

Bernd Zechmann

List of Publications by Year in descending order

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Version: 2024-02-01

70
papers

3,641
citations

182225

30
h-index

156644

58
g-index

76
all docs

76
docs citations

76
times ranked

4912
citing authors

#	ARTICLE	IF	CITATIONS
1	<i>Marchantia polymorpha</i> model reveals conserved infection mechanisms in the vascular wilt fungal pathogen <i>Fusarium oxysporum</i> . <i>New Phytologist</i> , 2022, 234, 227-241.	3.5	22
2	Volumetric 3D reconstruction of plant leaf cells using SEM, ion milling, TEM, and serial sectioning. <i>Planta</i> , 2022, 255, 118.	1.6	2
3	Conserved secreted effectors contribute to endophytic growth and multihost plant compatibility in a vascular wilt fungus. <i>Plant Cell</i> , 2022, 34, 3214-3232.	3.1	20
4	Indoor Finish Material Influence on Contamination, Transmission, and Eradication of Methicillin-Resistant <i>Staphylococcus aureus</i> (MRSA). <i>Herd</i> , 2021, 14, 118-129.	0.9	6
5	Three-dimensional quantitative imaging of Tobacco mosaic virus and Zucchini yellow mosaic virus induced ultrastructural changes. <i>Protoplasma</i> , 2021, 258, 1201-1211.	1.0	9
6	Cerebral Organoids Derived from a Parkinson's Patient Exhibit Unique Pathogenesis from Chikungunya Virus Infection When Compared to a Non-Parkinson's Patient. <i>Pathogens</i> , 2021, 10, 913.	1.2	8
7	Quantifying the effect of shade on cuticle morphology and carbon isotopes of sycamores: present and past. <i>American Journal of Botany</i> , 2021, 108, 2435-2451.	0.8	6
8	The effects of ionizing radiation on the structure and antioxidative and metal-binding capacity of the cell wall of microalga <i>Chlorella sorokiniana</i> . <i>Chemosphere</i> , 2020, 260, 127553.	4.2	5
9	Novel perspectives on stomatal impressions: Rapid and non-invasive surface characterization of plant leaves by scanning electron microscopy. <i>PLoS ONE</i> , 2020, 15, e0238589.	1.1	11
10	Subcellular Roles of Glutathione in Mediating Plant Defense during Biotic Stress. <i>Plants</i> , 2020, 9, 1067.	1.6	53
11	Rapid Sample Preparation of Plant Leaves for Scanning Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2020, 26, 342-343.	0.2	1
12	Mechanisms of detoxification of high copper concentrations by the microalga <i>Chlorella sorokiniana</i> . <i>Biochemical Journal</i> , 2020, 477, 3729-3741.	1.7	8
13	<i>Arabidopsis</i> glutathione reductase 2 is indispensable in plastids, while mitochondrial glutathione is safeguarded by additional reduction and transport systems. <i>New Phytologist</i> , 2019, 224, 1569-1584.	3.5	57
14	Ultrastructure of plastids serves as reliable abiotic and biotic stress marker. <i>PLoS ONE</i> , 2019, 14, e0214811.	1.1	30
15	Sample preparation utilizing sputter coating increases contrast of cellulose nanocrystals in the transmission electron microscope. <i>Microscopy (Oxford, England)</i> , 2019, 68, 471-474.	0.7	0
16	The Effect of Granular Commercial Fertilizers Containing Elemental Sulfur on Wheat Yield under Mediterranean Conditions. <i>Plants</i> , 2019, 8, 2.	1.6	18
17	The <i>Ustilago maydis</i> repetitive effector Rsp3 blocks the antifungal activity of mannose-binding maize proteins. <i>Nature Communications</i> , 2018, 9, 1711.	5.8	102
18	Compartment-Specific Importance of Ascorbate During Environmental Stress in Plants. <i>Antioxidants and Redox Signaling</i> , 2018, 29, 1488-1501.	2.5	41

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19	Morphological characteristics of preparator air-scribe marks: Implications for taphonomic research. PLoS ONE, 2018, 13, e0209330.	1.1	13
20	A barley powdery mildew fungus non-autonomous retrotransposon encodes a peptide that supports penetration success on barley. Journal of Experimental Botany, 2018, 69, 3745-3758.	2.4	35
21	Determination of glutathione redox potential and pH value in subcellular compartments of malaria parasites. Free Radical Biology and Medicine, 2017, 104, 104-117.	1.3	32
22	Evaluating a novel oxygenating therapeutic for its potential use in the advancement of wound healing. Toxicology in Vitro, 2017, 43, 62-68.	1.1	9
23	The Signaling Roles of Glutathione in Plant Disease Resistance. , 2017, , 331-357.		24
24	An assay for entry of secreted fungal effectors into plant cells. New Phytologist, 2017, 213, 956-964.	3.5	25
25	3D Reconstruction of Zucchini- and Tobacco Yellow Mosaic Virus Induced Ultrastructural Changes in Plants. Microscopy and Microanalysis, 2017, 23, 1220-1221.	0.2	3
26	Compartment-specific investigations of antioxidants and hydrogen peroxide in leaves of Arabidopsis thaliana during dark-induced senescence. Acta Physiologiae Plantarum, 2016, 38, 133.	1.0	25
27	Microwave Assisted Rapid Diagnosis of Plant Virus Diseases by TEM. Microscopy and Microanalysis, 2015, 21, 75-76.	0.2	1
28	Pullulanase and Starch Synthase III Are Associated with Formation of Vitreous Endosperm in Quality Protein Maize. PLoS ONE, 2015, 10, e0130856.	1.1	5
29	Carbon allocation from source to sink leaf tissue in relation to flavonoid biosynthesis in variegated Pelargonium zonale under UV-B radiation and high PAR intensity. Plant Physiology and Biochemistry, 2015, 93, 44-55.	2.8	35
30	Compartment specific changes of the antioxidative status in Arabidopsis thaliana during salt stress. Journal of Plant Biology, 2015, 58, 8-16.	0.9	26
31	A Secreted Effector Protein of <i>Ustilago maydis</i> Guides Maize Leaf Cells to Form Tumors. Plant Cell, 2015, 27, 1332-1351.	3.1	143
32	Ultraviolet-B component of sunlight stimulates photosynthesis and flavonoid accumulation in variegated <i>Phaseolus vulgaris</i> leaves depending on background light. Plant, Cell and Environment, 2015, 38, 968-979.	2.8	48
33	Compartment-specific importance of glutathione during abiotic and biotic stress. Frontiers in Plant Science, 2014, 5, 566.	1.7	133
34	Higher sensitivity of pad2-1 and vtc2-1 mutants to cadmium is related to lower subcellular glutathione rather than ascorbate contents. Protoplasma, 2014, 251, 755-769.	1.0	24
35	Compartment specific response of antioxidants to drought stress in Arabidopsis. Plant Science, 2014, 227, 133-144.	1.7	90
36	Alternative Cell Death Mechanisms Determine Epidermal Resistance in Incompatible Barley- <i>Ustilago</i> Interactions. Molecular Plant-Microbe Interactions, 2014, 27, 403-414.	1.4	26

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37	Two and three dimensional characterization of Zucchini Yellow Mosaic Virus induced structural alterations in Cucurbita pepo L. plants. <i>Journal of Structural Biology</i> , 2014, 186, 245-252.	1.3	10
38	Transcriptomics of Desiccation Tolerance in the Streptophyte Green Alga <i>Klebsormidium</i> Reveal a Land Plant-Like Defense Reaction. <i>PLoS ONE</i> , 2014, 9, e110630.	1.1	130
39	Dynamic compartment specific changes in glutathione and ascorbate levels in Arabidopsis plants exposed to different light intensities. <i>BMC Plant Biology</i> , 2013, 13, 104.	1.6	74
40	Redox control of plant growth and development. <i>Plant Science</i> , 2013, 211, 77-91.	1.7	138
41	Functional Analysis of Arabidopsis Mutants Points to Novel Roles for Glutathione in Coupling H ₂ O ₂ to Activation of Salicylic Acid Accumulation and Signaling. Antioxidants and Redox Signaling, 2013, 18, 2106-2121.	2.5	234
42	High Resolution Imaging of Temporal and Spatial Changes of Subcellular Ascorbate, Glutathione and H ₂ O ₂ Distribution during Botrytis cinerea Infection in Arabidopsis. <i>PLoS ONE</i> , 2013, 8, e65811.	1.1	40
43	High resolution imaging of subcellular glutathione concentrations by quantitative immunoelectron microscopy in different leaf areas of Arabidopsis. <i>Micron</i> , 2013, 45, 119-128.	1.1	59
44	Rapid immunohistochemical diagnosis of tobacco mosaic virus disease by microwave-assisted plant sample preparation. <i>Microscopy (Oxford, England)</i> , 2013, 62, 547-553.	0.7	4
45	The <i>Ustilago maydis</i> Effector Pep1 Suppresses Plant Immunity by Inhibition of Host Peroxidase Activity. <i>PLoS Pathogens</i> , 2012, 8, e1002684.	2.1	335
46	The Mutualistic Fungus <i>Piriformospora indica</i> Colonizes <i>Arabidopsis</i> Roots by Inducing an Endoplasmic Reticulum Stress-Triggered Caspase-Dependent Cell Death. <i>Plant Cell</i> , 2012, 24, 794-809.	3.1	128
47	Sulfate supply influences compartment specific glutathione metabolism and confers enhanced resistance to Tobacco mosaic virus during a hypersensitive response. <i>Plant Physiology and Biochemistry</i> , 2012, 59, 44-54.	2.8	52
48	Compartment-Specific Antioxidative Defense in <i>Arabidopsis</i> Against Virulent and Avirulent <i>Pseudomonas syringae</i> . <i>Phytopathology</i> , 2012, 102, 662-673.	1.1	47
49	Comparative spatiotemporal analysis of root aerenchyma formation processes in maize due to sulphate, nitrate or phosphate deprivation. <i>Protoplasma</i> , 2012, 249, 671-686.	1.0	24
50	Microwave Assisted Rapid Diagnosis of Plant Virus Diseases by Transmission Electron Microscopy. <i>Journal of Visualized Experiments</i> , 2011, , e2950.	0.2	2
51	Increased intracellular H ₂ O ₂ availability preferentially drives glutathione accumulation in vacuoles and chloroplasts. <i>Plant, Cell and Environment</i> , 2011, 34, 21-32.	2.8	139
52	Subcellular Distribution of Glutathione Precursors in <i>Arabidopsis thaliana</i> . <i>Journal of Integrative Plant Biology</i> , 2011, 53, 930-941.	4.1	10
53	Subcellular distribution of glutathione and its dynamic changes under oxidative stress in the yeast <i>Saccharomyces cerevisiae</i> . <i>FEMS Yeast Research</i> , 2011, 11, 631-642.	1.1	37
54	Immunocytochemical determination of the subcellular distribution of ascorbate in plants. <i>Planta</i> , 2011, 233, 1-12.	1.6	125

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55	Glutathione synthesis is essential for pollen germination in vitro. <i>BMC Plant Biology</i> , 2011, 11, 54.	1.6	58
56	Subcellular distribution of glutathione in the gametophyte. <i>Plant Signaling and Behavior</i> , 2011, 6, 1259-1262.	1.2	4
57	Broad-Spectrum Suppression of Innate Immunity Is Required for Colonization of Arabidopsis Roots by the Fungus <i>Piriformospora indica</i> . <i>Plant Physiology</i> , 2011, 156, 726-740.	2.3	296
58	Subcellular distribution of ascorbate in plants. <i>Plant Signaling and Behavior</i> , 2011, 6, 360-363.	1.2	84
59	Enhanced Glutathione Metabolism Is Correlated with Sulfur-Induced Resistance in Tobacco mosaic virus-infected Genetically Susceptible <i>Nicotiana tabacum</i> Plants. <i>Molecular Plant-Microbe Interactions</i> , 2010, 23, 1448-1459.	1.4	68
60	Cadmium induced changes in subcellular glutathione contents within glandular trichomes of <i>Cucurbita pepo</i> L.. <i>Protoplasma</i> , 2010, 243, 87-94.	1.0	27
61	Fine structural quantification of drought-stressed <i>Picea abies</i> (L.) organelles based on 3D reconstructions. <i>Protoplasma</i> , 2010, 243, 129-136.	1.0	16
62	Subcellular compartmentation of glutathione in dicotyledonous plants. <i>Protoplasma</i> , 2010, 246, 15-24.	1.0	86
63	Subcellular distribution of glutathione and cysteine in cyanobacteria. <i>Protoplasma</i> , 2010, 246, 65-72.	1.0	21
64	Identification of a Pentatricopeptide Repeat Protein Implicated in Splicing of Intron 1 of Mitochondrial nad7 Transcripts. <i>Journal of Biological Chemistry</i> , 2010, 285, 32192-32199.	1.6	123
65	Rapid diagnosis of plant virus diseases by transmission electron microscopy. <i>Journal of Virological Methods</i> , 2009, 162, 163-169.	1.0	47
66	Effects of zucchini yellow mosaic virus infection on the subcellular distribution of glutathione and its precursors in a highly tolerant <i>Cucurbita pepo</i> cultivar. <i>Botany</i> , 2008, 86, 1092-1100.	0.5	16
67	Membrane associated qualitative differences in cell ultrastructure of chemically and high pressure cryofixed plant cells. <i>Journal of Structural Biology</i> , 2007, 158, 370-377.	1.3	29
68	Organelle association visualized by three-dimensional ultrastructural imaging of the yeast cell. <i>FEMS Yeast Research</i> , 2007, 7, 629-638.	1.1	52
69	Immunocytochemical localization of glutathione precursors in plant cells. <i>Journal of Electron Microscopy</i> , 2006, 55, 173-181.	0.9	13
70	Effects of different fixation and freeze substitution methods on the ultrastructural preservation of ZYMV-infected <i>Cucurbita pepo</i> (L.) leaves. <i>Microscopy (Oxford, England)</i> , 2005, 54, 393-402.	0.7	13