Robert T Furbank

List of Publications by Year
in descending order

188 papers	14,866 citations	17440 63 h-index	21540 114 g-index
206 all docs	206 docs citations	206 times ranked	11691 citing authors

#	Article	IF	Citations
1	Phenomics â€“ technologies to relieve the phenotyping bottleneck. Trends in Plant Science, 2011, 16, 635-644.	8.8	1,321
2	Raising yield potential of wheat. II. Increasing photosynthetic capacity and efficiency. Journal of Experimental Botany, 2011, 62, 453-467.	4.8	511
3	Achieving yield gains in wheat. Plant, Cell and Environment, 2012, 35, 1799-1823.	5.7	459
4	Suppression of Sucrose Synthase Gene Expression Represses Cotton Fiber Cell Initiation, Elongation, and Seed Development. Plant Cell, 2003, 15, 952-964.	6.6	420
5	A Simple Alternative Approach to Assessing the Fate of Absorbed Light Energy Using Chlorophyll Fluorescence. Photosynthesis Research, 2004, 82, 73-81.	2.9	374
6	New phenotyping methods for screening wheat and barley for beneficial responses to water deficit. Journal of Experimental Botany, 2010, 61, 3499-3507.	4.8	359
7	The Control of Single-Celled Cotton Fiber Elongation by Developmentally Reversible Gating of Plasmodesmata and Coordinated Expression of Sucrose and K+ Transporters and Expansin. Plant Cell, 2001, 13, 47-60.	6.6	341
8	The C(4) pathway: an efficient CO(2) pump. Photosynthesis Research, 2003, 77, 191-207.	2.9	337
9	Proximal Remote Sensing Buggies and Potential Applications for Field-Based Phenotyping. Agronomy, 2014, 4, 349-379.	3.0	316
10	The Development of C ₄ Rice: Current Progress and Future Challenges. Science, 2012, 336, 1671-1672.	12.6	306
11	The mechanisms contributing to photosynthetic control of electron transport by carbon assimilation in leaves. Photosynthesis Research, 1990, 25, 83-100.	2.9	272
12	The Sucrose Transporter Gene Family in Rice. Plant and Cell Physiology, 2003, 44, 223-232.	3.1	262
13	Raising yield potential of wheat. I. Overview of a consortium approach and breeding strategies. Journal of Experimental Botany, 2011, 62, 439-452.	4.8	262
14	MOLECULARENGINEERING OFC4PHOTOSYNTHESIS. Annual Review of Plant Biology, 2001, 52, 297-314.	14.3	225
15	High Throughput Determination of Plant Height, Ground Cover, and Above-Ground Biomass in Wheat with LiDAR. Frontiers in Plant Science, 2018, 9, 237.	3.6	206
16	Evolution of the C4 photosynthetic mechanism: are there really three C4 acid decarboxylation types?. Journal of Experimental Botany, 2011, 62, 3103-3108.	4.8	204
17	Hyperspectral reflectance as a tool to measure biochemical and physiological traits in wheat. Journal of Experimental Botany, 2018, 69, 483-496.	4.8	190
18	A novel mesh processing based technique for 3D plant analysis. BMC Plant Biology, 2012, 12, 63.	3.6	189

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19	Involvement of the sucrose transporter, OsSUT1, in the long-distance pathway for assimilate transport in rice. Journal of Experimental Botany, 2007, 58, 3155-3169.	4.8	182
20	A new screening method for osmotic component of salinity tolerance in cereals using infrared thermography. Functional Plant Biology, 2009, 36, 970.	2.1	173
21	Review: Nutrient loading of developing seeds. Functional Plant Biology, 2007, 34, 314.	2.1	170
22	The role of inorganic phosphate in the development of freezing tolerance and the acclimatization of photosynthesis to low temperature is revealed by the pho mutants of Arabidopsis thaliana. Plant Journal, 2000, 24, 383-396.	5.7	160
23	Field crop phenomics: enabling breeding for radiation use efficiency and biomass in cereal crops. New Phytologist, 2019, 223, 1714-1727.	7.3	157
24	Overexpression of a Potato Sucrose Synthase Gene in Cotton Accelerates Leaf Expansion, Reduces Seed Abortion, and Enhances Fiber Production. Molecular Plant, 2012, 5, 430-441.	8.3	154
25	Genotypic and Developmental Evidence for the Role of Plasmodesmatal Regulation in Cotton Fiber Elongation Mediated by Callose Turnover. Plant Physiology, 2004, 136, 4104-4113.	4.8	151
26	Mechanism of C4 Photosynthesis. Plant Physiology, 1987, 85, 958-964.	4.8	150
27	Antisense suppression of the rice transporter gene, OsSUT1, leads to impaired grain filling and germination but does not affect photosynthesis. Functional Plant Biology, 2002, 29, 815.	2.1	143
28	C4 Plants as Biofuel Feedstocks: Optimising Biomass Production and Feedstock Quality from a Lignocellulosic PerspectiveFree Access. Journal of Integrative Plant Biology, 2011, 53, 120-135.	8.5	141
29	C4 Photosynthesis at Low Temperature. A Study Using Transgenic Plants with Reduced Amounts of Rubisco. Plant Physiology, 2003, 132, 1577-1585.	4.8	139
30	Mechanism of C4 Photosynthesis. Plant Physiology, 1989, 91, 1372-1381.	4.8	138
31	Modeling C4 Photosynthesis. , 1999, , 173-211.		135
32	On the road to C₄ rice: advances and perspectives. Plant Journal, 2020, 101, 940-950.	5.7	133
33	Strategies for improving C4 photosynthesis. Current Opinion in Plant Biology, 2016, 31, 125-134.	7.1	119
34	What Does It Take to Be C4? Lessons from the Evolution of C4 Photosynthesis: Fig. 1.. Plant Physiology, 2001, 125, 46-49.	4.8	118
35	Methodology for High-Throughput Field Phenotyping of Canopy Temperature Using Airborne Thermography. Frontiers in Plant Science, 2016, 7, 1808.	3.6	118
36	Growth of the C4 dicot Flaveria bidentis: photosynthetic acclimation to low light through shifts in leaf anatomy and biochemistry. Journal of Experimental Botany, 2010, 61, 4109-4122.	4.8	116

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37	Re-creation of a Key Step in the Evolutionary Switch from C3 to C4 Leaf Anatomy. Current Biology, 2017, 27, 3278-3287.e6.	3.9	116
38	Pathway of Sugar Transport in Germinating Wheat Seeds. Plant Physiology, 2006, 141, 1255-1263.	4.8	115
39	C4 rice: a challenge for plant phenomics. Functional Plant Biology, 2009, 36, 845.	2.1	115
40	Evolution and Function of the Sucrose-Phosphate Synthase Gene Families in Wheat and Other Grasses. Plant Physiology, 2004, 135, 1753-1764.	4.8	113
41	Low temperature effects on photosynthesis and growth of grapevine. Plant, Cell and Environment, 2004, 27, 795-809.	5.7	112
42	The role of the sucrose transporter, OsSUT1, in germination and early seedling growth and development of rice plants. Journal of Experimental Botany, 2006, 58, 483-495.	4.8	107
43	Regulation of Photosynthesis in C 3 and C 4 Plants: A Molecular Approach. Plant Cell, 1995, 7, 797.	6.6	105
44	TraitCapture: genomic and environment modelling of plant phenomic data. Current Opinion in Plant Biology, 2014, 18, 73-79.	7.1	101
45	A Novel Isoform of Sucrose Synthase Is Targeted to the Cell Wall during Secondary Cell Wall Synthesis in Cotton Fiber Â Â. Plant Physiology, 2011, 157, 40-54.	4.8	99
46	Activity regulation and physiological impacts of maize C(4)-specific phosphoenolpyruvate carboxylase overproduced in transgenic rice plants. Photosynthesis Research, 2003, 77, 227-239.	2.9	93
47	Expression and localisation analysis of the wheat sucrose transporter TaSUT1 in vegetative tissues. Planta, 2004, 219, 176-184.	3.2	91
48	Overexpression of the Rieske FeS protein of the Cytochrome b6f complex increases C4 photosynthesis in Setaria viridis. Communications Biology, 2019, 2, 314.	4.4	88
49	Enzymes of C4 Photosynthesis. Methods in Plant Biochemistry, 1990, 3, 39-72.	0.2	88
50	Oxygen exchange associated with electron transport and photophosphorylation in spinach thylakoids. Biochimica Et Biophysica Acta - Bioenergetics, 1983, 723, 400-409.	1.0	83
51	Photosynthetic Oxygen Exchange in Isolated Cells and Chloroplasts of C3 Plants. Plant Physiology, 1982, 70, 927-931.	4.8	82
52	Localization of sucrose synthase in developing seed and siliques of Arabidopsis thaliana reveals diverse roles for SUS during development. Journal of Experimental Botany, 2008, 59, 3283-3295.	4.8	81
53	Improving photosynthesis and yield potential in cereal crops by targeted genetic manipulation: Prospects, progress and challenges. Field Crops Research, 2015, 182, 19-29.	5.1	81
54	Carbonic anhydrase and C4 photosynthesis: a transgenic analysis. Plant, Cell and Environment, 2004, 27, 697-703.	5.7	79

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55	Installation of C₄ photosynthetic pathway enzymes in rice using a single construct. Plant Biotechnology Journal, 2021, 19, 575-588.	8.3	78
56	Three sucrose transporter genes are expressed in the developing grain of hexaploid wheat. Plant Molecular Biology, 2002, 50, 453-462.	3.9	76
57	Large scale transcriptome analysis of the effects of nitrogen nutrition on accumulation of stem carbohydrate reserves in reproductive stage wheat. Plant Molecular Biology, 2008, 66, 15-32.	3.9	75
58	PEA-CLARITY: 3D molecular imaging of whole plant organs. Scientific Reports, 2015, 5, 13492.	3.3	74
59	A GDSL Esterase/Lipase Catalyzes the Esterification of Lutein in Bread Wheat. Plant Cell, 2019, 31, 3092-3112.	6.6	74
60	Carbon metabolism and gas exchange in leaves of Zea mays L.. Planta, 1984, 162, 450-456.	3.2	71
61	Genetic transformation of the C4 plant, Flaveria bidentis. Plant Journal, 1994, 6, 949-956.	5.7	70
62	Genetic Manipulation of Key Photosynthetic Enzymes in the C4 Plant Flaveria bidentis. Functional Plant Biology, 1997, 24, 477.	2.1	68
63	Internal recycling of respiratory CO2 in pods of chickpea (Cicer arietinum L.): the role of pod wall, seed coat, and embryo. Journal of Experimental Botany, 2004, 55, 1687-1696.	4.8	67
64	The Metabolite Pathway between Bundle Sheath and Mesophyll: Quantification of Plasmodesmata in Leaves of C₃ and C₄ Monocots. Plant Cell, 2016, 28, 1461-1471.	6.6	67
65	Intercellular compartmentation of sucrose synthesis in leaves of Zea mays L.. Planta, 1985, 164, 172-178.	3.2	66
66	CO₂ Concentrating Mechanism of C₄ Photosynthesis. Plant Physiology, 1989, 91, 1364-1371.	4.8	66
67	Localisation of sucrose-phosphate synthase and starch in leaves of C 4 plants. Planta, 1997, 202, 106-111.	3.2	65
68	Inorganic Carbon Diffusion between C₄ Mesophyll and Bundle Sheath Cells. Plant Physiology, 1989, 91, 1356-1363.	4.8	61
69	Reductions of Rubisco Activase by Antisense RNA in the C4 Plant Flaveria bidentis Reduces Rubisco Carbamylation and Leaf Photosynthesis. Plant Physiology, 2005, 137, 747-755.	4.8	61
70	Modification of OsSUT1 gene expression modulates the salt response of rice Oryza sativa cv. Taipei 309. Plant Science, 2012, 182, 101-111.	3.6	60
71	CO2 refixation characteristics of developing canola seeds and silique wall. Functional Plant Biology, 1998, 25, 377.	2.1	59
72	Functional Analysis of Corn Husk Photosynthesis Â. Plant Physiology, 2011, 156, 503-513.	4.8	59

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73	A xylem sap retrieval pathway in rice leaf blades: evidence of a role for endocytosis?. Journal of Experimental Botany, 2008, 59, 2945-2954.	4.8	55
74	The delayed initiation and slow elongation of fuzz-like short fibre cells in relation to altered patterns of sucrose synthase expression and plasmodesmata gating in a lintless mutant of cotton. Journal of Experimental Botany, 2005, 56, 977-984.	4.8	54
75	Predicting dark respiration rates of wheat leaves from hyperspectral reflectance. Plant, Cell and Environment, 2019, 42, 2133-2150.	5.7	54
76	Photons to food: genetic improvement of cereal crop photosynthesis. Journal of Experimental Botany, 2020, 71, 2226-2238.	4.8	54
77	Walking the C4pathway: past, present, and future. Journal of Experimental Botany, 2016, 67, 4057-4066.	4.8	53
78	Downâ€regulation of Glucan, Waterâ€Dikinase activity in wheat endosperm increases vegetative biomass and yield. Plant Biotechnology Journal, 2012, 10, 871-882.	8.3	52
79	Effects of reduced carbonic anhydrase activity on CO₂assimilation rates in<i>Setaria viridis</i>: a transgenic analysis. Journal of Experimental Botany, 2017, 68, 299-310.	4.8	52
80	C4 plants as valuable model experimental systems for the study of photosynthesis. New Phytologist, 1988, 109, 265-277.	7.3	50
81	A developing Setaria viridis internode: an experimental system for the study of biomass generation in a C4 model species. Biotechnology for Biofuels, 2016, 9, 45.	6.2	50
82	Expression of Tobacco Carbonic Anhydrase in the C4Dicot Flaveria bidentis Leads to Increased Leakiness of the Bundle Sheath and a Defective CO2-Concentrating Mechanism. Plant Physiology, 1998, 117, 1071-1081.	4.8	49
83	Pendant drop thread dynamics of particle-laden liquids. International Journal of Multiphase Flow, 2007, 33, 448-468.	3.4	49
84	Digital imaging approaches for phenotyping whole plant nitrogen and phosphorus response in <i>Brachypodium distachyon</i>. Journal of Integrative Plant Biology, 2014, 56, 781-796.	8.5	49
85	Detection of decay in fresh-cut lettuce using hyperspectral imaging and chlorophyll fluorescence imaging. Postharvest Biology and Technology, 2015, 106, 44-52.	6.0	49
86	Regulation of photosynthesis in isolated spinach chloroplasts during orthophosphate limitation. Biochimica Et Biophysica Acta - Bioenergetics, 1987, 894, 552-561.	1.0	48
87	Targeted Knockdown of<i>GDCH</i>in Rice Leads to a Photorespiratory-Deficient Phenotype Useful as a Building Block for C₄Rice. Plant and Cell Physiology, 2016, 57, 919-932.	3.1	48
88	Genetic variation for photosynthetic capacity and efficiency in spring wheat. Journal of Experimental Botany, 2020, 71, 2299-2311.	4.8	48
89	Oxygen Requirement and Inhibition of C4Photosynthesis1. Plant Physiology, 1998, 116, 823-832.	4.8	47
90	Low temperature effects on grapevine photosynthesis: the role of inorganic phosphate. Functional Plant Biology, 2004, 31, 789.	2.1	47

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91	Expression of sucrose synthase in the developing endosperm is essential for early seed development in cotton. Functional Plant Biology, 2008, 35, 382.	2.1	47
92	Cloning and expression of a prokaryotic sucrose-phosphate synthase gene from the cyanobacterium Synechocystis sp. PCC 6803. Plant Molecular Biology, 1999, 40, 297-305.	3.9	46
93	Multiple photosynthetic transitions, polyploidy, and lateral gene transfer in the grass subtribe Neurachninae. Journal of Experimental Botany, 2012, 63, 6297-6308.	4.8	46
94	Photoreduction of Oxygen in Mesophyll Chloroplasts of C₄ Plants. Plant Physiology, 1983, 73, 1038-1041.	4.8	43
95	Assessment of photoprotection mechanisms of grapevines at low temperature. Functional Plant Biology, 2003, 30, 631.	2.1	42
96	Phosphorylation of Phosphoenolpyruvate Carboxylase Is Not Essential for High Photosynthetic Rates in the C4 Species Flaveria bidentis. Plant Physiology, 2007, 144, 1936-1945.	4.8	42
97	Carbon metabolism and gas exchange in leaves of Zea mays L.. Planta, 1984, 162, 457-462.	3.2	41
98	Processes contributing to photoprotection of grapevine leaves illuminated at low temperature. Physiologia Plantarum, 2004, 121, 272-281.	5.2	39
99	Biochemical model of C₃ photosynthesis applied to wheat at different temperatures. Plant, Cell and Environment, 2017, 40, 1552-1564.	5.7	37
100	Antisense Reduction of NADP-Malic Enzyme in <i>Flaveria bidentis</i> Reduces Flow of CO2 through the C4 Cycle Â. Plant Physiology, 2012, 160, 1070-1080.	4.8	36
101	Multiple mechanisms for enhanced plasmodesmata density in disparate subtypes of C4 grasses. Journal of Experimental Botany, 2018, 69, 1135-1145.	4.8	36
102	Evaluation of the Phenotypic Repeatability of Canopy Temperature in Wheat Using Continuous-Terrestrial and Airborne Measurements. Frontiers in Plant Science, 2019, 10, 875.	3.6	36
103	Oscillations in levels of metabolites from the photosynthetic carbon reduction cycle in spinach leaf disks generated by the transition from air to 5% CO2. Archives of Biochemistry and Biophysics, 1986, 246, 240-244.	3.0	35
104	Regulation of photosynthesis in isolated barley protoplasts: the contribution of cyclic photophosphorylation. Biochimica Et Biophysica Acta - Bioenergetics, 1987, 894, 332-338.	1.0	35
105	A holistic high-throughput screening framework for biofuel feedstock assessment that characterises variations in soluble sugars and cell wall composition in Sorghum bicolor. Biotechnology for Biofuels, 2013, 6, 186.	6.2	35
106	Expression of a CO2-permeable aquaporin enhances mesophyll conductance in the C4 species Setaria viridis. ELife, 2021, 10, .	6.0	33
107	Non-destructive Phenotyping of Lettuce Plants in Early Stages of Development with Optical Sensors. Frontiers in Plant Science, 2016, 7, 1985.	3.6	32
108	Foreword: Plant phenomics: from gene to form and function. Functional Plant Biology, 2009, 36, v.	2.1	31

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109	Cellular localisation and function of a sucrose transporter OsSUT1 in developing rice grains. Functional Plant Biology, 2001, 28, 1187.	2.1	30
110	C4 Photosynthesis: Mechanism and Regulation. Advances in Photosynthesis and Respiration, 2000, , 435-457.	1.0	30
111	Regulation of Ribulose-1,5-Bisphosphate Carboxylase Activity by the Activase System in Lysed Spinach Chloroplasts. Plant Physiology, 1988, 87, 558-561.	4.8	29
112	Walking the C4pathway: past, present, and future. Journal of Experimental Botany, 2017, 68, 4057-4066.	4.8	29
113	A Partial C4 Photosynthetic Biochemical Pathway in Rice. Frontiers in Plant Science, 2020, 11, 564463.	3.6	28
114	Leaf rolling allows quantification of mRNA abundance in mesophyll cells of sorghum. Journal of Experimental Botany, 2013, 64, 807-813.	4.8	27
115	Diffusion of CO₂ across the Mesophyll-Bundle Sheath Cell Interface in a C₄ Plant with Genetically Reduced PEP Carboxylase Activity. Plant Physiology, 2018, 178, 72-81.	4.8	27
116	Leaf growth in early development is key to biomass heterosis in Arabidopsis. Journal of Experimental Botany, 2020, 71, 2439-2450.	4.8	27
117	Nondestructive Phenomic Tools for the Prediction of Heat and Drought Tolerance at Anthesis in <i>Brassica</i> Species. Plant Phenomics, 2019, 2019, 3264872.	5.9	27
118	Wheat physiology predictor: predicting physiological traits in wheat from hyperspectral reflectance measurements using deep learning. Plant Methods, 2021, 17, 108.	4.3	27
119	Explainable machine learning models of major crop traits from satellite-monitored continent-wide field trial data. Nature Plants, 2021, 7, 1354-1363.	9.3	27
120	Regulation of sucrose-phosphate synthase in wheat (Triticum aestivum) leaves. Functional Plant Biology, 2004, 31, 685.	2.1	26
121	Suppression of the Barley<i>uroporphyrinogen III synthase</i>Gene by a<i>Ds</i>Activation Tagging Element Generates Developmental Photosensitivity. Plant Cell, 2009, 21, 814-831.	6.6	25
122	SensorDB: a virtual laboratory for the integration, visualization and analysis of varied biological sensor data. Plant Methods, 2015, 11, 53.	4.3	25
123	Carbon Isotope Discrimination during C4 Photosynthesis: Insights from Transgenic Plants. Functional Plant Biology, 1997, 24, 487.	2.1	25
124	Feature matching in stereo images encouraging uniform spatial distribution. Pattern Recognition, 2015, 48, 2530-2542.	8.1	24
125	3D Scanning System for Automatic High-Resolution Plant Phenotyping. , 2016, , .		24
126	Effects of inorganic phosphate on the photosynthetic carbon reduction cycle in extracts from the stroma of pea chloroplasts. Biochimica Et Biophysica Acta - Bioenergetics, 1980, 592, 65-75.	1.0	23

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127	C4 acid decarboxylation and photosynthesis in bundle sheath cells of NAD-malic enzyme-type C4 plants: Mechanism and the role of malate and orthophosphate. Archives of Biochemistry and Biophysics, 1990, 276, 374-381.	3.0	22
128	Expression of a cyanobacterial sucrose-phosphate synthase from Synechocystis sp. PCC 6803 in transgenic plants. Journal of Experimental Botany, 2003, 54, 223-237.	4.8	22
129	Diurnal Solar Energy Conversion and Photoprotection in Rice Canopies. Plant Physiology, 2017, 173, 495-508.	4.8	22
130	Adenosine 5â€²-triphosphate-mediated activation of sucrose-phosphate synthase in bundle sheath cells of C 4 plants. Planta, 1997, 202, 249-256.	3.2	21
131	Simultaneous effects of leaf irradiance and soil moisture on growth and root system architecture of novel wheat genotypes: implications for phenotyping. Journal of Experimental Botany, 2015, 66, 5441-5452.	4.8	21
132	C₄photosynthesis: 50 years of discovery and innovation. Journal of Experimental Botany, 2017, 68, 97-102.	4.8	20
133	Transgenic maize phosphoenolpyruvate carboxylase alters leafâ€“atmosphere CO2 and 13CO2 exchanges in Oryza sativa. Photosynthesis Research, 2019, 142, 153-167.	2.9	20
134	Food security requires genetic advances to increase farm yields. Nature, 2010, 464, 831-831.	27.8	19
135	Bundle sheath suberisation is required for C4 photosynthesis in a Setaria viridis mutant. Communications Biology, 2021, 4, 254.	4.4	19
136	Uncovering candidate genes involved in photosynthetic capacity using unexplored genetic variation in Spring Wheat. Plant Biotechnology Journal, 2021, 19, 1537-1552.	8.3	19
137	Sucrose Transport in Higher Plants: From Source to Sink. Advances in Photosynthesis and Respiration, 2012, , 703-729.	1.0	18
138	Roles of Aquaporins in Setaria viridis Stem Development and Sugar Storage. Frontiers in Plant Science, 2016, 7, 1815.	3.6	17
139	Sugar sensing responses to low and high light in leaves of the C4 model grass Setaria viridis. Journal of Experimental Botany, 2019, 71, 1039-1052.	4.8	17
140	Knockdown of glycine decarboxylase complex alters photorespiratory carbon isotope fractionation in Oryza sativa leaves. Journal of Experimental Botany, 2019, 70, 2773-2786.	4.8	17
141	Response of plasmodesmata formation in leaves of C₄ grasses to growth irradiance. Plant, Cell and Environment, 2019, 42, 2482-2494.	5.7	17
142	Sucrose transport-related genes are expressed in both maternal and filial tissues of developing wheat grains. Functional Plant Biology, 2000, 27, 1009.	2.1	16
143	Automated 3D Segmentation and Analysis of Cotton Plants. , 2011, , .		16
144	Effects of Exogenous Sucrose Feeding on Photosynthesis in the C3 Plant Tobacco and the C4 Plant Flaveria bidentis. Functional Plant Biology, 1997, 24, 291.	2.1	16

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145	Mining for allelic gold: finding genetic variation in photosynthetic traits in crops and wild relatives. Journal of Experimental Botany, 2022, 73, 3085-3108.	4.8	16
146	Interactions between ribulose-1,5-bisphosphate carboxylase and stromal metabolites. I. Modulation of enzyme activity by Benson-Calvin cycle intermediates. Biochimica Et Biophysica Acta - Bioenergetics, 1987, 894, 157-164.	1.0	15
147	Upregulation of bundle sheath electron transport capacity under limiting light in C₄<i>Setaria viridis</i>. Plant Journal, 2021, 106, 1443-1454.	5.7	15
148	Finding the C4 sweet spot: cellular compartmentation of carbohydrate metabolism in C4 photosynthesis. Journal of Experimental Botany, 2021, 72, 6018-6026.	4.8	14
149	Reductive Pentose Phosphate Cycle and Oxidative Carbohydrate Metabolic Activities in Pea Chloroplast Stroma Extracts. Plant Physiology, 1981, 67, 1036-1041.	4.8	13
150	A low CO2-responsive mutant of <i>Setaria viridis</i> reveals that reduced carbonic anhydrase limits C4 photosynthesis. Journal of Experimental Botany, 2021, 72, 3122-3136.	4.8	13
151	Pathway and control of sucrose import into initiating cotton fibre cells. Functional Plant Biology, 2000, 27, 795.	2.1	13
152	The requirements for a steady state in the C3 reductive pentose phosphate pathway of photosynthesis. Biochimica Et Biophysica Acta - Bioenergetics, 1985, 807, 263-271.	1.0	12
153	Title is missing!. Photosynthesis Research, 1998, 58, 91-101.	2.9	12
154	Effect of leaf temperature on the estimation of photosynthetic and other traits of wheat leaves from hyperspectral reflectance. Journal of Experimental Botany, 2021, 72, 1271-1281.	4.8	12
155	The Control of Single-Celled Cotton Fiber Elongation by Developmentally Reversible Gating of Plasmodesmata and Coordinated Expression of Sucrose and K + Transporters and Expansin. Plant Cell, 2001, 13, 47.	6.6	11
156	The crucial roles of mitochondria in supporting C₄ photosynthesis. New Phytologist, 2022, 233, 1083-1096.	7.3	11
157	CHLOROPHYLL A FLUORESCENCE AS A QUANTITATIVE PROBE OF PHOTOSYNTHESIS: EFFECTS OF CO2 CONCENTRATION DURING GAS TRANSIENTS ON CHLOROPHYLL FLUORESCENCE IN SPINACH LEAVES. New Phytologist, 1986, 104, 207-213.	7.3	10
158	Inhibition of photophosphorylation by ribulose-1,5-bisphosphate carboxylase. Biochimica Et Biophysica Acta - Bioenergetics, 1986, 852, 46-54.	1.0	9
159	Interactions between ribulose-1,5-bisphosphate carboxylase and stromal metabolites. II. Corroboration of the role of this enzyme as a metabolite buffer. Biochimica Et Biophysica Acta - Bioenergetics, 1987, 894, 165-173.	1.0	9
160	On the nature of the oxygen uptake in the light by Chondrus crispus. Effects of inhibitors, temperature and light intensity. Photosynthesis Research, 1987, 11, 45-59.	2.9	9
161	Seed Size Is Associated with Sucrose Synthase Activity in Developing Cotyledons of Chickpea. Crop Science, 2009, 49, 621-627.	1.8	9
162	Fifty years of C4 photosynthesis. Nature, 2016, 538, 177-179.	27.8	9

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163	Photosynthetic variation and responsiveness to CO2 in a widespread riparian tree. PLoS ONE, 2018, 13, e0189635.	2.5	9
164	Targeted knockdown of ribulose-1, 5-bisphosphate carboxylase-oxygenase in rice mesophyll cells. Journal of Plant Physiology, 2021, 260, 153395.	3.5	9
165	Phenotypic variation in photosynthetic traits in wheat grown under field versus glasshouse conditions. Journal of Experimental Botany, 2022, 73, 3221-3237.	4.8	9
166	High-throughput chlorophyll fluorescence screening of Setaria viridis for mutants with altered CO2 compensation points. Functional Plant Biology, 2018, 45, 1017.	2.1	8
167	Stereo matching using cost volume watershed and region merging. Signal Processing: Image Communication, 2014, 29, 1232-1244.	3.2	7
168	Wheat genomics: Seeds of C4 photosynthesis. Nature Plants, 2016, 2, 16172.	9.3	7
169	Elucidating the role of SWEET13 in phloem loading of the C₄ grass <i>Setaria viridis</i>. Plant Journal, 2022, 109, 615-632.	5.7	7
170	Coregulation of electron transport and Benson-Calvin cycle activity in isolated spinach chloroplasts: Studies on glycerate 3-phosphate reduction. Archives of Biochemistry and Biophysics, 1989, 268, 687-697.	3.0	6
171	A single <scp>promoterâ€TALE</scp> system for tissueâ€specific and tuneable expression of multiple genes in rice. Plant Biotechnology Journal, 2022, 20, 1786-1806.	8.3	6
172	Regulation of electron transport in maize mesophyll chloroplasts: The relationship between chlorophyll a fluorescence quenching and O2 evolution. Planta, 1988, 176, 433-440.	3.2	5
173	A sorghum (Sorghum bicolor) mutant with altered carbon isotope ratio. PLoS ONE, 2017, 12, e0179567.	2.5	5
174	A multiple species, continent-wide, million-phenotype agronomic plant dataset. Scientific Data, 2021, 8, 116.	5.3	5
175	Dark respiration rates are not determined by differences in mitochondrial capacity, abundance and ultrastructure in C₄ leaves. Plant, Cell and Environment, 2022, 45, 1257-1269.	5.7	5
176	Effects of Polyethylene-Glycol-Induced Osmotic Stress on Transpiration and Photosynthesis in Pinto Bean Leaf Discs. Plant Physiology, 1985, 78, 627-629.	4.8	4
177	Automated Plant and Leaf Separation: Application in 3D Meshes of Wheat Plants. , 2016, , .		3
178	Feature Correspondence with Even Distribution. , 2012, , .		2
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