Han Asard

List of Publications by Year
in descending order

90 papers	5,604 citations	71102 41 h-index	82547 72 g-index
91 all docs	91 docs citations	91 times ranked	6626 citing authors

#	Article	IF	Citations
1	High Salinity Induces Different Oxidative Stress and Antioxidant Responses in Maize Seedlings Organs. Frontiers in Plant Science, 2016, 7, 276.	3.6	343
2	The Role of Auxin, pH, and Stress in the Activation of Embryogenic Cell Division in Leaf Protoplast-Derived Cells of Alfalfa. Plant Physiology, 2002, 129, 1807-1819.	4.8	316
3	Transport and action of ascorbate at the plant plasma membrane. Trends in Plant Science, 2000, 5, 263-267.	8.8	275
4	Variation in leaf flushing date influences autumnal senescence and next yearâ€™s flushing date in two temperate tree species. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7355-7360.	7.1	254
5	Ascorbate and glutathione: guardians of the cell cycle, partners in crime?. Plant Physiology and Biochemistry, 2002, 40, 537-548.	5.8	240
6	Ascorbate function and associated transport systems in plants. Plant Physiology and Biochemistry, 2000, 38, 531-540.	5.8	199
7	Dehydroascorbate Influences the Plant Cell Cycle through a Glutathione-Independent Reduction Mechanism. Plant Physiology, 2004, 134, 1479-1487.	4.8	188
8	Drought Induces Distinct Growth Response, Protection, and Recovery Mechanisms in the Maize Leaf Growth Zone. Plant Physiology, 2015, 169, 1382-1396.	4.8	178
9	Metabolic Analysis of Various Date Palm Fruit (Phoenix dactylifera L.) Cultivars from Saudi Arabia to Assess Their Nutritional Quality. Molecules, 2015, 20, 13620-13641.	3.8	175
10	Physiological, biochemical, and genomeâ€wide transcriptional analysis reveals that elevated <scp>CO</scp>₂ mitigates the impact of combined heat wave and drought stress in Arabidopsis thaliana at multiple organizational levels. Global Change Biology, 2014, 20, 3670-3685.	9.5	152
11	Elevated CO2 mitigates drought and temperature-induced oxidative stress differently in grasses and legumes. Plant Science, 2015, 231, 1-10.	3.6	151
12	Tomato Phospholipid Hydroperoxide Glutathione Peroxidase Inhibits Cell Death Induced by Bax and Oxidative Stresses in Yeast and Plants. Plant Physiology, 2004, 135, 1630-1641.	4.8	132
13	Maize roots and shoots show distinct profiles of oxidative stress and antioxidant defense under heavy metal toxicity. Environmental Pollution, 2020, 258, 113705.	7.5	112
14	Anti-Oxidative Defences Are Modulated Differentially in Three Freshwater Teleosts in Response to Ammonia-Induced Oxidative Stress. PLoS ONE, 2014, 9, e95319.	2.5	102
15	Ascorbate and Dehydroascorbate Influence Cell Cycle Progression in a Tobacco Cell Suspension. Plant Physiology, 2000, 124, 17-20.	4.8	101
16	A Novel Protective Function for Cytokinin in the Light Stress Response Is Mediated by the ARABIDOPSIS HISTIDINE KINASE2 and ARABIDOPSIS HISTIDINE KINASE3 Receptors Â. Plant Physiology, 2014, 164, 1470-1483.	4.8	96
17	Regulation of amino acid metabolism as a defensive strategy in the brain of three freshwater teleosts in response to high environmental ammonia exposure. Aquatic Toxicology, 2013, 130-131, 86-96.	4.0	90
18	High clay content accelerates the decomposition of fresh organic matter in artificial soils. Soil Biology and Biochemistry, 2014, 77, 100-108.	8.8	89

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19	Cytochromesb561: Ascorbate-Mediated Trans-Membrane Electron Transport. Antioxidants and Redox Signaling, 2013, 19, 1026-1035.	5.4	85
20	Climate Extreme Effects on the Chemical Composition of Temperate Grassland Species under Ambient and Elevated CO2: A Comparison of Fructan and Non-Fructan Accumulators. PLoS ONE, 2014, 9, e92044.	2.5	84
21	Human Erythrocyte Membranes Contain a Cytochrome b561 That May Be Involved in Extracellular Ascorbate Recycling. Journal of Biological Chemistry, 2006, 281, 39852-39859.	3.4	83
22	Grassland species differentially regulate proline concentrations under future climate conditions: an integrated biochemical and modelling approach. New Phytologist, 2015, 208, 354-369.	7.3	77
23	Zinc-induced differential oxidative stress and antioxidant responses in Chlorella sorokiniana and Scenedesmus acuminatus. Ecotoxicology and Environmental Safety, 2017, 140, 256-263.	6.0	76
24	Future Climate CO2 Levels Mitigate Stress Impact on Plants: Increased Defense or Decreased Challenge?. Frontiers in Plant Science, 2016, 7, 556.	3.6	74
25	Biomarkers for grain yield stability in rice under drought stress. Journal of Experimental Botany, 2020, 71, 669-683.	4.8	71
26	Dynamics of metabolic responses to periods of combined heat and drought in Arabidopsis thaliana under ambient and elevated atmospheric CO2. Journal of Experimental Botany, 2018, 69, 2159-2170.	4.8	67
27	Nutritional Status as the Key Modulator of Antioxidant Responses Induced by High Environmental Ammonia and Salinity Stress in European Sea Bass (Dicentrarchus labrax). PLoS ONE, 2015, 10, e0135091.	2.5	66
28	b-Type Cytochromes in Higher Plant Plasma Membranes. Plant Physiology, 1989, 90, 1077-1083.	4.8	62
29	Experimental evidence that oxidative stress influences reproductive decisions. Functional Ecology, 2016, 30, 1169-1174.	3.6	62
30	Effect of elevated CO2 and temperature on the oxidative stress response to drought in Lolium perenne L. and Medicago sativa L.. Plant Physiology and Biochemistry, 2012, 59, 55-62.	5.8	61
31	Ability of ellagic acid to alleviate osmotic stress on chickpea seedlings. Plant Physiology and Biochemistry, 2013, 71, 173-183.	5.8	61
32	Artificial light at night affects body mass but not oxidative status in free-living nestling songbirds: an experimental study. Scientific Reports, 2016, 6, 35626.	3.3	61
33	Other factors than apoplastic ascorbate contribute to the differential ozone tolerance of two clones of Trifolium repens L.. Plant, Cell and Environment, 2005, 28, 623-632.	5.7	60
34	Three mammalian cytochromes b561 are ascorbate-dependent ferrireductases. FEBS Journal, 2006, 273, 3722-3734.	4.7	56
35	A phylogenetic study of cytochrome b561 proteins. Genome Biology, 2003, 4, R38.	9.6	54
36	High Antioxidant Activity Facilitates Maintenance of Cell Division in Leaves of Drought Tolerant Maize Hybrids. Frontiers in Plant Science, 2017, 8, 84.	3.6	52

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37	Facilitated glucose and dehydroascorbate transport in plant mitochondria. Archives of Biochemistry and Biophysics, 2004, 428, 73-80.	3.0	48
38	Neither artificial light at night, anthropogenic noise nor distance from roads are associated with oxidative status of nestlings in an urban population of songbirds. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2017, 210, 14-21.	1.8	48
39	Localization of an Ascorbate-Reducible Cytochrome b561 in the Plant Tonoplast. Plant Physiology, 2004, 134, 726-734.	4.8	47
40	An ascorbate-reducible cytochrome b561 is localized in macrophage lysosomes. Biochimica Et Biophysica Acta - General Subjects, 2006, 1760, 1903-1913.	2.4	46
41	Mixture toxicity of copper, cadmium, and zinc to barley seedlings is not explained by antioxidant and oxidative stress biomarkers. Environmental Toxicology and Chemistry, 2017, 36, 220-230.	4.3	44
42	Carrier mediated uptake of dehydroascorbate into higher plant plasma membrane vesicles shows trans-stimulation. FEBS Letters, 1998, 421, 41-44.	2.8	43
43	The Inter-Relationship of Ascorbate Transport, Metabolism and Mitochondrial, Plastidic Respiration. Antioxidants and Redox Signaling, 2013, 19, 1036-1044.	5.4	43
44	Detecting the onset of autumn leaf senescence in deciduous forest trees of the temperate zone. New Phytologist, 2019, 224, 166-176.	7.3	42
45	Higher-plant plasma membrane cytochromeb 561: A protein in search of a function. Protoplasma, 2001, 217, 77-93.	2.1	41
46	Structure prediction for the di-heme cytochrome b 561 protein family. Protoplasma, 2003, 221, 31-40.	2.1	40
47	AnArabidopsiscytochrome b561 withtrans-membrane ferrireductase capability. FEBS Letters, 2007, 581, 1505-1508.	2.8	39
48	Starch biosynthesis contributes to the maintenance of photosynthesis and leaf growth under drought stress in maize. Plant, Cell and Environment, 2020, 43, 2254-2271.	5.7	37
49	Heterogeneity of auxin-accumulating membrane vesicles from Cucurbita and Zea: a possible reflection of cell polarity. Planta, 1989, 177, 304-311.	3.2	34
50	Perfluoroalkyl Acids (PFAAs) Concentrations and Oxidative Status in Two Generations of Great Tits Inhabiting a Contamination Hotspot. Environmental Science & Technology, 2019, 53, 1617-1626.	10.0	34
51	Facing the Future: Effects of Short-Term Climate Extremes on Isoprene-Emitting and Nonemitting Poplar. Plant Physiology, 2015, 169, 560-575.	4.8	33
52	Heterologous expression and site-directed mutagenesis of an ascorbate-reducible cytochrome b561. Archives of Biochemistry and Biophysics, 2005, 443, 82-92.	3.0	32
53	High environmental ammonia elicits differential oxidative stress and antioxidant responses in five different organs of a model estuarine teleost (Dicentrarchus labrax). Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2015, 174-175, 21-31.	2.6	31
54	Metalaxyl Effects on Antioxidant Defenses in Leaves and Roots of Solanum nigrum L.. Frontiers in Plant Science, 2017, 8, 1967.	3.6	31

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55	Purification of cytochrome b-561 from bean hypocotyls plasma membrane. Evidence for the presence of two heme centers. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1468, 1-5.	2.6	29
56	The Systems Architecture of Molecular Memory in Poplar after Abiotic Stress. Plant Cell, 2019, 31, 346-367.	6.6	29
57	Effects of ocean acidification on the levels of primary and secondary metabolites in the brown macroalga Sargassum vulgare at different time scales. Science of the Total Environment, 2018, 643, 946-956.	8.0	26
58	Soil arsenic toxicity differentially impacts C3 (barley) and C4 (maize) crops under future climate atmospheric CO2. Journal of Hazardous Materials, 2021, 414, 125331.	12.4	26
59	Physiological and Biochemical Analyses Shed Light on the Response of Sargassum vulgare to Ocean Acidification at Different Time Scales. Frontiers in Plant Science, 2017, 8, 570.	3.6	24
60	Analysis of an Arabidopsis thaliana protein family, structurally related to cytochromes b 561 and potentially involved in catecholamine biochemistry in plants. Journal of Plant Physiology, 2004, 161, 175-181.	3.5	22
61	The thiol compounds glutathione and homoglutathione differentially affect cell development in alfalfa (Medicago sativa L.). Plant Physiology and Biochemistry, 2014, 74, 16-23.	5.8	22
62	Molecular response of Sargassum vulgare to acidification at volcanic <scp>CO</scp>₂ vents: insights from de novo transcriptomic analysis. Molecular Ecology, 2017, 26, 2276-2290.	3.9	21
63	Oxidative stress biomarkers are associated with visible clinical signs of a disease in frigatebird nestlings. Scientific Reports, 2017, 7, 1599.	3.3	21
64	BLUE LIGHT PERCEPTION BY ENDOGENOUS REDOX COMPONENTS OF THE PLANT PLASMA MEMBRANE. Photochemistry and Photobiology, 1995, 61, 518-522.	2.5	20
65	Cadmium and zinc-mediated oxidative burst in tobacco BY-2 cell suspension cultures. Acta Physiologiae Plantarum, 2009, 31, 43-49.	2.1	18
66	Soluble proteins, an often overlooked contaminant in plasma membrane preparations. Trends in Plant Science, 2003, 8, 250-251.	8.8	17
67	Vermicompost Supply Modifies Chemical Composition and Improves Nutritive and Medicinal Properties of Date Palm Fruits From Saudi Arabia. Frontiers in Plant Science, 2019, 10, 424.	3.6	16
68	Arabidopsis thaliana sequence analysis confirms the presenceof cyt b-561 in plants: Evidence for a novel protein family. Plant Physiology and Biochemistry, 2000, 38, 905-912.	5.8	14
69	Perturbation of Auxin Homeostasis and Signaling by PINOID Overexpression Induces Stress Responses in Arabidopsis. Frontiers in Plant Science, 2017, 8, 1308.	3.6	14
70	Hormonal seed-priming improves tomato resistance against broomrape infection. Journal of Plant Physiology, 2020, 250, 153184.	3.5	14
71	Al exposure increases proline levels by different pathways in an Al-sensitive and an Al-tolerant rye genotype. Scientific Reports, 2020, 10, 16401.	3.3	13
72	Prioritization of contaminated watercourses using an integrated biomarker approach in caged carp. Water Research, 2016, 99, 129-139.	11.3	11

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73	Spectral characterization of the recombinant mouse tumor suppressor 101F6 protein. European Biophysics Journal, 2010, 39, 1129-1142.	2.2	10
74	Axial ligation of the high-potential heme center in an Arabidopsis cytochrome b 561. FEBS Letters, 2011, 585, 545-548.	2.8	10
75	Essential Oil Composition and Antioxidant and Antifungal Activities of Two Varieties of Ocimum basilicum L. (Lamiaceae) at Two Phenological Stages. Agronomy, 2022, 12, 825.	3.0	10
76	Tissue-specific expression and developmental regulation of cytochrome b561 genes in Arabidopsis thaliana and Raphanus sativus. Physiologia Plantarum, 2004, 120, 312-318.	5.2	9
77	Immunization reduces vocal communication but does not increase oxidative stress in a songbird species. Behavioral Ecology and Sociobiology, 2015, 69, 829-839.	1.4	9
78	Drought tolerance in selected aerobic and upland rice varieties is driven by different metabolic and antioxidative responses. Planta, 2021, 254, 13.	3.2	9
79	Molecules tell stories: Reactive Oxygen, Nitrogen, Carbonyl and Sulfur Species take center stage. Plant Physiology and Biochemistry, 2012, 59, 1-2.	5.8	8
80	Dihydrolipoic acid reduces cytochrome b561 proteins. European Biophysics Journal, 2013, 42, 159-168.	2.2	8
81	The response of the foliar antioxidant system and stable isotopes (Î´13C and Î´15N) of white willow to low-level air pollution. Plant Physiology and Biochemistry, 2013, 67, 154-161.	5.8	8
82	Sex-specific effects of inbreeding and early life conditions on the adult oxidative balance. Environmental Epigenetics, 2018, 64, 631-639.	1.8	8
83	O3 pollution in a future climate increases the competition between summer rape and wild mustard. Plant Physiology and Biochemistry, 2019, 135, 194-205.	5.8	8
84	Redox homeostasis in the growth zone of the rice leaf plays a key role in cold tolerance. Journal of Experimental Botany, 2020, 71, 1053-1066.	4.8	8
85	Experimental inhibition of a key cellular antioxidant affects vocal communication. Functional Ecology, 2017, 31, 1101-1110.	3.6	7
86	Antioxidant Molecules and Redox Cofactors. , 0, , 11-47.		5
87	Morphological and biochemical responses of Balanites aegyptiaca to drought stress and recovery are provenanceâ€dependent. Journal of Agronomy and Crop Science, 2019, 205, 490-507.	3.5	5
88	Does previous exposure to extreme precipitation regimes result in acclimated grassland communities?. Science of the Total Environment, 2022, 838, 156368.	8.0	4
89	Interspecific plant competition mediates the metabolic and ecological signature of a plantâ€“herbivore interaction under warming and elevated CO₂. Functional Ecology, 2019, 33, 1842-1853.	3.6	3
90	Plant Responses to Drought Stress in Future Climate CO2: A Multi-level Analysis. Procedia Environmental Sciences, 2015, 29, 150-151.	1.4	0