Mark Lange

List of Publications by Year
in descending order

80 papers	9,075 citations	117453 34 h-index	66788 78 g-index
96 all docs	96 docs citations	96 times ranked	10481 citing authors

#	Article	IF	Citations
1	A Draft Sequence of the Rice Genome (Oryza sativa L. ssp. japonica). Science, 2002, 296, 92-100.	6.0	2,866
2	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.	3.3	720
3	Potential of metabolomics as a functional genomics tool. Trends in Plant Science, 2004, 9, 418-425.	4.3	685
4	Proteomic survey of metabolic pathways in rice. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11969-11974.	3.3	386
5	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.	3.3	351
6	Transcriptional regulators of stamen development in Arabidopsis identified by transcriptional profiling. Plant Journal, 2006, 46, 984-1008.	2.8	299
7	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.	3.3	292
8	A proposed framework for the description of plant metabolomics experiments and their results. Nature Biotechnology, 2004, 22, 1601-1606.	9.4	283
9	Genome organization in Arabidopsis thaliana: a survey for genes involved in isoprenoid and chlorophyll metabolism. Plant Molecular Biology, 2003, 51, 925-948.	2.0	240
10	Metabolic engineering of plant monoterpenes, sesquiterpenes and diterpenesâ€"current status and future opportunities. Plant Biotechnology Journal, 2013, 11, 169-196.	4.1	169
11	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.	1.4	157
12	Terpenoid biosynthesis in trichomesâ€"current status and future opportunities. Plant Biotechnology Journal, 2013, 11, 2-22.	4.1	146
13	The Evolution of Plant Secretory Structures and Emergence of Terpenoid Chemical Diversity. Annual Review of Plant Biology, 2015, 66, 139-159.	8.6	145
14	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.	3.3	127
15	Minimum reporting standards for plant biology context information in metabolomic studies. Metabolomics, 2007, 3, 195-201.	1.4	116
16	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.	3.3	116
17	Open-Access Metabolomics Databases for Natural Product Research: Present Capabilities and Future Potential. Frontiers in Bioengineering and Biotechnology, 2015, 3, 22.	2.0	114
18	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.	3.3	109

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19	Experimental and mathematical approaches to modeling plant metabolic networks. Phytochemistry, 2007, 68, 2351-2374.	1.4	101
20	PlantMetabolomics.org: A Web Portal for Plant Metabolomics Experiments. Plant Physiology, 2010, 152, 1807-1816.	2.3	93
21	Gene Networks Underlying Cannabinoid and Terpenoid Accumulation in Cannabis. Plant Physiology, 2019, 180, 1877-1897.	2.3	90
22	Assessing the Biosynthetic Capabilities of Secretory Glands in Citrus Peel Â Â. Plant Physiology, 2012, 159, 81-94.	2.3	82
23	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.	1.7	82
24	Draft Genome Sequence of Mentha longifolia and Development of Resources for Mint Cultivar Improvement. Molecular Plant, 2017, 10, 323-339.	3.9	79
25	Isoprenoid Biosynthesis. Metabolite Profiling of Peppermint Oil Gland Secretory Cells and Application to Herbicide Target Analysis. Plant Physiology, 2001, 127, 305-314.	2.3	76
26	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.	3.3	70
27	Comprehensive post-genomic data analysis approaches integrating biochemical pathway maps. Phytochemistry, 2005, 66, 413-451.	1.4	67
28	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.	1.4	66
29	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.	2.3	59
30	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.	2.3	55
31	Integrative Approaches for the Identification and Localization of Specialized Metabolites in Tripterygium Roots. Plant Physiology, 2017, 173, 456-469.	2.3	47
32	Accurate massâ€“time tag library for LC/MS-based metabolite profiling of medicinal plants. Phytochemistry, 2013, 91, 187-197.	1.4	43
33	Abscisic acid-induced modulation of metabolic and redox control pathways in Arabidopsis thaliana. Phytochemistry, 2008, 69, 2899-2911.	1.4	42
34	Biosynthesis and Biotechnology of High-Value p-Menthane Monoterpenes, Including Menthol, Carvone, and Limonene. Advances in Biochemical Engineering/Biotechnology, 2015, 148, 319-353.	0.6	41
35	Metabolite profiling of Calvin cycle intermediates by HPLCâ€MS using mixedâ€mode stationary phases. Plant Journal, 2008, 55, 1047-1060.	2.8	38
36	Morphology of glandular trichomes of Japanese catnip (Schizonepeta tenuifolia Briquet) and developmental dynamics of their secretory activity. Phytochemistry, 2018, 150, 23-30.	1.4	35

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37	Multiple Levels of Regulation Determine Monoterpenoid Essential Oil Compositional Variation in the Mint Family. Molecular Plant, 2015, 8, 188-191.	3.9	32
38	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.	1.4	32
39	Single-cell genomics. Current Opinion in Plant Biology, 2005, 8, 236-241.	3.5	30
40	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.	3.3	29
41	Comprehensive Assessment of Transcriptional Regulation Facilitates Metabolic Engineering of Isoprenoid Accumulation in Arabidopsis. Plant Physiology, 2015, 169, pp.00573.2015.	2.3	29
42	Biosynthesis of Diterpenoids in Tripterygium Adventitious Root Cultures. Plant Physiology, 2017, 175, 92-103.	2.3	27
43	Bioenergetics of Monoterpenoid Essential Oil Biosynthesis in Nonphotosynthetic Glandular Trichomes. Plant Physiology, 2017, 175, 681-695.	2.3	23
44	Assessment of flux through oleoresin biosynthesis in epithelial cells of loblolly pine resin ducts. Journal of Experimental Botany, 2019, 70, 217-230.	2.4	22
45	Crop Wild Relatives as Germplasm Resource for Cultivar Improvement in Mint (Mentha L.). Frontiers in Plant Science, 2020, 11, 1217.	1.7	22
46	Genome-Wide Analysis of Terpene Synthase Gene Family in Mentha longifolia and Catalytic Activity Analysis of a Single Terpene Synthase. Genes, 2021, 12, 518.	1.0	22
47	Taxanes and taxoids of the genus Taxus â€“ A comprehensive inventory of chemical diversity. Phytochemistry, 2021, 190, 112829.	1.4	22
48	Enzymology of monoterpene functionalization in glandular trichomes. Journal of Experimental Botany, 2019, 70, 1095-1108.	2.4	21
49	Assessing Flux Distribution Associated with Metabolic Specialization of Glandular Trichomes. Trends in Plant Science, 2018, 23, 638-647.	4.3	20
50	Flavonoid deficiency disrupts redox homeostasis and terpenoid biosynthesis in glandular trichomes of tomato. Plant Physiology, 2022, 188, 1450-1468.	2.3	20
51	Misexpression of the Niemann-Pick disease type C1 (NPC1)-like protein in Arabidopsis causes sphingolipid accumulation and reproductive defects. Planta, 2015, 242, 921-933.	1.6	19
52	Metabolic shifts associated with drought-induced senescence in Brachypodium. Plant Science, 2019, 289, 110278.	1.7	18
53	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.	1.7	14
54	Genetic diversity survey of Mentha aquatica L. and Mentha suaveolens Ehrh., mint crop ancestors. Genetic Resources and Crop Evolution, 2019, 66, 825-845.	0.8	14

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55	Biochemical characterization of acyl activating enzymes for side chain moieties of Taxol and its analogs. Journal of Biological Chemistry, 2020, 295, 4963-4973.	1.6	13
56	Integrative analysis of metabolic networks: from peaks to flux models?. Current Opinion in Plant Biology, 2006, 9, 220-226.	3.5	12
57	Experimental sink removal induces stress responses, including shifts in amino acid and phenylpropanoid metabolism, in soybean leaves. Planta, 2012, 235, 939-954.	1.6	12
58	Validation of a microscale extraction and highâ€throughput UHPLCâ€QTOFâ€MS analysis method for huperzine A in Huperzia. Biomedical Chromatography, 2012, 26, 1191-1195.	0.8	11
59	Determinants of Enantiospecificity in Limonene Synthases. Biochemistry, 2020, 59, 1661-1664.	1.2	11
60	bHLH093/NFL and bHLH061 are required for apical meristem function in Arabidopsis thaliana. Plant Signaling and Behavior, 2018, 13, e1486146.	1.2	10
61	Ultrastructure of Grapefruit Secretory Cavities and Immunocytochemical Localization of (+)-Limonene Synthase. International Journal of Plant Sciences, 2015, 176, 643-661.	0.6	9
62	Rapid purification of gram quantities of Î²-sitosterol from a commercial phytosterol mixture. BMC Research Notes, 2014, 7, 182.	0.6	8
63	Generation and Functional Evaluation of Designer Monoterpene Synthases. Methods in Enzymology, 2016, 576, 147-165.	0.4	8
64	Altering potato isoprenoid metabolism increases biomass and induces early flowering. Journal of Experimental Botany, 2020, 71, 4109-4124.	2.4	8
65	Comprehensive inventory of cannabinoids in Cannabis sativa L.: Can we connect genotype and chemotype?. Phytochemistry Reviews, 2022, 21, 1273-1313.	3.1	8
66	Chromosome-level genome assembly of Mentha longifolia L. reveals gene organization underlying disease resistance and essential oil traits. G3: Genes, Genomes, Genetics, 2022, 12, .	0.8	8
67	Commercial-Scale Tissue Culture for the Production of Plant Natural Products: Successes, Failures and Outlook. , 2018, , 189-218.		6
68	Determinants of Selectivity for the Formation of Monocyclic and Bicyclic Products in Monoterpene Synthases. ACS Catalysis, 2022, 12, 7453-7469.	5.5	6
69	Soybean vegetative lipoxygenases are not vacuolar storage proteins. Functional Plant Biology, 2011, 38, 778.	1.1	5
70	Kinetic Modeling of Plant Metabolism and Its Predictive Power: Peppermint Essential Oil Biosynthesis as an Example. Methods in Molecular Biology, 2014, 1083, 287-311.	0.4	5
71	Sample Preparation for Single Cell Transcriptomics: Essential Oil Glands in Citrus Fruit Peel as an Example. Methods in Molecular Biology, 2014, 1153, 203-212.	0.4	5
72	Functional Characterization and Structural Insights Into Stereoselectivity of Pulegone Reductase in Menthol Biosynthesis. Frontiers in Plant Science, 2021, 12, 780970.	1.7	5

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73	Cell Type-Specific Transcriptome Analysis of the Soybean Leaf Paraveinal Mesophyll Layer. Plant Molecular Biology Reporter, 2013, 31, 210-221.	1.0	4
74	Online resources for gene discovery and biochemical research with aromatic and medicinal plants. Phytochemistry Reviews, 2016, 15, 489-510.	3.1	4
75	National Academies report has broad support. Nature Biotechnology, 2017, 35, 304-306.	9.4	3
76	Differential Accumulation of Metabolites and Transcripts Related to Flavonoid, Styrylpyrone, and Galactolipid Biosynthesis in Equisetum Species and Tissue Types. Metabolites, 2022, 12, 403.	1.3	3
77	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.	1.7	1
78	Chapter six Genomic survey of metabolic pathways in rice. Recent Advances in Phytochemistry, 2004, 38, 111-137.	0.5	0
79	Comprehensive Post-Genomic Data Analysis Approaches Integrating Biochemical Pathway Maps. ChemInform, 2005, 36, no.	0.1	0
80	Multiple levels of regulation determine monoterpenoid essential oil compositional variation in the mint family. Molecular Plant, 2014, , .	3.9	0