Mark Lange

List of Publications by Year
in descending order

80 papers	9,075 citations	117625 34 h-index	66911 78 g-index
96 all docs	96 docs citations	96 times ranked	10481 citing authors

#	Article	IF	Citations
1	Flavonoid deficiency disrupts redox homeostasis and terpenoid biosynthesis in glandular trichomes of tomato. Plant Physiology, 2022, 188, 1450-1468.	4.8	20
2	Comprehensive inventory of cannabinoids in Cannabis sativa L.: Can we connect genotype and chemotype?. Phytochemistry Reviews, 2022, 21, 1273-1313.	6.5	8
3	Selectivity of enzymes involved in the formation of opposite enantiomeric series of p-menthane monoterpenoids in peppermint and Japanese catnip. Plant Science, 2022, 314, 111119.	3.6	1
4	Differential Accumulation of Metabolites and Transcripts Related to Flavonoid, Styrylpyrone, and Galactolipid Biosynthesis in Equisetum Species and Tissue Types. Metabolites, 2022, 12, 403.	2.9	3
5	Chromosome-level genome assembly of Mentha longifolia L. reveals gene organization underlying disease resistance and essential oil traits. G3: Genes, Genomes, Genetics, 2022, 12, .	1.8	8
6	Determinants of Selectivity for the Formation of Monocyclic and Bicyclic Products in Monoterpene Synthases. ACS Catalysis, 2022, 12, 7453-7469.	11.2	6
7	Genome-Wide Analysis of Terpene Synthase Gene Family in Mentha longifolia and Catalytic Activity Analysis of a Single Terpene Synthase. Genes, 2021, 12, 518.	2.4	22
8	Taxanes and taxoids of the genus Taxus â€“ A comprehensive inventory of chemical diversity. Phytochemistry, 2021, 190, 112829.	2.9	22
9	Functional Characterization and Structural Insights Into Stereoselectivity of Pulegone Reductase in Menthol Biosynthesis. Frontiers in Plant Science, 2021, 12, 780970.	3.6	5
10	Crop Wild Relatives as Germplasm Resource for Cultivar Improvement in Mint (Mentha L.). Frontiers in Plant Science, 2020, 11, 1217.	3.6	22
11	Biochemical characterization of acyl activating enzymes for side chain moieties of Taxol and its analogs. Journal of Biological Chemistry, 2020, 295, 4963-4973.	3.4	13
12	Determinants of Enantiospecificity in Limonene Synthases. Biochemistry, 2020, 59, 1661-1664.	2.5	11
13	Altering potato isoprenoid metabolism increases biomass and induces early flowering. Journal of Experimental Botany, 2020, 71, 4109-4124.	4.8	8
14	Assessing Chemical Diversity in Psilotum nudum (L.) Beauv., a Pantropical Whisk Fern That Has Lost Many of Its Fern-Like Characters. Frontiers in Plant Science, 2019, 10, 868.	3.6	14
15	Metabolic shifts associated with drought-induced senescence in Brachypodium. Plant Science, 2019, 289, 110278.	3.6	18
16	Gene Networks Underlying Cannabinoid and Terpenoid Accumulation in Cannabis. Plant Physiology, 2019, 180, 1877-1897.	4.8	90
17	Genetic diversity survey of Mentha aquatica L. and Mentha suaveolens Ehrh., mint crop ancestors. Genetic Resources and Crop Evolution, 2019, 66, 825-845.	1.6	14
18	Enzymology of monoterpene functionalization in glandular trichomes. Journal of Experimental Botany, 2019, 70, 1095-1108.	4.8	21

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19	Assessment of flux through oleoresin biosynthesis in epithelial cells of loblolly pine resin ducts. Journal of Experimental Botany, 2019, 70, 217-230.	4.8	22
20	Assessing Flux Distribution Associated with Metabolic Specialization of Glandular Trichomes. Trends in Plant Science, 2018, 23, 638-647.	8.8	20
21	Morphology of glandular trichomes of Japanese catnip (Schizonepeta tenuifolia Briquet) and developmental dynamics of their secretory activity. Phytochemistry, 2018, 150, 23-30.	2.9	35
22	Commercial-Scale Tissue Culture for the Production of Plant Natural Products: Successes, Failures and Outlook. , 2018, , 189-218.		6
23	bHLH093/NFL and bHLH061 are required for apical meristem function in Arabidopsis thaliana. Plant Signaling and Behavior, 2018, 13, e1486146.	2.4	10
24	National Academies report has broad support. Nature Biotechnology, 2017, 35, 304-306.	17.5	3
25	Integrative Approaches for the Identification and Localization of Specialized Metabolites in Tripterygium Roots. Plant Physiology, 2017, 173, 456-469.	4.8	47
26	Bioenergetics of Monoterpenoid Essential Oil Biosynthesis in Nonphotosynthetic Glandular Trichomes. Plant Physiology, 2017, 175, 681-695.	4.8	23
27	Biosynthesis of Diterpenoids in Tripterygium Adventitious Root Cultures. Plant Physiology, 2017, 175, 92-103.	4.8	27
28	Draft Genome Sequence of Mentha longifolia and Development of Resources for Mint Cultivar Improvement. Molecular Plant, 2017, 10, 323-339.	8.3	79
29	Generation and Functional Evaluation of Designer Monoterpene Synthases. Methods in Enzymology, 2016, 576, 147-165.	1.0	8
30	Online resources for gene discovery and biochemical research with aromatic and medicinal plants. Phytochemistry Reviews, 2016, 15, 489-510.	6.5	4
31	Misexpression of the Niemann-Pick disease type C1 (NPC1)-like protein in Arabidopsis causes sphingolipid accumulation and reproductive defects. Planta, 2015, 242, 921-933.	3.2	19
32	Comprehensive Assessment of Transcriptional Regulation Facilitates Metabolic Engineering of Isoprenoid Accumulation in Arabidopsis. Plant Physiology, 2015, 169, pp.00573.2015.	4.8	29
33	Multiple Levels of Regulation Determine Monoterpenoid Essential Oil Compositional Variation in the Mint Family. Molecular Plant, 2015, 8, 188-191.	8.3	32
34	NMR spectroscopic search module for Spektraris, an online resource for plant natural product identification â€“ Taxane diterpenoids from TaxusÃ—media cell suspension cultures as a case study. Phytochemistry, 2015, 113, 87-95.	2.9	32
35	The Evolution of Plant Secretory Structures and Emergence of Terpenoid Chemical Diversity. Annual Review of Plant Biology, 2015, 66, 139-159.	18.7	145
36	Biosynthesis and Biotechnology of High-Value p-Menthane Monoterpenes, Including Menthol, Carvone, and Limonene. Advances in Biochemical Engineering/Biotechnology, 2015, 148, 319-353.	1.1	41

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37	Functional analysis of (4 S)-limonene synthase mutants reveals determinants of catalytic outcome in a model monoterpene synthase. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3332-3337.	7.1	70
38	Patterns of Metabolite Changes Identified from Large-Scale Gene Perturbations in Arabidopsis Using a Genome-Scale Metabolic Network Â. Plant Physiology, 2015, 167, 1685-1698.	4.8	55
39	Open-Access Metabolomics Databases for Natural Product Research: Present Capabilities and Future Potential. Frontiers in Bioengineering and Biotechnology, 2015, 3, 22.	4.1	114
40	Ultrastructure of Grapefruit Secretory Cavities and Immunocytochemical Localization of (+)-Limonene Synthase. International Journal of Plant Sciences, 2015, 176, 643-661.	1.3	9
41	Kinetic Modeling of Plant Metabolism and Its Predictive Power: Peppermint Essential Oil Biosynthesis as an Example. Methods in Molecular Biology, 2014, 1083, 287-311.	0.9	5
42	Rapid purification of gram quantities of Î²-sitosterol from a commercial phytosterol mixture. BMC Research Notes, 2014, 7, 182.	1.4	8
43	Sample Preparation for Single Cell Transcriptomics: Essential Oil Glands in Citrus Fruit Peel as an Example. Methods in Molecular Biology, 2014, 1153, 203-212.	0.9	5
44	Multiple levels of regulation determine monoterpenoid essential oil compositional variation in the mint family. Molecular Plant, 2014, , .	8.3	0
45	Metabolic engineering of plant monoterpenes, sesquiterpenes and diterpenesâ€"current status and future opportunities. Plant Biotechnology Journal, 2013, 11, 169-196.	8.3	169
46	Terpenoid biosynthesis in trichomesâ€"current status and future opportunities. Plant Biotechnology Journal, 2013, 11, 2-22.	8.3	146
47	Cell Type-Specific Transcriptome Analysis of the Soybean Leaf Paraveinal Mesophyll Layer. Plant Molecular Biology Reporter, 2013, 31, 210-221.	1.8	4
48	Accurate massâ€"time tag library for LC/MS-based metabolite profiling of medicinal plants. Phytochemistry, 2013, 91, 187-197.	2.9	43
49	Assessing the Biosynthetic Capabilities of Secretory Glands in Citrus Peel Â Â. Plant Physiology, 2012, 159, 81-94.	4.8	82
50	Metabolomics as a Hypothesis-Generating Functional Genomics Tool for the Annotation of Arabidopsis thaliana Genes of â€œUnknown Functionâ€. Frontiers in Plant Science, 2012, 3, 15.	3.6	82
51	Validation of a microscale extraction and highâ€throughput UHPLCâ€QTOFâ€MS analysis method for huperzine A in Huperzia. Biomedical Chromatography, 2012, 26, 1191-1195.	1.7	11
52	Experimental sink removal induces stress responses, including shifts in amino acid and phenylpropanoid metabolism, in soybean leaves. Planta, 2012, 235, 939-954.	3.2	12
53	Soybean vegetative lipoxygenases are not vacuolar storage proteins. Functional Plant Biology, 2011, 38, 778.	2.1	5
54	Improving peppermint essential oil yield and composition by metabolic engineering. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16944-16949.	7.1	127

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55	Mathematical Modeling-Guided Evaluation of Biochemical, Developmental, Environmental, and Genotypic Determinants of Essential Oil Composition and Yield in Peppermint Leaves Â Â. Plant Physiology, 2010, 152, 2105-2119.	4.8	59
56	PlantMetabolomics.org: A Web Portal for Plant Metabolomics Experiments. Plant Physiology, 2010, 152, 1807-1816.	4.8	93
57	Abscisic acid-induced modulation of metabolic and redox control pathways in Arabidopsis thaliana. Phytochemistry, 2008, 69, 2899-2911.	2.9	42
58	Metabolite profiling of Calvin cycle intermediates by HPLCâ€MS using mixedâ€mode stationary phases. Plant Journal, 2008, 55, 1047-1060.	5.7	38
59	A systems biology approach identifies the biochemical mechanisms regulating monoterpenoid essential oil composition in peppermint. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2818-2823.	7.1	116
60	Experimental and mathematical approaches to modeling plant metabolic networks. Phytochemistry, 2007, 68, 2351-2374.	2.9	101
61	Minimum reporting standards for plant biology context information in metabolomic studies. Metabolomics, 2007, 3, 195-201.	3.0	116
62	Integrative analysis of transcript and metabolite profiling data sets to evaluate the regulation of biochemical pathways during photomorphogenesis. Archives of Biochemistry and Biophysics, 2006, 448, 45-59.	3.0	66
63	Transcriptional regulators of stamen development in Arabidopsis identified by transcriptional profiling. Plant Journal, 2006, 46, 984-1008.	5.7	299
64	Integrative analysis of metabolic networks: from peaks to flux models?. Current Opinion in Plant Biology, 2006, 9, 220-226.	7.1	12
65	Single-cell genomics. Current Opinion in Plant Biology, 2005, 8, 236-241.	7.1	30
66	Comprehensive Post-Genomic Data Analysis Approaches Integrating Biochemical Pathway Maps. ChemInform, 2005, 36, no.	0.0	0
67	Comprehensive post-genomic data analysis approaches integrating biochemical pathway maps. Phytochemistry, 2005, 66, 413-451.	2.9	67
68	Counting the cost of a cold-blooded life: Metabolomics of cold acclimation. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14996-14997.	7.1	29
69	A proposed framework for the description of plant metabolomics experiments and their results. Nature Biotechnology, 2004, 22, 1601-1606.	17.5	283
70	Potential of metabolomics as a functional genomics tool. Trends in Plant Science, 2004, 9, 418-425.	8.8	685
71	Chapter six Genomic survey of metabolic pathways in rice. Recent Advances in Phytochemistry, 2004, 38, 111-137.	0.5	0
72	Genome organization in Arabidopsis thaliana: a survey for genes involved in isoprenoid and chlorophyll metabolism. Plant Molecular Biology, 2003, 51, 925-948.	3.9	240

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73	A Draft Sequence of the Rice Genome (Oryza sativa L. ssp. japonica). Science, 2002, 296, 92-100.	12.6	2,866
74	Proteomic survey of metabolic pathways in rice. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11969-11974.	7.1	386
75	Isoprenoid Biosynthesis. Metabolite Profiling of Peppermint Oil Gland Secretory Cells and Application to Herbicide Target Analysis. Plant Physiology, 2001, 127, 305-314.	4.8	76
76	Isoprenoid biosynthesis: The evolution of two ancient and distinct pathways across genomes. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 13172-13177.	7.1	720
77	Probing essential oil biosynthesis and secretion by functional evaluation of expressed sequence tags from mint glandular trichomes. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 2934-2939.	7.1	292
78	Isopentenyl diphosphate biosynthesis via a mevalonate-independent pathway: Isopentenyl monophosphate kinase catalyzes the terminal enzymatic step. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 13714-13719.	7.1	109
79	Isoprenoid Biosynthesis via a Mevalonate-Independent Pathway in Plants: Cloning and Heterologous Expression of 1-Deoxy-d-xylulose-5-phosphate Reductoisomerase from Peppermint. Archives of Biochemistry and Biophysics, 1999, 365, 170-174.	3.0	157
80	A family of transketolases that directs isoprenoid biosynthesis via a mevalonate-independent pathway. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 2100-2104.	7.1	351