Gerhard Leubner-Metzger

List of Publications by Year
in descending order

84 papers	9,796 citations	81434 41 h-index	73587 79 g-index
88 all docs	88 docs citations	88 times ranked	8511 citing authors

#	Article	IF	Citations
1	Seedborne<i>Cercospora beticola</i>Can Initiate Cercospora Leaf Spot from Sugar Beet (<i>Beta) Tj ETQq1 1 0.784314 rgBT /Overlock	1.1	4
2	Xyloglucan remodelling enzymes and the mechanics of plant seed and fruit biology. Journal of Experimental Botany, 2022, 73, 1253-1257.	2.4	5
3	Coldâ€induced secondary dormancy and its regulatory mechanisms in <i>Beta vulgaris</i>. Plant, Cell and Environment, 2022, 45, 1315-1332.	2.8	9
4	Molecular mechanisms of seed dormancy release by gas plasma-activated water technology. Journal of Experimental Botany, 2022, 73, 4065-4078.	2.4	11
5	The Phytotoxin Myrigalone A Triggers a Phased Detoxification Programme and Inhibits Lepidium sativum Seed Germination via Multiple Mechanisms including Interference with Auxin Homeostasis. International Journal of Molecular Sciences, 2022, 23, 4618.	1.8	6
6	Gas-Plasma-Activated Water Impact on Photo-Dependent Dormancy Mechanisms in Nicotiana tabacum Seeds. International Journal of Molecular Sciences, 2022, 23, 6709.	1.8	5
7	Coleorhizaâ€enforced seed dormancy: a novel mechanism to control germination in grasses. New Phytologist, 2021, 229, 2179-2191.	3.5	20
8	<i>Aethionema arabicum</i> genome annotation using PacBio fullâ€length transcripts provides a valuable resource for seed dormancy and Brassicaceae evolution research. Plant Journal, 2021, 106, 275-293.	2.8	20
9	Seed dormancy and weed emergence: from simulating environmental change to understanding trait plasticity, adaptive evolution, and population fitness. Journal of Experimental Botany, 2021, 72, 4181-4185.	2.4	14
10	A tale of two morphs: developmental patterns and mechanisms of seed coat differentiation in the dimorphic diaspore model Aethionema arabicum (Brassicaceae). Plant Journal, 2021, 107, 166-181.	2.8	8
11	Molecular mechanisms and hormonal regulation underpinning morphological dormancy: a case study using <i>Apium graveolens</i> (Apiaceae). Plant Journal, 2021, 108, 1020-1036.	2.8	15
12	Fracture of the dimorphic fruits of Aethionema arabicum (Brassicaceae). Botany, 2020, 98, 65-75.	0.5	7
13	The effects of high oxygen partial pressure on vegetable Allium seeds with a short shelf-life. Planta, 2020, 251, 105.	1.6	13
14	Between a rock and a hard place: adaptive sensing and siteâ€specific dispersal. Ecology Letters, 2020, 23, 1370-1379.	3.0	9
15	Rocket Science: The Effect of Spaceflight on Germination Physiology, Ageing, and Transcriptome of Eruca sativa Seeds. Life, 2020, 10, 49.	1.1	19
16	The biochemistry underpinning industrial seed technology and mechanical processing of sugar beet. Planta, 2019, 250, 1717-1729.	1.6	16
17	Pericarp-mediated chemical dormancy controls the fruit germination of the invasive hoary cress (Lepidium draba), but not of hairy whitetop (Lepidium appelianum). Weed Science, 2019, 67, 560-571.	0.8	7
18	Usability of reference-free transcriptome assemblies for detection of differential expression: a case study on Aethionema arabicum dimorphic seeds. BMC Genomics, 2019, 20, 95.	1.2	18

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19	Aethionema arabicum: a novel model plant to study the light control of seed germination. Journal of Experimental Botany, 2019, 70, 3313-3328.	2.4	31
20	Naturally-primed life strategy plasticity of dimorphic Aethionema arabicum facilitates optimal habitat colonization. Scientific Reports, 2019, 9, 16108.	1.6	19
21	Dispersal biophysics and adaptive significance of dimorphic diaspores in the annual <i>Aethionema arabicum</i> (Brassicaceae). New Phytologist, 2019, 221, 1434-1446.	3.5	38
22	Finite indentation of highly curved elastic shells. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20170482.	1.0	5
23	Tissue and cellular mechanics of seeds. Current Opinion in Genetics and Development, 2018, 51, 1-10.	1.5	49
24	The biomechanics of seed germination. Journal of Experimental Botany, 2017, 68, erw428.	2.4	124
25	Biomechanical properties of wheat grains: the implications on milling. Journal of the Royal Society Interface, 2017, 14, 20160828.	1.5	26
26	Fruit fracture biomechanics and the release of Lepidium didymum pericarp-imposed mechanical dormancy by fungi. Nature Communications, 2017, 8, 1868.	5.8	28
27	Developmental Control and Plasticity of Fruit and Seed Dimorphism in <i>Aethionema arabicum</i>. Plant Physiology, 2016, 172, 1691-1707.	2.3	59
28	Answer to July 2015 Photo Quiz. Journal of Clinical Microbiology, 2015, 53, 2393-2393.	1.8	0
29	Photo Quiz: Mysterious Objects in a Pleural Biopsy Sample from a Patient with Recurrent Pleural Empyema. Journal of Clinical Microbiology, 2015, 53, 2005-2005.	1.8	1
30	Promotion of Testa Rupture during Garden Cress Germination Involves Seed Compartment-Specific Expression and Activity of Pectin Methylesterases Â. Plant Physiology, 2014, 167, 200-215.	2.3	64
31	<i>DELAY OF GERMINATION 1</i> mediates a conserved coat-dormancy mechanism for the temperature- and gibberellin-dependent control of seed germination. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E3571-80.	3.3	175
32	Spatiotemporal Seed Development Analysis Provides Insight into Primary Dormancy Induction and Evolution of the<i>Lepidium DELAY OF GERMINATION1</i>Genes Â Â Â. Plant Physiology, 2013, 161, 1903-1917.	2.3	18
33	Transcriptome-Wide Mapping of Pea Seed Ageing Reveals a Pivotal Role for Genes Related to Oxidative Stress and Programmed Cell Death. PLoS ONE, 2013, 8, e78471.	1.1	74
34	Transcriptional Dynamics of Two Seed Compartments with Opposing Roles in Arabidopsis Seed Germination Â Â. Plant Physiology, 2013, 163, 205-215.	2.3	175
35	Embryo growth, testa permeability, and endosperm weakening are major targets for the environmentally regulated inhibition of Lepidium sativum seed germination by myrigalone A. Journal of Experimental Botany, 2012, 63, 5337-5350.	2.4	38
36	Myrigalone A Inhibits Lepidium sativum Seed Germination by Interference with Gibberellin Metabolism and Apoplastic Superoxide Production Required for Embryo Extension Growth and Endosperm Rupture. Plant and Cell Physiology, 2012, 53, 81-95.	1.5	64

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37	Role of a respiratory burst oxidase of Lepidium sativum (cress) seedlings in root development and auxin signalling. Journal of Experimental Botany, 2012, 63, 6325-6334.	2.4	28
38	Distinct Cell Wall Architectures in Seed Endosperms in Representatives of the Brassicaceae and Solanaceae Â Â Â. Plant Physiology, 2012, 160, 1551-1566.	2.3	63
39	Molecular mechanisms of seed dormancy. Plant, Cell and Environment, 2012, 35, 1769-1786.	2.8	449
40	Beyond gibberellins and abscisic acid: how ethylene and jasmonates control seed germination. Plant Cell Reports, 2012, 31, 253-270.	2.8	273
41	Dose- and tissue-specific interaction of monoterpenes with the gibberellin-mediated release of potato tuber bud dormancy, sprout growth and induction of Î±-amylases and Î²-amylases. Planta, 2012, 235, 137-151.	1.6	64
42	First off the mark: early seed germination. Journal of Experimental Botany, 2011, 62, 3289-3309.	2.4	635
43	A Guideline to Family-Wide Comparative State-of-the-Art Quantitative RT-PCR Analysis Exemplified with a Brassicaceae Cross-Species Seed Germination Case Study Â. Plant Cell, 2011, 23, 2045-2063.	3.1	98
44	Regulation of Seed Germination in the Close Arabidopsis Relative<i>Lepidium sativum</i>: A Global Tissue-Specific Transcript Analysis Â Â Â. Plant Physiology, 2011, 155, 1851-1870.	2.3	77
45	Members of the gibberellin receptor gene family GID1 (GIBBERELLIN INSENSITIVE DWARF1) play distinct roles during Lepidium sativum and Arabidopsis thaliana seed germination. Journal of Experimental Botany, 2011, 62, 5131-5147.	2.4	109
46	In Vivo 1H-NMR Microimaging During Seed Imbibition, Germination, and Early Growth. Methods in Molecular Biology, 2011, 773, 319-327.	0.4	7
47	Cross-species approaches to seed dormancy and germination: conservation and biodiversity of ABA-regulated mechanisms and the Brassicaceae DOG1 genes. Plant Molecular Biology, 2010, 73, 67-87.	2.0	130
48	Proteomics reveal tissueâ€specific features of the cress (<i>Lepidium sativum</i> L.) endosperm cap proteome and its hormoneâ€induced changes during seed germination. Proteomics, 2010, 10, 406-416.	1.3	51
49	The evolution of seeds. New Phytologist, 2010, 186, 817-831.	3.5	349
50	Peroxidases identified in a subtractive cDNA library approach show tissue-specific transcript abundance and enzyme activity during seed germination of Lepidium sativum. Journal of Experimental Botany, 2010, 61, 491-502.	2.4	30
51	Ethylene Interacts with Abscisic Acid to Regulate Endosperm Rupture during Germination: A Comparative Approach Using<i>Lepidium sativum</i>and<i>Arabidopsis thaliana</i>Â Â. Plant Cell, 2010, 21, 3803-3822.	3.1	258
52	Dormancy in Plant Seeds. Topics in Current Genetics, 2010, , 43-67.	0.7	30
53	In Vivo Cell Wall Loosening by Hydroxyl Radicals during Cress Seed Germination and Elongation Growth Â Â. Plant Physiology, 2009, 150, 1855-1865.	2.3	346
54	The NADPHâ€oxidase <i>AtrbohB</i> plays a role in Arabidopsis seed afterâ€ripening. New Phytologist, 2009, 184, 885-897.	3.5	204

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55	1-Aminocyclopropane-1-carboxylic acid and abscisic acid during the germination of sugar beet (Beta) Tj ETQq1 1 0.784314 rgBT /Overlo 3047-3060.	2.4	126
56	Seed dormancy and the control of germination. New Phytologist, 2006, 171, 501-523.	3.5	2,271
57	Endosperm-limited Brassicaceae Seed Germination: Abscisic Acid Inhibits Embryo-induced Endosperm Weakening of Lepidium sativum (cress) and Endosperm Rupture of Cress and Arabidopsis thaliana. Plant and Cell Physiology, 2006, 47, 864-877.	1.5	275
58	Water Uptake and Distribution in Germinating Tobacco Seeds Investigated in Vivo by Nuclear Magnetic Resonance Imaging Â. Plant Physiology, 2005, 138, 1538-1551.	2.3	175
59	Plant hormone interactions during seed dormancy release and germination. Seed Science Research, 2005, 15, 281-307.	0.8	891
60	Î²-1,3-Glucanase gene expression in low-hydrated seeds as a mechanism for dormancy release during tobacco after-ripening. Plant Journal, 2004, 41, 133-145.	2.8	150
61	Ozone-induced gene expression occurs via ethylene-dependent and -independent signalling. Plant Molecular Biology, 2003, 51, 599-607.	2.0	38
62	Calcium requirement for ethylene-dependent responses involving 1-aminocyclopropane-1-carboxylic acid oxidase in radicle tissues of germinated pea seeds*. Plant, Cell and Environment, 2003, 26, 661-671.	2.8	44
63	Functions and regulation of Î²-1,3-glucanases during seed germination, dormancy release and after-ripening. Seed Science Research, 2003, 13, 17-34.	0.8	181
64	Brassinosteroids Promote Seed Germination. , 2003, , 119-128.		10
65	Distinct expression patterns of Î²-1,3-glucanases and chitinases during the germination of Solanaceous seeds. Seed Science Research, 2003, 13, 139-153.	0.8	49
66	Distinct Ultraviolet-Signaling Pathways in Bean Leaves. DNA Damage Is Associated with Î²-1,3-Glucanase Gene Induction, But Not with Flavonoid Formation. Plant Physiology, 2003, 133, 1445-1452.	2.3	49
67	Seed after-ripening and over-expression of class I Î²-1,3-glucanase confer maternal effects on tobacco testa rupture and dormancy release. Planta, 2002, 215, 959-968.	1.6	75
68	Î²-1,3-Glucanase and chitinase transgenes in hybrids show distinctive and independent patterns of posttranscriptional gene silencing. Planta, 2001, 212, 243-249.	1.6	23
69	Brassinosteroids and gibberellins promote tobacco seed germination by distinct pathways. Planta, 2001, 213, 758-763.	1.6	125
70	Antisenseâ€transformation reveals novel roles for class I Î²â€1,3â€glucanase in tobacco seed afterâ€ripening and photodormancy. Journal of Experimental Botany, 2001, 52, 1753-1759.	2.4	20
71	Class I Î²-1,3-Glucanase and Chitinase Are Expressed in the Micropylar Endosperm of Tomato Seeds Prior to Radicle Emergence. Plant Physiology, 2001, 126, 1299-1313.	2.3	123
72	Sense transformation reveals a novel role for classâ€ƒI Î²-1,3-glucanase in tobacco seed germination. Plant Journal, 2000, 23, 215-221.	2.8	87

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73	Ethylene promotes ethylene biosynthesis during pea seed germination by positive feedback regulation of 1-aminocyclo-propane-1-carboxylic acid oxidase. Planta, 2000, 211, 144-149.	1.6	123
74	Distinct ethylene- and tissue-specific regulation of Î²-1,3-glucanases and chitinases during pea seed germination. Planta, 1999, 209, 195-201.	1.6	63
75	Functions and Regulation of Plant Beta-1,3-Glucanases (PR-2). , 1999, , .		51
76	Ethylene-responsive element binding protein (EREBP) expression and the transcriptional regulation of class I beta-1,3-glucanase during tobacco seed germination. Plant Molecular Biology, 1998, 38, 785-795.	2.0	94
77	Transcripts at the mating type locus of Cochliobolus heterostrophus. Molecular Genetics and Genomics, 1997, 256, 661-673.	2.4	27
78	Latex allergen database. Electrophoresis, 1997, 18, 2803-2810.	1.3	42
79	Effects of gibberellins, darkness and osmotica on endosperm rupture and class I Î²-1,3-glucanase induction in tobacco seed germination. Planta, 1996, 199, 282-288.	1.6	70
80	Class I [beta]-1,3-Glucanases in the Endosperm of Tobacco during Germination. Plant Physiology, 1995, 109, 751-759.	2.3	128
81	Phenylalanine Analogues: Potent Inhibitors of Phenylalanine Ammonia-Lyase Are Weak Inhibitors of Phenylalanine-tRNA Synthetases. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 1994, 49, 781-790.	0.6	7
82	The distribution of hydroxycinnamoylputrescines in different organs of Solanum tuberosum and other solanaceous species. Phytochemistry, 1993, 32, 551-556.	1.4	26
83	Hydroxycinnamoylputrescines are not causally involved in the tuberization process in potato plants. Physiologia Plantarum, 1992, 86, 495-501.	2.6	9
84	Hydroxycinnamoylputrescines are not causally involved in the tuberization process in potato plants. Physiologia Plantarum, 1992, 86, 495-501.	2.6	0