Mark Lange

List of Publications by Citations

76	7,671	31	87
papers	citations	h-index	g-index
96	8,542	8.1	5.71
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
76	A draft sequence of the rice genome (Oryza sativa L. ssp. japonica). *Science*, **2002**, 296, 92-100	33.3	2591
75	Potential of metabolomics as a functional genomics tool. *Trends in Plant Science*, **2004**, 9, 418-25	13.1	627
74	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, 13172-7	11.5	606
73	Proteomic survey of metabolic pathways in rice. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 11969-74	11.5	360
72	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, 2100-4	11.5	317
71	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, 2934-9	11.5	265
70	A proposed framework for the description of plant metabolomics experiments and their results. *Nature Biotechnology*, **2004**, 22, 1601-6	44.5	260
69	Transcriptional regulators of stamen development in Arabidopsis identified by transcriptional profiling. *Plant Journal*, **2006**, 46, 984-1008	6.9	250
68	Genome organization in Arabidopsis thaliana: a survey for genes involved in isoprenoid and chlorophyll metabolism. *Plant Molecular Biology*, **2003**, 51, 925-48	4.6	195
67	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, 170-4	4.1	140
66	Metabolic engineering of plant monoterpenes, sesquiterpenes and diterpenes--current status and future opportunities. *Plant Biotechnology Journal*, **2013**, 11, 169-96	11.6	126
65	Terpenoid biosynthesis in trichomes--current status and future opportunities. *Plant Biotechnology Journal*, **2013**, 11, 2-22	11.6	111
64	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, 16944-9	11.5	106
63	The evolution of plant secretory structures and emergence of terpenoid chemical diversity. *Annual Review of Plant Biology*, **2015**, 66, 139-59	30.7	105
62	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, 2818-23	11.5	97
61	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, 13714-9	11.5	97
60	Minimum reporting standards for plant biology context information in metabolomic studies. *Metabolomics*, **2007**, 3, 195-201	4.7	96

59	Open-access metabolomics databases for natural product research: present capabilities and future potential. *Frontiers in Bioengineering and Biotechnology*, **2015**, 3, 22	5.8	89
58	PlantMetabolomics.org: a web portal for plant metabolomics experiments. *Plant Physiology*, **2010**, 152, 1807-16	6.6	89
57	Experimental and mathematical approaches to modeling plant metabolic networks. *Phytochemistry*, **2007**, 68, 2351-74	4	89
56	Metabolomics as a Hypothesis-Generating Functional Genomics Tool for the Annotation of Arabidopsis thaliana Genes of "Unknown Function". *Frontiers in Plant Science*, **2012**, 3, 15	6.2	73
55	Isoprenoid biosynthesis. Metabolite profiling of peppermint oil gland secretory cells and application to herbicide target analysis. *Plant Physiology*, **2001**, 127, 305-14	6.6	72
54	Assessing the biosynthetic capabilities of secretory glands in Citrus peel. *Plant Physiology*, **2012**, 159, 81-94	6.6	64
53	Comprehensive post-genomic data analysis approaches integrating biochemical pathway maps. *Phytochemistry*, **2005**, 66, 413-51	4	61
52	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	4.1	57
51	Gene Networks Underlying Cannabinoid and Terpenoid Accumulation in Cannabis. *Plant Physiology*, **2019**, 180, 1877-1897	6.6	56
50	Draft Genome Sequence of Mentha longifolia and Development of Resources for Mint Cultivar Improvement. *Molecular Plant*, **2017**, 10, 323-339	14.4	49
49	Functional analysis of (4S)-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, 3332-7	11.5	46
48	Mathematical modeling-guided evaluation of biochemical, developmental, environmental, and genotypic determinants of essential oil composition and yield in peppermint leaves. *Plant Physiology*, **2010**, 152, 2105-19	6.6	42
47	Accurate mass-time tag library for LC/MS-based metabolite profiling of medicinal plants. *Phytochemistry*, **2013**, 91, 187-97	4	36
46	Metabolite profiling of Calvin cycle intermediates by HPLC-MS using mixed-mode stationary phases. *Plant Journal*, **2008**, 55, 1047-60	6.9	31
45	Abscisic acid-induced modulation of metabolic and redox control pathways in Arabidopsis thaliana. *Phytochemistry*, **2008**, 69, 2899-911	4	31
44	Integrative Approaches for the Identification and Localization of Specialized Metabolites in Tripterygium Roots. *Plant Physiology*, **2017**, 173, 456-469	6.6	30
43	Biosynthesis and Biotechnology of High-Value p-Menthane Monoterpenes, Including Menthol, Carvone, and Limonene. *Advances in Biochemical Engineering/Biotechnology*, **2015**, 148, 319-53	1.7	28
42	Single-cell genomics. *Current Opinion in Plant Biology*, **2005**, 8, 236-41	9.9	28

41	Multiple levels of regulation determine monoterpenoid essential oil compositional variation in the mint family. *Molecular Plant*, **2015**, 8, 188-91	14.4	25
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, 14996-7	11.5	24
39	Biosynthesis of Diterpenoids in Adventitious Root Cultures. *Plant Physiology*, **2017**, 175, 92-103	6.6	22
38	Comprehensive Assessment of Transcriptional Regulation Facilitates Metabolic Engineering of Isoprenoid Accumulation in Arabidopsis. *Plant Physiology*, **2015**, 169, 1595-606	6.6	21
37	Patterns of metabolite changes identified from large-scale gene perturbations in Arabidopsis using a genome-scale metabolic network. *Plant Physiology*, **2015**, 167, 1685-98	6.6	20
36	Morphology of glandular trichomes of Japanese catnip (Schizonepeta tenuifolia Briquet) and developmental dynamics of their secretory activity. *Phytochemistry*, **2018**, 150, 23-30	4	20
35	NMR spectroscopic search module for Spektraris, an online resource for plant natural product identification--Taxane diterpenoids from Taxus □media cell suspension cultures as a case study. *Phytochemistry*, **2015**, 113, 87-95	4	20
34	Assessment of flux through oleoresin biosynthesis in epithelial cells of loblolly pine resin ducts. *Journal of Experimental Botany*, **2019**, 70, 217-230	7	14
33	Bioenergetics of Monoterpenoid Essential Oil Biosynthesis in Nonphotosynthetic Glandular Trichomes. *Plant Physiology*, **2017**, 175, 681-695	6.6	13
32	Misexpression of the Niemann-Pick disease type C1 (NPC1)-like protein in Arabidopsis causes sphingolipid accumulation and reproductive defects. *Planta*, **2015**, 242, 921-33	4.7	13
31	Integrative analysis of metabolic networks: from peaks to flux models?. *Current Opinion in Plant Biology*, **2006**, 9, 220-6	9.9	12
30	Experimental sink removal induces stress responses, including shifts in amino acid and phenylpropanoid metabolism, in soybean leaves. *Planta*, **2012**, 235, 939-54	4.7	11
29	Enzymology of monoterpene functionalization in glandular trichomes. *Journal of Experimental Botany*, **2019**, 70, 1095-1108	7	10
28	Assessing Flux Distribution Associated with Metabolic Specialization of Glandular Trichomes. *Trends in Plant Science*, **2018**, 23, 638-647	13.1	9
27	Validation of a microscale extraction and high-throughput UHPLC-QTOF-MS analysis method for huperzine A in Huperzia. *Biomedical Chromatography*, **2012**, 26, 1191-5	1.7	9
26	Genetic diversity survey of Mentha aquatica L. and Mentha suaveolens Ehrh., mint crop ancestors. *Genetic Resources and Crop Evolution*, **2019**, 66, 825-845	2	7
25	Ultrastructure of Grapefruit Secretory Cavities and Immunocytochemical Localization of (+)-Limonene Synthase. *International Journal of Plant Sciences*, **2015**, 176, 643-661	2.6	7
24	Biochemical characterization of acyl activating enzymes for side chain moieties of Taxol and its analogs. *Journal of Biological Chemistry*, **2020**, 295, 4963-4973	5.4	7

23	Rapid purification of gram quantities of β-sitosterol from a commercial phytosterol mixture. *BMC Research Notes*, **2014**, 7, 182	2.3	7
22	Crop Wild Relatives as Germplasm Resource for Cultivar Improvement in Mint (L.). *Frontiers in Plant Science*, **2020**, 11, 1217	6.2	7
21	Assessing Chemical Diversity in (L.) Beauv., a Pantropical Whisk Fern That Has Lost Many of Its Fern-Like Characters. *Frontiers in Plant Science*, **2019**, 10, 868	6.2	6
20	Metabolic shifts associated with drought-induced senescence in Brachypodium. *Plant Science*, **2019**, 289, 110278	5.3	6
19	Genome-Wide Analysis of Terpene Synthase Gene Family in and Catalytic Activity Analysis of a Single Terpene Synthase. *Genes*, **2021**, 12,	4.2	6
18	Sample preparation for single cell transcriptomics: essential oil glands in Citrus fruit peel as an example. *Methods in Molecular Biology*, **2014**, 1153, 203-12	1.4	5
17	Determinants of Enantiospecificity in Limonene Synthases. *Biochemistry*, **2020**, 59, 1661-1664	3.2	5
16	Commercial-Scale Tissue Culture for the Production of Plant Natural Products: Successes, Failures and Outlook **2018**, 189-218		5
15	bHLH093/NFL and bHLH061 are required for apical meristem function in Arabidopsis thaliana. *Plant Signaling and Behavior*, **2018**, 13, e1486146	2.5	5
14	Online resources for gene discovery and biochemical research with aromatic and medicinal plants. *Phytochemistry Reviews*, **2016**, 15, 489-510	7.7	4
13	Kinetic modeling of plant metabolism and its predictive power: peppermint essential oil biosynthesis as an example. *Methods in Molecular Biology*, **2014**, 1083, 287-311	1.4	4
12	Cell Type-Specific Transcriptome Analysis of the Soybean Leaf Paraveinal Mesophyll Layer. *Plant Molecular Biology Reporter*, **2013**, 31, 210-221	1.7	4
11	Soybean vegetative lipoxygenases are not vacuolar storage proteins. *Functional Plant Biology*, **2011** , 38, 778-787	2.7	4
10	Generation and Functional Evaluation of Designer Monoterpene Synthases. *Methods in Enzymology*, **2016**, 576, 147-65	1.7	4
9	Altering potato isoprenoid metabolism increases biomass and induces early flowering. *Journal of Experimental Botany*, **2020**, 71, 4109-4124	7	3
8	Taxanes and taxoids of the genus Taxus - A comprehensive inventory of chemical diversity. *Phytochemistry*, **2021**, 190, 112829	4	3
7	National Academies report has broad support. *Nature Biotechnology*, **2017**, 35, 304-306	44.5	2
6	Flavonoid Deficiency Disrupts Redox Homeostasis and Terpenoid Biosynthesis in Glandular Trichomes of Tomato. *Plant Physiology*, **2021**,	6.6	2

5	Functional Characterization and Structural Insights Into Stereoselectivity of Pulegone Reductase in Menthol Biosynthesis.. *Frontiers in Plant Science*, **2021**, 12, 780970	6.2	1
4	Comprehensive inventory of cannabinoids in Cannabis sativa L.: Can we connect genotype and chemotype?. *Phytochemistry Reviews*,1	7.7	1
3	Differential Accumulation of Metabolites and Transcripts Related to Flavonoid, Styrylpyrone, and Galactolipid Biosynthesis in Equisetum Species and Tissue Types. *Metabolites*, **2022**, 12, 403	5.6	1
2	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	5.3	0
1	Chapter six Genomic survey of metabolic pathways in rice. *Recent Advances in Phytochemistry*, **2004**, 38, 111-137		