Thomas David Sharkey

List of Publications by Year
in descending order

238 papers	28,989 citations	84 h-index (4960)	163 g-index (5536)
251 all docs	251 docs citations	251 times ranked	16462 citing authors

#	Article	IF	Citations
1	Stomatal Conductance and Photosynthesis. Annual Review of Plant Physiology, 1982, 33, 317-345.	10.9	3,336
2	Diffusive and Metabolic Limitations to Photosynthesis under Drought and Salinity in C 3 Plants. Plant Biology, 2004, 6, 269-279.	3.8	1,095
3	Fitting photosynthetic carbon dioxide response curves for C₃ leaves. Plant, Cell and Environment, 2007, 30, 1035-1040.	5.7	1,084
4	Theoretical Considerations when Estimating the Mesophyll Conductance to CO₂ Flux by Analysis of the Response of Photosynthesis to CO₂. Plant Physiology, 1992, 98, 1429-1436.	4.8	799
5	Photosynthesis in intact leaves of C3 plants: Physics, physiology and rate limitations. Botanical Review, The, 1985, 51, 53-105.	3.9	782
6	Acclimation of Photosynthesis to Elevated CO₂ in Five C₃ Species. Plant Physiology, 1989, 89, 590-596.	4.8	611
7	Biogenic Hydrocarbons in the Atmospheric Boundary Layer: A Review. Bulletin of the American Meteorological Society, 2000, 81, 1537-1575.	3.3	532
8	ISOPRENEEMISSION FROMPLANTS. Annual Review of Plant Biology, 2001, 52, 407-436.	14.3	523
9	Isoprene Emission from Plants: Why and How. Annals of Botany, 2007, 101, 5-18.	2.9	520
10	Effects of moderate heat stress on photosynthesis: importance of thylakoid reactions, rubisco deactivation, reactive oxygen species, and thermotolerance provided by isoprene. Plant, Cell and Environment, 2005, 28, 269-277.	5.7	503
11	Carbon Isotope Discrimination measured Concurrently with Gas Exchange to Investigate CO2 Diffusion in Leaves of Higher Plants. Functional Plant Biology, 1986, 13, 281.	2.1	481
12	Estimating the rate of photorespiration in leaves. Physiologia Plantarum, 1988, 73, 147-152.	5.2	450
13	Electron transport is the functional limitation of photosynthesis in field-grown Pima cotton plants at high temperature. Plant, Cell and Environment, 2004, 27, 717-724.	5.7	407
14	Why plants emit isoprene. Nature, 1995, 374, 769-769.	27.8	396
15	Water stress, temperature, and light effects on the capacity for isoprene emission and photosynthesis of kudzu leaves. Oecologia, 1993, 95, 328-333.	2.0	387
16	Estimation of Mesophyll Conductance to CO₂ Flux by Three Different Methods. Plant Physiology, 1992, 98, 1437-1443.	4.8	371
17	Rewiring of jasmonate and phytochrome B signalling uncouples plant growth-defense tradeoffs. Nature Communications, 2016, 7, 12570.	12.8	323
18	An improved model of C3 photosynthesis at high CO2: Reversed O2 sensitivity explained by lack of glycerate reentry into the chloroplast. Photosynthesis Research, 1991, 27, 169-178.	2.9	311

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19	Environmental Effects on Photosynthesis, Nitrogen-Use Efficiency, and Metabolite Pools in Leaves of Sun and Shade Plants. Plant Physiology, 1987, 84, 796-802.	4.8	287
20	The Effect of Temperature on the Occurrence of O₂ and CO₂ Insensitive Photosynthesis in Field Grown Plants. Plant Physiology, 1987, 84, 658-664.	4.8	285
21	Isoprene Increases Thermotolerance of Isoprene-Emitting Species. Plant Physiology, 1997, 115, 1413-1420.	4.8	282
22	The Small, Methionine-Rich Chloroplast Heat-Shock Protein Protects Photosystem II Electron Transport during Heat Stress1. Plant Physiology, 1998, 116, 439-444.	4.8	282
23	A gas-exchange study of photosynthesis and isoprene emission inQuercus rubra L.. Planta, 1990, 182, 523-531.	3.2	281
24	O₂-Insensitive Photosynthesis in C₃ Plants. Plant Physiology, 1985, 78, 71-75.	4.8	261
25	Daylength and Circadian Effects on Starch Degradation and Maltose Metabolism. Plant Physiology, 2005, 138, 2280-2291.	4.8	260
26	Thylakoid membrane responses to moderately high leaf temperature in Pima cotton. Plant, Cell and Environment, 2004, 27, 725-735.	5.7	253
27	Limitation of Photosynthesis by Carbon Metabolism. Plant Physiology, 1986, 81, 1123-1129.	4.8	243
28	The relationship between leaf area growth and biomass accumulation in Arabidopsis thaliana. Frontiers in Plant Science, 2015, 6, 167.	3.6	236
29	Mild Water Stress Effects on Carbon-Reduction-Cycle Intermediates, Ribulose Bisphosphate Carboxylase Activity, and Spatial Homogeneity of Photosynthesis in Intact Leaves. Plant Physiology, 1989, 89, 1060-1065.	4.8	226
30	Isoprene Increases Thermotolerance of Fosmidomycin-Fed Leaves. Plant Physiology, 2001, 125, 2001-2006.	4.8	224
31	Effect of Light Quality on Stomatal Opening in Leaves of <i>Xanthium strumarium</i> L.. Plant Physiology, 1981, 68, 1170-1174.	4.8	222
32	Light-emitting diodes as a light source for photosynthesis research. Photosynthesis Research, 1994, 39, 85-92.	2.9	216
33	Methylerythritol 4-phosphate (MEP) pathway metabolic regulation. Natural Product Reports, 2014, 31, 1043-1055.	10.3	214
34	Maltose is the major form of carbon exported from the chloroplast at night. Planta, 2004, 218, 474-482.	3.2	213
35	The relationship between steady-state gas exchange of bean leaves and the levels of carbon-reduction-cycle intermediates. Planta, 1984, 160, 305-313.	3.2	200
36	High carbon dioxide and sun/shade effects on isoprene emission from oak and aspen tree leaves. Plant, Cell and Environment, 1991, 14, 333-338.	5.7	191

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37	Rapid appearance of 13C in biogenic isoprene when 13CO2 is fed to intact leaves. Plant, Cell and Environment, 1993, 16, 587-591.	5.7	178
38	Evolution of the Isoprene Biosynthetic Pathway in Kudzu. Plant Physiology, 2005, 137, 700-712.	4.8	176
39	Salinity and Nitrogen Effects on Photosynthesis, Ribulose-1,5-Bisphosphate Carboxylase and Metabolite Pool Sizes in Phaseolus vulgaris L.. Plant Physiology, 1986, 82, 555-560.	4.8	169
40	Feedback Inhibition of Deoxy-d-xylulose-5-phosphate Synthase Regulates the Methylerythritol 4-Phosphate Pathway. Journal of Biological Chemistry, 2013, 288, 16926-16936.	3.4	167
41	The role of amylomaltase in maltose metabolism in the cytosol of photosynthetic cells. Planta, 2004, 218, 466-473.	3.2	166
42	Photosynthetic electron transport and proton flux under moderate heat stress. Photosynthesis Research, 2009, 100, 29-43.	2.9	166
43	Stromal Phosphate Concentration Is Low during Feedback Limited Photosynthesis. Plant Physiology, 1989, 91, 679-684.	4.8	164
44	Measurements of mesophyll conductance, photosynthetic electron transport and alternative electron sinks of field grown wheat leaves. Photosynthesis Research, 1994, 41, 397-403.	2.9	163
45	Physiological influences on carbon isotope discrimination in huon pine (Lagarostrobos franklinii). Oecologia, 1985, 66, 211-218.	2.0	160
46	Increased Thermostability of Thylakoid Membranes in Isoprene-Emitting Leaves Probed with Three Biophysical Techniques Â Â. Plant Physiology, 2011, 157, 905-916.	4.8	157
47	The in-vivo response of the ribulose-1,5-bisphosphate carboxylase activation state and the pool sizes of photosynthetic metabolites to elevated CO2 inPhaseolus vulgaris L.. Planta, 1988, 174, 407-416.	3.2	150
48	What gas exchange data can tell us about photosynthesis. Plant, Cell and Environment, 2016, 39, 1161-1163.	5.7	149
49	High Temperature Effects on Electron and Proton Circuits of Photosynthesis. Journal of Integrative Plant Biology, 2010, 52, 712-722.	8.5	144
50	Plant heat stress: Concepts directing future research. Plant, Cell and Environment, 2021, 44, 1992-2005.	5.7	144
51	Mild Water Stress of <i>Phaseolus vulgaris</i> Plants Leads to Reduced Starch Synthesis and Extractable Sucrose Phosphate Synthase Activity. Plant Physiology, 1989, 89, 1066-1070.	4.8	141
52	Photometric method for routine determination of kcat and carbamylation of rubisco. Photosynthesis Research, 1991, 28, 41-48.	2.9	137
53	Separation and Measurement of Direct and Indirect Effects of Light on Stomata. Plant Physiology, 1981, 68, 33-40.	4.8	131
54	WEATHER EFFECTS ON ISOPRENE EMISSION CAPACITY AND APPLICATIONS IN EMISSIONS ALGORITHMS. , 1999, 9, 1132-1137.		131

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55	Isoprene synthesis by plants and animals. Endeavour, 1996, 20, 74-78.	0.4	130
56	Biological aspects of constructing volatile organic compound emission inventories. Atmospheric Environment, 1995, 29, 2989-3002.	4.1	128
57	On the relationship between isoprene emission and photosynthetic metabolites under different environmental conditions. Planta, 1993, 189, 420-424.	3.2	125
58	Transpiration-induced changes in the photosynthetic capacity of leaves. Planta, 1984, 160, 143-150.	3.2	121
59	Regulation of Ribulose-1,5-Bisphosphate Carboxylase Activity in Response to Changing Partial Pressure of O₂ and Light in <i>Phaseolus vulgaris</i>. Plant Physiology, 1986, 81, 788-791.	4.8	121
60	Altered photosynthesis, flowering, and fruiting in transgenic tomato plants that have an increased capacity for sucrose synthesis. Planta, 1995, 196, 327.	3.2	121
61	The regulation of isoprene emission responses to rapid leaf temperature fluctuations. Plant, Cell and Environment, 1998, 21, 1181-1188.	5.7	116
62	Regulation of photosynthetic electron-transport in Phaseolus vulgaris L., as determined by room-temperature chlorophyll a fluorescence. Planta, 1988, 176, 415-424.	3.2	114
63	Isoprene Emission from Velvet Bean Leaves (Interactions among Nitrogen Availability, Growth Photon) Tj ETQq1 1 0.784314 rgBT /Overl	4.8	114
64	Effects of CO 2 Enrichment on Four Great Basin Grasses. Functional Ecology, 1987, 1, 139.	3.6	113
65	Regulation of Ribulose-1,5-Bisphosphate Carboxylase Activity in Response to Light Intensity and CO₂ in the C₃ Annuals <i>Chenopodium album</i> L. and <i>Phaseolus vulgaris</i> L.. Plant Physiology, 1990, 94, 1735-1742.	4.8	111
66	Different sources of reduced carbon contribute to form three classes of terpenoid emitted by Quercus ilex L. leaves.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 9966-9969.	7.1	110
67	Activity Ratios of Ribulose-1,5-Bisphosphate Carboxylase Accurately Reflect Carbamylation Ratios. Plant Physiology, 1989, 89, 735-739.	4.8	108
68	Effects of water stress on photosynthetic electron transport, photophosphorylation, and metabolite levels of Xanthium strumarium mesophyll cells. Planta, 1982, 156, 199-206.	3.2	106
69	Evolutionary significance of isopreneemission from mosses. American Journal of Botany, 1999, 86, 634-639.	1.7	106
70	The importance of maltose in transitory starch breakdown. Plant, Cell and Environment, 2006, 29, 353-366.	5.7	106
71	Export of Carbon from Chloroplasts at Night. Plant Physiology, 1998, 118, 1439-1445.	4.8	103
72	The response of isoprene emission rate and photosynthetic rate to photon flux and nitrogen supply in aspen and white oak trees. Plant, Cell and Environment, 1996, 19, 549-559.	5.7	102

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73	A Direct Confirmation of the Standard Method of Estimating Intercellular Partial Pressure of CO₂. Plant Physiology, 1982, 69, 657-659.	4.8	100
74	The effects of high temperature on isoprene synthesis in oak leaves. Plant, Cell and Environment, 2000, 23, 751-757.	5.7	100
75	Carbon Balance and Circadian Regulation of Hydrolytic and Phosphorolytic Breakdown of Transitory Starch. Plant Physiology, 2006, 141, 879-886.	4.8	100
76	The glucose 6-phosphate shunt around the Calvinâ€“Benson cycle. Journal of Experimental Botany, 2016, 67, 4067-4077.	4.8	98
77	Efficiency of photosynthesis in continuous and pulsed light emitting diode irradiation. Photosynthesis Research, 1995, 44, 261-269.	2.9	95
78	Contribution of Metabolites of Photosynthesis to Postillumination CO2 Assimilation in Response to Lightflects. Plant Physiology, 1986, 82, 1063-1068.	4.8	94
79	The role of transitory starch in C3, CAM, and C4 metabolism and opportunities for engineering leaf starch accumulation. Journal of Experimental Botany, 2011, 62, 3109-3118.	4.8	94
80	Effects of Phaseic Acid and Dihydrophaseic Acid on Stomata and the Photosynthetic Apparatus. Plant Physiology, 1980, 65, 291-297.	4.8	93
81	Gas Exchange, Stomatal Behavior, and Î´¹³C Values of the <i>flacca</i> Tomato Mutant in Relation to Abscisic Acid. Plant Physiology, 1983, 72, 245-250.	4.8	93
82	Starch and Sucrose Synthesis in <i>Phaseolus vulgaris</i> as Affected by Light, CO₂, and Abscisic Acid. Plant Physiology, 1985, 77, 617-620.	4.8	93
83	Kinetics of leaf temperature fluctuation affect isoprene emission from red oak (Quercus rubra) leaves. Tree Physiology, 1999, 19, 917-924.	3.1	93
84	Increased heat sensitivity of photosynthesis in tobacco plants with reduced Rubisco activase. Photosynthesis Research, 2001, 67, 147-156.	2.9	92
85	Development of the capacity for isoprene emission in kudzu. Plant, Cell and Environment, 2005, 28, 898-905.	5.7	92
86	Feedback limitation of photosynthesis of Phaseolus vulgaris L grown in elevated CO2. Plant, Cell and Environment, 1993, 16, 81-86.	5.7	89
87	Rapid Regulation of the Methylerythritol 4-Phosphate Pathway during Isoprene Synthesis. Plant Physiology, 2004, 135, 1939-1945.	4.8	89
88	Isoprene Acts as a Signaling Molecule in Gene Networks Important for Stress Responses and Plant Growth. Plant Physiology, 2019, 180, 124-152.	4.8	89
89	Prospects for enhancing leaf photosynthetic capacity by manipulating mesophyll cell morphology. Journal of Experimental Botany, 2019, 70, 1153-1165.	4.8	89
90	Regulation of Ribulose-1,5-Bisphosphate Carboxylase Activity in Alocasia macrorrhiza in Response to Step Changes in Irradiance. Plant Physiology, 1988, 88, 148-152.	4.8	87

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91	End product feedback effects on photosynthetic electron transport. Photosynthesis Research, 1993, 35, 5-14.	2.9	86
92	ISOPRENE SYNTHASE GENES FORM A MONOPHYLETIC CLADE OF ACYCLIC TERPENE SYNTHASES IN THE TPS-B TERPENE SYNTHASE FAMILY. Evolution; International Journal of Organic Evolution, 2013, 67, 1026-1040.	2.3	85
93	Comparisons of Photosynthetic Responses of Xanthium strumarium and Helianthus annuus to Chronic and Acute Water Stress in Sun and Shade. Plant Physiology, 1987, 84, 476-482.	4.8	84
94	Antisense inhibition of sorbitol synthesis leads to up-regulation of starch synthesis without altering CO2 assimilation in apple leaves. Planta, 2005, 220, 767-776.	3.2	84
95	Isoprene synthase expression and protein levels are reduced under elevated O3but not under elevated CO2(FACE) in field-grown aspen trees. Plant, Cell and Environment, 2007, 30, 654-661.	5.7	83
96	Isoprene emission rates under elevated CO₂ and O₃ in two fieldâ€grown aspen clones differing in their sensitivity to O₃. New Phytologist, 2008, 179, 55-61.	7.3	82
97	Moderate heat stress of Arabidopsis thaliana leaves causes chloroplast swelling and plastoglobule formation. Photosynthesis Research, 2010, 105, 123-134.	2.9	81
98	Stabilization of thylakoid membranes in isoprene-emitting plants reduces formation of reactive oxygen species. Plant Signaling and Behavior, 2012, 7, 139-141.	2.4	81
99	Metabolic profiling of the methylerythritol phosphate pathway reveals the source of postâ€illumination isoprene burst from leaves. Plant, Cell and Environment, 2013, 36, 429-437.	5.7	80
100	Intramolecular deuterium distributions reveal disequilibrium of chloroplast phosphoglucose isomerase. Plant, Cell and Environment, 1999, 22, 525-533.	5.7	77
101	Triose phosphate utilization and beyond: from photosynthesis to end product synthesis. Journal of Experimental Botany, 2019, 70, 1755-1766.	4.8	77
102	Isoprene research â€" 60Âyears later, the biology is still enigmatic. Plant, Cell and Environment, 2017, 40, 1671-1678.	5.7	76
103	Moderate heat stress reduces the pH component of the transthylakoid proton motive force in lightâ€adapted, intact tobacco leaves. Plant, Cell and Environment, 2009, 32, 1538-1547.	5.7	75
104	Mechanism of Photosynthesis Decrease by Verticillium dahliae in Potato. Plant Physiology, 1990, 94, 1048-1055.	4.8	74
105	Î²-Maltose Is the Metabolically Active Anomer of Maltose during Transitory Starch Degradation. Plant Physiology, 2005, 137, 756-761.	4.8	72
106	The Role of Cytosolic Î±-Glucan Phosphorylase in Maltose Metabolism and the Comparison of Amylomaltase in Arabidopsis and Escherichia coli. Plant Physiology, 2006, 142, 878-889.	4.8	70
107	The future of isoprene emission from leaves, canopies and landscapes. Plant, Cell and Environment, 2014, 37, 1727-1740.	5.7	70
108	Pollen development at high temperature and role of carbon and nitrogen metabolites. Plant, Cell and Environment, 2019, 42, 2759-2775.	5.7	68

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109	Water stress, carbon dioxide, and light effects on sucrosephosphate synthase activity in Phaseolus vulgaris. Physiologia Plantarum, 1991, 81, 37-44.	5.2	67
110	Regulation of isoprene emission from poplar leaves throughout a day. Plant, Cell and Environment, 2009, 32, 939-947.	5.7	67
111	Engineering Plants for Elevated CO2: A Relationship between Starch Degradation and Sugar Sensing. Plant Biology, 2004, 6, 280-288.	3.8	66
112	Biogenic isoprene emission: Model evaluation in a southeastern United States bottomland deciduous forest. Journal of Geophysical Research, 1997, 102, 18889-18901.	3.3	65
113	The metabolic origins of non-photorespiratory CO2 release during photosynthesis: a metabolic flux analysis. Plant Physiology, 2021, 186, 297-314.	4.8	65
114	Low Oxygen Inhibition of Photosynthesis Is Caused by Inhibition of Starch Synthesis. Plant Physiology, 1989, 90, 385-387.	4.8	63
115	The Biochemistry of Isoprene Emission from Leaves during Photosynthesis. , 1991, , 153-184.		63
116	Carbon metabolism enzymes and photosynthesis in transgenic tobacco (Nicotiana tabacum L.) having excess phytochrome. Planta, 1991, 185, 287-96.	3.2	63
117	The Effect of Abscisic Acid and Other Inhibitors on Photosynthetic Capacity and the Biochemistry of CO₂ Assimilation. Plant Physiology, 1987, 84, 696-700.	4.8	61
118	Isoprene: New insights into the control of emission and mediation of stress tolerance by gene expression. Plant, Cell and Environment, 2019, 42, 2808-2826.	5.7	60
119	Effect of Temperature on Postillumination Isoprene Emission in Oak and Poplar. Plant Physiology, 2011, 155, 1037-1046.	4.8	59
120	The reduction in leaf area precedes that in photosynthesis under potassium deficiency: the importance of leaf anatomy. New Phytologist, 2020, 227, 1749-1763.	7.3	59
121	Responses of Two CAM Species to Different Irradiances during Growth and Susceptibility to Photoinhibition by High Light. Plant Physiology, 1987, 83, 213-218.	4.8	58
122	Stem photosynthesis in a desert ephemeral, Eriogonum inflatum. Oecologia, 1987, 72, 542-549.	2.0	58
123	Rate of acclimation of the capacity for isoprene emission in response to light and temperature. Plant, Cell and Environment, 2001, 24, 937-946.	5.7	58
124	Biochemical regulation of isoprene emission. Plant, Cell and Environment, 2003, 26, 1357-1364.	5.7	58
125	Triose phosphate use limitation of photosynthesis: short-term and long-term effects. Planta, 2016, 243, 687-698.	3.2	58
126	Sucrose-phosphate synthase activity and yield analysis of tomato plants transformed with maize sucrose-phosphate synthase. Planta, 1997, 203, 253-259.	3.2	56

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127	Triose phosphate limitation in photosynthesis models reduces leaf photosynthesis and global terrestrial carbon storage. Environmental Research Letters, 2018, 13, 074025.	5.2	56
128	Engineering starch accumulation by manipulation of phosphate metabolism of starch. Plant Biotechnology Journal, 2012, 10, 545-554.	8.3	55
129	Elevated temperatures cause loss of seed set in common bean (Phaseolus vulgaris L.) potentially through the disruption of source-sink relationships. BMC Genomics, 2019, 20, 312.	2.8	55
130	Isoprene emission by plants is affected by transmissible wound signals. Plant, Cell and Environment, 1993, 16, 563-570.	5.7	54
131	Effects of Irradiance and Methyl Viologen Treatment on ATP, ADP, and Activation of Ribulose Bisphosphate Carboxylase in Spinach Leaves. Plant Physiology, 1988, 88, 850-853.	4.8	52
132	Exogenous isoprene modulates gene expression in unstressed <i>Arabidopsis thaliana</i> plants. Plant, Cell and Environment, 2016, 39, 1251-1263.	5.7	52
133	Discovery of the canonical Calvinâ€"Benson cycle. Photosynthesis Research, 2019, 140, 235-252.	2.9	51
134	A Cytosolic Bypass and G6P Shunt in Plants Lacking Peroxisomal Hydroxypyruvate Reductase. Plant Physiology, 2019, 180, 783-792.	4.8	50
135	Carbon Partitioning in a Flaveria linearis Mutant with Reduced Cytosolic Fructose Bisphosphatase. Plant Physiology, 1992, 100, 210-215.	4.8	49
136	Modification of a Specific Class of Plasmodesmata and Loss of Sucrose Export Ability in the sucrose export defective1 Maize Mutant. Plant Cell, 1996, 8, 645.	6.6	49
137	Effect of growth conditions on isoprene emission and other thermotolerance-enhancing compounds. Plant, Cell and Environment, 2001, 24, 929-936.	5.7	49
138	Plastidic glucose-6-phosphate dehydrogenases are regulated to maintain activity in the light. Biochemical Journal, 2019, 476, 1539-1551.	3.7	48
139	The Effect of Leaf Nitrogen and Temperature on the CO2 Response of Photosynthesis in the C3 Dicot MChenopodium album L. Functional Plant Biology, 1990, 17, 135.	2.1	47
140	Title is missing!. Photosynthesis Research, 1997, 51, 93-106.	2.9	47
141	HIGH TEMPERATURE STRESS. , 2006, , 101-129.		47
142	Biochemical Characterization and Homology Modeling of Methylbutenol Synthase and Implications for Understanding Hemiterpene Synthase Evolution in Plants. Journal of Biological Chemistry, 2011, 286, 20582-20590.	3.4	47
143	Emission of low molecular mass hydrocarbons from plants. Trends in Plant Science, 1996, 1, 78-82.	8.8	46
144	Promoter strength and tissue specificity effects on growth of tomato plants transformed with maize sucrose-phosphate synthase. Planta, 2001, 212, 817-822.	3.2	46

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145	Plant volatiles: a lack of function or a lack of knowledge?. Trends in Plant Science, 2006, 11, 421-421.	8.8	46
146	Regulation of isoprene emission in <i>Populus trichocarpa </i>leaves subjected to changing growth temperature. Plant, Cell and Environment, 2008, 31, 258-267.	5.7	46
147	Transcriptional Regulation of the Glucose-6-Phosphate/Phosphate Translocator 2 Is Related to Carbon Exchange Across the Chloroplast Envelope. Frontiers in Plant Science, 2019, 10, 827.	3.6	45
148	Insect herbivory antagonizes leaf cooling responses to elevated temperature in tomato. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2211-2217.	7.1	45
149	Leaf isoprene emission as a trait that mediates the growth-defense tradeoff in the face of climate stress. Oecologia, 2021, 197, 885-902.	2.0	45
150	Fractionation of Carbon Isotopes during Biogenesis of Atmospheric Isoprene. Plant Physiology, 1991, 97, 463-466.	4.8	44
151	Reduced Cytosolic Fructose-1,6-Bisphosphatase Activity Leads to Loss of O₂ Sensitivity in a <i>Flaveria linearis</i> Mutant. Plant Physiology, 1988, 86, 667-671.	4.8	42
152	Evaluating the role of Rubisco regulation in photosynthesis of C 3 plants. Philosophical Transactions of the Royal Society of London Series B, Biological Sciences, 1989, 323, 435-448.	2.3	42
153	Differential response of aspen and birch trees to heat stress under elevated carbon dioxide. Environmental Pollution, 2010, 158, 1008-1014.	7.5	41
154	Effects of heat and drought stress on postâ€illumination bursts of volatile organic compounds in isopreneâ€emitting and nonâ€emitting poplar. Plant, Cell and Environment, 2016, 39, 1204-1215.	5.7	41
155	Molecular cloning and characterization of two cDNAs encoding 1-deoxy-d-xylulose 5-phosphate reductoisomerase from Hevea brasiliensis. Journal of Plant Physiology, 2008, 165, 991-1002.	3.5	38
156	Concentration of isoprene in artificial and thylakoid membranes. Journal of Bioenergetics and Biomembranes, 2015, 47, 419-429.	2.3	38
157	Domain Characterization of a 4-Î±-Glucanotransferase Essential for Maltose Metabolism in Photosynthetic Leaves. Journal of Biological Chemistry, 2008, 283, 20797-20804.	3.4	37
158	Limitation to Photosynthesis in <i>Pratylenchus penetrans</i>â€•and <i>Verticillium dahliae</i>â€Infected Potato. Crop Science, 1999, 39, 1340-1346.	1.8	36
159	Measuring dimethylallyl diphosphate available for isoprene synthesis. Analytical Biochemistry, 2013, 435, 27-34.	2.4	36
160	Cellular and organ level localization of maltose in maltose-excess Arabidopsis mutants. Planta, 2006, 224, 935-943.	3.2	34
161	Isopentenyl diphosphate and dimethylallyl diphosphate/isopentenyl diphosphate ratio measured with recombinant isopentenyl diphosphate isomerase and isoprene synthase. Analytical Biochemistry, 2013, 440, 130-136.	2.4	34
162	Facing the Future: Effects of Short-Term Climate Extremes on Isoprene-Emitting and Nonemitting Poplar. Plant Physiology, 2015, 169, 560-575.	4.8	33

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163	Is it useful to ask why plants emit isoprene?. Plant, Cell and Environment, 2013, 36, 517-520.	5.7	32
164	Molecular and Pathway Controls on Biogenic Volatile Organic Compound Emissions. Tree Physiology, 2013, , 119-151.	2.5	32
165	Reimport of carbon from cytosolic and vacuolar sugar pools into the Calvinâ€“Benson cycle explains photosynthesis labeling anomalies. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2121531119.	7.1	31
166	Pectin Methylesterification Impacts the Relationship Between Photosynthesis and Plant Growth in Arabidopsis thaliana. Plant Physiology, 2016, 171, pp.00173.2016.	4.8	30
167	Is triose phosphate utilization important for understanding photosynthesis?. Journal of Experimental Botany, 2019, 70, 5521-5525.	4.8	30
168	Source of 12C in Calvinâ€“Benson cycle intermediates and isoprene emitted from plant leaves fed with 13CO2. Biochemical Journal, 2020, 477, 3237-3252.	3.7	30
169	PLANT BIOLOGY:Some Like It Hot. Science, 2000, 287, 435-437.	12.6	29
170	Pentose Phosphate Pathway Reactions in Photosynthesizing Cells. Cells, 2021, 10, 1547.	4.1	29
171	Rapid heating of intact leaves reveals initial effects of stromal oxidation on photosynthesis. Plant, Cell and Environment, 2007, 30, 671-678.	5.7	28
172	High temperature enhances inhibitor production but reduces fallover in tobacco Rubisco. Functional Plant Biology, 2006, 33, 921.	2.1	24
173	The arc mutants of Arabidopsis with fewer large chloroplasts have a lower mesophyll conductance. Photosynthesis Research, 2015, 124, 117-126.	2.9	24
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