Barbara Ann Halkier

List of Publications by Year
in descending order

159 papers	17,408 citations	15504 65 h-index	14759 127 g-index
169 all docs	169 docs citations	169 times ranked	10712 citing authors

#	Article	IF	Citations
1	BIOLOGY AND BIOCHEMISTRY OF GLUCOSINOLATES. Annual Review of Plant Biology, 2006, 57, 303-333.	18.7	1,917
2	Biosynthesis of glucosinolates â€" gene discovery and beyond. Trends in Plant Science, 2010, 15, 283-290.	8.8	756
3	A unified nomenclature of NITRATE TRANSPORTER 1/PEPTIDE TRANSPORTER family members in plants. Trends in Plant Science, 2014, 19, 5-9.	8.8	581
4	Glucosinolate research in the Arabidopsis era. Trends in Plant Science, 2002, 7, 263-270.	8.8	555
5	Advancing uracil-excision based cloning towards an ideal technique for cloning PCR fragments. Nucleic Acids Research, 2006, 34, e122-e122.	14.5	444
6	NRT/PTR transporters are essential for translocation of glucosinolate defence compounds to seeds. Nature, 2012, 488, 531-534.	27.8	429
7	Cytochrome P450 CYP79B2 from Arabidopsis Catalyzes the Conversion of Tryptophan to Indole-3-acetaldoxime, a Precursor of Indole Glucosinolates and Indole-3-acetic Acid. Journal of Biological Chemistry, 2000, 275, 33712-33717.	3.4	411
8	Arabidopsis Cytochrome P450 Monooxygenase 71A13 Catalyzes the Conversion of Indole-3-Acetaldoxime in Camalexin Synthesis. Plant Cell, 2007, 19, 2039-2052.	6.6	339
9	Arabidopsis mutants in the C-S lyase of glucosinolate biosynthesis establish a critical role for indole-3-acetaldoxime in auxin homeostasis. Plant Journal, 2004, 37, 770-777.	5.7	327
10	A Systems Biology Approach Identifies a R2R3 MYB Gene Subfamily with Distinct and Overlapping Functions in Regulation of Aliphatic Glucosinolates. PLoS ONE, 2007, 2, e1322.	2.5	321
11	Modulation of CYP79 Genes and Glucosinolate Profiles in Arabidopsis by Defense Signaling Pathways. Plant Physiology, 2003, 131, 298-308.	4.8	314
12	Camalexin is synthesized from indole-3-acetaldoxime, a key branching point between primary and secondary metabolism in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 8245-8250.	7.1	291
13	Linking Metabolic QTLs with Network and cis-eQTLs Controlling Biosynthetic Pathways. PLoS Genetics, 2007, 3, e162.	3.5	275
14	USER fusion: a rapid and efficient method for simultaneous fusion and cloning of multiple PCR products. Nucleic Acids Research, 2007, 35, e55-e55.	14.5	255
15	Cytochrome P450 CYP79A2 from Arabidopsis thaliana L. Catalyzes the Conversion of l-Phenylalanine to Phenylacetaldoxime in the Biosynthesis of Benzylglucosinolate. Journal of Biological Chemistry, 2000, 275, 14659-14666.	3.4	247
16	Microbial production of indolylglucosinolate through engineering of a multi-gene pathway in a versatile yeast expression platform. Metabolic Engineering, 2012, 14, 104-111.	7.0	244
17	CYP71B15 (PAD3) Catalyzes the Final Step in Camalexin Biosynthesis. Plant Physiology, 2006, 141, 1248-1254.	4.8	242
18	CYP79F1 and CYP79F2 have distinct functions in the biosynthesis of aliphatic glucosinolates in Arabidopsis. Plant Journal, 2003, 33, 923-937.	5.7	238

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19	The biosynthesis of glucosinolates. Trends in Plant Science, 1997, 2, 425-431.	8.8	229
20	A Complex Interplay of Three R2R3 MYB Transcription Factors Determines the Profile of Aliphatic Glucosinolates in Arabidopsis Â Â Â. Plant Physiology, 2010, 153, 348-363.	4.8	226
21	Composition and content of glucosinolates in developing Arabidopsis thaliana. Planta, 2002, 214, 562-571.	3.2	219
22	Identification of a flavin-monooxygenase as the S-oxygenating enzyme in aliphatic glucosinolate biosynthesis in Arabidopsis. Plant Journal, 2007, 50, 902-910.	5.7	219
23	Biochemical Networks and Epistasis Shape the<i>Arabidopsis thaliana</i>Metabolome. Plant Cell, 2008, 20, 1199-1216.	6.6	218
24	CYP83A1 and CYP83B1, Two Nonredundant Cytochrome P450 Enzymes Metabolizing Oximes in the Biosynthesis of Glucosinolates in Arabidopsis. Plant Physiology, 2003, 133, 63-72.	4.8	215
25	Altering glucosinolate profiles modulates disease resistance in plants. Plant Journal, 2006, 46, 758-767.	5.7	201
26	Differential Effects of Indole and Aliphatic Glucosinolates on Lepidopteran Herbivores. Journal of Chemical Ecology, 2010, 36, 905-913.	1.8	196
27	Cloning of three A-type cytochromes P450, CYP71E1, CYP98, and CYP99 from Sorghum bicolor (L.) Moench by a PCR approach and identification by expression in Escherichia coli of CYP71E1 as a multifunctional cytochrome P450 in the biosynthesis of the cyanogenic glucoside dhurrin. Plant Molecular Biology, 1998, 36, 393-405.	3.9	180
28	Metabolic Engineering in <i>Nicotiana benthamiana</i> Reveals Key Enzyme Functions in <i>Arabidopsis</i> Indole Glucosinolate Modification. Plant Cell, 2011, 23, 716-729.	6.6	178
29	The Arabidopsis NPF3 protein is a GA transporter. Nature Communications, 2016, 7, 11486.	12.8	177
30	Integration of Biosynthesis and Long-Distance Transport Establish Organ-Specific Glucosinolate Profiles in Vegetative<i>Arabidopsis</i>Â. Plant Cell, 2013, 25, 3133-3145.	6.6	170
31	Cytochrome P450 CYP79F1 from Arabidopsis Catalyzes the Conversion of Dihomomethionine and Trihomomethionine to the Corresponding Aldoximes in the Biosynthesis of Aliphatic Glucosinolates. Journal of Biological Chemistry, 2001, 276, 11078-11085.	3.4	162
32	Rapid stimulation of a soybean protein-serine kinase that phosphorylates a novel bZIP DNA-binding protein, G/HBF-1, during the induction of early transcription-dependent defenses. EMBO Journal, 1997, 16, 726-738.	7.8	156
33	Long-Distance Phloem Transport of Glucosinolates in Arabidopsis. Plant Physiology, 2001, 127, 194-201.	4.8	153
34	Cytochrome P-450TYR Is a Multifunctional Heme-Thiolate Enzyme Catalyzing the Conversion of L-Tyrosine to p-Hydroxyphenylacetaldehyde Oxime in the Biosynthesis of the Cyanogenic Glucoside Dhurrin in Sorghum bicolor (L.) Moench. Journal of Biological Chemistry, 1995, 270, 3506-3511.	3.4	152
35	Subclade of Flavin-Monooxygenases Involved in Aliphatic Glucosinolate Biosynthesis. Plant Physiology, 2008, 148, 1721-1733.	4.8	150
36	Biosynthesis of the Cyanogenic Glucoside Dhurrin in Seedlings of <i>Sorghum bicolor</i> (L.) Moench and Partial Purification of the Enzyme System Involved. Plant Physiology, 1989, 90, 1552-1559.	4.8	149

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37	Glucosinolate engineering identifies a Î³-glutamyl peptidase. Nature Chemical Biology, 2009, 5, 575-577.	8.0	148
38	CYP83B1 Is the Oxime-metabolizing Enzyme in the Glucosinolate Pathway in Arabidopsis. Journal of Biological Chemistry, 2001, 276, 24790-24796.	3.4	146
39	The Primary Sequence of Cytochrome P450tyr, the MultifunctionalN-Hydroxylase Catalyzing the Conversion ofL-Tyrosine top-Hydroxyphenylacetaldehyde Oxime in the Biosynthesis of the Cyanogenic Glucoside Dhurrin inSorghum bicolor(L.) Moench. Archives of Biochemistry and Biophysics, 1995, 323, 177-186.	3.0	136
40	A Novel 2-Oxoacid-Dependent Dioxygenase Involved in the Formation of the Goiterogenic 2-Hydroxybut-3-enyl Glucosinolate and Generalist Insect Resistance in Arabidopsis Â Â. Plant Physiology, 2008, 148, 2096-2108.	4.8	131
41	An NPF transporter exports a central monoterpene indole alkaloid intermediate from the vacuole. Nature Plants, 2017, 3, 16208.	9.3	123
42	Isolation and Reconstitution of Cytochrome P450ox and in Vitro Reconstitution of the Entire Biosynthetic Pathway of the Cyanogenic Glucoside Dhurrin from Sorghum. Plant Physiology, 1997, 115, 1661-1670.	4.8	122
43	USER Cloning and USER Fusion: The Ideal Cloning Techniques for Small and Big Laboratories. Methods in Molecular Biology, 2010, 643, 185-200.	0.9	121
44	Cytosolic Î³-Glutamyl Peptidases Process Glutathione Conjugates in the Biosynthesis of Glucosinolates and Camalexin in <i>Arabidopsis</i> Â Â. Plant Cell, 2011, 23, 2456-2469.	6.6	119
45	How does a plant orchestrate defense in time and space? Using glucosinolates in Arabidopsis as case study. Current Opinion in Plant Biology, 2017, 38, 142-147.	7.1	109
46	The presence of CYP79 homologues in glucosinolate-producing plants shows evolutionary conservation of the enzymes in the conversion of amino acid to aldoxime in the biosynthesis of cyanogenic glucosides and glucosinolates. Plant Molecular Biology, 1998, 38, 725-734.	3.9	107
47	Biosynthesis and metabolic engineering of glucosinolates. Amino Acids, 2002, 22, 279-295.	2.7	107
48	Purification and Characterization of Recombinant Cytochrome P450TYR Expressed at High Levels in Escherichia coli. Archives of Biochemistry and Biophysics, 1995, 322, 369-377.	3.0	105
49	Metabolic engineering of p-hydroxybenzylglucosinolate in Arabidopsis by expression of the cyanogenic CYP79A1 from Sorghum bicolor. Plant Journal, 1999, 20, 663-671.	5.7	105
50	Identifying the molecular basis of QTLs: eQTLs add a new dimension. Trends in Plant Science, 2008, 13, 72-77.	8.8	104
51	Origin and evolution of transporter substrate specificity within the NPF family. ELife, 2017, 6, .	6.0	100
52	Substrate Specificity of the Cytochrome P450 Enzymes CYP79A1 and CYP71E1 Involved in the Biosynthesis of the Cyanogenic Glucoside Dhurrin inSorghum bicolor(L.) Moench. Archives of Biochemistry and Biophysics, 1999, 363, 9-18.	3.0	96
53	Expression of theArabidopsishigh-affinity hexose transporter STP13 correlates with programmed cell death. FEBS Letters, 2006, 580, 2381-2387.	2.8	96
54	Transport of defense compounds from source to sink: lessons learned from glucosinolates. Trends in Plant Science, 2015, 20, 508-514.	8.8	96

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55	Cloning and expression in Escherichia coli of the obtusifoliol 14alpha-demethylase of Sorghum bicolor (L.) Moench, a cytochrome P450 orthologous to the sterol 14alpha-demethylases (CYP51) from fungi and mammals. Plant Journal, 1997, 11, 191-201.	5.7	94
56	The biosynthesis of cyanogenic glucosides in seedlings of cassava (Manihot esculenta Crantz). Archives of Biochemistry and Biophysics, 1992, 292, 141-150.	3.0	91
57	Non-Volatile Intact Indole Glucosinolates are Host Recognition Cues for Ovipositing Plutella xylostella. Journal of Chemical Ecology, 2009, 35, 1427-1436.	1.8	89
58	Catalytic reactivities and structure/function relationships of cytochrome P450 enzymes. Phytochemistry, 1996, 43, 1-21.	2.9	87
59	Transgenic Tobacco and Arabidopsis Plants Expressing the Two Multifunctional Sorghum Cytochrome P450 Enzymes, CYP79A1 and CYP71E1, Are Cyanogenic and Accumulate Metabolites Derived from Intermediates in Dhurrin Biosynthesis. Plant Physiology, 2000, 123, 1437-1448.	4.8	85
60	Reduction of antinutritional glucosinolates in Brassica oilseeds by mutation of genes encoding transporters. Nature Biotechnology, 2017, 35, 377-382.	17.5	84
61	Isolation of the heme-thiolate enzyme cytochrome P-450TYR, which catalyzes the committed step in the biosynthesis of the cyanogenic glucoside dhurrin in Sorghum bicolor (L.) Moench.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 9740-9744.	7.1	83
62	Regulatory networks of glucosinolates shape Arabidopsis thaliana fitness. Current Opinion in Plant Biology, 2010, 13, 347-352.	7.1	81
63	Elucidating the Role of Transport Processes in Leaf Glucosinolate Distribution. Plant Physiology, 2014, 166, 1450-1462.	4.8	81
64	Production of the Cancer-Preventive Glucoraphanin in Tobacco. Molecular Plant, 2010, 3, 751-759.	8.3	75
65	Involvement of Cytochrome P-450 in the Biosynthesis of Dhurrin in <i>Sorghum bicolor</i> (L.) Moench. Plant Physiology, 1991, 96, 10-17.	4.8	70
66	Functional Analysis of the Tandem-Duplicated P450 Genes SPS/BUS/CYP79F1 and CYP79F2 in Glucosinolate Biosynthesis and Plant Development by Ds Transposition-Generated Double Mutants. Plant Physiology, 2004, 135, 840-848.	4.8	70
67	Localization of the glucosinolate biosynthetic enzymes reveals distinct spatial patterns for the biosynthesis of indole and aliphatic glucosinolates. Physiologia Plantarum, 2018, 163, 138-154.	5.2	69
68	Involvement of cytochrome P450 in oxime production in glucosinolate biosynthesis as demonstrated by an in vitro microsomal enzyme system isolated from jasmonic acid-induced seedlings of Sinapis alba L.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 12505-12509.	7.1	68
69	Towards engineering glucosinolates into non-cruciferous plants. Planta, 2009, 229, 261-270.	3.2	68
70	The biosynthesis of cyanogenic glucosides in higher plants. Journal of Biological Chemistry, 1989, 264, 19487-19494.	3.4	67
71	The Glucosinolate Biosynthetic Gene AOP2 Mediates Feed-back Regulation of Jasmonic Acid Signaling in Arabidopsis. Molecular Plant, 2015, 8, 1201-1212.	8.3	62
72	Metabolic Engineering of Valine- and Isoleucine-Derived Glucosinolates in Arabidopsis Expressing CYP79D2 from Cassava. Plant Physiology, 2003, 131, 773-779.	4.8	61

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73	The emerging field of transport engineering of plant specialized metabolites. Current Opinion in Biotechnology, 2013, 24, 263-270.	6.6	60
74	Natural variation in cross-talk between glucosinolates and onset of flowering in Arabidopsis. Frontiers in Plant Science, 2015, 6, 697.	3.6	60
75	1,4-Dimethoxyglucobrassicin inBarbareaand 4-Hydroxyglucobrassicin inArabidopsisandBrassica. Journal of Agricultural and Food Chemistry, 2001, 49, 1502-1507.	5.2	59
76	Responses of the flea beetles Phyllotreta nemorum and P. cruciferae to metabolically engineered Arabidopsis thaliana with an altered glucosinolate profile. Chemoecology, 2001, 11, 75-83.	1.1	59
77	Piecing together the transport pathway of aliphatic glucosinolates. Phytochemistry Reviews, 2009, 8, 53-67.	6.5	58
78	Biosynthesis of glucosinolates in the developing silique walls and seeds of Sinapis alba. Phytochemistry, 1998, 48, 1145-1150.	2.9	57
79	Genes Involved in the Evolution of Herbivory by a Leaf-Mining, Drosophilid Fly. Genome Biology and Evolution, 2012, 4, 900-916.	2.5	57
80	The biosynthesis of cyanogenic glucosides in roots of cassava. Phytochemistry, 1995, 39, 323-326.	2.9	54
81	Primary structure of the aspartic proteinase A from Saccharomyces cerevisiae. Carlsberg Research Communications, 1986, 51, 27-41.	1.8	53
82	Analysis and Quantification of Glucosinolates. Current Protocols in Plant Biology, 2016, 1, 385-409.	2.8	53
83	Engineering of benzylglucosinolate in tobacco provides proofâ€ofâ€concept for deadâ€end trap crops genetically modified to attract <i>Plutella xylostella</i> (diamondback moth). Plant Biotechnology Journal, 2012, 10, 435-442.	8.3	51
84	Modulation of sulfur metabolism enables efficient glucosinolate engineering. BMC Biotechnology, 2011, 11, 12.	3.3	50
85	A Functional EXXEK Motif is Essential for Proton Coupling and Active Glucosinolate Transport by NPF2.11. Plant and Cell Physiology, 2015, 56, 2340-2350.	3.1	50
86	The biosynthesis of cyanogenic glucosides in higher plants. The (E)- and (Z)-isomers of p-hydroxyphenylacetaldehyde oxime as intermediates in the biosynthesis of dhurrin in Sorghum bicolor (L.) Moench. Journal of Biological Chemistry, 1989, 264, 19487-94.	3.4	49
87	Albugo-imposed changes to tryptophan-derived antimicrobial metabolite biosynthesis may contribute to suppression of non-host resistance to Phytophthora infestans in Arabidopsis thaliana. BMC Biology, 2017, 15, 20.	3.8	48
88	Functional Expression and Characterization of the Myrosinase MYR1 from Brassica napus in Saccharomyces cerevisiae. Protein Expression and Purification, 1999, 17, 414-420.	1.3	47
89	Optimization of Engineered Production of the Glucoraphanin Precursor Dihomomethionine in Nicotiana benthamiana. Frontiers in Bioengineering and Biotechnology, 2016, 4, 14.	4.1	47
90	Indole-3-Acetaldoxime-Derived Compounds Restrict Root Colonization in the Beneficial Interaction Between <i>Arabidopsis</i> Roots and the Endophyte <i>Piriformospora indica</i>. Molecular Plant-Microbe Interactions, 2012, 25, 1186-1197.	2.6	46

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91	Isolation of a Microsomal Enzyme System Involved in Glucosinolate Biosynthesis from Seedlings of Tropaeolum majus L. Plant Physiology, 1996, 111, 831-837.	4.8	45
92	Characterization of transgenic Arabidopsis thaliana with metabolically engineered high levels of p -hydroxybenzylglucosinolate. Planta, 2001, 212, 612-618.	3.2	45
93	Cellular and subcellular localization of flavin-monooxygenases involved in glucosinolate biosynthesis. Journal of Experimental Botany, 2011, 62, 1337-1346.	4.8	44
94	Biotechnological approaches in glucosinolate production. Journal of Integrative Plant Biology, 2018, 60, 1231-1248.	8.5	43
95	Characterization of Glucosinolate Uptake by Leaf Protoplasts of Brassica napus. Journal of Biological Chemistry, 2000, 275, 22955-22960.	3.4	42
96	The biosynthesis of cyanogenic glucosides in higher plants. Identification of three hydroxylation steps in the biosynthesis of dhurrin in Sorghum bicolor (L.) Moench and the involvement of 1-ACI-nitro-2-(p-hydroxyphenyl)ethane as an intermediate.. Journal of Biological Chemistry, 1990, 265, 21114-21121.	3.4	42
97	Cytochromes P450 in the biosynthesis of glucosinolates and indole alkaloids. Phytochemistry Reviews, 2006, 5, 331-346.	6.5	40
98	Upon bolting the GTR1 and GTR2 transporters mediate transport of glucosinolates to the inflorescence rather than roots. Plant Signaling and Behavior, 2014, 9, e27740.	2.4	39
99	Identification of Iridoid Glucoside Transporters in Catharanthus roseus. Plant and Cell Physiology, 2017, 58, 1507-1518.	3.1	39
100	Cloning and Characterization of Two cDNAs Encoding Sulfatases in the Roman Snail, Helix pomatia. IUBMB Life, 2000, 49, 71-76.	3.4	37
101	New insight into the biosynthesis and regulation of indole compounds in Arabidopsis thaliana. Planta, 2005, 221, 603-606.	3.2	37
102	The biosynthesis of cyanogenic glucosides in higher plants. Identification of three hydroxylation steps in the biosynthesis of dhurrin in Sorghum bicolor (L.) Moench and the involvement of 1-ACI-nitro-2-(p-hydroxyphenyl)ethane as an intermediate. Journal of Biological Chemistry, 1990, 265, 21114-21.	3.4	37
103	2-nitro-3-(p-hydroxyphenyl)propionate and aci-1-nitro-2-(p-hydroxyphenyl)ethane, two intermediates in the biosynthesis of the cyanogenic glucoside dhurrin in Sorghum bicolor (L.) Moench.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 487-491.	7.1	35
104	How to discover a metabolic pathway? An update on gene identification in aliphatic glucosinolate biosynthesis, regulation and transport. Biological Chemistry, 2014, 395, 529-543.	2.5	35
105	Arabidopsis <i>gulliver1/superroot2â€7</i> identifies a metabolic basis for auxin and brassinosteroid synergy. Plant Journal, 2014, 80, 797-808.	5.7	35
106	Rhizosecretion of stele-synthesized glucosinolates and their catabolites requires GTR-mediated import in Arabidopsis. Journal of Experimental Botany, 2016, 68, erw355.	4.8	35
107	Advances in methods for identification and characterization of plant transporter function. Journal of Experimental Botany, 2017, 68, 4045-4056.	4.8	35
108	Screening for plant transporter function by expressing a normalized Arabidopsis full-length cDNA library in Xenopus oocytes. Plant Methods, 2006, 2, 17.	4.3	33

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109	Feeding on Leaves of the Glucosinolate Transporter Mutant gtr1gtr2 Reduces Fitness of Myzus persicae. Journal of Chemical Ecology, 2015, 41, 975-984.	1.8	32
110	How to prove the existence of metabolons?. Phytochemistry Reviews, 2018, 17, 211-227.	6.5	31
111	General Introduction to Glucosinolates. Advances in Botanical Research, 2016, 80, 1-14.	1.1	31
112	Determination of the absolute configuration of the glucosinolate methyl sulfoxide group reveals a stereospecific biosynthesis of the side chain. Phytochemistry, 2008, 69, 2737-2742.	2.9	30
113	GTR-Mediated Radial Import Directs Accumulation of Defensive Glucosinolates toÂSulfur-Rich Cells in the Phloem Cap ofÂArabidopsis Inflorescence Stem. Molecular Plant, 2019, 12, 1474-1484.	8.3	30
114	The influence of metabolically engineered glucosinolates profiles in Arabidopsis thaliana on Plutella xylostella preference and performance. Chemoecology, 2010, 20, 1-9.	1.1	28
115	Arabidopsis glucosinolate storage cells transform into phloem fibres at late stages of development. Journal of Experimental Botany, 2019, 70, 4305-4317.	4.8	28
116	Characterization of Arabidopsis CYP79C1 and CYP79C2 by Glucosinolate Pathway Engineering in Nicotiana benthamiana Shows Substrate Specificity Toward a Range of Aliphatic and Aromatic Amino Acids. Frontiers in Plant Science, 2020, 11, 57.	3.6	28
117	CYP79B1 from Sinapis alba converts tryptophan to indole-3-acetaldoxime. Archives of Biochemistry and Biophysics, 2003, 409, 235-241.	3.0	27
118	Dynamic Modeling of Indole Glucosinolate Hydrolysis and Its Impact on Auxin Signaling. Frontiers in Plant Science, 2018, 9, 550.	3.6	27
119	Herbivore feeding preference corroborates optimal defense theory for specialized metabolites within plants. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	27
120	Engineering of methionine chain elongation part of glucoraphanin pathway in E. coli. Metabolic Engineering, 2016, 35, 31-37.	7.0	26
121	De novo production of benzyl glucosinolate in Escherichia coli. Metabolic Engineering, 2019, 54, 24-34.	7.0	26
122	Changing substrate specificity and iteration of amino acid chain elongation in glucosinolate biosynthesis through targeted mutagenesis of<i>Arabidopsis</i>methylthioalkylmalate synthase 1. Bioscience Reports, 2019, 39, .	2.4	25
123	De novo genetic engineering of the camalexin biosynthetic pathway. Journal of Biotechnology, 2013, 167, 296-301.	3.8	23
124	Assigning Gene Function in Biosynthetic Pathways: Camalexin and Beyond. Plant Cell, 2013, 25, 360-367.	6.6	23
125	Unravelling Protein-Protein Interaction Networks Linked to Aliphatic and Indole Glucosinolate Biosynthetic Pathways in Arabidopsis. Frontiers in Plant Science, 2017, 8, 2028.	3.6	21
126	Identification of genes involved in shea butter biosynthesis from Vitellaria paradoxa fruits through transcriptomics and functional heterologous expression. Applied Microbiology and Biotechnology, 2019, 103, 3727-3736.	3.6	19

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127	Mineralization of benzyl glucosinolate and its hydrolysis product the biofumigant benzyl isothiocyanate in soil. Soil Biology and Biochemistry, 2008, 40, 135-141.	8.8	17
128	CASCADE, a platform for controlled gene amplification for high, tunable and selection-free gene expression in yeast. Scientific Reports, 2017, 7, 41431.	3.3	16
129	Design and Direct Assembly of Synthesized Uracil-containing Non-clonal DNA Fragments into Vectors by USERTM Cloning. Bio-protocol, 2017, 7, e2615.	0.4	16
130	Prospects to improve the nutritional quality of crops. Food and Energy Security, 2022, 11, e327.	4.3	15
131	Cyanogenic Glucosides: The Biosynthetic Pathway and the Enzyme System Involved. Novartis Foundation Symposium, 1988, 140, 49-66.	1.1	14
132	In vivo synthesis and purification of radioactivep-hydroxybenzylglucosinolate inSinapis alba L.. , 2000, 11, 174-178.		13
133	Controlled indole-3-acetaldoxime production through ethanol-induced expression of CYP79B2. Planta, 2009, 229, 1209-1217.	3.2	13
134	USER-Derived Cloning Methods and Their Primer Design. Methods in Molecular Biology, 2014, 1116, 59-72.	0.9	13
135	Uptake Assays in Xenopus laevis Oocytes Using Liquid Chromatography-mass Spectrometry to Detect Transport Activity. Bio-protocol, 2017, 7, e2581.	0.4	13
136	Characterization of Cytochrome P450TYR, A Multifunctional Haem-Thiolate AZ-Hydroxylase Involved in the Biosynthesis of the Cyanogenic Glucoside Dhurrin. Drug Metabolism and Drug Interactions, 1995, 12, 285-298.	0.3	12
137	Collection of Apoplastic Fluids from Arabidopsis thaliana Leaves. Methods in Molecular Biology, 2016, 1405, 35-42.	0.9	12
138	De novo indolâ€3â€ylmethyl glucosinolate biosynthesis, and not longâ€distance transport, contributes to defence of Arabidopsis against powdery mildew. Plant, Cell and Environment, 2020, 43, 1571-1583.	5.7	11
139	Engineering and optimization of the 2â€phenylethylglucosinolate production in <i>Nicotiana benthamiana</i> by combining biosynthetic genes from <i>Barbarea vulgaris</i> and <i>Arabidopsis thaliana</i>. Plant Journal, 2021, 106, 978-992.	5.7	11
140	Chapter Thirteen The role of cytochromes P450 in biosynthesis and evolution of glucosinolates. Recent Advances in Phytochemistry, 2002, , 223-248.	0.5	10
141	Functional Expression and Characterization of Plant ABC Transporters in Xenopus laevis Oocytes for Transport Engineering Purposes. Methods in Enzymology, 2016, 576, 207-224.	1.0	10
142	Glucosinolates: Biosynthesis and Metabolism. , 2003, , 145-162.		9
143	<i>CB5C</i> affects the glucosinolate profile in <i>Arabidopsis thaliana</i>. Plant Signaling and Behavior, 2016, 11, e1160189.	2.4	9
144	Differential roles of glucosinolates and camalexin at different stages of <i>Agrobacterium</i>â€mediated transformation. Molecular Plant Pathology, 2018, 19, 1956-1970.	4.2	9

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145	A Western Blot Protocol for Detection of Proteins Heterologously Expressed in Xenopus laevis Oocytes. Methods in Molecular Biology, 2016, 1405, 99-107.	0.9	8
146	Grafting Arabidopsis. Bio-protocol, 2014, 4, .	0.4	8
147	Improving analytical methods for protein-protein interaction through implementation of chemically inducible dimerization. Scientific Reports, 2016, 6, 27766.	3.3	6
148	Engineering of Glucosinolate Biosynthesis. Methods in Enzymology, 2012, 515, 291-313.	1.0	5
149	Transport engineering in microbial cell factories producing plant-specialized metabolites. Current Opinion in Green and Sustainable Chemistry, 2022, 33, 100576.	5.9	5
150	[30] Isolation of plant and recombinant CYP79. Methods in Enzymology, 1996, 272, 268-274.	1.0	4
151	Bioengineering potato plants to produce benzylglucosinolate for improved broad-spectrum pest and disease resistance. Transgenic Research, 2021, 30, 649-660.	2.4	4
152	A method for expression cloning of transporter genes by screening yeast for uptake of radiolabelled substrate. Journal of Experimental Botany, 2000, 51, 955-960.	4.8	3
153	In Arabidopsis thaliana Substrate Recognition and Tissue- as Well as Plastid Type-Specific Expression Define the Roles of Distinct Small Subunits of Isopropylmalate Isomerase. Frontiers in Plant Science, 2020, 11, 808.	3.6	2
154	The ins and outs of transporters at plasma membrane and tonoplast in plant specialized metabolism. Natural Product Reports, 2022, 39, 1483-1491.	10.3	2
155	Characterization of methylsulfinylalkyl glucosinolate specific polyclonal antibodies. Journal of Plant Biochemistry and Biotechnology, 2016, 25, 433-436.	1.7	1
156	Metabolic engineering of p-hydroxybenzylglucosinolate in Arabidopsis by expression of the cyanogenic CYP79A1 from Sorghum bicolor. , 1999, 20, 663.		1
157	Synthesis of 1-nitro-2-(p-hydroxyphenyl)[2-3H1]ethane. Journal of Labelled Compounds and Radiopharmaceuticals, 1991, 29, 1-7.	1.0	0
158	Phosphorylation at serine 52 and 635 does not alter the transport properties of glucosinolate transporter AtGTR1. Plant Signaling and Behavior, 2016, 11, e1071751.	2.4	0
159	A method for expression cloning of transporter genes by screening yeast for uptake of radiolabelled substrate. Journal of Experimental Botany, 2000, 51, 955-960.	4.8	0