Birgit Piechulla

List of Publications by Year
in descending order

121 papers	7,049 citations	50276 46 h-index	60623 81 g-index
126 all docs	126 docs citations	126 times ranked	5768 citing authors

#	Article	IF	Citations
1	Impact of bacterial volatiles on phytopathogenic fungi: an<i>in vitro</i>study on microbial competition and interaction. Journal of Experimental Botany, 2022, 73, 596-614.	4.8	8
2	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
3	Non-canonical substrates for terpene synthases in bacteria are synthesized by a new family of methyltransferases. FEMS Microbiology Reviews, 2021, 45, .	8.6	3
4	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
5	The Endophytic Fungus Cyanodermella asteris Influences Growth of the Non-Natural Host Plant Arabidopsis thaliana. Molecular Plant-Microbe Interactions, 2021, , .	2.6	4
6	Sixty-One Volatiles Have Phylogenetic Signals Across Bacterial Domain and Fungal Kingdom. Frontiers in Microbiology, 2020, 11, 557253.	3.5	17
7	Bioactive Bacterial Organic Volatiles: An Overview and Critical Comments. , 2020, , 39-92.		7
8	Terpenoid Cyclization by SAM-Dependent C-Methyl Transferase. Trends in Chemistry, 2020, 2, 585-586.	8.5	1
9	Volatilomes of Bacterial Infections in Humans. Frontiers in Neuroscience, 2020, 14, 257.	2.8	37
10	The Domain of Bacteria and Their Volatile Metabolic Potential. , 2020, , 1-38.		4
11	Volatiles of rhizobacteriaSerratiaandStenotrophomonasalter growth and metabolite composition ofArabidopsis thaliana. Plant Biology, 2019, 21, 109-119.	3.8	16
12	mVOC 2.0: a database of microbial volatiles. Nucleic Acids Research, 2018, 46, D1261-D1265.	14.5	288
13	Interspecific formation of the antimicrobial volatile schleiferon. Scientific Reports, 2018, 8, 16852.	3.3	24
14	Interspecies interaction of Serratia plymuthica 4Rx13 and Bacillus subtilis B2g alters the emission of sodorifen. FEMS Microbiology Letters, 2018, 365, .	1.8	9
15	Introduction to the Special Issue on Bryophytes. Critical Reviews in Plant Sciences, 2018, 37, 102-112.	5.7	11
16	Sodorifen Biosynthesis in the Rhizobacterium <i>Serratia plymuthica</i> Involves Methylation and Cyclization of MEP-Derived Farnesyl Pyrophosphate by a SAM-Dependent <i>C</i>-Methyltransferase. Journal of the American Chemical Society, 2018, 140, 11855-11862.	13.7	63
17	A Polyketide Synthase Component for Oxygen Insertion into Polyketide Backbones. Angewandte Chemie - International Edition, 2018, 57, 11644-11648.	13.8	35
18	Considering Microbial CO₂ during Microbe-Plant Cocultivation. Plant Physiology, 2017, 173, 1529-1529.	4.8	7

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19	Effects of discrete bioactive microbial volatiles on plants and fungi. Plant, Cell and Environment, 2017, 40, 2042-2067.	5.7	138
20	Carbon Catabolite Repression Regulates the Production of the Unique Volatile Sodorifen of Serratia plymuthica 4Rx13. Frontiers in Microbiology, 2017, 8, 2522.	3.5	7
21	Bacterial-Plant-Interactions: Approaches to Unravel the Biological Function of Bacterial Volatiles in the Rhizosphere. Frontiers in Microbiology, 2016, 7, 108.	3.5	119
22	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
23	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
24	Circumvent CO 2 Effects in Volatile-Based Microbeâ€"Plant Interactions. Trends in Plant Science, 2016, 21, 541-543.	8.8	30
25	Analysis of a new cluster of genes involved in the synthesis of the unique volatile organic compound sodorifen of<i>Serratia plymuthica</i>4Rx13. FEMS Microbiology Letters, 2016, 363, fnw139.	1.8	21
26	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
27	The Î±-Terpineol to 1,8-Cineole Cyclization Reaction of Tobacco Terpene Synthases. Plant Physiology, 2016, 172, 2120-2131.	4.8	19
28	Trichoderma volatiles effecting Arabidopsis: from inhibition to protection against phytopathogenic fungi. Frontiers in Microbiology, 2015, 6, 995.	3.5	149
29	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
30	Pflanzenbiochemie. , 2015, , .		11
31	mVOC: a database of microbial volatiles. Nucleic Acids Research, 2014, 42, D744-D748.	14.5	337
32	Characteristic alatoid â€˜cineole cassetteâ€™ monoterpene synthase present in Nicotiana noctiflora. Plant Molecular Biology, 2014, 85, 135-145.	3.9	6
33	The emerging importance of microbial volatile organic compounds. Plant, Cell and Environment, 2014, 37, 811-812.	5.7	90
34	VOC emission of various<i>Serratia</i>species and isolates and genome analysis of<i>Serratia plymuthica</i>4Rx13. FEMS Microbiology Letters, 2014, 352, 45-53.	1.8	46
35	Biogenic volatile emissions from the soil. Plant, Cell and Environment, 2014, 37, 1866-1891.	5.7	294
36	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

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37	Bacterial Ammonia Causes Significant Plant Growth Inhibition. PLoS ONE, 2013, 8, e63538.	2.5	67
38	The Effects of Volatile Metabolites from Rhizobacteria on Arabidopsis thaliana. , 2013, , 379-400.		3
39	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
40	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
41	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
42	Bacterial Volatiles Mediating Information Between Bacteria and Plants. Signaling and Communication in Plants, 2012, , 327-347.	0.7	27
43	Professorinnen â€” HÃ¼rden und Chancen. BioSpektrum, 2012, 18, 467-467.	0.0	0
44	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
45	Volatile organic compounds produced by the phytopathogenic bacterium <i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> 85-10. Beilstein Journal of Organic Chemistry, 2012, 8, 579-596.	2.2	73
46	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
47	Volatile Mediated Interactions Between Bacteria and Fungi in the Soil. Journal of Chemical Ecology, 2012, 38, 665-703.	1.8	427
48	Volatiles of two growthâ€inhibiting rhizobacteria commonly engage AtWRKY18 function. Plant Journal, 2012, 70, 445-459.	5.7	93
49	A large diversity of isoprenoids has multiple functions in plant metabolism. , 2011, , 409-429.		8
50	Product Variability of the â€˜Cineole Cassetteâ€™ Monoterpene Synthases of Related Nicotiana Species. Molecular Plant, 2011, 4, 965-984.	8.3	30
51	Impact of volatiles of the rhizobacteria<i>Serratia odorifera</i>on the moss<i>Physcomitrella patens</i>. Plant Signaling and Behavior, 2010, 5, 444-446.	2.4	46
52	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
53	Belowground volatiles facilitate interactions between plant roots and soil organisms. Planta, 2010, 231, 499-506.	3.2	238
54	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

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55	Octamethylbicyclo[3.2.1]octadienes from the Rhizobacterium <i>Serratia odorifera</i>. Angewandte Chemie - International Edition, 2010, 49, 2009-2010.	13.8	51
56	Biosynthesis and Regulation of Flower Scent. , 2010, , 189-205.		8
57	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
58	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
59	SuperScent--a database of flavors and scents. Nucleic Acids Research, 2009, 37, D291-D294.	14.5	106
60	Plant growth promotion due to rhizobacterial volatiles â€“ An effect of CO₂?. FEBS Letters, 2009, 583, 3473-3477.	2.8	122
61	Duftstoffe im Erdreich. FlÃ¼chtige Metabolite als Infochemikalien. Biologie in Unserer Zeit, 2009, 39, 313-319.	0.2	2
62	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
63	Bacterial volatiles and their action potential. Applied Microbiology and Biotechnology, 2009, 81, 1001-1012.	3.6	465
64	Influence of Green Leaf Herbivory by <i>Manduca sexta</i> on Floral Volatile Emission by <i>Nicotiana suaveolens</i> Â Â. Plant Physiology, 2008, 146, 1996-2007.	4.8	35
65	The growth of fungi andArabidopsis thalianais influenced by bacterial volatiles. Plant Signaling and Behavior, 2008, 3, 482-484.	2.4	42
66	Rhizobacterial Volatiles Affect the Growth of Fungi and Arabidopsis thaliana. Applied and Environmental Microbiology, 2007, 73, 5639-5641.	3.1	277
67	Aromatic weapons: truffles attack plants by the production of volatiles. New Phytologist, 2007, 175, 381-383.	7.3	35
68	Volatiles of bacterial antagonists inhibit mycelial growth of the plant pathogen Rhizoctonia solani. Archives of Microbiology, 2007, 187, 351-360.	2.2	374
69	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
70	Effects of phytoestrogen extracts from Linum usitatissimum on the Jeg3 human trophoblast tumour cell line. Anticancer Research, 2007, 27, 2053-8.	1.1	12
71	Localization of Methyl Benzoate Synthesis and Emission in Stephanotis floribunda and Nicotiana suaveolens Flowers. Plant Biology, 2006, 8, 615-626.	3.8	15
72	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

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73	Localization of the Synthesis and Emission of Scent Compounds within the Flower. , 2006, , 105-124.		1
74	Floral benzenoid carboxyl methyltransferases: From in vitro to in planta function. Phytochemistry, 2005, 66, 1211-1230.	2.9	113
75	Floral Benzenoid Carboxyl Methyltransferases: From in vitro to in Planta Function. ChemInform, 2005, 36, no.	0.0	0
76	Volatile composition, emission pattern, and localization of floral scent emission in <i>Mirabilis jalapa</i> (Nyctaginaceae). American Journal of Botany, 2005, 92, 2-12.	1.7	77
77	Flax-seed extracts with phytoestrogenic effects on a hormone receptor-positive tumour cell line. Anticancer Research, 2005, 25, 1817-22.	1.1	12
78	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
79	Plant scents ? mediators of inter- and intraorganismic communication. Planta, 2003, 217, 687-689.	3.2	47
80	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
81	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
82	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
83	Distinct Lhc mRNA stabilities in several vascular plant species. Journal of Plant Physiology, 2001, 158, 1479-1485.	3.5	1
84	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
85	Circadian Rhythms of Leaf and Stomatal Movements in Gymnosperm Species. Biological Rhythm Research, 2001, 32, 471-478.	0.9	7
86	Visual Representation by Atomic Force Microscopy (AFM) of Tomato Spotted Wilt Virus Ribonucleoproteins. Biological Chemistry, 2001, 382, 1559-62.	2.5	9
87	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
88	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
89	Circadian Expression of the Light-Harvesting Complex Protein Genes in Plants. Chronobiology International, 1999, 16, 115-128.	2.0	46
90	Identification of tomato Lhc promoter regions necessary for circadian expression. Plant Molecular Biology, 1998, 38, 655-662.	3.9	114

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91	Circadian oscillations of Lhc mRNAs in a photoautotrophic cell culture of Lycopersicon peruvianum. Photosynthesis Research, 1996, 47, 77-84.	2.9	2
92	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
93	Short Promoter Regions are Sufficient to Mediate Circadian Expression of Tomato LHC Genes in Transgenic Tobacco. , 1995, , 2527-2530.		0
94	Nucleotide Sequence of a Tomato psbS Gene. Plant Physiology, 1994, 106, 1703-1704.	4.8	10
95	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
96	?Circadian clock? directs the expression of plant genes. Plant Molecular Biology, 1993, 22, 533-542.	3.9	60
97	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
98	Diurnal and Circadian Light-Harvesting Complex and Quinone B-Binding Protein Synthesis in Leaves of Tomato (<i>Lycopersicon esculentum</i>). Plant Physiology, 1992, 100, 1840-1845.	4.8	31
99	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
100	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
101	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
102	Effect of Temperature Alterations on the Diurnal Expression Pattern of the Chlorophyll <i>a/b</i> Binding Proteins in Tomato Seedlings. Plant Physiology, 1990, 94, 1903-1906.	4.8	12
103	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
104	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
105	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
106	Differential expression of nuclear- and organelle-encoded genes during tomato fruit development. Planta, 1988, 174, 505-512.	3.2	10
107	Light-regulated protein and mRNA synthesis in root caps of maize. Plant Molecular Biology, 1988, 11, 27-34.	3.9	6
108	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

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109	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
110	Light-regulated protein and mRNA synthesis in root caps of maize. Plant Molecular Biology, 1988, 11, 27-34.	3.9	6
111	Changes in Photosynthetic Capacity and Photosynthetic Protein Pattern during Tomato Fruit Ripening. Plant Physiology, 1987, 84, 911-917.	4.8	125
112	Diurnal mRNA fluctuations of nuclear and plastid genes in developing tomato fruits.. EMBO Journal, 1987, 6, 3593-3599.	7.8	114
113	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
114	Diurnal mRNA fluctuations of nuclear and plastid genes in developing tomato fruits. EMBO Journal, 1987, 6, 3593-9.	7.8	61
115	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
116	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
117	Plastid gene expression during fruit ripening in tomato. Plant Molecular Biology, 1985, 5, 373-384.	3.9	77
118	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
119	Consensus structure and evolution of 5S rRNA. Nucleic Acids Research, 1983, 11, 893-900.	14.5	55
120	Phylogenetic tree derived from bacterial, cytosol and organelle 5S rRNA sequences. Nucleic Acids Research, 1981, 9, 1451-1462.	14.5	71
121	Nucleotide sequence of 5S ribosomal RNA from Aspergillus nidulans and Neurospora crassa. Nucleic Acids Research, 1981, 9, 1445-1450.	14.5	30