Laura Perez-Fons

List of Publications by Year
in descending order

77 papers	8,260 citations	87888 38 h-index	71685 76 g-index
77 all docs	77 docs citations	77 times ranked	8410 citing authors

#	Article	IF	Citations
1	The biosynthesis and nutritional uses of carotenoids. Progress in Lipid Research, 2004, 43, 228-265.	11.6	1,147
2	Chemical derivatization and mass spectral libraries in metabolic profiling by GC/MS and LC/MS/MS. Journal of Experimental Botany, 2005, 56, 219-243.	4.8	562
3	Fruit-specific RNAi-mediated suppression of DET1 enhances carotenoid and flavonoid content in tomatoes. Nature Biotechnology, 2005, 23, 890-895.	17.5	450
4	Evaluation of transgenic tomato plants expressing an additional phytoene synthase in a fruit-specific manner. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 1092-1097.	7.1	434
5	Mass spectrometry-based metabolomics: a guide for annotation, quantification and best reporting practices. Nature Methods, 2021, 18, 747-756.	19.0	403
6	Application of high-performance liquid chromatography with photodiode array detection to the metabolic profiling of plant isoprenoids. Plant Journal, 2000, 24, 551-558.	5.7	356
7	Constitutive expression of a fruit phytoene synthase gene in transgenic tomatoes causes dwarfism by redirecting metabolites from the gibberellin pathway. Plant Journal, 1995, 8, 693-701.	5.7	341
8	Metabolic engineering of the mevalonate and non-mevalonate isopentenyl diphosphate-forming pathways for the production of health-promoting isoprenoids in tomato. Plant Biotechnology Journal, 2004, 3, 17-27.	8.3	306
9	Manipulation of Phytoene Levels in Tomato Fruit: Effects on Isoprenoids, Plastids, and Intermediary Metabolism. Plant Cell, 2007, 19, 3194-3211.	6.6	276
10	Genetic improvement of tomato by targeted control of fruit softening. Nature Biotechnology, 2016, 34, 950-952.	17.5	251
11	The olive leaf extract exhibits antiviral activity against viral haemorrhagic septicaemia rhabdovirus (VHSV). Antiviral Research, 2005, 66, 129-136.	4.1	216
12	Expression of an exogenous isopentenyl diphosphate isomerase gene enhances isoprenoid biosynthesis in Escherichia coli. Biochemical Journal, 1997, 324, 421-426.	3.7	207
13	Relationship between the Antioxidant Capacity and Effect of Rosemary (Rosmarinus officinalis L.) Polyphenols on Membrane Phospholipid Order. Journal of Agricultural and Food Chemistry, 2010, 58, 161-171.	5.2	199
14	Membrane-related effects underlying the biological activity of the anthraquinones emodin and barbaloin. Biochemical Pharmacology, 2004, 68, 549-561.	4.4	186
15	Identification and quantification of carotenoids, tocopherols and chlorophylls in commonly consumed fruits and vegetables. Phytochemistry, 2003, 62, 939-947.	2.9	182
16	Understanding carotenoid metabolism as a necessity for genetic engineering of crop plants. Metabolic Engineering, 2006, 8, 291-302.	7.0	171
17	Integrative Transcript and Metabolite Analysis of Nutritionally Enhanced DE-ETIOLATED1 Downregulated Tomato Fruit. Plant Cell, 2010, 22, 1190-1215.	6.6	160
18	Fibrillin influence on plastid ultrastructure and pigment content in tomato fruit. Phytochemistry, 2007, 68, 1545-1556.	2.9	154

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19	Genetic engineering of carotenoid formation in tomato fruit and the potential application of systems and synthetic biology approaches. Archives of Biochemistry and Biophysics, 2009, 483, 196-204.	3.0	129
20	Metabolite profiling of plant carotenoids using the matrix-assisted laser desorption ionization time-of-flight mass spectrometry. Plant Journal, 2007, 49, 552-564.	5.7	126
21	Subchromoplast Sequestration of Carotenoids Affects Regulatory Mechanisms in Tomato Lines Expressing Different Carotenoid Gene Combinations. Plant Cell, 2013, 25, 4560-4579.	6.6	112
22	Engineering ketocarotenoid biosynthesis in potato tubers. Metabolic Engineering, 2006, 8, 253-263.	7.0	104
23	Characterisation of CRISPR mutants targeting genes modulating pectin degradation in ripening tomato. Plant Physiology, 2019, 179, pp.01187.2018.	4.8	92
24	The regulation of carotenoid formation in tomato fruit. Plant Journal, 2017, 89, 774-788.	5.7	86
25	Enzymic confirmation of reactions involved in routes to astaxanthin formation, elucidated using a direct substrate in vitro assay. FEBS Journal, 1998, 252, 229-236.	0.2	84
26	Isolation, characterization and antioxidant capacity assessment of the bioactive compounds derived from Hypoxis rooperi corm extract (African potato). Food Chemistry, 2007, 101, 1425-1437.	8.2	84
27	Carotenoid biosynthesis and sequestration in red chilli pepper fruit and its impact on colour intensity traits. Journal of Experimental Botany, 2019, 70, 2637-2650.	4.8	83
28	Rosemary (Rosmarinus officinalis) diterpenes affect lipid polymorphism and fluidity in phospholipid membranes. Archives of Biochemistry and Biophysics, 2006, 453, 224-236.	3.0	72
29	Combined transcript, proteome, and metabolite analysis of transgenic maize seeds engineered for enhanced carotenoid synthesis reveals pleotropic effects in core metabolism. Journal of Experimental Botany, 2015, 66, 3141-3150.	4.8	65
30	Carotenoids present in halotolerantBacillusspore formers. FEMS Microbiology Letters, 2006, 255, 215-224.	1.8	61
31	A genome-wide metabolomic resource for tomato fruit from Solanum pennellii. Scientific Reports, 2014, 4, 3859.	3.3	60
32	Identification and the developmental formation of carotenoid pigments in the yellow/orange Bacillus spore-formers. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2011, 1811, 177-185.	2.4	53
33	Methyl Glucosyl-3,4-dehydro-apo-8â€²-lycopenoate, a Novel Antioxidative Glyco-C30-carotenoic Acid Produced by a Marine Bacterium Planococcus maritimus. Journal of Antibiotics, 2008, 61, 729-735.	2.0	48
34	Differential effects of oleuropein, a biophenol from Olea europaea, on anionic and zwiterionic phospholipid model membranes. Chemistry and Physics of Lipids, 2005, 137, 2-17.	3.2	47
35	Metabolite profiling of Dioscorea (yam) species reveals underutilised biodiversity and renewable sources for high-value compounds. Scientific Reports, 2016, 6, 29136.	3.3	46
36	Construction of a fusion enzyme for astaxanthin formation and its characterisation in microbial and plant hosts: A new tool for engineering ketocarotenoids. Metabolic Engineering, 2019, 52, 243-252.	7.0	46

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37	Inactivation of rice starch branching enzyme IIb triggers broad and unexpected changes in metabolism by transcriptional reprogramming. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26503-26512.	7.1	45
38	Metabolic engineering of astaxanthin biosynthesis in maize endosperm and characterization of a prototype high oil hybrid. Transgenic Research, 2016, 25, 477-489.	2.4	44
39	Engineering of tomato for the sustainable production of ketocarotenoids and its evaluation in aquaculture feed. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10876-10881.	7.1	42
40	Genome-wide analyses of cassava Pathogenesis-related (PR) gene families reveal core transcriptome responses to whitefly infestation, salicylic acid and jasmonic acid. BMC Genomics, 2020, 21, 93.	2.8	41
41	A transcriptomic, metabolomic and cellular approach to the physiological adaptation of tomato fruit to high temperature. Plant, Cell and Environment, 2021, 44, 2211-2229.	5.7	38
42	Metabolic diversity in sweet potato (Ipomoea batatas, Lam.) leaves and storage roots. Horticulture Research, 2019, 6, 2.	6.3	37
43	Metabolite database for root, tuber, and banana crops to facilitate modern breeding in understudied crops. Plant Journal, 2020, 101, 1258-1268.	5.7	35
44	A Randomized, Double-Blinded, Placebo-Controlled Study of the Effect of a Combination of Lemon Verbena Extract and Fish Oil Omega-3 Fatty Acid on Joint Management. Journal of Alternative and Complementary Medicine, 2011, 17, 1051-1063.	2.1	34
45	Annotation and functional assignment of the genes for the C30 carotenoid pathways from the genomes of two bacteria: Bacillus indicus and Bacillus firmus. Microbiology (United Kingdom), 2015, 161, 194-202.	1.8	33
46	Functional characterization of long-chain prenyl diphosphate synthases from tomato. Biochemical Journal, 2013, 449, 729-740.	3.7	32
47	The Formation and Sequestration of Nonendogenous Ketocarotenoids in Transgenic Nicotiana glauca. Plant Physiology, 2017, 173, 1617-1635.	4.8	32
48	Development and optimisation of a label-free quantitative proteomic procedure and its application in the assessment of genetically modified tomato fruit. Proteomics, 2013, 13, 2016-2030.	2.2	30
49	Metabolite profiling of yam (Dioscorea spp.) accessions for use in crop improvement programmes. Metabolomics, 2017, 13, 144.	3.0	30
50	Metabolomics should be deployed in the identification and characterization of geneâ€edited crops. Plant Journal, 2020, 102, 897-902.	5.7	30
51	Capturing Biochemical Diversity in Cassava (Manihot esculenta Crantz) through the Application of Metabolite Profiling. Journal of Agricultural and Food Chemistry, 2019, 67, 986-993.	5.2	29
52	The road to astaxanthin production in tomato fruit reveals plastid and metabolic adaptation resulting in an unintended high lycopene genotype with delayed overâ€ripening properties. Plant Biotechnology Journal, 2019, 17, 1501-1513.	8.3	27
53	Carotenoid profiling of yams: Clarity, comparisons and diversity. Food Chemistry, 2018, 259, 130-138.	8.2	26
54	A metabolomics characterisation of natural variation in the resistance of cassava to whitefly. BMC Plant Biology, 2019, 19, 518.	3.6	26

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55	Application of highâ€performance liquid chromatography with photodiode array detection to the metabolic profiling of plant isoprenoids. Plant Journal, 2000, 24, 551-558.	5.7	24
56	Determination of carotenoids in sweet potato (Ipomoea batatas L., Lam) tubers: Implications for accurate provitamin A determination in staple sturdy tuber crops. Phytochemistry, 2019, 167, 112102.	2.9	23
57	Engineered maize as a source of astaxanthin: processing and application as fish feed. Transgenic Research, 2016, 25, 785-793.	2.4	20
58	New plant breeding techniques and their regulatory implications: An opportunity to advance metabolomics approaches. Journal of Plant Physiology, 2021, 258-259, 153378.	3.5	19
59	Cassava Metabolomics and Starch Quality. Current Protocols in Plant Biology, 2019, 4, e20102.	2.8	16
60	The optimisation and application of a metabolite profiling procedure for the metabolic phenotyping of Bacillus species. Metabolomics, 2014, 10, 77-90.	3.0	14
61	Metabolite profiling characterises chemotypes of Musa diploids and triploids at juvenile and pre-flowering growth stages. Scientific Reports, 2019, 9, 4657.	3.3	13
62	Exploring the chemotypes underlying important agronomic and consumer traits in cassava (Manihot) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.5	13
63	The metabotyping of an East African cassava diversity panel: A core collection for developing biotic stress tolerance in cassava. PLoS ONE, 2020, 15, e0242245.	2.5	13
64	Proteome changes in tomato lines transformed with phytoene synthase-1 in the sense and antisense orientations. Journal of Experimental Botany, 2012, 63, 6035-6043.	4.8	12
65	Crystal Structure of Geranylgeranyl Pyrophosphate Synthase (CrtE) Involved in Cyanobacterial Terpenoid Biosynthesis. Frontiers in Plant Science, 2020, 11, 589.	3.6	12
66	The application of metabolite profiling to Mycobacterium spp.: Determination of metabolite changes associated with growth. Journal of Microbiological Methods, 2014, 106, 23-32.	1.6	10
67	Extending our tools and resources in the non-conventional industrial yeast Xanthophyllomyces dendrorhous through the application of metabolite profiling methodologies. Metabolomics, 2018, 14, 30.	3.0	10
68	Metabolic changes in leaves of N. tabacum and N. benthamiana during plant development. Journal of Plant Physiology, 2021, 265, 153486.	3.5	10
69	The chemotype core collection of genus Nicotiana. Plant Journal, 2022, 110, 1516-1528.	5.7	9
70	The biosynthetic pathway to a novel derivative of 4,4â€²-diapolycopene-4,4â€²-oate in a red strain of Sporosarcina aquimarina. Archives of Microbiology, 2012, 194, 779-784.	2.2	8
71	Metabolite analysis of Mycobacterium species under aerobic and hypoxic conditions reveals common metabolic traits. Microbiology (United Kingdom), 2016, 162, 1456-1467.	1.8	8
72	A Novel Antioxidant Phenyl Disaccharide from Populus tremula Knotwood. Molecules, 2007, 12, 205-217.	3.8	5

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73	Multilevel interactions between native and ectopic isoprenoid pathways affect global metabolism in rice. Transgenic Research, 2022, 31, 249-268.	2.4	4
74	Analysis of Diapocarotenoids Found in Pigmented Bacillus Species. Methods in Molecular Biology, 2012, 892, 335-345.	0.9	3
75	The assessment of changes to the nontuberculous mycobacterial metabolome in response to anti-TB drugs. FEMS Microbiology Letters, 2018, 365, .	1.8	2
76	Nitrogen inputs influence vegetative metabolism in maize engineered with a seed-specific carotenoid pathway. Plant Cell Reports, 2021, 40, 899-911.	5.6	1
77	Datasets from harmonised metabolic phenotyping of root, tuber and banana crop. Data in Brief, 2022, 42, 108041.	1.0	1