Ilse Kranner

List of Publications by Year
in descending order

97 papers	5,843 citations	101543 36 h-index	82547 72 g-index
105 all docs	105 docs citations	105 times ranked	5856 citing authors

#	Article	IF	Citations
1	What is stress? Concepts, definitions and applications in seed science. New Phytologist, 2010, 188, 655-673.	7.3	358
2	A Central Role for Thiols in Plant Tolerance to Abiotic Stress. International Journal of Molecular Sciences, 2013, 14, 7405-7432.	4.1	357
3	Desiccation-Tolerance in Lichens: A Review. Bryologist, 2008, 111, 576-593.	0.6	284
4	Glutathione half-cell reduction potential: A universal stress marker and modulator of programmed cell death?. Free Radical Biology and Medicine, 2006, 40, 2155-2165.	2.9	281
5	Metals and seeds: Biochemical and molecular implications and their significance for seed germination. Environmental and Experimental Botany, 2011, 72, 93-105.	4.2	262
6	The Mechanisms Involved in Seed Dormancy Alleviation by Hydrogen Cyanide Unravel the Role of Reactive Oxygen Species as Key Factors of Cellular Signaling during Germination Â. Plant Physiology, 2009, 150, 494-505.	4.8	256
7	A Modulating Role for Antioxidants in Desiccation Tolerance. Integrative and Comparative Biology, 2005, 45, 734-740.	2.0	230
8	Revival of a resurrection plant correlates with its antioxidant status. Plant Journal, 2002, 31, 13-24.	5.7	228
9	Antioxidants and photoprotection in a lichen as compared with its isolated symbiotic partners. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 3141-3146.	7.1	218
10	Crosstalk between reactive oxygen species and hormonal signalling pathways regulates grain dormancy in barley. Plant, Cell and Environment, 2011, 34, 980-993.	5.7	163
11	Extracellular production of reactive oxygen species during seed germination and early seedling growth in Pisum sativum. Journal of Plant Physiology, 2010, 167, 805-811.	3.5	130
12	Social Waves in Giant Honeybees Repel Hornets. PLoS ONE, 2008, 3, e3141.	2.5	98
13	Physical dormancy in seeds: a game of hide and seek?. New Phytologist, 2013, 198, 496-503.	7.3	98
14	Biochemical traits of lichens differing in relative desiccation tolerance. New Phytologist, 2003, 160, 167-176.	7.3	97
15	Thermal energy dissipation and xanthophyll cycles beyond the Arabidopsis model. Photosynthesis Research, 2012, 113, 89-103.	2.9	97
16	Genomeâ€wide association mapping and biochemical markers reveal that seed ageing and longevity are intricately affected by genetic background and developmental and environmental conditions in barley. Plant, Cell and Environment, 2015, 38, 1011-1022.	5.7	95
17	Desiccation tolerant plants as model systems to study redox regulation of protein thiols. Plant Growth Regulation, 2010, 62, 241-255.	3.4	88
18	Extracellular superoxide production, viability and redox poise in response to desiccation in recalcitrantCastanea sativaseeds. Plant, Cell and Environment, 2009, 33, 59-75.	5.7	87

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19	Evidence for the absence of enzymatic reactions in the glassy state. A case study of xanthophyll cycle pigments in the desiccation-tolerant moss Syntrichia ruralis. Journal of Experimental Botany, 2013, 64, 3033-3043.	4.8	86
20	Glutathione status correlates with different degrees of desiccation tolerance in three lichens. New Phytologist, 2002, 154, 451-460.	7.3	83
21	Determination of Glutathione and Glutathione Disulphide in Lichens: a Comparison of Frequently Used Methods. , 1996, 7, 24-28.		78
22	Roles of apoplastic peroxidases in plant response to wounding. Phytochemistry, 2015, 112, 122-129.	2.9	75
23	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.	2.5	74
24	Content of low-molecular-weight thiols during the imbibition of Pea seeds. Physiologia Plantarum, 1993, 88, 557-562.	5.2	73
25	An oxidative burst of superoxide in embryonic axes of recalcitrant sweet chestnut seeds as induced by excision and desiccation. Physiologia Plantarum, 2008, 133, 131-139.	5.2	73
26	Significance of Thiolâ€Disulfide Exchange in Resting Stages of Plant Development. Botanica Acta, 1996, 109, 8-14.	1.6	72
27	Inter-nucleosomal DNA fragmentation and loss of RNA integrity during seed ageing. Plant Growth Regulation, 2011, 63, 63-72.	3.4	72
28	Side-effects of domestication: cultivated legume seeds contain similar tocopherols and fatty acids but less carotenoids than their wild counterparts. BMC Plant Biology, 2014, 14, 1599.	3.6	68
29	Analyses of Reactive Oxygen Species and Antioxidants in Relation to Seed Longevity and Germination. Methods in Molecular Biology, 2011, 773, 343-367.	0.9	66
30	Noninvasive diagnosis of seed viability using infrared thermography. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3912-3917.	7.1	65
31	Volatile fingerprints of seeds of four species indicate the involvement of alcoholic fermentation, lipid peroxidation, and Maillard reactions in seed deterioration during ageing and desiccation stress. Journal of Experimental Botany, 2012, 63, 6519-6530.	4.8	63
32	Glutathione redox state, tocochromanols, fatty acids, antioxidant enzymes and protein carbonylation in sunflower seed embryos associated with after-ripening and ageing. Annals of Botany, 2015, 116, 669-678.	2.9	58
33	Formation of lipid bodies and changes in fatty acid composition upon pre-akinete formation in Arctic and Antarctic<i>Zygnema</i>(Zygnematophyceae, Streptophyta) strains. FEMS Microbiology Ecology, 2016, 92, fiw096.	2.7	57
34	Isolation of high-quality RNA from polyphenol-, polysaccharide- and lipid-rich seeds. Phytochemical Analysis, 2006, 17, 144-148.	2.4	54
35	Application of heat stress <i>in situ</i> demonstrates a protective role of irradiation on photosynthetic performance in alpine plants. Plant, Cell and Environment, 2015, 38, 812-826.	5.7	51
36	Production of reactive oxygen species in excised, desiccated and cryopreserved explants of Trichilia dregeana Sond. South African Journal of Botany, 2010, 76, 112-118.	2.5	43

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37	Stress physiology and the symbiosis. , 2008, , 134-151.		42
38	Simultaneous Determination of Ascorbic Acid and Dehydroascorbic Acid in Plant Materials by High Performance Liquid Chromatography. , 1996, 7, 69-72.		41
39	Drought affects the heat-hardening capacity of alpine plants as indicated by changes in xanthophyll cycle pigments, singlet oxygen scavenging, Î±-tocopherol and plant hormones. Environmental and Experimental Botany, 2017, 133, 159-175.	4.2	41
40	Changes in tocochromanols and glutathione reveal differences in the mechanisms of seed ageing under seedbank conditions and controlled deterioration in barley. Environmental and Experimental Botany, 2018, 156, 8-15.	4.2	39
41	Glutathione half-cell reduction potential and Î±-tocopherol as viability markers during the prolonged storage of <i>Suaeda maritima</i> seeds. Seed Science Research, 2010, 20, 47-53.	1.7	38
42	Mathematically combined half-cell reduction potentials of low-molecular-weight thiols as markers of seed ageing. Free Radical Research, 2011, 45, 1093-1102.	3.3	37
43	Foliar Phenolic Compounds in Norway Spruce with Varying Susceptibility to Chrysomyxa rhododendri: Analyses of Seasonal and Infection-Induced Accumulation Patterns. Frontiers in Plant Science, 2017, 8, 1173.	3.6	36
44	Distress and eustress of reactive electrophiles and relevance to light stress acclimation via stimulation of thiol/disulphide-based redox defences. Free Radical Biology and Medicine, 2018, 122, 65-73.	2.9	36
45	A proposed interplay between peroxidase, amine oxidase and lipoxygenase in the wounding-induced oxidative burst in Pisum sativum seedlings. Phytochemistry, 2015, 112, 130-138.	2.9	34
46	Salt stress, signalling and redox control in seeds. Functional Plant Biology, 2013, 40, 848.	2.1	33
47	Novel loci and a role for nitric oxide for seed dormancy and preharvest sprouting in barley. Plant, Cell and Environment, 2019, 42, 1318-1327.	5.7	32
48	Wet-dry cycling extends seed persistence by re-instating antioxidant capacity. Plant and Soil, 2011, 338, 511-519.	3.7	31
49	Metatranscriptomic and metabolite profiling reveals vertical heterogeneity within a <i>Zygnema</i> green algal mat from Svalbard (High Arctic). Environmental Microbiology, 2019, 21, 4283-4299.	3.8	31
50	Association genetics of phenolic needle compounds in Norway spruce with variable susceptibility to needle bladder rust. Plant Molecular Biology, 2017, 94, 229-251.	3.9	30
51	Seed Carotenoid and Tocochromanol Composition of Wild Fabaceae Species Is Shaped by Phylogeny and Ecological Factors. Frontiers in Plant Science, 2017, 8, 1428.	3.6	27
52	Increased stress parameter synthesis in the yeast Saccharomyces cerevisiae after treatment with 4-hydroxy-2-nonenal 1. FEBS Letters, 1997, 405, 11-15.	2.8	26
53	Redox poise and metabolite changes in bread wheat seeds are advanced by priming with hot steam. Biochemical Journal, 2018, 475, 3725-3743.	3.7	25
54	Pre-akinete formation in Zygnema sp. from polar habitats is associated with metabolite re-arrangement. Journal of Experimental Botany, 2020, 71, 3314-3322.	4.8	25

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55	Redox state of low-molecular-weight thiols and disulphides during somatic embryogenesis of salt-treated suspension cultures ofDactylis glomerataL.. Free Radical Research, 2012, 46, 656-664.	3.3	24
56	Analyses of several seed viability markers in individual recalcitrant seeds of <i>Eugenia stipitata</i> McVaugh with totipotent germination. Plant Biology, 2017, 19, 6-13.	3.8	24
57	How dry is dry? Molecular mobility in relation to thallus water content in a lichen. Journal of Experimental Botany, 2021, 72, 1576-1588.	4.8	24
58	Wheat seed ageing viewed through the cellular redox environment and changes in pH. Free Radical Research, 2019, 53, 641-654.	3.3	23
59	Quantification of seed oil from species with varying oil content using supercritical fluid extraction. Phytochemical Analysis, 2008, 19, 493-498.	2.4	22
60	Alleviation of dormancy by reactive oxygen species in Bidens pilosa L. seeds. South African Journal of Botany, 2010, 76, 601-605.	2.5	22
61	Changes in low-molecular-weight thiol-disulphide redox couples are part of bread wheat seed germination and early seedling growth. Free Radical Research, 2017, 51, 568-581.	3.3	22
62	Extreme thermo-tolerance in seeds of desert succulents is related to maximum annual temperature. South African Journal of Botany, 2007, 73, 262-265.	2.5	21
63	Plant Parasites under Pressure: Effects of Abiotic Stress on the Interactions between Parasitic Plants and Their Hosts. International Journal of Molecular Sciences, 2021, 22, 7418.	4.1	21
64	Redox feedback regulation of ANAC089 signaling alters seed germination and stress response. Cell Reports, 2021, 35, 109263.	6.4	20
65	Abundance and Extracellular Release of Phytohormones in Aeroâ€terrestrial Microalgae (Trebouxiophyceae, Chlorophyta) As a Potential Chemical Signaling Source 1. Journal of Phycology, 2020, 56, 1295-1307.	2.3	19
66	Analysis of Chlorophylls, Carotenoids, and Tocopherols in Lichens. , 2002, , 363-378.		18
67	Homoglutathione synthetase and glutathione synthetase in drought-stressed cowpea leaves: Expression patterns and accumulation of low-molecular-weight thiols. Journal of Plant Physiology, 2010, 167, 480-487.	3.5	18
68	Diurnal changes in the xanthophyll cycle pigments of freshwater algae correlate with the environmental hydrogen peroxide concentration rather than non-photochemical quenching. Annals of Botany, 2015, 116, 519-527.	2.9	18
69	Abscisic acid-determined seed vigour differences do not influence redox regulation during ageing. Biochemical Journal, 2019, 476, 965-974.	3.7	18
70	Does oxygen affect ageing mechanisms of <i>Pinus densiflora</i> seeds? A matter of cytoplasmic physical state. Journal of Experimental Botany, 2022, 73, 2631-2649.	4.8	18
71	Glutathione half-cell reduction potential as a seed viability marker of the potential oilseed crop Vernonia galamensis. Industrial Crops and Products, 2010, 32, 687-691.	5.2	16
72	How to Join a Wave: Decision-Making Processes in Shimmering Behavior of Giant Honeybees (Apis) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.5	16

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73	Apoplastic lipid barriers regulated by conserved homeobox transcription factors extend seed longevity in multiple plant species. New Phytologist, 2021, 231, 679-694.	7.3	16
74	Hydrogen Peroxide Metabolism in Interkingdom Interaction Between Bacteria and Wheat Seeds and Seedlings. Molecular Plant-Microbe Interactions, 2020, 33, 336-348.	2.6	15
75	Stereoscopic motion analysis in densely packed clusters: 3D analysis of the shimmering behaviour in Giant honey bees. Frontiers in Zoology, 2011, 8, 3.	2.0	14
76	The freshwater red alga <i>Batrachospermum turfosum</i> (Florideophyceae) can acclimate to a wide range of light and temperature conditions. European Journal of Phycology, 2017, 52, 238-249.	2.0	14
77	Formation of chloroplast protrusions and catalase activity in alpine Ranunculus glacialis under elevated temperature and different CO2/O2 ratios. Protoplasma, 2015, 252, 1613-1619.	2.1	13
78	Adaptation to Aquatic and Terrestrial Environments in Chlorella vulgaris (Chlorophyta). Frontiers in Microbiology, 2020, 11, 585836.	3.5	13
79	RNA-Seq and secondary metabolite analyses reveal a putative defence-transcriptome in Norway spruce (Picea abies) against needle bladder rust (Chrysomyxa rhododendri) infection. BMC Genomics, 2020, 21, 336.	2.8	13
80	Extracellular superoxide production associated with secondary root growth following desiccation of Pisum sativum seedlings. Journal of Plant Physiology, 2011, 168, 1870-1873.	3.5	12
81	Speeding Up Social Waves. Propagation Mechanisms of Shimmering in Giant Honeybees. PLoS ONE, 2014, 9, e86315.	2.5	12
82	Post desiccation germination of mature seeds of tea (Camellia sinensis L.) can be enhanced by pro-oxidant treatment, but partial desiccation tolerance does not ensure survival at âˆ’20Â°C. Plant Science, 2012, 184, 36-44.	3.6	11
83	Acquisition of desiccation tolerance in Haematococcus pluvialis requires photosynthesis and coincides with lipid and astaxanthin accumulation. Algal Research, 2022, 64, 102699.	4.6	11
84	The distribution of glutathione and homoglutathione in leaf, root and seed tissue of 73 species across the three sub-families of the Leguminosae. Phytochemistry, 2015, 115, 175-183.	2.9	10
85	Exceptional flooding tolerance in the totipotent recalcitrant seeds of<i>Eugenia stipitata</i>. Seed Science Research, 2017, 27, 121-130.	1.7	9
86	AtFAHD1a: A New Player Influencing Seed Longevity and Dormancy in Arabidopsis?. International Journal of Molecular Sciences, 2021, 22, 2997.	4.1	9
87	Comparative analysis of wildâ€type accessions reveals novel determinants of Arabidopsis seed longevity. Plant, Cell and Environment, 2022, 45, 2708-2728.	5.7	9
88	Solar irradiation levels during simulated longâ€and shortâ€term heat waves significantly influence heat survival, pigment and ascorbate composition, and free radical scavenging activity in alpine <i>Vaccinium gaultherioides</i>. Physiologia Plantarum, 2018, 163, 211-230.	5.2	7
89	Phytohormone release by three isolated lichen mycobionts and the effects of indole-3-acetic acid on their compatible photobionts. Symbiosis, 2020, 82, 95-108.	2.3	7
90	Enhanced culturing techniques for the mycobiont isolated from the lichen Xanthoria parietina. Mycological Progress, 2021, 20, 797-808.	1.4	7

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91	Trade-Off between Foraging Activity and Infestation by Nest Parasites in the Primitively Eusocial BeeHalictus scabiosae. Psyche: Journal of Entomology, 2010, 2010, 1-13.	0.9	6
92	The crypsis hypothesis explained: a reply to Jayasuriya et al. (2015). Seed Science Research, 2015, 25, 402-408.	1.7	6
93	Content of low-molecular-weight thiols during the imbibition of pea seeds. Physiologia Plantarum, 1993, 88, 557-562.	5.2	4
94	The lichen market place. New Phytologist, 2022, 234, 1541-1543.	7.3	4
95	Metabolite Profiling in Green Microalgae with Varying Degrees of Desiccation Tolerance. Microorganisms, 2022, 10, 946.	3.6	3
96	Advances in understanding Norway spruce natural resistance to needle bladder rust infection: transcriptional and secondary metabolites profiling. BMC Genomics, 2022, 23, .	2.8	2
97	Non-invasive diagnosis of viability in seeds and lichens by infrared thermography under controlled environmental conditions. Plant Methods, 2019, 15, 147.	4.3	0