Paul D Fraser

List of Publications by Year
in descending order

111 papers	10,324 citations	57758 44 h-index	33894 99 g-index
115 all docs	115 docs citations	115 times ranked	8861 citing authors

#	Article	IF	Citations
1	Multilevel interactions between native and ectopic isoprenoid pathways affect global metabolism in rice. Transgenic Research, 2022, 31, 249-268.	2.4	4
2	The chemotype core collection of genus Nicotiana. Plant Journal, 2022, 110, 1516-1528.	5.7	9
3	Datasets from harmonised metabolic phenotyping of root, tuber and banana crop. Data in Brief, 2022, 42, 108041.	1.0	1
4	Metabolomic approaches for the characterization of carotenoid metabolic engineering in planta. Methods in Enzymology, 2022, , 155-178.	1.0	2
5	Isolation and characterization of sub-plastidial fractions from carotenoid rich fruits. Methods in Enzymology, 2022, , 285-300.	1.0	0
6	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
7	Engineering Metabolism in Nicotiana Species: A Promising Future. Trends in Biotechnology, 2021, 39, 901-913.	9.3	35
8	Nitrogen inputs influence vegetative metabolism in maize engineered with a seed-specific carotenoid pathway. Plant Cell Reports, 2021, 40, 899-911.	5.6	1
9	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
10	Metabolic effects of agro-infiltration on N. benthamiana accessions. Transgenic Research, 2021, 30, 303-315.	2.4	10
11	Understanding colour retention in red chilli pepper fruit using a metabolite profiling approach. Food Chemistry Molecular Sciences, 2021, 2, 100013.	2.1	5
12	Mass spectrometry-based metabolomics: a guide for annotation, quantification and best reporting practices. Nature Methods, 2021, 18, 747-756.	19.0	403
13	The Coordinated Upregulated Expression of Genes Involved in MEP, Chlorophyll, Carotenoid and Tocopherol Pathways, Mirrored the Corresponding Metabolite Contents in Rice Leaves during De-Etiolation. Plants, 2021, 10, 1456.	3.5	3
14	Metabolic changes in leaves of N. tabacum and N. benthamiana during plant development. Journal of Plant Physiology, 2021, 265, 153486.	3.5	10
15	The esterification of xanthophylls in Solanum lycopersicum (tomato) chromoplasts; the role of a non-specific acyltransferase. Phytochemistry, 2021, 191, 112912.	2.9	8
16	The subcellular localization of two isopentenyl diphosphate isomerases in rice suggests a role for the endoplasmic reticulum in isoprenoid biosynthesis. Plant Cell Reports, 2020, 39, 119-133.	5.6	14
17	Metabolomics should be deployed in the identification and characterization of geneâ€edited crops. Plant Journal, 2020, 102, 897-902.	5.7	30
18	Metabolite database for root, tuber, and banana crops to facilitate modern breeding in understudied crops. Plant Journal, 2020, 101, 1258-1268.	5.7	35

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19	Characterisation of Thai strawberry (Fragaria Ã— ananassa Duch.) cultivars with RAPD markers and metabolite profiling techniques. Phytochemistry, 2020, 180, 112522.	2.9	5
20	The effect of Î²-cyclocitral treatment on the carotenoid content of transgenic Marsh grapefruit (Citrus paradisi Macf.) suspension-cultured cells. Phytochemistry, 2020, 180, 112509.	2.9	7
21	Exploring the chemotypes underlying important agronomic and consumer traits in cassava (Manihot) Tj ETQq1 1 0.784314 rgBT /Ove	3.5	13
22	Cooking dependent loss of metabolites in potato breeding lines and their wild and landrace relatives. Journal of Food Composition and Analysis, 2020, 88, 103432.	3.9	8
23	Assessment of metabolic variability and diversity present in leaf, peel and pulp tissue of diploid and triploid Musa spp.. Phytochemistry, 2020, 176, 112388.	2.9	12
24	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
25	Characterisation of CRISPR mutants targeting genes modulating pectin degradation in ripening tomato. Plant Physiology, 2019, 179, pp.01187.2018.	4.8	92
26	Effect of diflufenican on total carotenoid and phytoene production in carrot suspension-cultured cells. Planta, 2019, 249, 113-122.	3.2	8
27	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
28	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
29	Natural Variation in CCD4 Promoter Underpins Species-Specific Evolution of Red Coloration in Citrus Peel. Molecular Plant, 2019, 12, 1294-1307.	8.3	102
30	Metabolite Profiling: A Tool for the Biochemical Characterisation of Mycobacterium sp.. Microorganisms, 2019, 7, 148.	3.6	7
31	Metabolite profiling characterises chemotypes of Musa diploids and triploids at juvenile and pre-flowering growth stages. Scientific Reports, 2019, 9, 4657.	3.3	13
32	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
33	A metabolomics characterisation of natural variation in the resistance of cassava to whitefly. BMC Plant Biology, 2019, 19, 518.	3.6	26
34	Cassava Metabolomics and Starch Quality. Current Protocols in Plant Biology, 2019, 4, e20102.	2.8	16
35	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
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	Metabolic diversity in sweet potato (Ipomoea batatas, Lam.) leaves and storage roots. Horticulture Research, 2019, 6, 2.	6.3	37
38	Carotenoid profiling of yams: Clarity, comparisons and diversity. Food Chemistry, 2018, 259, 130-138.	8.2	26
39	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
40	Creating plant molecular factories for industrial and nutritional isoprenoid production. Current Opinion in Biotechnology, 2018, 49, 80-87.	6.6	34
41	The assessment of changes to the nontuberculous mycobacterial metabolome in response to anti-TB drugs. FEMS Microbiology Letters, 2018, 365, .	1.8	2
42	Detection and Enhancement of Ketocarotenoid Accumulation in the Newly Isolated Sarcinoid Green Microalga Chlorosarcinopsis PY02. Biology, 2018, 7, 17.	2.8	5
43	Carotenoids moderate the effectiveness of a Bt gene against the European corn borer, Ostrinia nubilalis. PLoS ONE, 2018, 13, e0199317.	2.5	9
44	The Formation and Sequestration of Nonendogenous Ketocarotenoids in Transgenic Nicotiana glauca. Plant Physiology, 2017, 173, 1617-1635.	4.8	32
45	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
46	Metabolite profiling of yam (Dioscorea spp.) accessions for use in crop improvement programmes. Metabolomics, 2017, 13, 144.	3.0	30
47	Towards the development of a sustainable soya beanâ€based feedstock for aquaculture. Plant Biotechnology Journal, 2017, 15, 227-236.	8.3	24
48	The regulation of carotenoid formation in tomato fruit. Plant Journal, 2017, 89, 774-788.	5.7	86
49	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
50	Genetic modification of tomato with the tobacco lycopene Î²-cyclase gene produces high Î²-carotene and lycopene fruit. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 2016, 71, 295-301.	1.4	19
51	Antioxidant compounds and their bioaccessibility in tomato fruit and puree obtained from a DETIOLATED -1 (DET -1) down-regulated genetically modified genotype. Food Chemistry, 2016, 213, 735-741.	8.2	13
52	Genetic improvement of tomato by targeted control of fruit softening. Nature Biotechnology, 2016, 34, 950-952.	17.5	251
53	Metabolite profiling of Dioscorea (yam) species reveals underutilised biodiversity and renewable sources for high-value compounds. Scientific Reports, 2016, 6, 29136.	3.3	46
54	Rapid identification of causal mutations in tomato EMS populations via mapping-by-sequencing. Nature Protocols, 2016, 11, 2401-2418.	12.0	62

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55	Product stability and sequestration mechanisms in Solanum tuberosum engineered to biosynthesize high value ketocarotenoids. Plant Biotechnology Journal, 2016, 14, 140-152.	8.3	24
56	Metabolite analysis of Mycobacterium species under aerobic and hypoxic conditions reveals common metabolic traits. Microbiology (United Kingdom), 2016, 162, 1456-1467.	1.8	8
57	Subchromoplast Fractionation Protocol for Different Solanaceae Fruit Species. Bio-protocol, 2016, 6, .	0.4	3
58	Metabolite profiling in LCâ€“DAD using multivariate curve resolution: the alsace package for R. Metabolomics, 2015, 11, 143-154.	3.0	12
59	Optimising ketocarotenoid production in potato tubers: Effect of genetic background, transgene combinations and environment. Plant Science, 2015, 234, 27-37.	3.6	33
60	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
61	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
62	Transcript and Metabolite Profiling for the Evaluation of Tobacco Tree and Poplar as Feedstock for the Bio-based Industry. Journal of Visualized Experiments, 2014, , .	0.3	3
63	The optimisation and application of a metabolite profiling procedure for the metabolic phenotyping of Bacillus species. Metabolomics, 2014, 10, 77-90.	3.0	14
64	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
65	A genome-wide metabolomic resource for tomato fruit from Solanum pennellii. Scientific Reports, 2014, 4, 3859.	3.3	60
66	Carotenoids and tocopherols in yellow and red raspberries. Food Chemistry, 2013, 139, 744-752.	8.2	66
67	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
68	The sub-cellular localisation of the potato (Solanum tuberosum L.) carotenoid biosynthetic enzymes, CrtRb2 and PSY2. Protoplasma, 2013, 250, 1381-1392.	2.1	22
69	Subchromoplast Sequestration of Carotenoids Affects Regulatory Mechanisms in Tomato Lines Expressing Different Carotenoid Gene Combinations. Plant Cell, 2013, 25, 4560-4579.	6.6	112
70	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
71	Isoprenoid, Lipid, and Protein Contents in Intact Plastids Isolated from Mesocarp Cells of Traditional and High-Pigment Tomato Cultivars at Different Ripening Stages. Journal of Agricultural and Food Chemistry, 2012, 60, 1764-1775.	5.2	22
72	The identification and rapid extraction of hydrocarbons from Nicotiana glauca: A potential advanced renewable biofuel source. Phytochemistry Letters, 2012, 5, 455-458.	1.2	13

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73	Analysis of Diapocarotenoids Found in Pigmented Bacillus Species. Methods in Molecular Biology, 2012, 892, 335-345.	0.9	3
74	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
75	Recommendations for Reporting Metabolite Data. Plant Cell, 2011, 23, 2477-2482.	6.6	326
76	Metabolomics: a second-generation platform for crop and food analysis. Bioanalysis, 2011, 3, 1143-1159.	1.5	53
77	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
78	Transcriptome and Metabolite Profiling Show That APETALA2a Is a Major Regulator of Tomato Fruit Ripening Â. Plant Cell, 2011, 23, 923-941.	6.6	324
79	Integrative Transcript and Metabolite Analysis of Nutritionally Enhanced DE-ETIOLATED1 Downregulated Tomato Fruit. Plant Cell, 2010, 22, 1190-1215.	6.6	160
80	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
81	Genetic Manipulation of Carotenoid Content and Composition in Crop Plants. , 2009, , 99-114.		2
82	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
83	Manipulation of Phytoene Levels in Tomato Fruit: Effects on Isoprenoids, Plastids, and Intermediary Metabolism. Plant Cell, 2007, 19, 3194-3211.	6.6	276
84	Fibrillin influence on plastid ultrastructure and pigment content in tomato fruit. Phytochemistry, 2007, 68, 1545-1556.	2.9	154
85	Differences in the Carotenoid Content of Ordinary Citrus and Lycopene-Accumulating Mutants. Journal of Agricultural and Food Chemistry, 2006, 54, 5474-5481.	5.2	161
86	Carotenoids present in halotolerantBacillusspore formers. FEMS Microbiology Letters, 2006, 255, 215-224.	1.8	61
87	Engineering ketocarotenoid biosynthesis in potato tubers. Metabolic Engineering, 2006, 8, 253-263.	7.0	104
88	Understanding carotenoid metabolism as a necessity for genetic engineering of crop plants. Metabolic Engineering, 2006, 8, 291-302.	7.0	171
89	Genetic engineering of carotenoid formation in tomato. Phytochemistry Reviews, 2006, 5, 59-65.	6.5	14
90	Metabolite profiling of carotenoid and phenolic pathways in mutant and transgenic lines of tomato: Identification of a high antioxidant fruit line. Phytochemistry, 2006, 67, 1750-1757.	2.9	95

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91	Fruit-specific RNAi-mediated suppression of DET1 enhances carotenoid and flavonoid content in tomatoes. Nature Biotechnology, 2005, 23, 890-895.	17.5	450
92	Recent advances in carotenoid biosynthesis, regulation and manipulation. Planta, 2005, 221, 305-308.	3.2	99
93	Manipulation of the Blue Light Photoreceptor Cryptochrome 2 in Tomato Affects Vegetative Development, Flowering Time, and Fruit Antioxidant Content. Plant Physiology, 2005, 137, 199-208.	4.8	352
94	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
95	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
96	Metabolic engineering of ketocarotenoid formation in higher plants. Plant Journal, 2004, 39, 477-486.	5.7	157
97	The biosynthesis and nutritional uses of carotenoids. Progress in Lipid Research, 2004, 43, 228-265.	11.6	1,147
98	Identification and quantification of carotenoids, tocopherols and chlorophylls in commonly consumed fruits and vegetables. Phytochemistry, 2003, 62, 939-947.	2.9	182
99	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
100	Phytoene synthase from tomato (Lycopersicon esculentum) chloroplasts - partial purification and biochemical properties. Planta, 2000, 211, 361-369.	3.2	115
101	Elevation of the provitamin A content of transgenic tomato plants. Nature Biotechnology, 2000, 18, 666-669.	17.5	384
102	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
103	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
104	Phytoene synthase-2 enzyme activity in tomato does not contribute to carotenoid synthesis in ripening fruit. Plant Molecular Biology, 1999, 40, 687-698.	3.9	159
105	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
106	Production of the Carotenoids Lycopene, Î²-Carotene, and Astaxanthin in the Food Yeast Candida utilis. Applied and Environmental Microbiology, 1998, 64, 1226-1229.	3.1	165
107	Increased Carotenoid Production by the Food Yeast Candida utilis through Metabolic Engineering of the Isoprenoid Pathway. Applied and Environmental Microbiology, 1998, 64, 2676-2680.	3.1	162
108	In Vitro Characterization of Astaxanthin Biosynthetic Enzymes. Journal of Biological Chemistry, 1997, 272, 6128-6135.	3.4	161

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109	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
110	Differential Inhibition of Phytoene Desaturases from Diverse Origins and Analysis of Resistant Cyanobacterial Mutants. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 1993, 48, 307-311.	1.4	19
111	Phycomyces blakesleeanus car B mutants: Their use in assays of phytoene desaturase. Phytochemistry, 1991, 30, 3971-3976.	2.9	18