Mark Stitt

List of Publications by Year
in descending order

177 papers	31,407 citations	3919 88 h-index	4628 170 g-index
190 all docs	190 docs citations	190 times ranked	22297 citing authors

#	Article	IF	Citations
1	mapman: a user-driven tool to display genomics data sets onto diagrams of metabolic pathways and other biological processes. Plant Journal, 2004, 37, 914-939.	2.8	3,184
2	GMD@CSB.DB: the Golm Metabolome Database. Bioinformatics, 2005, 21, 1635-1638.	1.8	1,247
3	Coordination of carbon supply and plant growth. Plant, Cell and Environment, 2007, 30, 1126-1149.	2.8	838
4	Metabolic and Signaling Aspects Underpinning the Regulation of Plant Carbon Nitrogen Interactions. Molecular Plant, 2010, 3, 973-996.	3.9	616
5	Sugars and Circadian Regulation Make Major Contributions to the Global Regulation of Diurnal Gene Expression in Arabidopsis Â. Plant Cell, 2005, 17, 3257-3281.	3.1	608
6	Starch turnover: pathways, regulation and role in growth. Current Opinion in Plant Biology, 2012, 15, 282-292.	3.5	603
7	Circadian control of carbohydrate availability for growth in<i>Arabidopsis</i>plants at night. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9458-9463.	3.3	576
8	Regulation of Flowering by Trehalose-6-Phosphate Signaling in <i>Arabidopsis thaliana</i>. Science, 2013, 339, 704-707.	6.0	571
9	[32] Metabolite levels in specific cells and subcellular compartments of plant leaves. Methods in Enzymology, 1989, 174, 518-552.	0.4	567
10	Steps towards an integrated view of nitrogen metabolism. Journal of Experimental Botany, 2002, 53, 959-970.	2.4	549
11	Genomic and metabolic prediction of complex heterotic traits in hybrid maize. Nature Genetics, 2012, 44, 217-220.	9.4	532
12	Sugar-induced increases in trehalose 6-phosphate are correlated with redox activation of ADPglucose pyrophosphorylase and higher rates of starch synthesis in Arabidopsis thaliana. Biochemical Journal, 2006, 397, 139-148.	1.7	518
13	A Robot-Based Platform to Measure Multiple Enzyme Activities in Arabidopsis Using a Set of Cycling Assays: Comparison of Changes of Enzyme Activities and Transcript Levels during Diurnal Cycles and in Prolonged Darkness[W]. Plant Cell, 2004, 16, 3304-3325.	3.1	489
14	Starch as a major integrator in the regulation of plant growth. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10348-10353.	3.3	467
15	Trehalose metabolism in plants. Plant Journal, 2014, 79, 544-567.	2.8	464
16	Subcellular Metabolite Levels in Spinach Leaves. Plant Physiology, 1987, 83, 399-407.	2.3	386
17	Starch Synthesis in Potato Tubers Is Regulated by Post-Translational Redox Modification of ADP-Glucose Pyrophosphorylase. Plant Cell, 2002, 14, 2191-2213.	3.1	383
18	ADP-Glucose Pyrophosphorylase Is Activated by Posttranslational Redox-Modification in Response to Light and to Sugars in Leaves of Arabidopsis and Other Plant Species Â. Plant Physiology, 2003, 133, 838-849.	2.3	381

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19	Adjustment of diurnal starch turnover to short days: depletion of sugar during the night leads to a temporary inhibition of carbohydrate utilization, accumulation of sugars and post-translational activation of ADP-glucose pyrophosphorylase in the following light period. Plant Journal, 2004, 39, 847-862.	2.8	378
20	MapMan4: A Refined Protein Classification and Annotation Framework Applicable to Multi-Omics Data Analysis. Molecular Plant, 2019, 12, 879-892.	3.9	353
21	A plant for all seasons: alterations in photosynthetic carbon metabolism during cold acclimation in Arabidopsis. Current Opinion in Plant Biology, 2002, 5, 199-206.	3.5	344
22	Genome-wide association mapping of leaf metabolic profiles for dissecting complex traits in maize. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8872-8877.	3.3	340
23	Sucrose synthase catalyses a readily reversible reaction in vivo in developing potato tubers and other plant tissues. Planta, 1993, 189, 329-339.	1.6	330
24	The sucroseâ€"trehalose 6-phosphate (Tre6P) nexus: specificity and mechanisms of sucrose signalling by Tre6P. Journal of Experimental Botany, 2014, 65, 1051-1068.	2.4	326
25	Regulation of secondary metabolism by the carbon-nitrogen status in tobacco: nitrate inhibits large sectors of phenylpropanoid metabolism. Plant Journal, 2006, 46, 533-548.	2.8	324
26	Nitrogen-Sparing Mechanisms in <i>Chlamydomonas</i> Affect the Transcriptome, the Proteome, and Photosynthetic Metabolism. Plant Cell, 2014, 26, 1410-1435.	3.1	314
27	Adjustment of growth, starch turnover, protein content and central metabolism to a decrease of the carbon supply when <i>Arabidopsis</i> is grown in very short photoperiods. Plant, Cell and Environment, 2009, 32, 859-874.	2.8	312
28	Adenine Nucleotide Levels in the Cytosol, Chloroplasts, and Mitochondria of Wheat Leaf Protoplasts. Plant Physiology, 1982, 70, 971-977.	2.3	308
29	Fructose-2,6-Bisphosphate as a Regulatory Molecule in Plants. Annual Review of Plant Biology, 1990, 41, 153-185.	14.2	306
30	Global Transcript Levels Respond to Small Changes of the Carbon Status during Progressive Exhaustion of Carbohydrates in Arabidopsis Rosettes Â Â. Plant Physiology, 2008, 146, 1834-1861.	2.3	306
31	A Small Decrease of Plastid Transketolase Activity in Antisense Tobacco Transformants Has Dramatic Effects on Photosynthesis and Phenylpropanoid Metabolism. Plant Cell, 2001, 13, 535-551.	3.1	304
32	Integration of metabolite with transcript and enzyme activity profiling during diurnal cycles in Arabidopsis rosettes. Genome Biology, 2006, 7, R76.	13.9	304
33	Metabolic Fluxes in an Illuminated <i>Arabidopsis</i> Rosette Â. Plant Cell, 2013, 25, 694-714.	3.1	303
34	Arabidopsis and primary photosynthetic metabolism â€" more than the icing on the cake. Plant Journal, 2010, 61, 1067-1091.	2.8	300
35	Acclimation of Arabidopsis Leaves Developing at Low Temperatures. Increasing Cytoplasmic Volume Accompanies Increased Activities of Enzymes in the Calvin Cycle and in the Sucrose-Biosynthesis Pathway1. Plant Physiology, 1999, 119, 1387-1398.	2.3	292
36	Coarse control of sucrose-phosphate synthase in leaves: Alterations of the kinetic properties in response to the rate of photosynthesis and the accumulation of sucrose. Planta, 1988, 174, 217-230.	1.6	281

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37	Ribosome and transcript copy numbers, polysome occupancy and enzyme dynamics in <i>Arabidopsis</i>. Molecular Systems Biology, 2009, 5, 314.	3.2	276
38	Temporal responses of transcripts, enzyme activities and metabolites after adding sucrose to carbon-deprived Arabidopsis seedlings. Plant Journal, 2007, 49, 463-491.	2.8	272
39	Variation of Enzyme Activities and Metabolite Levels in 24 Arabidopsis Accessions Growing in Carbon-Limited Conditions. Plant Physiology, 2006, 142, 1574-1588.	2.3	270
40	Arabidopsis Coordinates the Diurnal Regulation of Carbon Allocation and Growth across a Wide Range of Photoperiods. Molecular Plant, 2014, 7, 137-155.	3.9	244
41	Limitation of Photosynthesis by Carbon Metabolism. Plant Physiology, 1986, 81, 1123-1129.	2.3	243
42	A moderate decrease of plastid aldolase activity inhibits photosynthesis, alters the levels of sugars and starch, and inhibits growth of potato plants. Plant Journal, 1998, 14, 147-157.	2.8	233
43	Proteaceae from severely phosphorusâ€impoverished soils extensively replace phospholipids with galactolipids and sulfolipids during leaf development to achieve a high photosynthetic phosphorusâ€useâ€efficiency. New Phytologist, 2012, 196, 1098-1108.	3.5	225
44	Regulation of Metabolism in Transgenic Plants. Annual Review of Plant Biology, 1995, 46, 341-368.	14.2	219
45	The art of growing plants for experimental purposes: a practical guide for the plant biologist. Functional Plant Biology, 2012, 39, 821.	1.1	217
46	Use of reverseâ€phase liquid chromatography, linked to tandem mass spectrometry, to profile the Calvin cycle and other metabolic intermediates in Arabidopsis rosettes at different carbon dioxide concentrations. Plant Journal, 2009, 59, 826-839.	2.8	216
47	Inorganic pyrophosphate content and metabolites in potato and tobacco plants expressing E. coli pyrophosphatase in their cytosol. Planta, 1992, 188, 238-244.	1.6	205
48	A repeat protein links Rubisco to form the eukaryotic carbon-concentrating organelle. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5958-5963.	3.3	196
49	Multilevel genomic analysis of the response of transcripts, enzyme activities and metabolites in <i>Arabidopsis</i> rosettes to a progressive decrease of temperature in the nonâ€freezing range. Plant, Cell and Environment, 2008, 31, 518-547.	2.8	191
50	Systemsâ€based analysis of Arabidopsis leaf growth reveals adaptation to water deficit. Molecular Systems Biology, 2012, 8, 606.	3.2	191
51	50Âyears of Arabidopsis research: highlights and future directions. New Phytologist, 2016, 209, 921-944.	3.5	186
52	Control analysis of photosynthate partitioning. Planta, 1990, 182, 445-454.	1.6	183
53	Short-term water stress leads to a stimulation of sucrose synthesis by activating sucrose-phosphate synthase. Planta, 1989, 177, 535-546.	1.6	176
54	On the Discordance of Metabolomics with Proteomics and Transcriptomics: Coping with Increasing Complexity in Logic, Chemistry, and Network Interactions Scientific Correspondence. Plant Physiology, 2012, 158, 1139-1145.	2.3	176

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55	Systems-Level Analysis of Nitrogen Starvation-Induced Modifications of Carbon Metabolism in a Chlamydomonas reinhardtii Starchless Mutant. Plant Cell, 2013, 25, 4305-4323.	3.1	176
56	Trehalose 6â€“phosphate coordinates organic and amino acid metabolism with carbon availability. Plant Journal, 2016, 85, 410-423.	2.8	176
57	Association Mapping across Numerous Traits Reveals Patterns of Functional Variation in Maize. PLoS Genetics, 2014, 10, e1004845.	1.5	171
58	Metabolite levels during induction in the chloroplast and extrachloroplast compartments of spinach protoplasts. Biochimica Et Biophysica Acta - Bioenergetics, 1980, 593, 85-102.	0.5	170
59	Sensitive and high throughput metabolite assays for inorganic pyrophosphate, ADPGlc, nucleotide phosphates, and glycolytic intermediates based on a novel enzymic cycling system. Plant Journal, 2002, 30, 221-235.	2.8	170
60	Feedback Inhibition of Starch Degradation in Arabidopsis Leaves Mediated by Trehalose 6-Phosphate Â Â. Plant Physiology, 2013, 163, 1142-1163.	2.3	167
61	Carbon Supply and the Regulation of Cell Wall Synthesis. Molecular Plant, 2018, 11, 75-94.	3.9	158
62	Metabolic Networks: How to Identify Key Components in the Regulation of Metabolism and Growth. Plant Physiology, 2010, 152, 428-444.	2.3	155
63	Arabidopsis has a cytosolic fumarase required for the massive allocation of photosynthate into fumaric acid and for rapid plant growth on high nitrogen. Plant Journal, 2010, 62, 785-795.	2.8	148
64	Trehalose 6â€phosphate is involved in triggering axillary bud outgrowth in garden pea (<i>Pisum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.8	147
65	Decreased expression of two key enzymes in the sucrose biosynthesis pathway, cytosolic fructose-1,6-bisphosphatase and sucrose phosphate synthase, has remarkably different consequences for photosynthetic carbon metabolism in transgenic Arabidopsis thaliana. Plant Journal, 2000, 23, 759-770.	2.8	146
66	Circadian control of root elongation and C partitioning in <i>Arabidopsis thaliana</i>. Plant, Cell and Environment, 2011, 34, 877-894.	2.8	145
67	Glycine decarboxylase controls photosynthesis and plant growth. FEBS Letters, 2012, 586, 3692-3697.	1.3	144
68	Diurnal Changes of Polysome Loading Track Sucrose Content in the Rosette of Wild-Type Arabidopsis and the Starchless <i>pgm</i> Mutant Â Â. Plant Physiology, 2013, 162, 1246-1265.	2.3	133
69	Quantifying Protein Synthesis and Degradation in Arabidopsis by Dynamic ¹³CO₂ Labeling and Analysis of Enrichment in Individual Amino Acids in Their Free Pools and in Protein. Plant Physiology, 2015, 168, 74-93.	2.3	132
70	The Photorespiratory Metabolite 2-Phosphoglycolate Regulates Photosynthesis and Starch Accumulation in Arabidopsis. Plant Cell, 2017, 29, 2537-2551.	3.1	132
71	Network Analysis of Enzyme Activities and Metabolite Levels and Their Relationship to Biomass in a Large Panel of<i>Arabidopsis</i>Accessions Â Â. Plant Cell, 2010, 22, 2872-2893.	3.1	131
72	Systems Analysis of the Response of Photosynthesis, Metabolism, and Growth to an Increase in Irradiance in the Photosynthetic Model Organism <i>Chlamydomonas reinhardtii</i> Â Â Â. Plant Cell, 2014, 26, 2310-2350.	3.1	123

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73	A ?futile? cycle of sucrose synthesis and degradation is involved in regulating partitioning between sucrose, starch and respiration in cotyledons of germinating Ricinus communis L. seedlings when phloem transport is inhibited. Planta, 1991, 185, 81-90.	1.6	121
74	Quantitative analysis of the local rates of growth of dicot leaves at a high temporal and spatial resolution, using image sequence analysis. Plant Journal, 1998, 16, 505-514.	2.8	113
75	A study of the rate of recycling of triose phosphates in heterotrophic Chenopodium rubrum cells, potato tubers, and maize endosperm. Planta, 1990, 180, 198-204.	1.6	111
76	Control of Photosynthetic Sucrose Synthesis by Fructose 2,6-Bisphosphate. Plant Physiology, 1984, 75, 548-553.	2.3	110
77	Control of CO2 fixation. Changes in the activity of ribulosephosphate kinase and fructose- and sedoheptulose-bisphosphatase in chloroplasts. Biochimica Et Biophysica Acta - Bioenergetics, 1981, 637, 348-359.	0.5	108
78	Regulation of Sucrose Synthesis by Cytoplasmic Fructosebisphosphatase and Sucrose Phosphate Synthase during Photosynthesis in Varying Light and Carbon Dioxide. Plant Physiology, 1983, 72, 767-774.	2.3	107
79	Changes of carbohydrates, metabolites and enzyme activities in potato tubers during development, and within a single tuber along astolon-apexgradient. Journal of Plant Physiology, 1993, 142, 392-402.	1.6	107
80	Synchronization of developmental, molecular and metabolic aspects of sourceâ€“sink interactions. Nature Plants, 2020, 6, 55-66.	4.7	107
81	Metabolism and Growth in Arabidopsis Depend on the Daytime Temperature but Are Temperature-Compensated against Cool Nights. Plant Cell, 2012, 24, 2443-2469.	3.1	105
82	On a possible role of fructose 2,6-bisphosphate in regulating photosynthetic metabolism in leaves. FEBS Letters, 1982, 145, 217-222.	1.3	104
83	Control of Photosynthetic Sucrose Synthesis by Fructose 2,6-Bisphosphate. Plant Physiology, 1984, 75, 554-560.	2.3	104
84	Metabolite pools and carbon flow during C₄photosynthesis in maize:¹³CO₂labeling kinetics and cell type fractionation. Journal of Experimental Botany, 2017, 68, 283-298.	2.4	104
85	Crops In Silico: Generating Virtual Crops Using an Integrative and Multi-scale Modeling Platform. Frontiers in Plant Science, 2017, 8, 786.	1.7	102
86	Changes in aldolase activity in wildâ€type potato plants are important for acclimation to growth irradiance and carbon dioxide concentration, because plastid aldolase exerts control over the ambient rate of photosynthesis across a range of growth conditions. Plant Journal, 1999, 17, 479-489.	2.8	101
87	Phytotyping^{4D}: a lightâ€field imaging system for nonâ€invasive and accurate monitoring of spatioâ€temporal plant growth. Plant Journal, 2015, 82, 693-706.	2.8	97
88	Regulation of shoot branching in arabidopsis by trehalose 6â€phosphate. New Phytologist, 2021, 229, 2135-2151.	3.5	95
89	Multilevel genomics analysis of carbon signalling during low carbon availability: coordinating the supply and utilisation of carbon in a fluctuating environment. Functional Plant Biology, 2007, 34, 526.	1.1	91
90	Integrative analyses of genetic variation in enzyme activities of primary carbohydrate metabolism reveal distinct modes of regulation in Arabidopsis thaliana. Genome Biology, 2008, 9, R129.	13.9	90

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91	Omics-based hybrid prediction in maize. Theoretical and Applied Genetics, 2017, 130, 1927-1939.	1.8	90
92	Control of Photosynthetic Sucrose Synthesis by Fructose 2,6-Bisphosphate. Plant Physiology, 1984, 75, 561-565.	2.3	89
93	Getting back to nature: a reality check for experiments in controlled environments. Journal of Experimental Botany, 2017, 68, 4463-4477.	2.4	89
94	Multiscale digital <i>Arabidopsis</i> predicts individual organ and whole-organism growth. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E4127-36.	3.3	88
95	Impact of the Carbon and Nitrogen Supply on Relationships and Connectivity between Metabolism and Biomass in a Broad Panel of Arabidopsis Accessions Â Â. Plant Physiology, 2013, 162, 347-363.	2.3	87
96	Relationship between starch degradation and carbon demand for maintenance and growth in <scp><i>A</i></scp><i>rabidopsis thaliana</i> in different irradiance and temperature regimes. Plant, Cell and Environment, 2015, 38, 157-171.	2.8	86
97	Engineering Strategies to Boost Crop Productivity by Cutting Respiratory Carbon Loss. Plant Cell, 2019, 31, 297-314.	3.1	86
98	Generation and maintenance of concentration gradients between the mesophyll and bundle sheath in maize leaves. Biochimica Et Biophysica Acta - Bioenergetics, 1985, 808, 400-414.	0.5	85
99	Impact of the C?N status on the amino acid profile in tobacco source leaves. Plant, Cell and Environment, 2006, 29, 2055-2076.	2.8	85
100	Description and applications of a rapid and sensitive non-radioactive microplate-based assay for maximum and initial activity of D-ribulose-1,5-bisphosphate carboxylase/oxygenase. Plant, Cell and Environment, 2007, 30, 1163-1175.	2.8	82
101	Photosynthate partitioning to starch in <scp><i>Arabidopsis thaliana</i></scp> is insensitive to light intensity but sensitive to photoperiod due to a restriction on growth in the light in short photoperiods. Plant, Cell and Environment, 2017, 40, 2608-2627.	2.8	82
102	Interactions between Sucrose Synthesis and CO2 Fixation IV. Temperature-dependent adjustment of the relation between sucrose synthesis and CO2 fixation. Journal of Plant Physiology, 1988, 133, 392-400.	1.6	81
103	Genome-Wide Association of Carbon and Nitrogen Metabolism in the Maize Nested Association Mapping Population. Plant Physiology, 2015, 168, 575-583.	2.3	80
104	Leaf Starch Turnover Occurs in Long Days and in Falling Light at the End of the Day. Plant Physiology, 2017, 174, 2199-2212.	2.3	80
105	<i><scp>TIME FOR COFFEE</scp></i> is an essential component in the maintenance of metabolic homeostasis in <i><scp>A</scp>rabidopsis thaliana</i>. Plant Journal, 2013, 76, 188-200.	2.8	79
106	Regulatory Properties of ADP Glucose Pyrophosphorylase Are Required for Adjustment of Leaf Starch Synthesis in Different Photoperiods Â Â. Plant Physiology, 2014, 166, 1733-1747.	2.3	78
107	Installation of C₄ photosynthetic pathway enzymes in rice using a single construct. Plant Biotechnology Journal, 2021, 19, 575-588.	4.1	78
108	Mutagenesis of cysteineâ€ƒ81 prevents dimerization of the APS1 subunit of ADPâ€glucose pyrophosphorylase and alters diurnal starch turnover in <i>Arabidopsis thaliana</i> leaves. Plant Journal, 2012, 70, 231-242.	2.8	75

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109	Photoperiodic control of the <i>Arabidopsis</i> proteome reveals a translational coincidence mechanism. Molecular Systems Biology, 2018, 14, e7962.	3.2	74
110	Why measure enzyme activities in the era of systems biology?. Trends in Plant Science, 2014, 19, 256-265.	4.3	73
111	Response of Arabidopsis primary metabolism and circadian clock to low night temperature in a natural light environment. Journal of Experimental Botany, 2018, 69, 4881-4895.	2.4	73
112	Expression of Sucrose Transporter cDNAs Specifically in Companion Cells Enhances Phloem Loading and Long-Distance Transport of Sucrose but Leads to an Inhibition of Growth and the Perception of a Phosphate Limitation Â Â. Plant Physiology, 2014, 165, 715-731.	2.3	72
113	Light activation of calvin cycle enzymes as measured in pea leaves. FEBS Letters, 1982, 142, 223-226.	1.3	71
114	Functional Features of TREHALOSE-6-PHOSPHATE SYNTHASE1, an Essential Enzyme in Arabidopsis[OPEN]. Plant Cell, 2020, 32, 1949-1972.	3.1	69
115	Metabolic and Transcriptional Analysis of Durum Wheat Responses to Elevated CO2at Low and High Nitrate Supply. Plant and Cell Physiology, 2016, 57, 2133-2146.	1.5	67
116	Cellulose Synthesis and Cell Expansion Are Regulated by Different Mechanisms in Growing Arabidopsis Hypocotyls. Plant Cell, 2017, 29, 1305-1315.	3.1	67
117	Synthesis and Use of Stable-Isotope-Labeled Internal Standards for Quantification of Phosphorylated Metabolites by LCâ€“MS/MS. Analytical Chemistry, 2015, 87, 6896-6904.	3.2	66
118	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.	2.8	66
119	Comparative transcriptional profiling analysis of developing melon (Cucumis melo L.) fruit from climacteric and non-climacteric varieties. BMC Genomics, 2015, 16, 440.	1.2	62
120	Photoperiodâ€dependent changes in the phase of core clock transcripts and global transcriptional outputs at dawn and dusk in <i>Arabidopsis</i>. Plant, Cell and Environment, 2016, 39, 1955-1981.	2.8	60
121	A fluorometric assay for trehalose in the picomole range. Plant Methods, 2013, 9, 21.	1.9	59
122	Flux profiling of photosynthetic carbon metabolism in intact plants. Nature Protocols, 2014, 9, 1803-1824.	5.5	59
123	Fine Quantitative Trait Loci Mapping of Carbon and Nitrogen Metabolism Enzyme Activities and Seedling Biomass in the Maize IBM Mapping Population Â Â. Plant Physiology, 2010, 154, 1753-1765.	2.3	58
124	Dissecting the Subcellular Compartmentation of Proteins and Metabolites in Arabidopsis Leaves Using Non-aqueous Fractionation. Molecular and Cellular Proteomics, 2014, 13, 2246-2259.	2.5	58
125	Growth rate correlates negatively with protein turnover in Arabidopsis accessions. Plant Journal, 2017, 91, 416-429.	2.8	58
126	Adjustment of carbon fluxes to light conditions regulates the daily turnover of starch in plants: a computational model. Molecular BioSystems, 2014, 10, 613-627.	2.9	55

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127	The role of Tre6P and SnRK1 in maize early kernel development and events leading to stress-induced kernel abortion. BMC Plant Biology, 2017, 17, 74.	1.6	53
128	Downregulation of pyrophosphate: d-fructose-6-phosphate 1-phosphotransferase activity in sugarcane culms enhances sucrose accumulation due to elevated hexose-phosphate levels. Planta, 2010, 231, 595-608.	1.6	52
129	Parallel analysis of<i>Arabidopsis</i>circadian clock mutants reveals different scales of transcriptome and proteome regulation. Open Biology, 2017, 7, 160333.	1.5	52
130	Response of the Circadian Clock and Diel Starch Turnover to One Day of Low Light or Low CO₂. Plant Physiology, 2019, 179, 1457-1478.	2.3	52
131	Multiple circadian clock outputs regulate diel turnover of carbon and nitrogen reserves. Plant, Cell and Environment, 2019, 42, 549-573.	2.8	49
132	Carbon flux through photosynthesis and central carbon metabolism show distinct patterns between algae, C3 and C4 plants. Nature Plants, 2022, 8, 78-91.	4.7	49
133	Metabolite profiles reveal interspecific variation in operation of the Calvinâ€“Benson cycle in both C4 and C3 plants. Journal of Experimental Botany, 2019, 70, 1843-1858.	2.4	47
134	Antisense inhibition of enolase strongly limits the metabolism of aromatic amino acids, but has only minor effects on respiration in leaves of transgenic tobacco plants. New Phytologist, 2009, 184, 607-618.	3.5	46
135	Site-directed mutagenesis of serine 158 demonstrates its role in spinach leaf sucrose-phosphate synthase modulation. Plant Journal, 1999, 17, 407-413.	2.8	42
136	Defining the robust behaviour of the plant clock gene circuit with absolute RNA timeseries and open infrastructure. Open Biology, 2015, 5, 150042.	1.5	42
137	Overexpression of Sedoheptulose-1,7-Bisphosphatase Enhances Photosynthesis in Chlamydomonas reinhardtii and Has No Effect on the Abundance of Other Calvin-Benson Cycle Enzymes. Frontiers in Plant Science, 2020, 11, 868.	1.7	41
138	Circadian, Carbon, and Light Control of Expansion Growth and Leaf Movement. Plant Physiology, 2017, 174, 1949-1968.	2.3	39
139	Impact of the SnRK1 protein kinase on sucrose homeostasis and the transcriptome during the diel cycle. Plant Physiology, 2021, 187, 1357-1373.	2.3	39
140	Tobacco transformants with strongly decreased expression of pyrophosphate:fructose-6-phosphate expression in the base of their young growing leaves contain much higher levels of fructose-2,6-bisphosphate but no major changes in fluxes. Planta, 2001, 214, 106-116.	1.6	38
141	Lipid Biosynthesis and Protein Concentration Respond Uniquely to Phosphate Supply during Leaf Development in Highly Phosphorus-Efficient <i>Hakea prostrata</i>. Plant Physiology, 2014, 166, 1891-1911.	2.3	38
142	Temporal kinetics of the transcriptional response to carbon depletion and sucrose readdition in <i>Arabidopsis</i> seedlings. Plant, Cell and Environment, 2016, 39, 768-786.	2.8	37
143	Effects of microcompartmentation on flux distribution and metabolic pools in Chlamydomonas reinhardtii chloroplasts. ELife, 2018, 7, .	2.8	37
144	Identification of Enzyme Activity Quantitative Trait Loci in a Solanum lycopersicum Ã— Solanum pennellii Introgression Line Population Â Â. Plant Physiology, 2011, 157, 998-1014.	2.3	36

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145	Systems-integration of plant metabolism: means, motive and opportunity. Current Opinion in Plant Biology, 2013, 16, 381-388.	3.5	35
146	Feedback regulation by trehalose 6â€phosphate slows down starch mobilization below the rate that would exhaust starch reserves at dawn in Arabidopsis leaves. Plant Direct, 2018, 2, e00078.	0.8	35
147	Progress in understanding and engineering primary plant metabolism. Current Opinion in Biotechnology, 2013, 24, 229-238.	3.3	34
148	Reproductive failure in <scp><i>Arabidopsis thaliana</i></scp> under transient carbohydrate limitation: flowers and very young siliques are jettisoned and the meristem is maintained to allow successful resumption of reproductive growth. Plant, Cell and Environment, 2016, 39, 745-767.	2.8	34
149	Modeling Protein Destiny in Developing Fruit. Plant Physiology, 2019, 180, 1709-1724.	2.3	33
150	Multi-omics reveals mechanisms of total resistance to extreme illumination of a desert alga. Nature Plants, 2020, 6, 1031-1043.	4.7	33
151	Genome-Wide Association Mapping Reveals That Specific and Pleiotropic Regulatory Mechanisms Fine-Tune Central Metabolism and Growth in Arabidopsis. Plant Cell, 2017, 29, 2349-2373.	3.1	32
152	A Partial C4 Photosynthetic Biochemical Pathway in Rice. Frontiers in Plant Science, 2020, 11, 564463.	1.7	28
153	Protein Phosphorylation Dynamics Under Carbon/Nitrogen-Nutrient Stress and Identification of a Cell Death-Related Receptor-Like Kinase in Arabidopsis. Frontiers in Plant Science, 2020, 11, 377.	1.7	28
154	A long photoperiod relaxes energy management in Arabidopsis leaf six. Current Plant Biology, 2015, 2, 34-45.	2.3	27
155	Metabolic profiles of six African cultivars of cassava (<i>Manihot esculenta</i> Crantz) highlight bottlenecks of root yield. Plant Journal, 2020, 102, 1202-1219.	2.8	27
156	Topology of the redox network during induction of photosynthesis as revealed by time-resolved proteomics in tobacco. Science Advances, 2021, 7, eabi8307.	4.7	27
157	Metabolic profiles in C3, C3â€"C4 intermediate, C4-like, and C4 species in the genus <i>Flaveria</i>. Journal of Experimental Botany, 2022, 73, 1581-1601.	2.4	25
158	The interplay between carbon availability and growth in different zones of the growing maize leaf. Plant Physiology, 2016, 172, pp.00994.2016.	2.3	24
159	Use of TILLING and robotised enzyme assays to generate an allelic series of Arabidopsis thaliana mutants with altered ADP-glucose pyrophosphorylase activity. Journal of Plant Physiology, 2011, 168, 1395-1405.	1.6	23
160	Metabolic efficiency underpins performance trade-offs in growth of Arabidopsis thaliana. Nature Communications, 2014, 5, 3537.	5.8	23
161	Relationship between irradiance and levels of Calvinâ€"Benson cycle and other intermediates in the model eudicot Arabidopsis and the model monocot rice. Journal of Experimental Botany, 2019, 70, 5809-5825.	2.4	23
162	Sucrose synthases are not involved in starch synthesis in Arabidopsis leaves. Nature Plants, 2022, 8, 574-582.	4.7	21

#	Article	IF	Citations
163	Correlation-Based Network Analysis of Metabolite and Enzyme Profiles Reveals a Role of Citrate Biosynthesis in Modulating N and C Metabolism in Zea mays. Frontiers in Plant Science, 2016, 7, 1022.	1.7	20
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