Ute Wittstock

List of Publications by Year
in descending order

50 papers	5,367 citations	136740 32 h-index	205818 48 g-index
50 all docs	50 docs citations	50 times ranked	4265 citing authors

#	Article	IF	Citations
1	Glucosinolate research in the Arabidopsis era. Trends in Plant Science, 2002, 7, 263-270.	4.3	555
2	Constitutive plant toxins and their role in defense against herbivores and pathogens. Current Opinion in Plant Biology, 2002, 5, 300-307.	3.5	450
3	Successful herbivore attack due to metabolic diversion of a plant chemical defense. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 4859-4864.	3.3	440
4	Cytochrome P450 CYP79B2 from Arabidopsis Catalyzes the Conversion of Tryptophan to Indole-3-acetaldoxime, a Precursor of Indole Glucosinolates and Indole-3-acetic Acid. Journal of Biological Chemistry, 2000, 275, 33712-33717.	1.6	411
5	The genetic basis of a plantâ€“insect coevolutionary key innovation. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 20427-20431.	3.3	325
6	Glucosinolate Breakdown in Arabidopsis: Mechanism, Regulation and Biological Significance. The Arabidopsis Book, 2010, 8, e0134.	0.5	286
7	Cytochrome P450 CYP79A2 from Arabidopsis thaliana L. Catalyzes the Conversion of l-Phenylalanine to Phenylacetaldoxime in the Biosynthesis of Benzylglucosinolate. Journal of Biological Chemistry, 2000, 275, 14659-14666.	1.6	247
8	Insect herbivore counteradaptations to the plant glucosinolateâ€“myrosinase system. Phytochemistry, 2011, 72, 1566-1575.	1.4	242
9	Differential Effects of Indole and Aliphatic Glucosinolates on Lepidopteran Herbivores. Journal of Chemical Ecology, 2010, 36, 905-913.	0.9	196
10	Cytochrome P450 CYP79F1 from Arabidopsis Catalyzes the Conversion of Dihomomethionine and Trihomomethionine to the Corresponding Aldoximes in the Biosynthesis of Aliphatic Glucosinolates. Journal of Biological Chemistry, 2001, 276, 11078-11085.	1.6	162
11	The Genetic Basis of Constitutive and Herbivore-Induced ESP-Independent Nitrile Formation in Arabidopsis Â Â. Plant Physiology, 2009, 149, 561-574.	2.3	148
12	Altered Glucosinolate Hydrolysis in Genetically Engineered Arabidopsis thaliana and its Influence on the Larval Development of Spodoptera littoralis. Journal of Chemical Ecology, 2006, 32, 2333-2349.	0.9	139
13	Chapter five Glucosinolate hydrolysis and its impact on generalist and specialist insect herbivores. Recent Advances in Phytochemistry, 2003, , 101-125.	0.5	131
14	Comparative biochemical characterization of nitrile-forming proteins from plants and insects that alter myrosinase-catalysed hydrolysis of glucosinolates. FEBS Journal, 2006, 273, 2432-2446.	2.2	129
15	Formation of Simple Nitriles upon Glucosinolate Hydrolysis Affects Direct and Indirect Defense Against the Specialist Herbivore, Pieris rapae. Journal of Chemical Ecology, 2008, 34, 1311-1321.	0.9	115
16	Metabolism of glucosinolate-derived isothiocyanates to glutathione conjugates in generalist lepidopteran herbivores. Insect Biochemistry and Molecular Biology, 2012, 42, 174-182.	1.2	112
17	Glucosinolate hydrolysis in Lepidium sativumâ€"â€"identification of the thiocyanate-forming protein. Plant Molecular Biology, 2006, 63, 49-61.	2.0	110
18	ESP and ESM1 mediate indol-3-acetonitrile production from indol-3-ylmethyl glucosinolate in Arabidopsis. Phytochemistry, 2008, 69, 663-671.	1.4	90

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19	Evolution of specifier proteins in glucosinolate-containing plants. BMC Evolutionary Biology, 2012, 12, 127.	3.2	87
20	Tipping the ScalesÂâ€ÂSpecifier Proteins in Glucosinolate Hydrolysis. IUBMB Life, 2007, 59, 744-751.	1.5	86
21	Regulation and function of specifier proteins in plants. Phytochemistry Reviews, 2009, 8, 87-99.	3.1	72
22	NSP-Dependent Simple Nitrile Formation Dominates upon Breakdown of Major Aliphatic Glucosinolates in Roots, Seeds, and Seedlings of Arabidopsis thaliana Columbia-0. Frontiers in Plant Science, 2016, 7, 1821.	1.7	64
23	Uptake and turn-over of glucosinolates sequestered in the sawfly Athalia rosae. Insect Biochemistry and Molecular Biology, 2005, 35, 1189-1198.	1.2	61
24	Cell- and tissue-specific localization and regulation of the epithiospecifier protein in Arabidopsis thaliana. Plant Molecular Biology, 2007, 64, 173-185.	2.0	59
25	Turning the â€˜Mustard Oil Bombâ€™ into a â€˜Cyanide Bombâ€™: Aromatic Glucosinolate Metabolism in a Specialist Insect Herbivore. PLoS ONE, 2012, 7, e35545.	1.1	57
26	Mixtures of plant secondary metabolites. , 2012, , 56-77.		50
27	Effects of some Components of the Essential Oil of Chamomile,Chamomilla recutita, on Histamine Release from Rat Mast Cells. Planta Medica, 1996, 62, 60-61.	0.7	47
28	A thiocyanate-forming protein generates multiple products upon allylglucosinolate breakdown in Thlaspi arvense. Phytochemistry, 2011, 72, 1699-1709.	1.4	42
29	Cyanide detoxification in an insect herbivore: Molecular identification of Î²-cyanoalanine synthases from Pieris rapae. Insect Biochemistry and Molecular Biology, 2016, 70, 99-110.	1.2	41
30	Structural diversification during glucosinolate breakdown: mechanisms of thiocyanate, epithionitrile and simple nitrile formation. Plant Journal, 2019, 99, 329-343.	2.8	40
31	Effects of Cicutoxin and Related Polyacetylenes fromCicuta virosaon Neuronal Action Potentials: A Comparative Study on the Mechanism of the Convulsive Action. Planta Medica, 1997, 63, 120-124.	0.7	35
32	Iron is a centrally bound cofactor of specifier proteins involved in glucosinolate breakdown. PLoS ONE, 2018, 13, e0205755.	1.1	34
33	Polyacetylenes from Water Hemlock,Cicuta virosa. Planta Medica, 1995, 61, 439-445.	0.7	33
34	Glycine Conjugates in a Lepidopteran Insect Herbivore-The Metabolism of Benzylglucosinolate in the Cabbage White Butterfly, Pieris rapae. ChemBioChem, 2006, 7, 1982-1989.	1.3	31
35	Molecular models and mutational analyses of plant specifier proteins suggest active site residues and reaction mechanism. Plant Molecular Biology, 2014, 84, 173-188.	2.0	30
36	The influence of metabolically engineered glucosinolates profiles in Arabidopsis thaliana on Plutella xylostella preference and performance. Chemoecology, 2010, 20, 1-9.	0.6	28

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37	Cicutoxin fromCicuta virosaâ€" A New and Potent Potassium Channel Blocker in T Lymphocytes. Biochemical and Biophysical Research Communications, 1996, 219, 332-336.	1.0	22
38	Biotechnological production of hyperforin for pharmaceutical formulation. European Journal of Pharmaceutics and Biopharmaceutics, 2018, 126, 10-26.	2.0	22
39	Sequential regiospecific <i>gem</i>â€diprenylation of tetrahydroxyxanthone by prenyltransferases from <i>Hypericum</i> sp.. New Phytologist, 2019, 222, 318-334.	3.5	20
40	Sulfur-Containing Secondary Metabolites and Their Role in Plant Defense. Advances in Photosynthesis and Respiration, 2008, , 201-222.	1.0	17
41	The crystal structure of the thiocyanate-forming protein from Thlaspi arvense, a kelch protein involved in glucosinolate breakdown. Plant Molecular Biology, 2015, 89, 67-81.	2.0	17
42	Glucosinolate Content in Dormant and Germinating Arabidopsis thaliana Seeds Is Affected by Non-Functional Alleles of Classical Myrosinase and Nitrile-Specifier Protein Genes. Frontiers in Plant Science, 2019, 10, 1549.	1.7	15
43	Novel glucosinolate metabolism in larvae of the leaf beetle Phaedon cochleariae. Insect Biochemistry and Molecular Biology, 2020, 124, 103431.	1.2	12
44	Î²-Cyanoalanine Synthases and Their Possible Role in Pierid Host Plant Adaptation. Insects, 2017, 8, 62.	1.0	11
45	Synthesis and Biochemical Evaluation of an Artificial, Fluorescent Glucosinolate (GSL). ChemBioChem, 2019, 20, 2341-2345.	1.3	11
46	Chapter Thirteen The role of cytochromes P450 in biosynthesis and evolution of glucosinolates. Recent Advances in Phytochemistry, 2002, , 223-248.	0.5	10
47	Molecular identification and characterization of rhodaneses from the insect herbivore Pieris rapae. Scientific Reports, 2018, 8, 10819.	1.6	9
48	Glycine Conjugates in a Lepidopteran Insect Herbivoreâ€"The Metabolism of Benzylglucosinolate in the Cabbage White Butterfly,Pieris rapae. ChemBioChem, 2007, 8, 1757-1757.	1.3	7
49	Herbivore Adaptations to Plant Cyanide Defenses. , 0, , .		7
50	Quantitative profiling of polyacetylenes in tissue cultures and plant parts of three species of the Asteraceae. Plant Cell, Tissue and Organ Culture, 2018, 134, 251-265.	1.2	2