Ilse Kranner

List of Publications by Citations

95 papers	4,559 citations	37 h-index	66 g-index
105 ext. papers	5,318 ext. citations	5 avg, IF	5.64 L-index

#	Paper	IF	Citations
95	What is stress? Concepts, definitions and applications in seed science. *New Phytologist*, **2010**, 188, 655-73	9.8	287
94	A central role for thiols in plant tolerance to abiotic stress. *International Journal of Molecular Sciences*, **2013**, 14, 7405-32	6.3	282
93	Glutathione half-cell reduction potential: a universal stress marker and modulator of programmed cell death?. *Free Radical Biology and Medicine*, **2006**, 40, 2155-65	7.8	230
92	Desiccation-Tolerance in Lichens: A Review. *Bryologist*, **2008**, 111, 576-593	0.7	227
91	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. *Plant Physiology*, **2009**, 150, 494-505	6.6	216
90	Metals and seeds: Biochemical and molecular implications and their significance for seed germination. *Environmental and Experimental Botany*, **2011**, 72, 93-105	5.9	195
89	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, 3141-6	11.5	194
88	A modulating role for antioxidants in desiccation tolerance. *Integrative and Comparative Biology*, **2005**, 45, 734-40	2.8	184
87	Revival of a resurrection plant correlates with its antioxidant status. *Plant Journal*, **2002**, 31, 13-24	6.9	181
86	Crosstalk between reactive oxygen species and hormonal signalling pathways regulates grain dormancy in barley. *Plant, Cell and Environment*, **2011**, 34, 980-993	8.4	126
85	Extracellular production of reactive oxygen species during seed germination and early seedling growth in Pisum sativum. *Journal of Plant Physiology*, **2010**, 167, 805-11	3.6	114
84	Biochemical traits of lichens differing in relative desiccation tolerance. *New Phytologist*, **2003**, 160, 167-176	9.8	83
83	Social waves in giant honeybees repel hornets. *PLoS ONE*, **2008**, 3, e3141	3.7	80
82	Thermal energy dissipation and xanthophyll cycles beyond the Arabidopsis model. *Photosynthesis Research*, **2012**, 113, 89-103	3.7	78
81	Physical dormancy in seeds: a game of hide and seek?. *New Phytologist*, **2013**, 198, 496-503	9.8	77
80	Desiccation tolerant plants as model systems to study redox regulation of protein thiols. *Plant Growth Regulation*, **2010**, 62, 241-255	3.2	77
79	Glutathione status correlates with different degrees of desiccation tolerance in three lichens. *New Phytologist*, **2002**, 154, 451-460	9.8	75

78	Extracellular superoxide production, viability and redox poise in response to desiccation in recalcitrant Castanea sativa seeds. *Plant, Cell and Environment*, **2010**, 33, 59-75	8.4	72
77	Determination of Glutathione and Glutathione Disulphide in Lichens: a Comparison of Frequently Used Methods **1996**, 7, 24-28		70
76	Genome-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, 1011-22	8.4	68
75	Significance of Thiol-Disulfide Exchange in Resting Stages of Plant Development. *Botanica Acta*, **1996**, 109, 8-14		68
74	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, 3033-43	7	66
73	An oxidative burst of superoxide in embryonic axes of recalcitrant sweet chestnut seeds as induced by excision and desiccation. *Physiologia Plantarum*, **2008**, 133, 131-9	4.6	62
72	Content of low-molecular-weight thiols during the imbibition of Pea seeds. *Physiologia Plantarum*, **1993**, 88, 557-562	4.6	59
71	Inter-nucleosomal DNA fragmentation and loss of RNA integrity during seed ageing. *Plant Growth Regulation*, **2011**, 63, 63-72	3.2	53
70	Roles of apoplastic peroxidases in plant response to wounding. *Phytochemistry*, **2015**, 112, 122-9	4	52
69	Noninvasive diagnosis of seed viability using infrared thermography. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 3912-7	11.5	51
68	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	3.7	48
67	Isolation of high-quality RNA from polyphenol-, polysaccharide- and lipid-rich seeds. *Phytochemical Analysis*, **2006**, 17, 144-8	3.4	48
66	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, 6519-30	7	45
65	Application of heat stress in situ demonstrates a protective role of irradiation on photosynthetic performance in alpine plants. *Plant, Cell and Environment*, **2015**, 38, 812-26	8.4	44
64	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, 669-78	4.1	41
63	Formation of lipid bodies and changes in fatty acid composition upon pre-akinete formation in Arctic and Antarctic Zygnema (Zygnematophyceae, Streptophyta) strains. *FEMS Microbiology Ecology*, **2016**, 92,	4.3	41
62	Analyses of reactive oxygen species and antioxidants in relation to seed longevity and germination. *Methods in Molecular Biology*, **2011**, 773, 343-67	1.4	41
61	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	5.3	39

60	Production of reactive oxygen species in excised, desiccated and cryopreserved explants of Trichilia dregeana Sond. *South African Journal of Botany*, **2010**, 76, 112-118	2.9	37
59	Mathematically combined half-cell reduction potentials of low-molecular-weight thiols as markers of seed ageing. *Free Radical Research*, **2011**, 45, 1093-102	4	33
58	Glutathione half-cell reduction potential and □-tocopherol as viability markers during the prolonged storage of Suaeda maritima seeds. *Seed Science Research*, **2010**, 20, 47-53	1.3	32
57	Stress physiology and the symbiosis134-151		31
56	A proposed interplay between peroxidase, amine oxidase and lipoxygenase in the wounding-induced oxidative burst in Pisum sativum seedlings. *Phytochemistry*, **2015**, 112, 130-8	4	28
55	Simultaneous Determination of Ascorbic Acid and Dehydroascorbic Acid in Plant Materials by High Performance Liquid Chromatography **1996**, 7, 69-72		27
54	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	7.8	25
53	Salt stress, signalling and redox control in seeds. *Functional Plant Biology*, **2013**, 40, 848-859	2.7	25
52	Wet-dry cycling extends seed persistence by re-instating antioxidant capacity. *Plant and Soil*, **2011**, 338, 511-519	4.2	25
51	Drought affects the heat-hardening capacity of alpine plants as indicated by changes in xanthophyll cycle pigments, singlet oxygen scavenging, □-tocopherol and plant hormones. *Environmental and Experimental Botany*, **2017**, 133, 159-175	5.9	24
50	Increased stress parameter synthesis in the yeast Saccharomyces cerevisiae after treatment with 4-hydroxy-2-nonenal. *FEBS Letters*, **1997**, 405, 11-5	3.8	24
49	Redox state of low-molecular-weight thiols and disulphides during somatic embryogenesis of salt-treated suspension cultures of Dactylis glomerata L. *Free Radical Research*, **2012**, 46, 656-64	4	22
48	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	5.9	22
47	Association genetics of phenolic needle compounds in Norway spruce with variable susceptibility to needle bladder rust. *Plant Molecular Biology*, **2017**, 94, 229-251	4.6	19
46	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	4	19
45	Foliar Phenolic Compounds in Norway Spruce with Varying Susceptibility to : Analyses of Seasonal and Infection-Induced Accumulation Patterns. *Frontiers in Plant Science*, **2017**, 8, 1173	6.2	19
44	Quantification of seed oil from species with varying oil content using supercritical fluid extraction. *Phytochemical Analysis*, **2008**, 19, 493-8	3.4	19
43	Novel loci and a role for nitric oxide for seed dormancy and preharvest sprouting in barley. *Plant, Cell and Environment*, **2019**, 42, 1318-1327	8.4	19

42	Alleviation of dormancy by reactive oxygen species in Bidens pilosa L. seeds. *South African Journal of Botany*, **2010**, 76, 601-605	2.9	18
41	Seed Carotenoid and Tocochromanol Composition of Wild Fabaceae Species Is Shaped by Phylogeny and Ecological Factors. *Frontiers in Plant Science*, **2017**, 8, 1428	6.2	17
40	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, 519-27	4.1	16
39	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, 480-7	3.6	16
38	Metatranscriptomic and metabolite profiling reveals vertical heterogeneity within a Zygnema green algal mat from Svalbard (High Arctic). *Environmental Microbiology*, **2019**, 21, 4283-4299	5.2	15
37	Analysis of Chlorophylls, Carotenoids, and Tocopherols in Lichens **2002**, 363-378		15
36	Extreme thermo-tolerance in seeds of desert succulents is related to maximum annual temperature. *South African Journal of Botany*, **2007**, 73, 262-265	2.9	14
35	How dry is dry? Molecular mobility in relation to thallus water content in a lichen. *Journal of Experimental Botany*, **2021**, 72, 1576-1588	7	14
34	Pre-akinete formation in Zygnema sp. from polar habitats is associated with metabolite re-arrangement. *Journal of Experimental Botany*, **2020**, 71, 3314-3322	7	13
33	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	5.9	13
32	Wheat seed ageing viewed through the cellular redox environment and changes in pH. *Free Radical Research*, **2019**, 53, 641-654	4	12
31	Extracellular superoxide production associated with secondary root growth following desiccation of Pisum sativum seedlings. *Journal of Plant Physiology*, **2011**, 168, 1870-3	3.6	12
30	Analyses of several seed viability markers in individual recalcitrant seeds of Eugenia stipitata McVaugh with totipotent germination. *Plant Biology*, **2017**, 19, 6-13	3.7	11
29	The freshwater red alga (Florideophyceae) can acclimate to a wide range of light and temperature conditions. *European Journal of Phycology*, **2017**, 52, 238-249	2.2	11
28	Abscisic acid-determined seed vigour differences do not influence redox regulation during ageing. *Biochemical Journal*, **2019**, 476, 965-974	3.8	11
27	Formation of chloroplast protrusions and catalase activity in alpine Ranunculus glacialis under elevated temperature and different CO2/O2 ratios. *Protoplasma*, **2015**, 252, 1613-9	3.4	11
26	Abundance and Extracellular Release of Phytohormones in Aero-terrestrial Microalgae (Trebouxiophyceae, Chlorophyta) As a Potential Chemical Signaling Source. *Journal of Phycology*, **2020**, 56, 1295-1307	3	11
25	How to join a wave: decision-making processes in shimmering behavior of Giant honeybees (Apis dorsata). *PLoS ONE*, **2012**, 7, e36736	3.7	11

24	Stereoscopic motion analysis in densely packed clusters: 3D analysis of the shimmering behaviour in Giant honey bees. *Frontiers in Zoology*, **2011**, 8, 3	2.8	11
23	Redox poise and metabolite changes in bread wheat seeds are advanced by priming with hot steam. *Biochemical Journal*, **2018**, 475, 3725-3743	3.8	10
22	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, 175-83	4	9
21	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 -20°C. *Plant Science*, **2012**, 184, 36-44	5.3	9
20	Adaptation to Aquatic and Terrestrial Environments in (Chlorophyta). *Frontiers in Microbiology*, **2020**, 11, 585836	5.7	8
19	Speeding up social waves. Propagation mechanisms of shimmering in giant honeybees. *PLoS ONE*, **2014**, 9, e86315	3.7	8
18	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	4.5	6
17	Trade-Off between Foraging Activity and Infestation by Nest Parasites in the Primitively Eusocial BeeHalictus scabiosae. *Psyche: Journal of Entomology*, **2010**, 2010, 1-13	0.2	6
16	Hydrogen Peroxide Metabolism in Interkingdom Interaction Between Bacteria and Wheat Seeds and Seedlings. *Molecular Plant-Microbe Interactions*, **2020**, 33, 336-348	3.6	6
15	Exceptional flooding tolerance in the totipotent recalcitrant seeds of Eugenia stipitata. *Seed Science Research*, **2017**, 27, 121-130	1.3	5
14	The crypsis hypothesis explained: a reply to Jayasuriya et al. (2015). *Seed Science Research*, **2015**, 25, 402-408	1.3	5
13	Solar irradiation levels during simulated long- and short-term heat waves significantly influence heat survival, pigment and ascorbate composition, and free radical scavenging activity in alpine Vaccinium gaultherioides. *Physiologia Plantarum*, **2018**, 163, 211-230	4.6	4
12	Phytohormone release by three isolated lichen mycobionts and the effects of indole-3-acetic acid on their compatible photobionts. *Symbiosis*, **2020**, 82, 95-108	3	4
11	Plant Parasites under Pressure: Effects of Abiotic Stress on the Interactions between Parasitic Plants and Their Hosts. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	4
10	Does oxygen affect ageing mechanisms of Pinus densiflora seeds? A matter of cytoplasmic physical state.. *Journal of Experimental Botany*, **2022**,	7	3
9	Enhanced culturing techniques for the mycobiont isolated from the lichen. *Mycological Progress*, **2021**, 20, 797-808	1.9	3
8	AtFAHD1a: A New Player Influencing Seed Longevity and Dormancy in Arabidopsis?. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	3
7	Apoplastic lipid barriers regulated by conserved homeobox transcription factors extend seed longevity in multiple plant species. *New Phytologist*, **2021**, 231, 679-694	9.8	2

6	Acquisition of desiccation tolerance in Haematococcus pluvialis requires photosynthesis and coincides with lipid and astaxanthin accumulation. *Algal Research*, **2022**, 64, 102699	5	2
5	Cytoplasmic physical state governs the influence of oxygen on Pinus densiflora seed ageing		1
4	Redox feedback regulation of ANAC089 signaling alters seed germination and stress response. *Cell Reports*, **2021**, 35, 109263	10.6	1
3	The lichen market place.. *New Phytologist*, **2022**, 234, 1541-1543	9.8	1
2	Non-invasive diagnosis of viability in seeds and lichens by infrared thermography under controlled environmental conditions. *Plant Methods*, **2019**, 15, 147	5.8	
1	Metabolite Profiling in Green Microalgae with Varying Degrees of Desiccation Tolerance. *Microorganisms*, **2022**, 10, 946	4.9	