Feng Chen

List of Publications by Year
in descending order

111 papers	11,287 citations	61984 43 h-index	30922 102 g-index
114 all docs	114 docs citations	114 times ranked	15903 citing authors

#	Article	IF	Citations
1	Statistical analysis of real-time PCR data. BMC Bioinformatics, 2006, 7, 85.	2.6	1,651
2	InterPro in 2019: improving coverage, classification and access to protein sequence annotations. Nucleic Acids Research, 2019, 47, D351-D360.	14.5	1,291
3	The family of terpene synthases in plants: a midâ€size family of genes for specialized metabolism that is highly diversified throughout the kingdom. Plant Journal, 2011, 66, 212-229.	5.7	1,068
4	Insights into Land Plant Evolution Garnered from the Marchantia polymorpha Genome. Cell, 2017, 171, 287-304.e15.	28.9	973
5	The Amborella Genome and the Evolution of Flowering Plants. Science, 2013, 342, 1241089.	12.6	743
6	Biosynthesis and Emission of Terpenoid Volatiles from Arabidopsis Flowers. Plant Cell, 2003, 15, 481-494.	6.6	381
7	Two sesquiterpene synthases are responsible for the complex mixture of sesquiterpenes emitted from Arabidopsis flowers. Plant Journal, 2005, 42, 757-771.	5.7	314
8	An Arabidopsis thaliana gene for methylsalicylate biosynthesis, identified by a biochemical genomics approach, has a role in defense. Plant Journal, 2003, 36, 577-588.	5.7	278
9	The water lily genome and the early evolution of flowering plants. Nature, 2020, 577, 79-84.	27.8	238
10	Expression of an Expansin Is Associated with Endosperm Weakening during Tomato Seed Germination. Plant Physiology, 2000, 124, 1265-1274.	4.8	211
11	The Structureâ€“Function Linkage Database. Nucleic Acids Research, 2014, 42, D521-D530.	14.5	210
12	Characterization of a Root-Specific Arabidopsis Terpene Synthase Responsible for the Formation of the Volatile Monoterpene 1,8-Cineole. Plant Physiology, 2004, 135, 1956-1966.	4.8	207
13	Characterization of an Acyltransferase Capable of Synthesizing Benzylbenzoate and Other Volatile Esters in Flowers and Damaged Leaves of Clarkia breweri Â. Plant Physiology, 2002, 130, 466-476.	4.8	185
14	Molecular and genomic basis of volatileâ€mediated indirect defense against insects in rice. Plant Journal, 2008, 55, 491-503.	5.7	163
15	Leveraging Enzyme Structureâ”Function Relationships for Functional Inference and Experimental Design:â€‰ The Structureâ”Function Linkage Database. Biochemistry, 2006, 45, 2545-2555.	2.5	157
16	Colonization by arbuscular mycorrhizal and endophytic fungi enhanced terpene production in tomato plants and their defense against a herbivorous insect. Symbiosis, 2015, 65, 65-74.	2.3	117
17	Nonseed plant Selaginella moellendorffii has both seed plant and microbial types of terpene synthases. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14711-14715.	7.1	103
18	Atlas of the Radical SAM Superfamily: Divergent Evolution of Function Using a â€œPlug and Playâ€• Domain. Methods in Enzymology, 2018, 606, 1-71.	1.0	99

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19	Genomics of Secondary Metabolism inPopulus: Interactions with Biotic and Abiotic Environments. Critical Reviews in Plant Sciences, 2009, 28, 375-392.	5.7	98
20	Terpene synthase genes in eukaryotes beyond plants and fungi: Occurrence in social amoebae. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12132-12137.	7.1	92
21	Terpene synthases and their contribution to herbivore-induced volatile emission in western balsam poplar (Populus trichocarpa). BMC Plant Biology, 2014, 14, 270.	3.6	86
22	Structural, Biochemical, and Phylogenetic Analyses Suggest That Indole-3-Acetic Acid Methyltransferase Is an Evolutionarily Ancient Member of the SABATH Family. Plant Physiology, 2008, 146, 323-324.	4.8	82
23	Prediction and characterization of enzymatic activities guided by sequence similarity and genome neighborhood networks. ELife, 2014, 3, .	6.0	81
24	Herbivore-Induced SABATH Methyltransferases of Maize That Methylate Anthranilic Acid Using S-Adenosyl-<scp>l</scp>-Methionine Â. Plant Physiology, 2010, 153, 1795-1807.	4.8	80
25	The rice terpene synthase gene Os<scp>TPS</scp>19 functions as an (S)â€limonene synthase in planta, and its overexpression leads to enhanced resistance to the blast fungus Magnaporthe oryzae. Plant Biotechnology Journal, 2018, 16, 1778-1787.	8.3	79
26	Four terpene synthases produce major compounds of the gypsy moth feeding-induced volatile blend of Populus trichocarpa. Phytochemistry, 2011, 72, 897-908.	2.9	77
27	An Arabidopsis thaliana methyltransferase capable of methylating farnesoic acid. Archives of Biochemistry and Biophysics, 2006, 448, 123-132.	3.0	73
28	Genomics of Fungal Disease Resistance in Tomato. Current Genomics, 2010, 11, 30-39.	1.6	73
29	Terpene Cyclases from Social Amoebae. Angewandte Chemie - International Edition, 2016, 55, 15420-15423.	13.8	73
30	Microbial-type terpene synthase genes occur widely in nonseed land plants, but not in seed plants. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12328-12333.	7.1	70
31	Biochemical and Structural Characterization of Benzenoid Carboxyl Methyltransferases Involved in Floral Scent Production in Stephanotis floribunda and Nicotiana suaveolens. Plant Physiology, 2004, 135, 1946-1955.	4.8	65
32	Biosynthesis and emission of insect-induced methyl salicylate and methyl benzoate from rice. Plant Physiology and Biochemistry, 2010, 48, 279-287.	5.8	65
33	Dynamic evolution of herbivoreâ€induced sesquiterpene biosynthesis in sorghum and related grass crops. Plant Journal, 2012, 69, 70-80.	5.7	64
34	Overexpression of a soybean salicylic acid methyltransferase gene confers resistance to soybean cyst nematode. Plant Biotechnology Journal, 2013, 11, 1135-1145.	8.3	61
35	An (E,E)â€Ì±â€farnesene synthase gene of soybean has a role in defence against nematodes and is involved in synthesizing insectâ€induced volatiles. Plant Biotechnology Journal, 2017, 15, 510-519.	8.3	61
36	Terpenoid Secondary Metabolites in Bryophytes: Chemical Diversity, Biosynthesis and Biological Functions. Critical Reviews in Plant Sciences, 2018, 37, 210-231.	5.7	57

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37	Plant Volatiles-based Insect Pest Management in Organic Farming. Critical Reviews in Plant Sciences, 2010, 29, 123-133.	5.7	56
38	Chapter eleven The SABATH family of MTS in Arabidopsis Thaliana and other plant species. Recent Advances in Phytochemistry, 2003, , 253-283.	0.5	54
39	Mechanisms of the Diterpene Cyclases Î²â€Pinacene Synthase from Dictyostelium discoideum and Hydropyrene Synthase from Streptomyces clavuligerus. Chemistry - A European Journal, 2017, 23, 10501-10505.	3.3	53
40	Studying Plant Secondary Metabolism in the Age of Genomics. Critical Reviews in Plant Sciences, 2013, 32, 369-382.	5.7	48
41	Molecular Diversity of Terpene Synthases in the Liverwort Marchantia polymorpha. Plant Cell, 2016, 28, tpc.00062.2016.	6.6	48
42	MTPSLs: New Terpene Synthases in Nonseed Plants. Trends in Plant Science, 2018, 23, 121-128.	8.8	48
43	Origin and early evolution of the plant terpene synthase family. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2100361119.	7.1	48
44	The Endo-Î²-Mannanase gene families in Arabidopsis, rice, and poplar. Functional and Integrative Genomics, 2006, 7, 1-16.	3.5	47
45	Inference of Functional Properties from Large-scale Analysis of Enzyme Superfamilies. Journal of Biological Chemistry, 2012, 287, 35-42.	3.4	45
46	Biosynthesis and Emission of Stress-Induced Volatile Terpenes in Roots and Leaves of Switchgrass (Panicum virgatum L.). Frontiers in Plant Science, 2019, 10, 1144.	3.6	44
47	Within-plant distribution and emission of sesquiterpenes from Copaifera officinalis. Plant Physiology and Biochemistry, 2009, 47, 1017-1023.	5.8	40
48	Terpene Biosynthesis in Red Algae Is Catalyzed by Microbial Type But Not Typical Plant Terpene Synthases. Plant Physiology, 2019, 179, 382-390.	4.8	40
49	Two poplar methyl salicylate esterases display comparable biochemical properties but divergent expression patterns. Phytochemistry, 2009, 70, 32-39.	2.9	39
50	Belowground ABA boosts aboveground production of DIMBOA and primes induction of chlorogenic acid in maize. Plant Signaling and Behavior, 2009, 4, 639-641.	2.4	37
51	Highâ€quality evergreen azalea genome reveals tandem duplicationâ€facilitated lowâ€altitude adaptability and floral scent evolution. Plant Biotechnology Journal, 2021, 19, 2544-2560.	8.3	35
52	Positive Darwinian selection is a driving force for the diversification of terpenoid biosynthesis in the genus Oryza. BMC Plant Biology, 2014, 14, 239.	3.6	33
53	Terpencyclasen aus sozialen AmÃ¶ben. Angewandte Chemie, 2016, 128, 15646-15649.	2.0	33
54	Combinatorial Evolution of a Terpene Synthase Gene Cluster Explains Terpene Variations in Oryza. Plant Physiology, 2020, 182, 480-492.	4.8	33

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55	Molecular cloning and biochemical characterization of indole-3-acetic acid methyltransferase from poplar. Phytochemistry, 2007, 68, 1537-1544.	2.9	32
56	Biosynthesis and emission of insect herbivory-induced volatile indole in rice. Phytochemistry, 2012, 73, 15-22.	2.9	31
57	CYP79 P450 monooxygenases in gymnosperms: CYP79A118 is associated with the formation of taxiphyllin in Taxus baccata. Plant Molecular Biology, 2017, 95, 169-180.	3.9	31
58	Terpene Synthase Genes Originated from Bacteria through Horizontal Gene Transfer Contribute to Terpenoid Diversity in Fungi. Scientific Reports, 2019, 9, 9223.	3.3	31
59	A chromosome-level genome assembly of rugged rose (Rosa rugosa) provides insights into its evolution, ecology, and floral characteristics. Horticulture Research, 2021, 8, 141.	6.3	29
60	Genetic, Molecular and Genomic Basis of Rice Defense against Insects. Critical Reviews in Plant Sciences, 2012, 31, 74-91.	5.7	28
61	A SABATH Methyltransferase from the moss Physcomitrella patens catalyzes S-methylation of thiols and has a role in detoxification. Phytochemistry, 2012, 81, 31-41.	2.9	25
62	Transgenic soybean overexpressing Gm<scp>SAMT</scp>1 exhibits resistance to multipleâ€<scp>HG</scp> types of soybean cyst nematode Heterodera glycines. Plant Biotechnology Journal, 2016, 14, 2100-2109.	8.3	23
63	Systematic mining of fungal chimeric terpene synthases using an efficient precursor-providing yeast chassis. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	23
64	Characterization of Composition and Antifungal Properties of Leaf Secondary Metabolites from Thirteen Cultivars of Chrysanthemum morifolium Ramat. Molecules, 2019, 24, 4202.	3.8	22
65	Fungal mutualists enhanceÂgrowth and phytochemical content in Echinacea purpurea. Symbiosis, 2014, 63, 111-121.	2.3	21
66	SABATH methyltransferases from white spruce (Picea glauca): gene cloning, functional characterization and structural analysis. Tree Physiology, 2009, 29, 947-957.	3.1	20
67	Molecular and biochemical characterization of the jasmonic acid methyltransferase gene from black cottonwood (Populus trichocarpa). Phytochemistry, 2013, 94, 74-81.	2.9	20
68	Biochemical characterization of microbial type terpene synthases in two closely related species of hornworts, Anthoceros punctatus and Anthoceros agrestis. Phytochemistry, 2018, 149, 116-122.	2.9	20
69	A single amino acid determines the site of deprotonation in the active center of sesquiterpene synthases SbTPS1 and SbTPS2 from Sorghum bicolor. Phytochemistry, 2012, 75, 6-13.	2.9	19
70	Substrate-Assisted Catalysis in the Reaction Catalyzed by Salicylic Acid Binding Protein 2 (SABP2), a Potential Mechanism of Substrate Discrimination for Some Promiscuous Enzymes. Biochemistry, 2015, 54, 5366-5375.	2.5	19
71	Catalytic Functions of the Isoprenyl Diphosphate Synthase Superfamily in Plants: A Growing Repertoire. Molecular Plant, 2016, 9, 189-191.	8.3	19
72	Isolation and functional analysis of squalene synthase gene in tea plant Camellia sinensis. Plant Physiology and Biochemistry, 2019, 142, 53-58.	5.8	18

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73	VvMJE1 of the grapevine (Vitis vinifera) VvMES methylesterase family encodes for methyl jasmonate esterase and has a role in stress response. Plant Physiology and Biochemistry, 2016, 102, 125-132.	5.8	17
74	Biochemical characterization in Norway spruce (Picea abies) of SABATH methyltransferases that methylate phytohormones. Phytochemistry, 2018, 149, 146-154.	2.9	17
75	Emission of Volatile Chemicals from Flowering Dogwood (Cornus florida L.) Flowers. Journal of Agricultural and Food Chemistry, 2008, 56, 9570-9574.	5.2	16
76	Diverse Terpenoids and Their Associated Antifungal Properties from Roots of Different Cultivars of Chrysanthemum Morifolium Ramat. Molecules, 2020, 25, 2083.	3.8	16
77	Concentration-dependent emission of floral scent terpenoids from diverse cultivars of Chrysanthemum morifolium and their wild relatives. Plant Science, 2021, 309, 110959.	3.6	16
78	Herbivory-Induced Emission of Volatile Terpenes in Chrysanthemum morifolium Functions as an Indirect Defense against Spodoptera litura Larvae by Attracting Natural Enemies. Journal of Agricultural and Food Chemistry, 2021, 69, 9743-9753.	5.2	16
79	Evolution of isoprenyl diphosphate synthase-like terpene synthases in fungi. Scientific Reports, 2020, 10, 14944.	3.3	14
80	Coordinated and High-Level Expression of Biosynthetic Pathway Genes Is Responsible for the Production of a Major Floral Scent Compound Methyl Benzoate in Hedychium coronarium. Frontiers in Plant Science, 2021, 12, 650582.	3.6	14
81	QM/MM Free Energy Simulations of Salicylic Acid Methyltransferase: Effects of Stabilization of TS-like Structures on Substrate Specificity. Journal of Physical Chemistry B, 2011, 115, 389-396.	2.6	12
82	Diversity and Functional Evolution of Terpene Synthases in Dictyostelid Social Amoebae. Scientific Reports, 2018, 8, 14361.	3.3	11
83	The reconstruction and biochemical characterization of ancestral genes furnish insights into the evolution of terpene synthase function in the Poaceae. Plant Molecular Biology, 2020, 104, 203-215.	3.9	11
84	Composition and Biosynthesis of Scent Compounds from Sterile Flowers of an Ornamental Plant Clematis florida cv. â€˜Kaiserâ€™. Molecules, 2020, 25, 1711.	3.8	11
85	Fungal-Type Terpene Synthases in Marchantia polymorpha Are Involved in Sesquiterpene Biosynthesis in Oil Body Cells. Plant and Cell Physiology, 2021, 62, 528-537.	3.1	11
86	A terpene synthase-cytochrome P450 cluster in Dictyostelium discoideum produces a novel trisnorsesquiterpene. ELife, 2019, 8, .	6.0	11
87	Molecular Cloning and Biochemical Characterization of an Endo-Î²-mannanase Gene from Soybean for Soybean Meal Improvement. Journal of Agricultural and Food Chemistry, 2011, 59, 4622-4628.	5.2	10
88	Characterisation of three terpene synthases for Î²-barbatene, Î²-araneosene and nephthenol from social amoebae. Chemical Communications, 2019, 55, 13255-13258.	4.1	10
89	Terpenoid biosynthesis in Dendrobium officinale: Identification of (E)-Î²-caryophyllene synthase and the regulatory MYB genes. Industrial Crops and Products, 2022, 182, 114875.	5.2	10
90	Volatile squalene from a nonseed plant Selaginella moellendorffii : Emission and biosynthesis. Plant Physiology and Biochemistry, 2015, 96, 1-8.	5.8	9

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91	QM/MM free energy simulations of the reaction catalysed by (4S)-limonene synthase involving linalyl diphosphate (LPP) substrate. Molecular Simulation, 2018, 44, 1158-1167.	2.0	9
92	Terpenoids from Weedy Ricefield Flatsedge (Cyperus iria L.) Are Developmentally Regulated and Stress-Induced, and have Antifungal Properties. Molecules, 2018, 23, 3149.	3.8	9
93	The levels of bioactive ingredients in <scp>Citrus aurantium</scp> L. at different harvest periods and antioxidant effects on <scp>H₂O₂</scp>â€induced <scp>RINâ€m5F</scp> cells. Journal of the Science of Food and Agriculture, 2021, 101, 1479-1490.	3.5	8
94	Biosynthesis of methyl (E)-cinnamate in the liverwort Conocephalum salebrosum and evolution of cinnamic acid methyltransferase. Phytochemistry, 2019, 164, 50-59.	2.9	7
95	Dynamic regulation of volatile terpenoid production and emission from Chrysanthemum morifolium capitula. Plant Physiology and Biochemistry, 2022, 182, 11-21.	5.8	7
96	Exploring the Relationship between Trichome and Terpene Chemistry in Chrysanthemum. Plants, 2022, 11, 1410.	3.5	7
97	Biocuration in the structureâ€“function linkage database: the anatomy of a superfamily. Database: the Journal of Biological Databases and Curation, 2017, 2017, .	3.0	6
98	Divergent Evolution of the Diterpene Biosynthesis Pathway in Tea Plants (Camellia sinensis) Caused by Single Amino Acid Variation of ent-Kaurene Synthase. Journal of Agricultural and Food Chemistry, 2020, 68, 9930-9939.	5.2	6
99	Diversity and Biosynthesis of Volatile Terpenoid Secondary Metabolites in the Chrysanthemum Genus. Critical Reviews in Plant Sciences, 2021, 40, 422-445.	5.7	6
100	Elucidation of the genomic basis of indirect plant defense against insects. Plant Signaling and Behavior, 2008, 3, 720-721.	2.4	5
101	Using the Structureâ€Function Linkage Database to Characterize Functional Domains in Enzymes. Current Protocols in Bioinformatics, 2014, 48, 2.10.1-16.	25.8	5
102	A strategy for large-scale comparison of evolutionary- and reaction-based classifications of enzyme function. Database: the Journal of Biological Databases and Curation, 2020, 2020, .	3.0	5
103	Mechanistic divergence between (4S,7R)-germacra-(1(10)E,5E)-dien-11-ol synthases from Dictyostelium purpureum and Streptomyces coelicolor. Organic and Biomolecular Chemistry, 2021, 19, 370-374.	2.8	5
104	Sesquiterpene biosynthesis in a leafy liverwort Radula lindenbergiana Gottsche ex C. Hartm. Phytochemistry, 2021, 190, 112847.	2.9	5
105	Origin and evolution of a gibberellinâ€deactivating enzyme GAMT. Plant Direct, 2020, 4, e00287.	1.9	5
106	Analysis of Insect-Induced Volatiles from Rice. Methods in Molecular Biology, 2013, 956, 201-208.	0.9	4
107	Emission and biosynthesis of volatile terpenoids from the plasmodial slime mold Physarum polycephalum. Beilstein Journal of Organic Chemistry, 2019, 15, 2872-2880.	2.2	4
108	Biosynthesis and emission of methyl hexanoate, the major constituent of floral scent of a night-blooming water lily Victoria cruziana. Phytochemistry, 2021, 191, 112899.	2.9	4

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109	Non-canonical substrates for terpene synthases in bacteria are synthesized by a new family of methyltransferases. FEMS Microbiology Reviews, 2021, 45, .	8.6	3
110	Biocuration in the structureâ€“function linkage database: the anatomy of a superfamily. Database: the Journal of Biological Databases and Curation, 2017, 2017, .	3.0	2
111	Diesel Trees. , 2012, , 619-629.		1