JÃ¶rg Degenhardt

List of Publications by Year
in descending order

50 papers	6,416 citations	117625 34 h-index	197818 49 g-index
52 all docs	52 docs citations	52 times ranked	5368 citing authors

#	Article	IF	Citations
1	Recruitment of entomopathogenic nematodes by insect-damaged maize roots. Nature, 2005, 434, 732-737.	27.8	1,099
2	Monoterpene and sesquiterpene synthases and the origin of terpene skeletal diversity in plants. Phytochemistry, 2009, 70, 1621-1637.	2.9	891
3	The products of a single maize sesquiterpene synthase form a volatile defense signal that attracts natural enemies of maize herbivores. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 1129-1134.	7.1	491
4	A Maize (<i>E</i>)-Î²-Caryophyllene Synthase Implicated in Indirect Defense Responses against Herbivores Is Not Expressed in Most American Maize Varieties. Plant Cell, 2008, 20, 482-494.	6.6	422
5	Restoring a maize root signal that attracts insect-killing nematodes to control a major pest. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13213-13218.	7.1	298
6	Attracting friends to feast on foes: engineering terpene emission to make crop plants more attractive to herbivore enemies. Current Opinion in Biotechnology, 2003, 14, 169-176.	6.6	245
7	The Maize Gene terpene synthase 1 Encodes a Sesquiterpene Synthase Catalyzing the Formation of (E)-Î²-Farnesene, (E)-Nerolidol, and (E,E)-Farnesol after Herbivore Damage. Plant Physiology, 2002, 130, 2049-2060.	4.8	226
8	The Variability of Sesquiterpenes Emitted from Two Zea mays Cultivars Is Controlled by Allelic Variation of Two Terpene Synthase Genes Encoding Stereoselective Multiple Product Enzymes. Plant Cell, 2004, 16, 1115-1131.	6.6	206
9	Rational Conversion of Substrate and Product Specificity in a Salvia Monoterpene Synthase: Structural Insights into the Evolution of Terpene Synthase Function. Plant Cell, 2007, 19, 1994-2005.	6.6	204
10	Molecular and genomic basis of volatileâ€mediated indirect defense against insects in rice. Plant Journal, 2008, 55, 491-503.	5.7	163
11	The underestimated role of roots in defense against leaf attackers. Trends in Plant Science, 2009, 14, 653-659.	8.8	162
12	Terpene synthases of oregano (Origanum vulgare L.) and their roles in the pathway and regulation of terpene biosynthesis. Plant Molecular Biology, 2010, 73, 587-603.	3.9	141
13	The Eucalyptus terpene synthase gene family. BMC Genomics, 2015, 16, 450.	2.8	125
14	Demonstration and characterization of (E)-nerolidol synthase from maize: a herbivore-inducible terpene synthase participating in (3 E)-4,8-dimethyl-1,3,7-nonatriene biosynthesis. Planta, 2000, 210, 815-822.	3.2	119
15	The sesquiterpene hydrocarbons of maize (Zea mays) form five groups with distinct developmental and organ-specific distributions. Phytochemistry, 2004, 65, 1895-1902.	2.9	119
16	Characterization of Biosynthetic Pathways for the Production of the Volatile Homoterpenes DMNT and TMTT in <i>Zea mays</i>. Plant Cell, 2016, 28, 2651-2665.	6.6	105
17	Genetically engineered maize plants reveal distinct costs and benefits of constitutive volatile emissions in the field. Plant Biotechnology Journal, 2013, 11, 628-639.	8.3	90
18	Protonation of a Neutral (S)-Î²-Bisabolene Intermediate Is Involved in (S)-Î²-Macrocarpene Formation by the Maize Sesquiterpene Synthases TPS6 and TPS11. Journal of Biological Chemistry, 2008, 283, 20779-20788.	3.4	89

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19	A Tandem Array of <i>ent</i>-Kaurene Synthases in Maize with Roles in Gibberellin and More Specialized Metabolism. Plant Physiology, 2016, 170, 742-751.	4.8	81
20	Molecular and biochemical evolution of maize terpene synthase 10, an enzyme of indirect defense. Phytochemistry, 2009, 70, 1139-1145.	2.9	80
21	Herbivore-Induced SABATH Methyltransferases of Maize That Methylate Anthranilic Acid Using <i>S</i>-Adenosyl-<scp>l</scp>-Methionine Â. Plant Physiology, 2010, 153, 1795-1807.	4.8	80
22	The organ-specific expression of terpene synthase genes contributes to the terpene hydrocarbon composition of chamomile essential oils. BMC Plant Biology, 2012, 12, 84.	3.6	66
23	Costs of induced volatile production in maize. Oikos, 2004, 105, 168-180.	2.7	65
24	Indirect Defense Responses to Herbivory in Grasses. Plant Physiology, 2009, 149, 96-102.	4.8	64
25	Dynamic evolution of herbivoreâ€induced sesquiterpene biosynthesis in sorghum and related grass crops. Plant Journal, 2012, 69, 70-80.	5.7	64
26	Attractiveness of Constitutive and Herbivore-Induced Sesquiterpene Blends of Maize to the Parasitic Wasp Cotesia marginiventris (Cresson). Journal of Chemical Ecology, 2011, 37, 582-591.	1.8	61
27	Functional and evolutionary relationships between terpene synthases from Australian Myrtaceae. Phytochemistry, 2010, 71, 844-852.	2.9	59
28	Changes in volatile composition during fruit development and ripening of â€˜Alphonsoâ€™ mango. Journal of the Science of Food and Agriculture, 2009, 89, 2071-2081.	3.5	52
29	Two pockets in the active site of maize sesquiterpene synthase TPS4 carry out sequential parts of the reaction scheme resulting in multiple products. Archives of Biochemistry and Biophysics, 2006, 448, 83-92.	3.0	51
30	Mixtures of plant secondary metabolites. , 2012, , 56-77.		50
31	The biosynthesis of thymol, carvacrol, and thymohydroquinone in Lamiaceae proceeds via cytochrome P450s and a short-chain dehydrogenase. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	44
32	Genomic characterization, molecular cloning and expression analysis of two terpene synthases from Thymus caespititius (Lamiaceae). Planta, 2013, 238, 191-204.	3.2	41
33	The molecular basis of host plant selection in Melaleuca quinquenervia by a successful biological control agent. Phytochemistry, 2010, 71, 1237-1244.	2.9	38
34	Identification and characterization of simple sequence repeat markers from a glandular <i>Origanum vulgare</i> expressed sequence tag. Molecular Ecology Resources, 2008, 8, 599-601.	4.8	37
35	A small, differentially regulated family of farnesyl diphosphate synthases in maize (Zea mays) provides farnesyl diphosphate for the biosynthesis of herbivore-induced sesquiterpenes. Planta, 2015, 241, 1351-1361.	3.2	37
36	Characterization of the Monoterpene Synthase Gene <i>tps26</i>, the Ortholog of a Gene Induced by Insect Herbivory in Maize Â Â. Plant Physiology, 2008, 146, 940-951.	4.8	36

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37	Use of genotyping-by-sequencing to determine the genetic structure in the medicinal plant chamomile, and to identify flowering time and alpha-bisabolol associated SNP-loci by genome-wide association mapping. BMC Genomics, 2017, 18, 599.	2.8	29
38	The terpenes of leaves, pollen, and nectar of thyme (Thymus vulgaris) inhibit growth of bee disease-associated microbes. Scientific Reports, 2018, 8, 14634.	3.3	28
39	High marker density GWAS provides novel insights into the genomic architecture of terpene oil yield in Eucalyptus. New Phytologist, 2019, 223, 1489-1504.	7.3	27
40	A maize landrace that emits defense volatiles in response toÂherbivore eggs possesses a strongly inducible terpene synthase gene. Ecology and Evolution, 2017, 7, 2835-2845.	1.9	25
41	Isolation and characterization of terpene synthases potentially involved in flavor development of ripening olive (Olea europaea) fruits. Journal of Plant Physiology, 2012, 169, 908-914.	3.5	24
42	Four terpene synthases contribute to the generation of chemotypes in tea tree (Melaleuca) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 542 T	3.6	17
43	Stereochemical mechanism of two sabinene hydrate synthases forming antipodal monoterpenes in thyme (Thymus vulgaris). Archives of Biochemistry and Biophysics, 2013, 529, 112-121.	3.0	15
44	Functional Expression and Characterization of Trichome-Specific (-)-Limonene Synthase and (+)-Î±-Pinene Synthase from<i>Cannabis sativa</i>. Natural Product Communications, 2007, 2, 1934578X0700200.	0.5	14
45	Isotope sensitive branching and kinetic isotope effects to analyse multiproduct terpenoid synthases from Zea mays. Chemical Communications, 2015, 51, 3797-3800.	4.1	13
46	The Product Specificities of Maize Terpene Synthases TPS4 and TPS10 Are Determined Both by Active Site Amino Acids and Residues Adjacent to the Active Site. Plants, 2020, 9, 552.	3.5	8
47	Two enzymes responsible for the formation of herbivoreâ€induced volatiles of maize, the methyltransferase AAMT1 and the terpene synthase TPS23, are regulated by a similar signal transduction pathway. Entomologia Experimentalis Et Applicata, 2012, 144, 86-92.	1.4	6
48	Substrate geometry controls the cyclization cascade in multiproduct terpene synthases from Zea mays. Organic and Biomolecular Chemistry, 2015, 13, 6021-6030.	2.8	5
49	Characterization of terpene biosynthesis in Melaleuca quinquenervia and ecological consequences of terpene accumulation during myrtle rust infection. Plant-Environment Interactions, 2021, 2, 177-193.	1.5	2
50	Identification and functional characterization of a Î³-terpinene synthase in Nigella sativa L (black) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	2.9	2