

# Alisdair R Fernie

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

596  
papers

42,481  
citations

109  
h-index

186  
g-index

704  
ext. papers

53,091  
ext. citations

8.7  
avg, IF

7.82  
L-index

#	Paper	IF	Citations
596	The reliance of phytohormone biosynthesis on primary metabolite precursors.. <i>Journal of Plant Physiology</i> , <b>2022</b> , 268, 153589	3.6	1
595	The AtMYB60 transcription factor regulates stomatal opening by modulating oxylipin synthesis in guard cells.. <i>Scientific Reports</i> , <b>2022</b> , 12, 533	4.9	3
594	Unravelling the molecular networks that regulate kiwifruit flavor. <i>New Phytologist</i> , <b>2022</b> , 233, 8-10	9.8	
593	Environmentally-driven metabolite and lipid variations correspond to altered bioactivities of black wolfberry fruit. <i>Food Chemistry</i> , <b>2022</b> , 372, 131342	8.5	3
592	A Comparative Study of the Antihypertensive and Cardioprotective Potentials of Hot and Cold Aqueous Extracts of L. in Relation to Their Metabolic Profiles.. <i>Frontiers in Pharmacology</i> , <b>2022</b> , 13, 840478	5.6	1
591	Potential Valorization of Edible Nuts By-Products: Exploring the Immune-Modulatory and Antioxidants Effects of Selected Nut Shells Extracts in Relation to Their Metabolic Profiles.. <i>Antioxidants</i> , <b>2022</b> , 11,	7.1	9
590	Towards the Development, Maintenance and Standardized Phenotypic Characterization of Single-Seed-Descent Genetic Resources for Chickpea.. <i>Current Protocols</i> , <b>2022</b> , 2, e371		0
589	Plant metabolic gene clusters in the multi-omics era.. <i>Trends in Plant Science</i> , <b>2022</b> ,	13.1	3
588	Convergent selection of a WD40 protein that enhances grain yield in maize and rice.. <i>Science</i> , <b>2022</b> , 375, eabg7985	33.3	4
587	Auxin boosts energy generation pathways to fuel pollen maturation in barley.. <i>Current Biology</i> , <b>2022</b> ,	6.3	1
586	Maize Field Study Reveals Covaried Microbiota and Metabolic Changes in Roots over Plant Growth.. <i>MBio</i> , <b>2022</b> , e0258421	7.8	0
585	A reactive oxygen species burst causes haploid induction in maize.. <i>Molecular Plant</i> , <b>2022</b> ,	14.4	1
584	Bringing more players into play: Leveraging stress in genome wide association studies.. <i>Journal of Plant Physiology</i> , <b>2022</b> , 271, 153657	3.6	1
583	Natural variance at the interface of plant primary and specialized metabolism.. <i>Current Opinion in Plant Biology</i> , <b>2022</b> , 67, 102201	9.9	3
582	Rising rates of starch degradation during daytime and trehalose 6-phosphate optimize carbon availability.. <i>Plant Physiology</i> , <b>2022</b> ,	6.6	1
581	Measurement of Flower Metabolite Concentrations Using Gas Chromatography-Mass Spectrometry and High-Performance Liquid Chromatography-Mass Spectrometry.. <i>Methods in Molecular Biology</i> , <b>2022</b> , 2484, 3-12	1.4	
580	Preparation and Curation of Omics Data for Genome-Wide Association Studies. <i>Methods in Molecular Biology</i> , <b>2022</b> , 127-150	1.4	

579	Metabolomics Approaches for Studying the Trichoderma-Plant Interactions. <i>Rhizosphere Biology</i> , <b>2022</b> , 135-154	0.8	
578	Stable and Temporary Enzyme Complexes and Metabolons Involved in Energy and Redox Metabolism. <i>Antioxidants and Redox Signaling</i> , <b>2021</b> , 35, 788-807	8.4	7
577	The interface of central metabolism with hormone signaling in plants. <i>Current Biology</i> , <b>2021</b> , 31, R1535-R1548	6.9	4
576	Enhancing crop diversity for food security in the face of climate uncertainty. <i>Plant Journal</i> , <b>2021</b> ,	6.9	9
575	The Arabidopsis electron-transfer flavoprotein:ubiquinone oxidoreductase is required during normal seed development and germination. <i>Plant Journal</i> , <b>2021</b> ,	6.9	1
574	High-quality reference genome sequences of two coconut cultivars provide insights into evolution of monocot chromosomes and differentiation of fiber content and plant height. <i>Genome Biology</i> , <b>2021</b> , 22, 304	18.3	3
573	Different Metabolic Roles for Alternative Oxidase in Leaves of Palustrine and Terrestrial Species. <i>Frontiers in Plant Science</i> , <b>2021</b> , 12, 752795	6.2	
572	Genetic variation in YIGE1 contributes to ear length and grain yield in maize. <i>New Phytologist</i> , <b>2021</b> ,	9.8	2
571	Metabolism-mediated mechanisms underpin the differential stomatal speediness regulation among ferns and angiosperms. <i>Plant, Cell and Environment</i> , <b>2021</b> ,	8.4	1
570	Pathways to de novo domestication of crop wild relatives. <i>Plant Physiology</i> , <b>2021</b> ,	6.6	4
569	Genome-wide association studies of Arabidopsis dark-induced senescence reveals signatures of autophagy in metabolic reprogramming. <i>Autophagy</i> , <b>2021</b> , 1-2	10.2	1
568	Diversity: current and prospective secondary metabolites for nutrition and medicine.. <i>Current Opinion in Biotechnology</i> , <b>2021</b> , 74, 164-170	11.4	2
567	Metabolic shifts during fruit development in pungent and non-pungent peppers.. <i>Food Chemistry</i> , <b>2021</b> , 375, 131850	8.5	0
566	Genome-wide association of the metabolic shifts underpinning dark-induced senescence in Arabidopsis. <i>Plant Cell</i> , <b>2021</b> ,	11.6	6
565	Rice metabolic regulatory network spanning the entire life cycle. <i>Molecular Plant</i> , <b>2021</b> ,	14.4	5
564	Multi-omics approaches explain the growth-promoting effect of the apocarotenoid growth regulator zaxinone in rice. <i>Communications Biology</i> , <b>2021</b> , 4, 1222	6.7	3
563	The nutritional profile and human health benefit of pigmented rice and the impact of post-harvest processes and product development on the nutritional components: A review. <i>Critical Reviews in Food Science and Nutrition</i> , <b>2021</b> , 1-28	11.5	1
562	Pod indehiscence in common bean is associated with the fine regulation of PvMYB26. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 1617-1633	7	3

561	The cytosolic invertase NI6 affects vegetative growth, flowering, fruit set, and yield in tomato. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 2525-2543	7	2
560	Multi-omics approach reveals the contribution of KLU to leaf longevity and drought tolerance. <i>Plant Physiology</i> , <b>2021</b> , 185, 352-368	6.6	8
559	Kingdom-wide analysis of the evolution of the plant type III polyketide synthase superfamily. <i>Plant Physiology</i> , <b>2021</b> , 185, 857-875	6.6	5
558	Cross-Species Metabolic Profiling of Floral Specialized Metabolism Facilitates Understanding of Evolutional Aspects of Metabolism Among Brassicaceae Species. <i>Frontiers in Plant Science</i> , <b>2021</b> , 12, 640141	6.2	1
557	Several geranylgeranyl diphosphate synthase isoforms supply metabolic substrates for carotenoid biosynthesis in tomato. <i>New Phytologist</i> , <b>2021</b> , 231, 255-272	9.8	14
556	The genetics underlying metabolic signatures in a brown rice diversity panel and their vital role in human nutrition. <i>Plant Journal</i> , <b>2021</b> , 106, 507-525	6.9	6
555	Meeting human dietary vitamin requirements in the staple rice via strategies of biofortification and post-harvest fortification. <i>Trends in Food Science and Technology</i> , <b>2021</b> , 109, 65-82	15.3	9
554	Downregulation of the E2 Subunit of 2-Oxoglutarate Dehydrogenase Modulates Plant Growth by Impacting Carbon-Nitrogen Metabolism in Arabidopsis thaliana. <i>Plant and Cell Physiology</i> , <b>2021</b> , 62, 798-814	4.9	3
553	Using landrace transcription factor alleles to increase yield in modern rice under low input agriculture. <i>Journal of Plant Physiology</i> , <b>2021</b> , 258-259, 153362	3.6	1
552	Multimiomics-based dissection of citrus flavonoid metabolism using a Citrus reticulata [Poncirus trifoliata] population. <i>Horticulture Research</i> , <b>2021</b> , 8, 56	7.7	11
551	Multi-omics analysis of early leaf development in. <i>Patterns</i> , <b>2021</b> , 2, 100235	5.1	4
550	Using precision phenotyping to inform de novo domestication. <i>Plant Physiology</i> , <b>2021</b> , 186, 1397-1411	6.6	1
549	Mild reductions in guard cell sucrose synthase 2 expression leads to slower stomatal opening and decreased whole plant transpiration in Nicotiana tabacum L. <i>Environmental and Experimental Botany</i> , <b>2021</b> , 184, 104370	5.9	2
548	Diversity of Chemical Structures and Biosynthesis of Polyphenols in Nut-Bearing Species. <i>Frontiers in Plant Science</i> , <b>2021</b> , 12, 642581	6.2	3
547	Associating primary and specialized metabolism with salt induced osmotic stress tolerance in maize. <i>New Phytologist</i> , <b>2021</b> , 230, 2091-2093	9.8	1
546	Differential responses of three Urochloa species to low phosphorus availability. <i>Annals of Applied Biology</i> , <b>2021</b> , 179, 216-230	2.6	0
545	From flowers to seeds: how the metabolism of flowers frames plant reproduction. <i>Biochemist</i> , <b>2021</b> , 43, 14-18	0.5	
544	Phosphoglycerate dehydrogenase genes differentially affect Arabidopsis metabolism and development. <i>Plant Science</i> , <b>2021</b> , 306, 110863	5.3	1

543	The phosphorylated pathway of serine biosynthesis links plant growth with nitrogen metabolism. <i>Plant Physiology</i> , <b>2021</b> , 186, 1487-1506	6.6	0
542	Towards the Development, Maintenance, and Standardized Phenotypic Characterization of Single-Seed-Descent Genetic Resources for Common Bean. <i>Current Protocols</i> , <b>2021</b> , 1, e133		5
541	Overexpression of thioredoxin m in chloroplasts alters carbon and nitrogen partitioning in tobacco. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 4949-4964	7	0
540	Ultra-high-performance liquid chromatography high-resolution mass spectrometry variants for metabolomics research. <i>Nature Methods</i> , <b>2021</b> , 18, 733-746	21.6	28
539	CsbZIP1-CsMYB12 mediates the production of bitter-tasting flavonols in tea plants ( <i>Camellia sinensis</i> ) through a coordinated activator-repressor network. <i>Horticulture Research</i> , <b>2021</b> , 8, 110	7.7	16
538	Metabolite Profiling in with Moderately Impaired Photorespiration Reveals Novel Metabolic Links and Compensatory Mechanisms of Photorespiration. <i>Metabolites</i> , <b>2021</b> , 11,	5.6	2
537	Domestication of Crop Metabolomes: Desired and Unintended Consequences. <i>Trends in Plant Science</i> , <b>2021</b> , 26, 650-661	13.1	14
536	When a Crop Goes Back to the Wild: Feralization. <i>Trends in Plant Science</i> , <b>2021</b> , 26, 543-545	13.1	4
535	Tyr-Asp inhibition of glyceraldehyde 3-phosphate dehydrogenase affects plant redox metabolism. <i>EMBO Journal</i> , <b>2021</b> , 40, e106800	13	8
534	Multimiomics analyses reveal the roles of the ASR1 transcription factor in tomato fruits. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 6490-6509	7	2
533	Two mitochondrial phosphatases, PP2c63 and Sal2, are required for posttranslational regulation of the TCA cycle in Arabidopsis. <i>Molecular Plant</i> , <b>2021</b> , 14, 1104-1118	14.4	9
532	Mass spectrometry-based metabolomics: a guide for annotation, quantification and best reporting practices. <i>Nature Methods</i> , <b>2021</b> , 18, 747-756	21.6	83
531	Exploring the genic resources underlying metabolites through mGWAS and mQTL in wheat: From large-scale gene identification and pathway elucidation to crop improvement. <i>Plant Communications</i> , <b>2021</b> , 2, 100216	9	2
530	Plasticity of rosette size in response to nitrogen availability is controlled by an RCC1-family protein. <i>Plant, Cell and Environment</i> , <b>2021</b> , 44, 3398-3411	8.4	2
529	Crop breeding - From experience-based selection to precision design. <i>Journal of Plant Physiology</i> , <b>2021</b> , 256, 153313	3.6	4
528	Auto-deconvolution and molecular networking of gas chromatography-mass spectrometry data. <i>Nature Biotechnology</i> , <b>2021</b> , 39, 169-173	44.5	36
527	Metabolons, enzyme-enzyme assemblies that mediate substrate channeling, and their roles in plant metabolism. <i>Plant Communications</i> , <b>2021</b> , 2, 100081	9	29
526	SWATH-MS-Based Proteomics: Strategies and Applications in Plants. <i>Trends in Biotechnology</i> , <b>2021</b> , 39, 433-437	15.1	18

525	Long-distance stress and developmental signals associated with abscisic acid signaling in environmental responses. <i>Plant Journal</i> , <b>2021</b> , 105, 477-488	6.9	11
524	Validated MAGIC and GWAS population mapping reveals the link between vitamin E content and natural variation in chorismate metabolism in tomato. <i>Plant Journal</i> , <b>2021</b> , 105, 907-923	6.9	4
523	Integrating multi-omics data for crop improvement. <i>Journal of Plant Physiology</i> , <b>2021</b> , 257, 153352	3.6	24
522	A phased genome based on single sperm sequencing reveals crossover pattern and complex relatedness in tea plants. <i>Plant Journal</i> , <b>2021</b> , 105, 197-208	6.9	2
521	Decreased Levels of Thioredoxin Influences Stomatal Development and Aperture but Not Photosynthesis under Non-Stress and Saline Conditions. <i>International Journal of Molecular Sciences</i> , <b>2021</b> , 22,	6.3	3
520	Global mapping of protein-metabolite interactions in <i>Saccharomyces cerevisiae</i> reveals that Ser-Leu dipeptide regulates phosphoglycerate kinase activity. <i>Communications Biology</i> , <b>2021</b> , 4, 181	6.7	12
519	Evolutionary gain of oligosaccharide hydrolysis and sugar transport enhanced carbohydrate partitioning in sweet watermelon fruits. <i>Plant Cell</i> , <b>2021</b> , 33, 1554-1573	11.6	16
518	The NAC transcription factor FaRIF controls fruit ripening in strawberry. <i>Plant Cell</i> , <b>2021</b> , 33, 1574-1593	11.6	14
517	Thioredoxin-mediated regulation of (photo)respiration and central metabolism. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 5987-6002	7	3
516	Phytochromes control metabolic flux, and their action at the seedling stage determines adult plant biomass. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 3263-3278	7	1
515	The utility of metabolomics as a tool to inform maize biology. <i>Plant Communications</i> , <b>2021</b> , 2, 100187	9	3
514	Genome-wide association studies: assessing trait characteristics in model and crop plants. <i>Cellular and Molecular Life Sciences</i> , <b>2021</b> , 78, 5743-5754	10.3	10
513	Towards Development, Maintenance, and Standardized Phenotypic Characterization of Single-Seed-Descent Genetic Resources for Lupins. <i>Current Protocols</i> , <b>2021</b> , 1, e191		4
512	From Affinity to Proximity Techniques to Investigate Protein Complexes in Plants. <i>International Journal of Molecular Sciences</i> , <b>2021</b> , 22,	6.3	2
511	OsGF14b modulates defense signaling pathways in rice panicle blast response. <i>Crop Journal</i> , <b>2021</b> , 9, 725-738	4.6	5
510	The genomes of <i>Taxus</i> species unveil novel candidates in the biosynthesis of taxoids. <i>Molecular Plant</i> , <b>2021</b> , 14, 1773-1775	14.4	
509	Sulfur deficiency-induced genes affect seed protein accumulation and composition under sulfate deprivation. <i>Plant Physiology</i> , <b>2021</b> , 187, 2419-2434	6.6	5
508	Plant cell cultures as heterologous bio-factories for secondary metabolite production. <i>Plant Communications</i> , <b>2021</b> , 2, 100235	9	7

507	Establishment of a GC-MS-based C-positional isotopomer approach suitable for investigating metabolic fluxes in plant primary metabolism. <i>Plant Journal</i> , <b>2021</b> , 108, 1213-1233	6.9	2
506	Genomic basis underlying the metabolome-mediated drought adaptation of maize. <i>Genome Biology</i> , <b>2021</b> , 22, 260	18.3	3
505	Plant metabolism paves the way for breeding crops with high nutritional value and stable yield. <i>Science China Life Sciences</i> , <b>2021</b> , 1	8.5	1
504	Will Stress Resilience Be Maintained in the Face of Climate Change?. <i>Metabolites</i> , <b>2021</b> , 11,	5.6	2
503	The INCREASE project: Intelligent Collections of food-legume genetic resources for European agrofood systems. <i>Plant Journal</i> , <b>2021</b> , 108, 646-660	6.9	5
502	The integration of MS-based metabolomics and multivariate data analysis allows for improved quality assessment of <i>Zingiber officinale</i> Roscoe. <i>Phytochemistry</i> , <b>2021</b> , 190, 112843	4	3
501	Plants upcycle gene functions to suit their roots. <i>Trends in Plant Science</i> , <b>2021</b> , 26, 996-998	13.1	
500	The knowns and unknowns of intracellular partitioning of carbon and nitrogen, with focus on the organic acid-mediated interplay between mitochondrion and chloroplast. <i>Journal of Plant Physiology</i> , <b>2021</b> , 266, 153521	3.6	2
499	Acclimation in plants - the Green Hub consortium. <i>Plant Journal</i> , <b>2021</b> , 106, 23-40	6.9	8
498	Ancestral sequence reconstruction - An underused approach to understand the evolution of gene function in plants?. <i>Computational and Structural Biotechnology Journal</i> , <b>2021</b> , 19, 1579-1594	6.8	4
497	Comparative Molecular and Metabolic Profiling of Two Contrasting Wheat Cultivars under Drought Stress.. <i>International Journal of Molecular Sciences</i> , <b>2021</b> , 22,	6.3	1
496	Jujube metabolome selection determined the edible properties acquired during domestication. <i>Plant Journal</i> , <b>2021</b> ,	6.9	5
495	Selection of a subspecies-specific diterpene gene cluster implicated in rice disease resistance. <i>Nature Plants</i> , <b>2020</b> , 6, 1447-1454	11.5	25
494	Co-Regulation of Clustered and Neo-Functionalized Genes in Plant-Specialized Metabolism. <i>Plants</i> , <b>2020</b> , 9,	4.5	4
493	An improved extraction method enables the comprehensive analysis of lipids, proteins, metabolites and phytohormones from a single sample of leaf tissue under water-deficit stress. <i>Plant Journal</i> , <b>2020</b> , 103, 1614-1632	6.9	16
492	An Abundance and Interaction Encyclopedia of Plant Protein Function. <i>Trends in Plant Science</i> , <b>2020</b> , 25, 627-630	13.1	4
491	A NAC transcription factor and its interaction protein hinder abscisic acid biosynthesis by synergistically repressing NCED5 in <i>Citrus reticulata</i> . <i>Journal of Experimental Botany</i> , <b>2020</b> , 71, 3613-3625	7	17
490	The Kernel Size-Related Quantitative Trait Locus Encodes a Pentatricopeptide Repeat Protein That Affects Photosynthesis and Grain Filling. <i>Plant Physiology</i> , <b>2020</b> , 183, 1696-1709	6.6	10

489	Phytochrome-Dependent Temperature Perception Modulates Isoprenoid Metabolism. <i>Plant Physiology</i> , <b>2020</b> , 183, 869-882	6.6	9
488	Network-based strategies in metabolomics data analysis and interpretation: from molecular networking to biological interpretation. <i>Expert Review of Proteomics</i> , <b>2020</b> , 17, 243-255	4.2	30
487	PlantaSyst: Teaming up for Systems Biology and Biotechnology. <i>Trends in Plant Science</i> , <b>2020</b> , 25, 621-624	3.1	
486	Quantitative trait loci analysis of seed-specialized metabolites reveals seed-specific flavonols and differential regulation of glycoalkaloid content in tomato. <i>Plant Journal</i> , <b>2020</b> , 103, 2007-2024	6.9	14
485	The -dependent signalling pathway coordinates plastid biogenesis with the synthesis of anthocyanins. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2020</b> , 375, 20190403	5.8	8
484	The Cassava Source-Sink project: opportunities and challenges for crop improvement by metabolic engineering. <i>Plant Journal</i> , <b>2020</b> , 103, 1655-1665	6.9	11
483	MicroTom Metabolic Network: Rewiring Tomato Metabolic Regulatory Network throughout the Growth Cycle. <i>Molecular Plant</i> , <b>2020</b> , 13, 1203-1218	14.4	27
482	Single-Cell Genomics and Epigenomics: Technologies and Applications in Plants. <i>Trends in Plant Science</i> , <b>2020</b> , 25, 1030-1040	13.1	19
481	The evolution of metabolism: How to test evolutionary hypotheses at the genomic level. <i>Computational and Structural Biotechnology Journal</i> , <b>2020</b> , 18, 482-500	6.8	17
480	Manipulation of ZDS in tomato exposes carotenoid- and ABA-specific effects on fruit development and ripening. <i>Plant Biotechnology Journal</i> , <b>2020</b> , 18, 2210-2224	11.6	21
479	Systems-Based Approaches to Unravel Networks and Individual Elements Involved in Apple Superficial Scald. <i>Frontiers in Plant Science</i> , <b>2020</b> , 11, 8	6.2	8
478	Type I H <sup>+</sup> -pyrophosphatase regulates the vacuolar storage of sucrose in citrus fruit. <i>Journal of Experimental Botany</i> , <b>2020</b> , 71, 5935-5947	7	2
477	A push, and a pull, to enhance nitrogen use efficiency in rice. <i>Plant Journal</i> , <b>2020</b> , 103, 5-6	6.9	0
476	Towards model-driven characterization and manipulation of plant lipid metabolism. <i>Progress in Lipid Research</i> , <b>2020</b> , 80, 101051	14.3	9
475	A Highly Efficient -Mediated Method for Transient Gene Expression and Functional Studies in Multiple Plant Species. <i>Plant Communications</i> , <b>2020</b> , 1, 100028	9	33
474	Low-temperature tolerance of the Antarctic species <i>Deschampsia antarctica</i> : A complex metabolic response associated with nutrient remobilization. <i>Plant, Cell and Environment</i> , <b>2020</b> , 43, 1376-1393	8.4	11
473	Synchronization of developmental, molecular and metabolic aspects of source-sink interactions. <i>Nature Plants</i> , <b>2020</b> , 6, 55-66	11.5	52
472	Downregulation of a Mitochondrial NAD <sup>+</sup> Transporter (NDT2) Alters Seed Production and Germination in Arabidopsis. <i>Plant and Cell Physiology</i> , <b>2020</b> , 61, 897-908	4.9	11

471	Synthetic analogues of 2-oxo acids discriminate metabolic contribution of the 2-oxoglutarate and 2-oxoadipate dehydrogenases in mammalian cells and tissues. <i>Scientific Reports</i> , <b>2020</b> , 10, 1886	4.9	10
470	Metabolomics analysis and metabolite-agronomic trait associations using kernels of wheat ( <i>Triticum aestivum</i> ) recombinant inbred lines. <i>Plant Journal</i> , <b>2020</b> , 103, 279-292	6.9	30
469	Targeting Key Genes to Tailor Old and New Crops for a Greener Agriculture. <i>Molecular Plant</i> , <b>2020</b> , 13, 354-356	14.4	4
468	Metabolite-based genome-wide association study enables dissection of the flavonoid decoration pathway of wheat kernels. <i>Plant Biotechnology Journal</i> , <b>2020</b> , 18, 1722-1735	11.6	40
467	Metabolic profiles of six African cultivars of cassava ( <i>Manihot esculenta</i> Crantz) highlight bottlenecks of root yield. <i>Plant Journal</i> , <b>2020</b> , 102, 1202-1219	6.9	17
466	How do vascular plants perform photosynthesis in extreme environments? An integrative ecophysiological and biochemical story. <i>Plant Journal</i> , <b>2020</b> , 101, 979-1000	6.9	15
465	Expression Atlas of Provides Insights into the Evolution of Vasculature, Secondary Metabolism, and Roots. <i>Plant Cell</i> , <b>2020</b> , 32, 853-870	11.6	17
464	Flux balance analysis of metabolism during growth by osmotic cell expansion and its application to tomato fruits. <i>Plant Journal</i> , <b>2020</b> , 103, 68-82	6.9	9
463	Metabolomics in the Context of Plant Natural Products Research: From Sample Preparation to Metabolite Analysis. <i>Metabolites</i> , <b>2020</b> , 10,	5.6	58
462	Plant Mitochondrial Carriers: Molecular Gatekeepers That Help to Regulate Plant Central Carbon Metabolism. <i>Plants</i> , <b>2020</b> , 9,	4.5	11
461	A Biostimulant Obtained from the Seaweed Protects from Severe Oxidative Stress. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	20
460	Eating Away at ROS to Regulate Stomatal Opening. <i>Trends in Plant Science</i> , <b>2020</b> , 25, 220-223	13.1	18
459	Dissection of flag leaf metabolic shifts and their relationship with those occurring simultaneously in developing seed by application of non-targeted metabolomics. <i>PLoS ONE</i> , <b>2020</b> , 15, e0227577	3.7	5
458	Ascorbate and Thiamin: Metabolic Modulators in Plant Acclimation Responses. <i>Plants</i> , <b>2020</b> , 9,	4.5	8
457	Lipidomic and transcriptomic analysis reveals reallocation of carbon flux from cuticular wax into plastid membrane lipids in a glossy "Newhall" navel orange mutant. <i>Horticulture Research</i> , <b>2020</b> , 7, 41	7.7	6
456	Nano and Micro Unmanned Aerial Vehicles (UAVs): A New Grand Challenge for Precision Agriculture?. <i>Current Protocols in Plant Biology</i> , <b>2020</b> , 5, e20103	2.8	6
455	The style and substance of plant flavonoid decoration; towards defining both structure and function. <i>Phytochemistry</i> , <b>2020</b> , 174, 112347	4	45
454	Metabolome Profiling Supports the Key Role of the Spike in Wheat Yield Performance. <i>Cells</i> , <b>2020</b> , 9,	7.9	9

453	High-Throughput CRISPR/Cas9 Mutagenesis Streamlines Trait Gene Identification in Maize. <i>Plant Cell</i> , <b>2020</b> , 32, 1397-1413	11.6	68
452	Analysis of Tomato Post-Harvest Properties: Fruit Color, Shelf Life, and Fungal Susceptibility. <i>Current Protocols in Plant Biology</i> , <b>2020</b> , 5, e20108	2.8	5
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446	Construction and applications of a B vitamin genetic resource for investigation of vitamin-dependent metabolism in maize. <i>Plant Journal</i> , <b>2020</b> , 101, 442-454	6.9	5
445	Genome-wide Dissection of Co-selected UV-B Responsive Pathways in the UV-B Adaptation of Qingke. <i>Molecular Plant</i> , <b>2020</b> , 13, 112-127	14.4	42
444	Metabolomics should be deployed in the identification and characterization of gene-edited crops. <i>Plant Journal</i> , <b>2020</b> , 102, 897-902	6.9	24
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440	A genetically validated approach for detecting inorganic polyphosphates in plants. <i>Plant Journal</i> , <b>2020</b> , 102, 507-516	6.9	7
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438	Full-Length Transcript-Based Proteogenomics of Rice Improves Its Genome and Proteome Annotation. <i>Plant Physiology</i> , <b>2020</b> , 182, 1510-1526	6.6	30
437	Changes in intracellular NAD status affect stomatal development in an abscisic acid-dependent manner. <i>Plant Journal</i> , <b>2020</b> , 104, 1149-1168	6.9	7
436	Mobile Transposable Elements Shape Plant Genome Diversity. <i>Trends in Plant Science</i> , <b>2020</b> , 25, 1062-1064	4.1	3

435	Model-assisted identification of metabolic engineering strategies for <i>Jatropha curcas</i> lipid pathways. <i>Plant Journal</i> , <b>2020</b> , 104, 76-95	6.9	7
434	How do wheat plants cope with <i>Pyricularia oryzae</i> infection? A physiological and metabolic approach. <i>Planta</i> , <b>2020</b> , 252, 24	4.7	1
433	Born to revive: molecular and physiological mechanisms of double tolerance in a paleotropical and resurrection plant. <i>New Phytologist</i> , <b>2020</b> , 226, 741-759	9.8	17
432	Plant Single-Cell Metabolomics-Challenges and Perspectives. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	9
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430	On the Detection and Functional Significance of the Protein-Protein Interactions of Mitochondrial Transport Proteins. <i>Biomolecules</i> , <b>2020</b> , 10,	5.9	4
429	Dissection of the domestication-shaped genetic architecture of lettuce primary metabolism. <i>Plant Journal</i> , <b>2020</b> , 104, 613-630	6.9	10
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427	Metabolic Roles of Plant Mitochondrial Carriers. <i>Biomolecules</i> , <b>2020</b> , 10,	5.9	7
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425	Differences in Metabolic and Physiological Responses between Local and Widespread Grapevine Cultivars under Water Deficit Stress. <i>Agronomy</i> , <b>2020</b> , 10, 1052	3.6	4
424	Working day and night: plastid casein kinase 2 catalyses phosphorylation of proteins with diverse functions in light- and dark-adapted plastids. <i>Plant Journal</i> , <b>2020</b> , 104, 546-558	6.9	0
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422	Tomato multiomics at aPEELing resolution. <i>Nature Plants</i> , <b>2020</b> , 6, 1394-1395	11.5	
421	Multi-gene metabolic engineering of tomato plants results in increased fruit yield up to 23%. <i>Scientific Reports</i> , <b>2020</b> , 10, 17219	4.9	6
420	Adenine Nucleotide and Nicotinamide Adenine Dinucleotide Measurements in Plants. <i>Current Protocols in Plant Biology</i> , <b>2020</b> , 5, e20115	2.8	7
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4 <sup>15</sup>	The role of nitrite and nitric oxide under low oxygen conditions in plants. <i>New Phytologist</i> , <b>2020</b> , 225, 1143-1151	9.8	28
4 <sup>14</sup>	Multifaceted regulatory function of tomato SLTAF1 in the response to salinity stress. <i>New Phytologist</i> , <b>2020</b> , 225, 1681-1698	9.8	16
4 <sup>13</sup>	Characterizing the involvement of FaMADS9 in the regulation of strawberry fruit receptacle development. <i>Plant Biotechnology Journal</i> , <b>2020</b> , 18, 929-943	11.6	10
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4 <sup>11</sup>	Thioredoxin h2 contributes to the redox regulation of mitochondrial photorespiratory metabolism. <i>Plant, Cell and Environment</i> , <b>2020</b> , 43, 188-208	8.4	20
4 <sup>10</sup>	Exploiting Natural Variation in Tomato to Define Pathway Structure and Metabolic Regulation of Fruit Polyphenolics in the <i>Lycopersicon</i> Complex. <i>Molecular Plant</i> , <b>2020</b> , 13, 1027-1046	14.4	23
4 <sup>09</sup>	<i>Camellia sinensis</i> (Tea). <i>Trends in Genetics</i> , <b>2020</b> ,	8.5	2
4 <sup>08</sup>	Annotation of Specialized Metabolites from High-Throughput and High-Resolution Mass Spectrometry Metabolomics. <i>Methods in Molecular Biology</i> , <b>2020</b> , 2104, 209-225	1.4	1
4 <sup>07</sup>	Dissection of flag leaf metabolic shifts and their relationship with those occurring simultaneously in developing seed by application of non-targeted metabolomics <b>2020</b> , 15, e0227577		
4 <sup>06</sup>	Dissection of flag leaf metabolic shifts and their relationship with those occurring simultaneously in developing seed by application of non-targeted metabolomics <b>2020</b> , 15, e0227577		
4 <sup>05</sup>	Dissection of flag leaf metabolic shifts and their relationship with those occurring simultaneously in developing seed by application of non-targeted metabolomics <b>2020</b> , 15, e0227577		
4 <sup>04</sup>	Dissection of flag leaf metabolic shifts and their relationship with those occurring simultaneously in developing seed by application of non-targeted metabolomics <b>2020</b> , 15, e0227577		
4 <sup>03</sup>	Redox-Regulation of Photorespiration through Mitochondrial Thioredoxin o1. <i>Plant Physiology</i> , <b>2019</b> , 181, 442-457	6.6	25
4 <sup>02</sup>	Pan-Genomic Illumination of Tomato Identifies Novel Gene-Trait Interactions. <i>Trends in Plant Science</i> , <b>2019</b> , 24, 882-884	13.1	5
4 <sup>01</sup>	Nitrate nutrition influences multiple factors in order to increase energy efficiency under hypoxia in <i>Arabidopsis</i> . <i>Annals of Botany</i> , <b>2019</b> , 123, 691-705	4.1	20
4 <sup>00</sup>	Metabolomics for understanding stomatal movements. <i>Theoretical and Experimental Plant Physiology</i> , <b>2019</b> , 31, 91-102	2.4	9

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314	Targeted LC-MS Analysis for Plant Secondary Metabolites. <i>Methods in Molecular Biology</i> , <b>2018</b> , 1778, 171-181	1.4	17
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311	Metabolomics Approaches to Advance Understanding of Nitrogen Assimilation and Carbon-Nitrogen Interactions <b>2018</b> , 249-268		2
310	Genetics, Genomics and Metabolomics <b>2018</b> , 219-259		

309	Discriminating the Function(s) of Guard Cell ALMT Channels. <i>Trends in Plant Science</i> , <b>2018</b> , 23, 649-651	13.1	4
308	Integrated genomics-based mapping reveals the genetics underlying maize flavonoid biosynthesis. <i>BMC Plant Biology</i> , <b>2017</b> , 17, 17	5.3	21
307	The Unprecedented Versatility of the Plant? Thioredoxin System. <i>Trends in Plant Science</i> , <b>2017</b> , 22, 249-262	13.1	122
306	The Sexual Advantage of Looking, Smelling, and Tasting Good: The Metabolic Network that Produces Signals for Pollinators. <i>Trends in Plant Science</i> , <b>2017</b> , 22, 338-350	13.1	42
305	Leveraging Natural Variance towards Enhanced Understanding of Phytochemical Sunscreens. <i>Trends in Plant Science</i> , <b>2017</b> , 22, 308-315	13.1	31
304	Proteogenomic analysis reveals alternative splicing and translation as part of the abscisic acid response in Arabidopsis seedlings. <i>Plant Journal</i> , <b>2017</b> , 91, 518-533	6.9	90
303	Growth rate correlates negatively with protein turnover in Arabidopsis accessions. <i>Plant Journal</i> , <b>2017</b> , 91, 416-429	6.9	46
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299	Canalization of Tomato Fruit Metabolism. <i>Plant Cell</i> , <b>2017</b> , 29, 2753-2765	11.6	34
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297	Metabolism within the specialized guard cells of plants. <i>New Phytologist</i> , <b>2017</b> , 216, 1018-1033	9.8	42
296	The Photorespiratory Metabolite 2-Phosphoglycolate Regulates Photosynthesis and Starch Accumulation in Arabidopsis. <i>Plant Cell</i> , <b>2017</b> , 29, 2537-2551	11.6	71
295	De Novo Assembly of a New Accession Using Nanopore Sequencing. <i>Plant Cell</i> , <b>2017</b> , 29, 2336-2348	11.6	138
294	Resolving the central metabolism of Arabidopsis guard cells. <i>Scientific Reports</i> , <b>2017</b> , 7, 8307	4.9	32
293	Integrative field scale phenotyping for investigating metabolic components of water stress within a vineyard. <i>Plant Methods</i> , <b>2017</b> , 13, 90	5.8	27
292	Transcriptomic and metabolomics responses to elevated cell wall invertase activity during tomato fruit set. <i>Journal of Experimental Botany</i> , <b>2017</b> , 68, 4263-4279	7	24

291	Measurements of Electron Partitioning Between Cytochrome and Alternative Oxidase Pathways in Plant Tissues. <i>Methods in Molecular Biology</i> , <b>2017</b> , 1670, 203-217	1.4	5
290	Impaired Malate and Fumarate Accumulation Due to the Mutation of the Tonoplast Dicarboxylate Transporter Has Little Effects on Stomatal Behavior. <i>Plant Physiology</i> , <b>2017</b> , 175, 1068-1081	6.6	30
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288	Haplotype-resolved sweet potato genome traces back its hexaploidization history. <i>Nature Plants</i> , <b>2017</b> , 3, 696-703	11.5	121
287	Measurement of Tricarboxylic Acid Cycle Enzyme Activities in Plants. <i>Methods in Molecular Biology</i> , <b>2017</b> , 1670, 167-182	1.4	2
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284	The polyketide synthase OsPKS2 is essential for pollen exine and Ubisch body patterning in rice. <i>Journal of Integrative Plant Biology</i> , <b>2017</b> , 59, 612-628	8.3	30
283	Differentially evolved glucosyltransferases determine natural variation of rice flavone accumulation and UV-tolerance. <i>Nature Communications</i> , <b>2017</b> , 8, 1975	17.4	99
282	A Novel Mechanism, Linked to Cell Density, Largely Controls Cell Division in. <i>Plant Physiology</i> , <b>2017</b> , 174, 2166-2182	6.6	14
281	The SAL-PAP Chloroplast Retrograde Pathway Contributes to Plant Immunity by Regulating Glucosinolate Pathway and Phytohormone Signaling. <i>Molecular Plant-Microbe Interactions</i> , <b>2017</b> , 30, 829-841	3.6	28
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266	Flavonoids are determinants of freezing tolerance and cold acclimation in Arabidopsis thaliana. <i>Scientific Reports</i> , <b>2016</b> , 6, 34027	4.9	118
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264	Rapid identification of causal mutations in tomato EMS populations via mapping-by-sequencing. <i>Nature Protocols</i> , <b>2016</b> , 11, 2401-2418	18.8	40
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164	Pyrophosphate levels strongly influence ascorbate and starch content in tomato fruit. <i>Frontiers in Plant Science</i> , <b>2013</b> , 4, 308	6.2	13
163	The phosphorylated pathway of serine biosynthesis is essential both for male gametophyte and embryo development and for root growth in Arabidopsis. <i>Plant Cell</i> , <b>2013</b> , 25, 2084-101	11.6	56
162	Impact of the carbon and nitrogen supply on relationships and connectivity between metabolism and biomass in a broad panel of Arabidopsis accessions. <i>Plant Physiology</i> , <b>2013</b> , 162, 347-63	6.6	76
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158	Galacturonosyltransferase 4 silencing alters pectin composition and carbon partitioning in tomato. <i>Journal of Experimental Botany</i> , <b>2013</b> , 64, 2449-66	7	23
157	Metabolic fluxes in an illuminated Arabidopsis rosette. <i>Plant Cell</i> , <b>2013</b> , 25, 694-714	11.6	226
156	Metabolic engineering of tomato fruit organic acid content guided by biochemical analysis of an introgression line. <i>Plant Physiology</i> , <b>2013</b> , 161, 397-407	6.6	33
155	Molecular regulation of fruit ripening. <i>Frontiers in Plant Science</i> , <b>2013</b> , 4, 198	6.2	143
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150	AtABCG29 is a monolignol transporter involved in lignin biosynthesis. <i>Current Biology</i> , <b>2012</b> , 22, 1207-126.3		204
149	Sucrose efflux mediated by SWEET proteins as a key step for phloem transport. <i>Science</i> , <b>2012</b> , 335, 207-11.3	11.3	714
148	Molecular regulation of seed and fruit set. <i>Trends in Plant Science</i> , <b>2012</b> , 17, 656-65	13.1	250

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145	OPTIMAS-DW: a comprehensive transcriptomics, metabolomics, ionomics, proteomics and phenomics data resource for maize. <i>BMC Plant Biology</i> , <b>2012</b> , 12, 245	5.3	42
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143	Metabolic control and regulation of the tricarboxylic acid cycle in photosynthetic and heterotrophic plant tissues. <i>Plant, Cell and Environment</i> , <b>2012</b> , 35, 1-21	8.4	193
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138	Action of gibberellins on growth and metabolism of <i>Arabidopsis</i> plants associated with high concentration of carbon dioxide. <i>Plant Physiology</i> , <b>2012</b> , 160, 1781-94	6.6	33
137	Catabolism of branched chain amino acids supports respiration but not volatile synthesis in tomato fruits. <i>Molecular Plant</i> , <b>2012</b> , 5, 366-75	14.4	65
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123	Combined transcription factor profiling, microarray analysis and metabolite profiling reveals the transcriptional control of metabolic shifts occurring during tomato fruit development. <i>Plant Journal</i> , <b>2011</b> , 68, 999-1013	6.9	98
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120	Genetics, Genomics and Metabolomics <b>2011</b> , 219-259		5
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118	Recommendations for reporting metabolite data. <i>Plant Cell</i> , <b>2011</b> , 23, 2477-82	11.6	238
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114	Metabolic profiling during peach fruit development and ripening reveals the metabolic networks that underpin each developmental stage. <i>Plant Physiology</i> , <b>2011</b> , 157, 1696-710	6.6	169
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105	Malate plays a crucial role in starch metabolism, ripening, and soluble solid content of tomato fruit and affects postharvest softening. <i>Plant Cell</i> , <b>2011</b> , 23, 162-84	11.6	174
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102	Toward the storage metabolome: profiling the barley vacuole. <i>Plant Physiology</i> , <b>2011</b> , 157, 1469-82	6.6	82
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95	Complex assembly and metabolic profiling of Arabidopsis thaliana plants overexpressing vitamin B <sub>6</sub> biosynthesis proteins. <i>Molecular Plant</i> , <b>2010</b> , 3, 890-903	14.4	27
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25	Zooming in on a quantitative trait for tomato yield using interspecific introgressions. <i>Science</i> , <b>2004</b> , 305, 1786-9	33.3	407
24	Kinetics of labelling of organic and amino acids in potato tubers by gas chromatography-mass spectrometry following incubation in ( <sup>13</sup> C) labelled isotopes. <i>Plant Journal</i> , <b>2004</b> , 39, 668-79	6.9	113
23	Developmental analysis of carbohydrate metabolism in tomato ( <i>Lycopersicon esculentum</i> cv. Micro-Tom) fruits. <i>Physiologia Plantarum</i> , <b>2004</b> , 120, 196-204	4.6	48
22	Metabolite profiling: from diagnostics to systems biology. <i>Nature Reviews Molecular Cell Biology</i> , <b>2004</b> , 5, 763-9	48.7	622

21	Heard it through the grapevine? ABA and sugar cross-talk: the ASR story. <i>Trends in Plant Science</i> , <b>2004</b> , 9, 57-9	13.1	96
20	Enzymes of glycolysis are functionally associated with the mitochondrion in Arabidopsis cells. <i>Plant Cell</i> , <b>2003</b> , 15, 2140-51	11.6	305
19	A bypass of sucrose synthase leads to low internal oxygen and impaired metabolic performance in growing potato tubers. <i>Plant Physiology</i> , <b>2003</b> , 132, 2058-72	6.6	121
18	De novo amino acid biosynthesis in potato tubers is regulated by sucrose levels. <i>Plant Physiology</i> , <b>2003</b> , 133, 683-92	6.6	64
17	Metabolic profiling of transgenic tomato plants overexpressing hexokinase reveals that the influence of hexose phosphorylation diminishes during fruit development. <i>Plant Physiology</i> , <b>2003</b> , 133, 84-99	6.6	298
16	Reduced expression of aconitase results in an enhanced rate of photosynthesis and marked shifts in carbon partitioning in illuminated leaves of wild species tomato. <i>Plant Physiology</i> , <b>2003</b> , 133, 1322-35	6.6	175
15	Antisense repression of cytosolic phosphoglucomutase in potato ( <i>Solanum tuberosum</i> ) results in severe growth retardation, reduction in tuber number and altered carbon metabolism. <i>Planta</i> , <b>2002</b> , 214, 510-20	4.7	67
14	Starch content and yield increase as a result of altering adenylate pools in transgenic plants. <i>Nature Biotechnology</i> , <b>2002</b> , 20, 1256-60	44.5	156
13	Fructose 2,6-bisphosphate activates pyrophosphate: fructose-6-phosphate 1-phosphotransferase and increases triose phosphate to hexose phosphate cycling in heterotrophic cells. <i>Planta</i> , <b>2001</b> , 212, 250-63	4.7	184
12	The contribution of plastidial phosphoglucomutase to the control of starch synthesis within the potato tuber. <i>Planta</i> , <b>2001</b> , 213, 418-26	4.7	72
11	High-Resolution Metabolic Phenotyping of Genetically and Environmentally Diverse Potato Tuber Systems. Identification of Phenocopies. <i>Plant Physiology</i> , <b>2001</b> , 127, 749-764	6.6	157
10	Metabolic profiling allows comprehensive phenotyping of genetically or environmentally modified plant systems. <i>Plant Cell</i> , <b>2001</b> , 13, 11-29	11.6	877
9	Molecular and Biochemical Triggers of Potato Tuber Development. <i>Plant Physiology</i> , <b>2001</b> , 127, 1459-1465	6.6	219
8	Antisense inhibition of plastidial phosphoglucomutase provides compelling evidence that potato tuber amyloplasts import carbon from the cytosol in the form of glucose-6-phosphate. <i>Plant Journal</i> , <b>2000</b> , 23, 43-53	6.9	123
7	Hello darkness, my old friend: 3-Ketoacyl-Coenzyme A Synthase4 is a branch point in the regulation of triacylglycerol synthesis in Arabidopsis by re-channeling fatty acids under carbon starvation		1
6	Kingdom-wide analysis of the evolution of the plant type III polyketide synthase superfamily		1
5	Pod indehiscence in common bean is associated to the fine regulation of PvMYB26 and a non-functional abscission layer		4
4	The Genome of the Charophyte Alga <i>Penium margaritaceum</i> Bears Footprints of the Evolutionary Origins of Land Plants		3

3	Portrait of a genus: the genetic diversity of Zea		1
2	Regulation of Plant Primary Metabolism [How Results From Novel Technologies Are Extending Our Understanding From Classical Targeted Approaches. <i>Critical Reviews in Plant Sciences</i> , 1-20	5.6	0
1	Genetic architecture of seed glycerolipids in Asian cultivated rice. <i>Plant, Cell and Environment</i> ,	8.4	3