Birgit Piechulla

List of Publications by Year
in descending order

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121	7,049	50276	60623
papers	citations	46 h-index	81 g-index

126	126	126	5768
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bacterial volatiles and their action potential. Applied Microbiology and Biotechnology, 2009, 81, 1001-1012.	3.6	465
2	Volatile Mediated Interactions Between Bacteria and Fungi in the Soil. Journal of Chemical Ecology, 2012, 38, 665-703.	1.8	427
3	Volatiles of bacterial antagonists inhibit mycelial growth of the plant pathogen Rhizoctonia solani. Archives of Microbiology, 2007, 187, 351-360.	2.2	374
4	mVOC: a database of microbial volatiles. Nucleic Acids Research, 2014, 42, D744-D748.	14.5	337
5	Biogenic volatile emissions from the soil. Plant, Cell and Environment, 2014, 37, 1866-1891.	5.7	294
6	mVOC 2.0: a database of microbial volatiles. Nucleic Acids Research, 2018, 46, D1261-D1265.	14.5	288
7	Rhizobacterial Volatiles Affect the Growth of Fungi and Arabidopsis thaliana. Applied and Environmental Microbiology, 2007, 73, 5639-5641.	3.1	277
8	Belowground volatiles facilitate interactions between plant roots and soil organisms. Planta, 2010, 231, 499-506.	3.2	238
9	Trichoderma volatiles effecting Arabidopsis: from inhibition to protection against phytopathogenic fungi. Frontiers in Microbiology, 2015, 6, 995.	3.5	149
10	Serratia odorifera: analysis of volatile emission and biological impact of volatile compounds on Arabidopsis thaliana. Applied Microbiology and Biotechnology, 2010, 88, 965-976.	3.6	141
11	Effects of discrete bioactive microbial volatiles on plants and fungi. Plant, Cell and Environment, 2017, 40, 2042-2067.	5.7	138
12	Changes in Photosynthetic Capacity and Photosynthetic Protein Pattern during Tomato Fruit Ripening. Plant Physiology, 1987, 84, 911-917.	4.8	125
13	Plant growth promotion due to rhizobacterial volatiles â€“ An effect of CO₂?. FEBS Letters, 2009, 583, 3473-3477.	2.8	122
14	Bacterial-Plant-Interactions: Approaches to Unravel the Biological Function of Bacterial Volatiles in the Rhizosphere. Frontiers in Microbiology, 2016, 7, 108.	3.5	119
15	Diurnal mRNA fluctuations of nuclear and plastid genes in developing tomato fruits.. EMBO Journal, 1987, 6, 3593-3599.	7.8	114
16	Identification of tomato Lhc promoter regions necessary for circadian expression. Plant Molecular Biology, 1998, 38, 655-662.	3.9	114
17	Floral benzenoid carboxyl methyltransferases: From in vitro to in planta function. Phytochemistry, 2005, 66, 1211-1230.	2.9	113
18	SuperScent--a database of flavors and scents. Nucleic Acids Research, 2009, 37, D291-D294.	14.5	106

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19	A meta-analysis approach for assessing the diversity and specificity of belowground root and microbial volatiles. Frontiers in Plant Science, 2015, 6, 707.	3.6	98
20	Expression of nuclear and plastid genes for photosynthesis-specific proteins during tomato fruit development and ripening. Plant Molecular Biology, 1986, 7, 367-376.	3.9	95
21	Volatiles of two growthâ€inhibiting rhizobacteria commonly engage AtWRKY18 function. Plant Journal, 2012, 70, 445-459.	5.7	93
22	The emerging importance of microbial volatile organic compounds. Plant, Cell and Environment, 2014, 37, 811-812.	5.7	90
23	Enzyme functional evolution through improved catalysis of ancestrally nonpreferred substrates. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2966-2971.	7.1	79
24	Plastid gene expression during fruit ripening in tomato. Plant Molecular Biology, 1985, 5, 373-384.	3.9	77
25	Volatile composition, emission pattern, and localization of floral scent emission in Mirabilis jalapa (Nyctaginaceae). American Journal of Botany, 2005, 92, 2-12.	1.7	77
26	Interactions between the tomato spotted wilt virus movement protein and plant proteins showing homologies to myosin, kinesin and DnaJ-like chaperones. Plant Physiology and Biochemistry, 2001, 39, 1083-1093.	5.8	73
27	Volatile organic compounds produced by the phytopathogenic bacterium Xanthomonas campestris pv. vesicatoria 85-10. Beilstein Journal of Organic Chemistry, 2012, 8, 579-596.	2.2	73
28	Phylogenetic tree derived from bacterial, cytosol and organelle 5S rRNA sequences. Nucleic Acids Research, 1981, 9, 1451-1462.	14.5	71
29	Evening specific oscillations of scent emission, SAMT enzyme activity, and SAMT mRNA in flowers of Stephanotis floribunda. Journal of Plant Physiology, 2002, 159, 925-934.	3.5	68
30	Bacterial Ammonia Causes Significant Plant Growth Inhibition. PLoS ONE, 2013, 8, e63538.	2.5	67
31	Nucleotide sequence and chromosomal location of Cab-7, the tomato gene encoding the type II chlorophyll a/b-binding polypeptide of photosystem I. Plant Molecular Biology, 1988, 11, 69-71.	3.9	66
32	Regulation of simultaneous synthesis of floral scent terpenoids by the 1,8-cineole synthase of Nicotiana suaveolens. Plant Molecular Biology, 2007, 65, 107-124.	3.9	66
33	Biochemical and Structural Characterization of Benzenoid Carboxyl Methyltransferases Involved in Floral Scent Production in Stephanotis floribunda and Nicotiana suaveolens. Plant Physiology, 2004, 135, 1946-1955.	4.8	65
34	A new member of the CAB gene family: structure, expression and chromosomal location of Cab-8, the tomato gene encoding the Type III chlorophyll a/b-binding polypeptide of photosystem I. Plant Molecular Biology, 1989, 12, 257-270.	3.9	64
35	Sodorifen Biosynthesis in the Rhizobacterium Serratia plymuthica Involves Methylation and Cyclization of MEP-Derived Farnesyl Pyrophosphate by a SAM-Dependent C-Methyltransferase. Journal of the American Chemical Society, 2018, 140, 11855-11862.	13.7	63
36	Plastid and nuclear mRNA fluctuations in tomato leaves ? diurnal and circadian rhythms during extended dark and light periods. Plant Molecular Biology, 1988, 11, 345-353.	3.9	62

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37	Diurnal mRNA fluctuations of nuclear and plastid genes in developing tomato fruits. EMBO Journal, 1987, 6, 3593-9.	7.8	61
38	?Circadian clock? directs the expression of plant genes. Plant Molecular Biology, 1993, 22, 533-542.	3.9	60
39	SAM levels, gene expression of SAM synthetase, methionine synthase and ACC oxidase, and ethylene emission from N. suaveolens flowers. Plant Molecular Biology, 2009, 70, 535-546.	3.9	58
40	Molecular characterization of the diurnal/circadian expression of the chlorophyll a/b-binding proteins in leaves of tomato and other dicotyledonous and monocotyledonous plant species. Planta, 1989, 180, 5-15.	3.2	56
41	Consensus structure and evolution of 5S rRNA. Nucleic Acids Research, 1983, 11, 893-900.	14.5	55
42	Molecular characterization and genetic mapping of DNA sequences encoding the Type I chlorophyll a/b-binding polypeptide of photosystem I in Lycopersicon esculentum (tomato). Plant Molecular Biology, 1987, 9, 205-216.	3.9	54
43	Octamethylbicyclo[3.2.1]octadienes from the Rhizobacterium Serratia odorifera. Angewandte Chemie - International Edition, 2010, 49, 2009-2010.	13.8	51
44	Concerted circadian oscillations in transcript levels of nineteen Lha/b (cab) genes in Lycopersicon esculentum (tomato). Molecular Genetics and Genomics, 1993, 237, 439-448.	2.4	49
45	Plant scents ? mediators of inter- and intraorganismic communication. Planta, 2003, 217, 687-689.	3.2	47
46	Circadian Expression of the Light-Harvesting Complex Protein Genes in Plants. Chronobiology International, 1999, 16, 115-128.	2.0	46
47	Impact of volatiles of the rhizobacteriaSerratia odoriferaon the mossPhyscomitrella patens. Plant Signaling and Behavior, 2010, 5, 444-446.	2.4	46
48	VOC emission of variousSerratiaspecies and isolates and genome analysis ofSerratia plymuthica4Rx13. FEMS Microbiology Letters, 2014, 352, 45-53.	1.8	46
49	The growth of fungi andArabidopsis thalianais influenced by bacterial volatiles. Plant Signaling and Behavior, 2008, 3, 482-484.	2.4	42
50	Determination of steady-state mRNA levels of individual chlorophyll a/b binding protein genes of the tomato cab gene family. Molecular Genetics and Genomics, 1991, 230, 413-422.	2.4	37
51	Volatilomes of Bacterial Infections in Humans. Frontiers in Neuroscience, 2020, 14, 257.	2.8	37
52	Aromatic weapons: truffles attack plants by the production of volatiles. New Phytologist, 2007, 175, 381-383.	7.3	35
53	Influence of Green Leaf Herbivory by Manduca sexta on Floral Volatile Emission by Nicotiana suaveolens Â Â. Plant Physiology, 2008, 146, 1996-2007.	4.8	35
54	Novel volatiles of skin-borne bacteria inhibit the growth of Gram-positive bacteria and affect quorum-sensing controlled phenotypes of Gram-negative bacteria. Systematic and Applied Microbiology, 2016, 39, 503-515.	2.8	35

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55	A Polyketide Synthase Component for Oxygen Insertion into Polyketide Backbones. Angewandte Chemie - International Edition, 2018, 57, 11644-11648.	13.8	35
56	ANALYSIS OF THE DIURNAL EXPRESSION PATTERNS OF THE TOMATO CHLOROPHYLL alb BINDING PROTEIN GENES. INFLUENCE OF LIGHT and CHARACTERIZATION OF THE GENE FAMILY. Photochemistry and Photobiology, 1990, 52, 35-41.	2.5	31
57	Diurnal and Circadian Light-Harvesting Complex and Quinone B-Binding Protein Synthesis in Leaves of Tomato (Lycopersicon esculentum). Plant Physiology, 1992, 100, 1840-1845.	4.8	31
58	Nucleotide sequence of 5S ribosomal RNA from Aspergillus nidulans and Neurospora crassa. Nucleic Acids Research, 1981, 9, 1445-1450.	14.5	30
59	Transcriptional and post-translational regulation of S-adenosyl-L-methionine : salicylic acid carboxyl methyltransferase (SAMT) duringStephanotis floribunda flower development. Journal of Plant Physiology, 2003, 160, 635-643.	3.5	30
60	Product Variability of the â€˜Cineole Cassetteâ€™ Monoterpene Synthases of Related Nicotiana Species. Molecular Plant, 2011, 4, 965-984.	8.3	30
61	Circumvent CO 2 Effects in Volatile-Based Microbeâ€“Plant Interactions. Trends in Plant Science, 2016, 21, 541-543.	8.8	30
62	Isolation and immunological characterization of the four non-identical subunits of the soluble NAD-linked hydrogenase from Alcaligenes eutrophus H16. Biochimie, 1986, 68, 5-13.	2.6	29
63	A Terpene Synthase Is Involved in the Synthesis of the Volatile Organic Compound Sodorifen of Serratia plymuthica 4Rx13. Frontiers in Microbiology, 2016, 7, 737.	3.5	29
64	Changes of the diurnal and circadian (endogenous) mRNA oscillations of the chlorophyll a/b binding protein in tomato leaves during altered day/night (light/dark) regimes. Plant Molecular Biology, 1989, 12, 317-327.	3.9	28
65	Bacterial Volatiles Mediating Information Between Bacteria and Plants. Signaling and Communication in Plants, 2012, , 327-347.	0.7	27
66	Effects of Phytoestrogen Extracts Isolated from Pumpkin Seeds on Estradiol Production and ER/PR Expression in Breast Cancer and Trophoblast Tumor Cells. Nutrition and Cancer, 2013, 65, 739-745.	2.0	27
67	Enzymatic, expression and structural divergences among carboxyl O-methyltransferases after gene duplication and speciation in Nicotiana. Plant Molecular Biology, 2010, 72, 311-330.	3.9	25
68	Interspecific formation of the antimicrobial volatile schleiferon. Scientific Reports, 2018, 8, 16852.	3.3	24
69	Metabolic Profiling Reveals Sphingosine-1-Phosphate Kinase 2 and Lyase as Key Targets of (Phyto-) Estrogen Action in the Breast Cancer Cell Line MCF-7 and Not in MCF-12A. PLoS ONE, 2012, 7, e47833.	2.5	22
70	Diurnal Lhc gene expression is present in many but not all species of the plant kingdom. Plant Molecular Biology, 1995, 27, 147-153.	3.9	21
71	Antiproliferative activity of lignans against the breast carcinoma cell lines MCF 7 and BT 20. Archives of Gynecology and Obstetrics, 2012, 285, 1145-1151.	1.7	21
72	Analysis of a new cluster of genes involved in the synthesis of the unique volatile organic compound sodorifen ofSerratia plymuthica4Rx13. FEMS Microbiology Letters, 2016, 363, fnw139.	1.8	21

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73	Mitochondrial Poypeptide Elongation Factor EF-Tu of Saccharomyces cerevisiae. Functional and Structural Homologies to Escherichia coli EF-Tu. FEBS Journal, 1983, 132, 235-240.	0.2	20
74	The Î±-Terpineol to 1,8-Cineole Cyclization Reaction of Tobacco Terpene Synthases. Plant Physiology, 2016, 172, 2120-2131.	4.8	19
75	Effect of dark phases and temperature on the chlorophyll a/b binding protein mRNA level oscillations in tomato seedlings. Plant Molecular Biology, 1990, 14, 605-616.	3.9	18
76	Sixty-One Volatiles Have Phylogenetic Signals Across Bacterial Domain and Fungal Kingdom. Frontiers in Microbiology, 2020, 11, 557253.	3.5	17
77	Volatiles of rhizobacteriaSerratiaandStenotrophomonasalter growth and metabolite composition ofArabidopsis thaliana. Plant Biology, 2019, 21, 109-119.	3.8	16
78	Localization of Methyl Benzoate Synthesis and Emission in Stephanotis floribunda and Nicotiana suaveolens Flowers. Plant Biology, 2006, 8, 615-626.	3.8	15
79	Effects of Phytoestrogen Extracts Isolated from Rye, Green and Yellow Pea Seeds on Hormone Production and Proliferation of Trophoblast Tumor Cells Jeg3. Hormone Research in Paediatrics, 2006, 65, 276-288.	1.8	15
80	Synthesis of â€˜cineole cassetteâ€™ monoterpenes in Nicotiana section Alatae: gene isolation, expression, functional characterization and phylogenetic analysis. Plant Molecular Biology, 2012, 79, 537-553.	3.9	15
81	Effects of phytoestrogen extracts isolated from flax on estradiol production and ER/PR expression in MCF7 breast cancer cells. Anticancer Research, 2010, 30, 1695-9.	1.1	13
82	Effect of Temperature Alterations on the Diurnal Expression Pattern of the Chlorophyll a/b Binding Proteins in Tomato Seedlings. Plant Physiology, 1990, 94, 1903-1906.	4.8	12
83	Flax-seed extracts with phytoestrogenic effects on a hormone receptor-positive tumour cell line. Anticancer Research, 2005, 25, 1817-22.	1.1	12
84	Effects of phytoestrogen extracts from Linum usitatissimum on the Jeg3 human trophoblast tumour cell line. Anticancer Research, 2007, 27, 2053-8.	1.1	12
85	Pflanzenbiochemie. , 2015, , .		11
86	Introduction to the Special Issue on Bryophytes. Critical Reviews in Plant Sciences, 2018, 37, 102-112.	5.7	11
87	Differential expression of nuclear- and organelle-encoded genes during tomato fruit development. Planta, 1988, 174, 505-512.	3.2	10
88	Nucleotide Sequence of a Tomato psbS Gene. Plant Physiology, 1994, 106, 1703-1704.	4.8	10
89	Effects of Phytoestrogen Extracts Isolated from Elder Flower on Hormone Production and Receptor Expression of Trophoblast Tumor Cells JEG-3 and BeWo, as well as MCF7 Breast Cancer Cells. Nutrients, 2016, 8, 616.	4.1	10
90	Visual Representation by Atomic Force Microscopy (AFM) of Tomato Spotted Wilt Virus Ribonucleoproteins. Biological Chemistry, 2001, 382, 1559-62.	2.5	9

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91	Interspecies interaction of Serratia plymuthica 4Rx13 and Bacillus subtilis B2g alters the emission of sodorifen. FEMS Microbiology Letters, 2018, 365, .	1.8	9
92	Reaction mechanism of the farnesyl pyrophosphate C-methyltransferase towards the biosynthesis of pre-sodorifen pyrophosphate byÂSerratia plymuthicaÂ4Rx13. Scientific Reports, 2021, 11, 3182.	3.3	9
93	Transcriptional Regulation of Oscillating Steady-State Lhc mRNA Levels: Characterization of two Lhca Promoter Fragments in Transgenic Tobacco Plants. Biological Rhythm Research, 1999, 30, 264-271.	0.9	8
94	Biosynthesis and Regulation of Flower Scent. , 2010, , 189-205.		8
95	A large diversity of isoprenoids has multiple functions in plant metabolism. , 2011, , 409-429.		8
96	Impact of bacterial volatiles on phytopathogenic fungi: anin vitrostudy on microbial competition and interaction. Journal of Experimental Botany, 2022, 73, 596-614.	4.8	8
97	Circadian Rhythms of Leaf and Stomatal Movements in Gymnosperm Species. Biological Rhythm Research, 2001, 32, 471-478.	0.9	7
98	Considering Microbial CO₂ during Microbe-Plant Cocultivation. Plant Physiology, 2017, 173, 1529-1529.	4.8	7
99	Carbon Catabolite Repression Regulates the Production of the Unique Volatile Sodorifen of Serratia plymuthica 4Rx13. Frontiers in Microbiology, 2017, 8, 2522.	3.5	7
100	Bioactive Bacterial Organic Volatiles: An Overview and Critical Comments. , 2020, , 39-92.		7
101	Light-regulated protein and mRNA synthesis in root caps of maize. Plant Molecular Biology, 1988, 11, 27-34.	3.9	6
102	Diurnal rhythms of the chlorophyll a/b binding protein mRNAs in wild emmer wheat and wild barley (Poaceae) in the Fertile Crescent. Plant Systematics and Evolution, 1993, 185, 181-188.	0.9	6
103	Surface Plasmon Resonance Spectroscopy (SPR) Interaction Studies of the Circadianâ€Controlled Tomato LHCa4*1 (CAB 11) Protein with Its Promoter. Chronobiology International, 2003, 20, 543-558.	2.0	6
104	Characteristic alatoid â€˜cineole cassetteâ€™ monoterpene synthase present in Nicotiana noctiflora. Plant Molecular Biology, 2014, 85, 135-145.	3.9	6
105	Light-regulated protein and mRNA synthesis in root caps of maize. Plant Molecular Biology, 1988, 11, 27-34.	3.9	6
106	Online monitoring of cellular metabolism in the MCF-7 carcinoma cell line treated with phytoestrogen extracts. Anticancer Research, 2010, 30, 1587-92.	1.1	6
107	Metabolic Profiling of Rhizobacteria Serratia plymuthica and Bacillus subtilis Revealed Intra- and Interspecific Differences and Elicitation of Plipastatins and Short Peptides Due to Co-cultivation. Frontiers in Microbiology, 2021, 12, 685224.	3.5	5
108	The Domain of Bacteria and Their Volatile Metabolic Potential. , 2020, , 1-38.		4

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109	The Endophytic Fungus Cyanodermella asteris Influences Growth of the Non-Natural Host Plant Arabidopsis thaliana. Molecular Plant-Microbe Interactions, 2021, , .	2.6	4
110	Circadian and phytochrome control act at different promoter regions of the tomato Lhca3 gene. Journal of Plant Physiology, 2000, 157, 449-452.	3.5	3
111	Non-canonical substrates for terpene synthases in bacteria are synthesized by a new family of methyltransferases. FEMS Microbiology Reviews, 2021, 45, .	8.6	3
112	The Effects of Volatile Metabolites from Rhizobacteria on Arabidopsis thaliana. , 2013, , 379-400.		3
113	Circadian oscillations of Lhc mRNAs in a photoautotrophic cell culture of Lycopersicon peruvianum. Photosynthesis Research, 1996, 47, 77-84.	2.9	2
114	Duftstoffe im Erdreich. FlÃ¼chtige Metabolite als Infochemikalien. Biologie in Unserer Zeit, 2009, 39, 313-319.	0.2	2
115	Distinct Lhc mRNA stabilities in several vascular plant species. Journal of Plant Physiology, 2001, 158, 1479-1485.	3.5	1
116	Terpenoid Cyclization by SAM-Dependent C-Methyl Transferase. Trends in Chemistry, 2020, 2, 585-586.	8.5	1
117	Localization of the Synthesis and Emission of Scent Compounds within the Flower. , 2006, , 105-124.		1
118	Floral Benzenoid Carboxyl Methyltransferases: From in vitro to in Planta Function. ChemInform, 2005, 36, no.	0.0	0
119	Effects of phytoestrogen extracts isolated from flax on hormone production of trophoblast tumour cells Jeg 3 and BeWo. Gynecological Endocrinology, 2012, 28, 330-335.	1.7	0
120	Professorinnen â€" HÃ¼rden und Chancen. BioSpektrum, 2012, 18, 467-467.	0.0	0
121	Short Promoter Regions are Sufficient to Mediate Circadian Expression of Tomato LHC Genes in Transgenic Tobacco. , 1995, , 2527-2530.		0