a cyanobacterial membrane protein, ictB. Journal of Plant Physiology, 2017, 212, 58-68.	3.5	53
156	Biomass feedstock preprocessing and longâ€distance transportation logistics. GCB Bioenergy, 2016, 8, 160-170.	5.6	51
157	Genotypic variation within Zea mays for susceptibility to and rate of recovery from chill-induced photoinhibition of photosynthesis. Physiologia Plantarum, 1999, 106, 429-436.	5.2	50
158	Agronomic Experiences with Miscanthus x giganteus in Illinois, USA. Methods in Molecular Biology, 2009, 581, 41-52.	0.9	50
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