Robert HÃ¤nsch

List of Publications by Year
in descending order

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100	5,667	94269	82410
papers	citations	37	72
		h-index	g-index

102	102	102	6673
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Physiological functions of mineral micronutrients (Cu, Zn, Mn, Fe, Ni, Mo, B, Cl). Current Opinion in Plant Biology, 2009, 12, 259-266.	3.5	1,197
2	New GATEWAY vectors for High Throughput Analyses of Proteinâ€“Protein Interactions by Bimolecular Fluorescence Complementation. Molecular Plant, 2009, 2, 1051-1058.	3.9	278
3	Molybdoenzymes and molybdenum cofactor in plants. Journal of Experimental Botany, 2002, 53, 1689-1698.	2.4	242
4	Transgenic, non-isoprene emitting poplars donâ€™t like it hot. Plant Journal, 2007, 51, 485-499.	2.8	229
5	Identification and Biochemical Characterization ofArabidopsis thaliana Sulfite Oxidase. Journal of Biological Chemistry, 2001, 276, 46989-46994.	1.6	178
6	Sulfite Reductase Defines a Newly Discovered Bottleneck for Assimilatory Sulfate Reduction and Is Essential for Growth and Development in Arabidopsis thaliana Â Â. Plant Cell, 2010, 22, 1216-1231.	3.1	163
7	The role of abscisic acid and auxin in the response of poplar to abiotic stress. Plant Biology, 2010, 12, 242-258.	1.8	141
8	Improved enzyme production by bioâ€pellets of Aspergillus niger: Targeted morphology engineering using titanate microparticles. Biotechnology and Bioengineering, 2012, 109, 462-471.	1.7	139
9	Tandem Orientation of Duplicated Xanthine Dehydrogenase Genes from Arabidopsis thaliana. Journal of Biological Chemistry, 2004, 279, 13547-13554.	1.6	137
10	Plant Sulfite Oxidase as Novel Producer of H2O2. Journal of Biological Chemistry, 2006, 281, 6884-6888.	1.6	128
11	Expression profiling of metabolic genes in response to methyl jasmonate reveals regulation of genes of primary and secondary sulfur-related pathways in Arabidopsis thaliana. Photosynthesis Research, 2005, 86, 491-508.	1.6	111
12	Interaction of nitrogen nutrition and salinity in Grey poplar (Populus tremulaï¿½×alba). Plant, Cell and Environment, 2007, 30, 796-811.	2.8	99
13	Drought-Enhanced Xylem Sap Sulfate Closes Stomata by Affecting ALMT12 and Guard Cell ABA Synthesis. Plant Physiology, 2017, 174, 798-814.	2.3	95
14	Sulphite oxidase as key enzyme for protecting plants against sulphur dioxide. Plant, Cell and Environment, 2007, 30, 447-455.	2.8	94
15	Sulphur flux through the sulphate assimilation pathway is differently controlled by adenosine 5â€²-phosphosulphate reductase under stress and in transgenic poplar plants overexpressing Î³-ECS, SO, or APR. Journal of Experimental Botany, 2010, 61, 609-622.	2.4	83
16	Peroxisomal Localization of Sulfite Oxidase Separates it from Chloroplast-based Sulfur Assimilation. Plant and Cell Physiology, 2004, 45, 1889-1894.	1.5	77
17	Expression of the Arabidopsis Mutant abi1 Gene Alters Abscisic Acid Sensitivity, Stomatal Development, and Growth Morphology in Gray Poplars. Plant Physiology, 2009, 151, 2110-2119.	2.3	72
18	A fast and sensitive HPLC method for sulfite analysis in food based on a plant sulfite oxidase biosensor. Biosensors and Bioelectronics, 2010, 26, 175-181.	5.3	72

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19	RNAi-mediated suppression of isoprene emission in poplar transiently impacts phenolic metabolism under high temperature and high light intensities: a transcriptomic and metabolomic analysis. Plant Molecular Biology, 2010, 74, 61-75.	2.0	71
20	Cell-Specific Expression of Homospermidine Synthase, the Entry Enzyme of the Pyrrolizidine Alkaloid Pathway in Senecio vernalis, in Comparison with Its Ancestor, Deoxyhypusine Synthase. Plant Physiology, 2002, 130, 47-57.	2.3	68
21	Sulfite oxidation in plant peroxisomes. Photosynthesis Research, 2005, 86, 337-343.	1.6	63
22	Fertile transgenic barley of different cultivars obtained by adjustment of bombardment conditions to tissue response. Plant Science, 1996, 119, 79-91.	1.7	59
23	Regulation of isoprene synthase promoter by environmental and internal factors. Plant Molecular Biology, 2009, 69, 593-604.	2.0	58
24	Sulfite oxidase controls sulfur metabolism under SO₂ exposure in Arabidopsis thaliana. Plant, Cell and Environment, 2012, 35, 100-115.	2.8	58
25	Elevated pCO2 favours nitrate reduction in the roots of wild-type tobacco (Nicotiana tabacum cv.) Tj ETQq1 1 0.784314 rgBT /Overlo the roots. Journal of Experimental Botany, 2002, 53, 2351-2367.	2.4	56
26	Quantitative analysis of dynamic proteinâ€“protein interactions in planta by a floatedâ€leaf luciferase complementation imaging (FLuCI) assay using binary Gateway vectors. Plant Journal, 2011, 67, 542-553.	2.8	56
27	Identification and Biochemical Characterization of Molybdenum Cofactor-binding Proteins from Arabidopsis thaliana. Journal of Biological Chemistry, 2010, 285, 6623-6635.	1.6	55
28	Cinnamate:CoA Ligase Initiates the Biosynthesis of a Benzoate-Derived Xanthone Phytoalexin in Hypericum calycinum Cell Cultures Â Â. Plant Physiology, 2012, 160, 1267-1280.	2.3	55
29	Significance of Plant Sulfite Oxidase. Plant Biology, 2007, 9, 589-595.	1.8	52
30	Polyphyletic Origin of Pyrrolizidine Alkaloids within the Asteraceae. Evidence from Differential Tissue Expression of Homospermidine Synthase. Plant Physiology, 2004, 136, 4037-4047.	2.3	51
31	The Transcription Factor COL12 Is a Substrate of the COP1/SPA E3 Ligase and Regulates Flowering Time and Plant Architecture. Plant Physiology, 2018, 176, 1327-1340.	2.3	50
32	Spectroscopic and Kinetic Studies ofArabidopsisthalianaSulfite Oxidase: Nature of the Redox-Active Orbital and Electronic Structure Contributions to Catalysis. Journal of the American Chemical Society, 2005, 127, 16567-16577.	6.6	47
33	GH3::GUS reflects cell-specific developmental patterns and stress-induced changes in wood anatomy in the poplar stem. Tree Physiology, 2008, 28, 1305-1315.	1.4	44
34	Exodermis and endodermis are the sites of xanthone biosynthesis in Hypericum perforatum roots. New Phytologist, 2018, 217, 1099-1112.	3.5	43
35	Mature embryo axis-based high frequency somatic embryogenesis and plant regeneration from multiple cultivars of barley (Hordeum vulgare L.). Journal of Experimental Botany, 2005, 56, 1913-1922.	2.4	42
36	Differential Expression of Biphenyl Synthase Gene Family Members in Fire-Blight-Infected Apple â€˜Holsteiner Coxâ€™. Plant Physiology, 2012, 158, 864-875.	2.3	42

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37	Oxidative Half-reaction of Arabidopsis thaliana Sulfite Oxidase. Journal of Biological Chemistry, 2009, 284, 35479-35484.	1.6	40
38	Biphenyl 4-Hydroxylases Involved in Aucuparin Biosynthesis in Rowan and Apple Are Cytochrome P450 736A Proteins. Plant Physiology, 2015, 168, 428-442.	2.3	39
39	Tobacco plants that lack expression of functional nitrate reductase in roots show changes in growth rates and metabolite accumulation. Journal of Experimental Botany, 2001, 52, 1251-1258.	2.4	36
40	A highly efficient plant regeneration system through multiple shoot differentiation from commercial cultivars of barley (Hordeum vulgare L.) using meristematic shoot segments excised from germinated mature embryos. Plant Cell Reports, 2004, 23, 9-16.	2.8	36
41	The poplar NRT2 gene family of high affinity nitrate importers: Impact of nitrogen nutrition and ectomycorrhiza formation. Environmental and Experimental Botany, 2014, 108, 79-88.	2.0	36
42	Effects of free air carbon dioxide enrichment (<scp>FACE</scp>) on nitrogen assimilation and growth of winter wheat under nitrate and ammonium fertilization. Global Change Biology, 2018, 24, e40-e54.	4.2	36
43	Combination of Rigorous and Statistical Modeling for Process Development of Plantâ€Based Extractions Based on Mass Balances and Biological Aspects. Chemical Engineering and Technology, 2012, 35, 109-132.	0.9	35
44	Biolistic transformation of cucumber using embryogenic suspension cultures: long-term expression of reporter genes. Plant Science, 1995, 112, 197-206.	1.7	34
45	An improved protocol for eliminating endogenous Î²-glucuronidase background in barley. Plant Science, 1995, 105, 63-69.	1.7	34
46	Interaction of Sulfur and Nitrogen Nutrition in Tobacco (Nicotiana tabacum) Plants: Significance of Nitrogen Source and Root Nitrate Reductase. Plant Biology, 2007, 9, 638-646.	1.8	34
47	Impact of drought and salt stress on the biosynthesis of alkaloids in Chelidonium majus L.. Phytochemistry, 2018, 152, 204-212.	1.4	32
48	Layer-by-layer deposition of chitosan nanoparticles as drug-release coatings for PCL nanofibers. Biomaterials Science, 2019, 7, 233-246.	2.6	32
49	Influence of picloram and thidiazuron on high frequency plant regeneration in elite cultivars of wheat with long-term retention of morphogenecity using meristematic shoot segments. Plant Breeding, 2005, 124, 242-246.	1.0	30
50	Impact of <scp>SO</scp>₂ on Arabidopsis thaliana transcriptome in wildtype and sulfite oxidase knockout plants analyzed by <scp>RNA</scp> deep sequencing. New Phytologist, 2012, 196, 1074-1085.	3.5	30
51	Attachment of nanoparticulate drug-release systems on poly(Îµ-caprolactone) nanofibers via a graftpolymer as interlayer. Colloids and Surfaces B: Biointerfaces, 2018, 163, 309-320.	2.5	29
52	Phytoalexin formation in fire blight-infected apple. Trees - Structure and Function, 2013, 27, 477-484.	0.9	27
53	Oâ€Methyltransferases involved in biphenyl and dibenzofuran biosynthesis. Plant Journal, 2015, 83, 263-276.	2.8	27
54	Transgenic barley plants overexpressing a 13-lipoxygenase to modify oxylipin signature. Phytochemistry, 2006, 67, 264-276.	1.4	26

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55	HaloTagTM: a new versatile reporter gene system in plant cells. Journal of Experimental Botany, 2006, 57, 2985-2992.	2.4	26
56	Identification of a protein-protein interaction network downstream of molybdenum cofactor biosynthesis in Arabidopsis thaliana. Journal of Plant Physiology, 2016, 207, 42-50.	1.6	26
57	Visualization and quantification of protein interactions in the biosynthetic pathway of molybdenum cofactor in Arabidopsis thaliana. Journal of Experimental Botany, 2013, 64, 2005-2016.	2.4	25
58	Benzophenone Synthase and Chalcone Synthase Accumulate in the Mesophyll of Hypericum perforatum Leaves at Different Developmental Stages. Frontiers in Plant Science, 2016, 7, 921.	1.7	25
59	Single cell analysis applied to antibody fragment production with Bacillus megaterium: development of advanced physiology and bioprocess state estimation tools. Microbial Cell Factories, 2011, 10, 23.	1.9	24
60	Pyrrolizidine Alkaloid Biosynthesis in Phalaenopsis Orchids: Developmental Expression of Alkaloid-Specific Homospermidine Synthase in Root Tips and Young Flower Buds. Plant Physiology, 2008, 148, 751-760.	2.3	23
61	The Molybdenum Cofactor Biosynthesis Network: In vivo Protein-Protein Interactions of an Actin Associated Multi-Protein Complex. Frontiers in Plant Science, 2017, 8, 1946.	1.7	22
62	Sequential regiospecific gemâ€diprenylation of tetrahydroxyxanthone by prenyltransferases from Hypericum sp.. New Phytologist, 2019, 222, 318-334.	3.5	20
63	Blending chitosanâ€gâ€poly(caprolactone) with poly(caprolactone) by electrospinning to produce functional fiber mats for tissue engineering applications. Journal of Applied Polymer Science, 2020, 137, 48650.	1.3	20
64	The role of nitrate reduction in the anoxic metabolism of roots I. Characterization of root morphology and normoxic metabolism of wild type tobacco and a transformant lacking root nitrate reductase. Plant and Soil, 2003, 253, 145-153.	1.8	19
65	Physiological significance of pedospheric nitric oxide for root growth, development and organismic interactions. Plant, Cell and Environment, 2020, 43, 2336-2354.	2.8	18
66	Seasonal effect on tissue culture response and plant regeneration frequency from non-bombarded and bombarded immature scutella of barley (Hordeum vulgare) harvested from controlled environment. Plant Cell, Tissue and Organ Culture, 2005, 81, 19-26.	1.2	17
67	The role of root nitrate reduction in the systemic control of biomass partitioning between leaves and roots in accordance to the C/N-status of tobacco plants. Plant and Soil, 2010, 332, 387-403.	1.8	17
68	The molybdenum cofactor biosynthesis complex interacts with actin filaments via molybdenum insertase Cnx1 as anchor protein in Arabidopsis thaliana. Plant Science, 2016, 244, 8-18.	1.7	17
69	Transient genetic transformation of Mougeotia scalaris (Zygnematophyceae) mediated by the endogenous Î±â€tubulin1 promoter. Journal of Phycology, 2018, 54, 840-849.	1.0	17
70	Profilin Isoforms Modulate Astrocytic Morphology and the Motility of Astrocytic Processes. PLoS ONE, 2015, 10, e0117244.	1.1	16
71	Detoxification of volcanic sulfur surplus in planta: Three different strategies of survival. Environmental and Experimental Botany, 2016, 126, 44-54.	2.0	16
72	Elevated pCO2Affects C and N Metabolism in Wild Type and Transgenic Tobacco Exhibiting Altered C/N Balance in Metabolite Analysis. Plant Biology, 2003, 5, 540-549.	1.8	14

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73	Cinnamateâ€CoA ligase is involved in biosynthesis of benzoateâ€derived biphenyl phytoalexin in MalusÂ Ã—Â domestica â€˜Golden Deliciousâ€™ cell cultures. Plant Journal, 2019, 100, 1176-1192.	2.8	13
74	Varying the sustained release of BMPâ€2 from chitosan nanogelâ€functionalized polycaprolactone fiber mats by different polycaprolactone surface modifications. Journal of Biomedical Materials Research - Part A, 2021, 109, 600-614.	2.1	13
75	Electroporation-mediated transient gene expression in isolated scutella of Hordeum vulgare. Physiologia Plantarum, 1996, 98, 20-27.	2.6	12
76	Light-dependent Anaerobic Induction of the Maize Glyceraldehyde-3-Phosphate Dehydrogenase 4 (GapC4) Promoter in Arabidopsis thaliana and Nicotiana tabacum. Annals of Botany, 2003, 91, 149-154.	1.4	12
77	Node-derived cultures with high-morphogenic competence in barley and wheat. Plant Cell, Tissue and Organ Culture, 2007, 88, 21-33.	1.2	12
78	Tissue- and Cell-Specific Cytokinin Activity in Populus Ã— canescens Monitored by ARR5::GUS Reporter Lines in Summer and Winter. Frontiers in Plant Science, 2016, 7, 652.	1.7	11
79	Impact of wildfires on SO2 detoxification mechanisms in leaves of oak and beech trees. Environmental Pollution, 2021, 272, 116389.	3.7	11
80	Oxidation and reduction of sulfite contribute to susceptibility and detoxification of SO2 in PopulusÂÃ—Âcanescens leaves. Trees - Structure and Function, 2014, 28, 399-411.	0.9	10
81	The genuine localization of indole alkaloids in Vinca minor and Catharanthus roseus. Phytochemistry, 2019, 168, 112110.	1.4	10
82	Split-HaloTag imaging assay for sophisticated microscopy of proteinâ€“protein interactions in planta. Plant Communications, 2021, 2, 100212.	3.6	10
83	A rapid and sensitive method to evaluate genotype specific tolerance to phosphinothricin-based selective agents in cereal transformation. Journal of Plant Physiology, 1998, 152, 145-150.	1.6	9
84	A promiscuous coenzyme A ligase provides benzoylâ€coenzyme A for xanthone biosynthesis in Hypericum. Plant Journal, 2020, 104, 1472-1490.	2.8	8
85	Physiological Importance of Molybdate Transporter Family 1 in Feeding the Molybdenum Cofactor Biosynthesis Pathway in Arabidopsis thaliana. Molecules, 2022, 27, 3158.	1.7	8
86	Anaerobic induction of the maize GapC4 promoter in poplar leaves requires light and high CO 2. Planta, 2003, 218, 79-86.	1.6	7
87	Surviving Volcanic Environmentsâ€”Interaction of Soil Mineral Content and Plant Element Composition. Frontiers in Environmental Science, 2018, 6, .	1.5	7
88	Pilot study on the uptake and modification of harmaline in acceptor plants: An innovative approach to visualize the interspecific transfer of natural products. Phytochemistry, 2020, 174, 112362.	1.4	7
89	Transgenic Poplar Plants for the Investigation of ABA-Dependent Salt and Drought Stress Adaptation in Trees. American Journal of Plant Sciences, 2016, 07, 1337-1356.	0.3	7
90	A Laboratory of Extremophiles: Iceland Coordination Action for Research Activities on Life in Extreme Environments (CAREX) Field Campaign. Life, 2013, 3, 211-233.	1.1	6

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91	Apoplastic peroxidases enable an additional sulphite detoxification strategy and act as first line of defence upon exposure to sulphur containing gas. Environmental and Experimental Botany, 2019, 157, 140-150.	2.0	6
92	Cytosolic aromatic aldehyde dehydrogenase provides benzoic acid for xanthone biosynthesis in Hypericum. Plant Physiology and Biochemistry, 2021, 160, 82-93.	2.8	6
93	Sulfite Reductase Co-suppression in Tobacco Reveals Detoxification Mechanisms and Downstream Responses Comparable to Sulfate Starvation. Frontiers in Plant Science, 2018, 9, 1423.	1.7	5
94	The First Step of Neurospora crassa Molybdenum Cofactor Biosynthesis: Regulatory Aspects under N-Derepressing and Nitrate-Inducing Conditions. Microorganisms, 2020, 8, 534.	1.6	5
95	Nitrate and ammonium differ in their impact on Î´¹³C of plant metabolites and respired CO₂from tobacco leaves. Isotopes in Environmental and Health Studies, 2021, 57, 11-34.	0.5	4
96	Screening for scFv-fragments that are stable and active in the cytosol. Human Antibodies, 2020, 28, 149-157.	0.6	3
97	Plant Defense Proteins as Potential Markers for Early Detection of Forest Damage and Diseases. Frontiers in Forests and Global Change, 2021, 4, .	1.0	2
98	Electroporation-mediated transient gene expression in isolated scutella of Hordeum vulgare. Physiologia Plantarum, 1996, 98, 20-27.	2.6	2
99	Prospective Post-translational Regulation of Plant Sulfite Oxidase. Proceedings of the International Plant Sulfur Workshop, 2015, , 179-187.	0.1	1
100	Sulfite Oxidation in Plants. Advances in Photosynthesis and Respiration, 2008, , 223-230.	1.0	0