Ismail Turkan

List of Publications by Citations

84 papers	5,441 citations	35 h-index	73 g-index
89 ext. papers	6,291 ext. citations	4.4 avg, IF	6.11 L-index

#	Paper	IF	Citations
84	Comparative lipid peroxidation, antioxidant defense systems and proline content in roots of two rice cultivars differing in salt tolerance. *Environmental and Experimental Botany*, **2005**, 53, 247-257	5.9	459
83	The effect of salt stress on lipid peroxidation and antioxidants in leaves of sugar beet Beta vulgaris L. and wild beet Beta maritima L.. *Plant Science*, **2003**, 164, 77-84	5.3	395
82	Recent developments in understanding salinity tolerance. *Environmental and Experimental Botany*, **2009**, 67, 2-9	5.9	366
81	Differential responses of lipid peroxidation and antioxidants in the leaves of drought-tolerant P. acutifolius Gray and drought-sensitive P. vulgaris L. subjected to polyethylene glycol mediated water stress. *Plant Science*, **2005**, 168, 223-231	5.3	328
80	The effect of salt stress on lipid peroxidation, antioxidative enzymes and proline content of sesame cultivars. *Environmental and Experimental Botany*, **2007**, 60, 344-351	5.9	312
79	Redox- and Reactive Oxygen Species-Dependent Signaling into and out of the Photosynthesizing Chloroplast. *Plant Physiology*, **2016**, 171, 1541-50	6.6	243
78	Differential responses of antioxidative enzymes and lipid peroxidation to salt stress in salt-tolerant Plantago maritima and salt-sensitive Plantago media. *Physiologia Plantarum*, **2007**, 131, 399-411	4.6	224
77	Reactive oxygen species regulation and antioxidant defence in halophytes. *Functional Plant Biology*, **2013**, 40, 832-847	2.7	188
76	Effects of 24-epibrassinolide on seed germination, seedling growth, lipid peroxidation, proline content and antioxidative system of rice (Oryza sativa L.) under salinity stress. *Plant Growth Regulation*, **2004**, 42, 203-211	3.2	182
75	Salinity tolerance of purslane (Portulaca oleracea L.) is achieved by enhanced antioxidative system, lower level of lipid peroxidation and proline accumulation. *Environmental and Experimental Botany*, **2007**, 61, 49-57	5.9	158
74	Does exogenous glycinebetaine affect antioxidative system of rice seedlings under NaCl treatment?. *Journal of Plant Physiology*, **2004**, 161, 1089-100	3.6	142
73	Physiochemical and antioxidant responses of the perennial xerophyte Capparis ovata Desf. to drought. *Environmental and Experimental Botany*, **2009**, 66, 487-492	5.9	123
72	NAC transcription factor JUNGBRUNNEN1 enhances drought tolerance in tomato. *Plant Biotechnology Journal*, **2018**, 16, 354-366	11.6	118
71	An Enhancing Effect of Exogenous Mannitol on the Antioxidant Enzyme Activities in Roots of Wheat Under Salt Stress. *Journal of Plant Growth Regulation*, **2009**, 28, 12-20	4.7	118
70	Comparison of ROS formation and antioxidant enzymes in Cleome gynandra (C$_4$) and Cleome spinosa (C$_3$) under drought stress. *Plant Science*, **2012**, 182, 59-70	5.3	108
69	Endoplasmic reticulum stress triggers ROS signalling, changes the redox state, and regulates the antioxidant defence of Arabidopsis thaliana. *Journal of Experimental Botany*, **2014**, 65, 1377-90	7	105
68	Exogenous glycinebetaine affects growth and proline accumulation and retards senescence in two rice cultivars under NaCl stress. *Environmental and Experimental Botany*, **2006**, 56, 72-79	5.9	105

67	Reactive oxygen species scavenging capacities of cotton (Gossypium hirsutum) cultivars under combined drought and heat induced oxidative stress. *Environmental and Experimental Botany*, **2014**, 99, 141-149	5.9	102
66	Superoxide dismutase and peroxidase activities in drought sensitive and resistant barley (Hordeum vulgare L.) varieties. *Acta Physiologiae Plantarum*, **2001**, 23, 351-356	2.6	88
65	Contribution of Gamma amino butyric acid (GABA) to salt stress responses of Nicotiana sylvestris CMSII mutant and wild type plants. *Journal of Plant Physiology*, **2012**, 169, 452-8	3.6	87
64	The role of antioxidant defense systems at differential salt tolerance of Hordeum marinum Huds. (sea barleygrass) and Hordeum vulgare L. (cultivated barley). *Environmental and Experimental Botany*, **2010**, 69, 76-85	5.9	87
63	Different antioxidant defense responses to salt stress during germination and vegetative stages of endemic halophyte Gypsophila oblanceolata Bark.. *Environmental and Experimental Botany*, **2012**, 77, 63-76	5.9	86
62	Effect of salt stress on lipid peroxidation and superoxide dismutase and peroxidase activities of Lycopersicon esculentum and L. pennellii. *Biologia Plantarum*, **2006**, 50, 745-748	2.1	77
61	Comparative effects of drought, salt, heavy metal and heat stresses on gamma-aminobutyric acid levels of sesame (Sesamum indicum L.). *Acta Physiologiae Plantarum*, **2009**, 31, 655-659	2.6	69
60	The effects of induced production of reactive oxygen species in organelles on endoplasmic reticulum stress and on the unfolded protein response in arabidopsis. *Annals of Botany*, **2015**, 116, 541-55	4.1	58
59	Antioxidant responses of chickpea plants subjected to boron toxicity. *Plant Biology*, **2009**, 11, 328-38	3.7	57
58	Lipid peroxidation-derived reactive carbonyl species (RCS): Their interaction with ROS and cellular redox during environmental stresses. *Environmental and Experimental Botany*, **2019**, 165, 139-149	5.9	52
57	Glycine betaine protects tomato (Solanum lycopersicum) plants at low temperature by inducing fatty acid desaturase7 and lipoxygenase gene expression. *Molecular Biology Reports*, **2014**, 41, 1401-10	2.8	52
56	Elucidation of physiological and biochemical mechanisms of an endemic halophyte Centaurea tuzgoluensis under salt stress. *Plant Physiology and Biochemistry*, **2011**, 49, 816-24	5.4	52
55	Comparison of moss and bark samples as biomonitors of heavy metals in a highly industrialised area in Izmir, Turkey. *Science of the Total Environment*, **1995**, 166, 61-67	10.2	52
54	Changes in the alternative electron sinks and antioxidant defence in chloroplasts of the extreme halophyte Eutrema parvulum (Thellungiella parvula) under salinity. *Annals of Botany*, **2015**, 115, 449-63	4.1	46
53	Response of the cherry rootstock to water stress induced in vitro. *Biologia Plantarum*, **2008**, 52, 573-576	2.1	42
52	Interplay between the unfolded protein response and reactive oxygen species: a dynamic duo. *Journal of Experimental Botany*, **2018**, 69, 3333-3345	7	40
51	Abscisic acid-regulated responses of aba2-1 under osmotic stress: the abscisic acid-inducible antioxidant defence system and reactive oxygen species production. *Plant Biology*, **2012**, 14, 337-46	3.7	35
50	Strategies of ROS regulation and antioxidant defense during transition from C□to C□ photosynthesis in the genus Flaveria under PEG-induced osmotic stress. *Journal of Plant Physiology*, **2014**, 171, 65-75	3.6	34

49	Responses of the cherry rootstock to salinity in vitro. *Biologia Plantarum*, **2007**, 51, 597-600	2.1	32
48	Hydrogen sulfide (HS) and nitric oxide (NO) alleviate cobalt toxicity in wheat (Triticum aestivum L.) by modulating photosynthesis, chloroplastic redox and antioxidant capacity. *Journal of Hazardous Materials*, **2020**, 388, 122061	12.8	30
47	Induced anti-oxidant activity in soybean alleviates oxidative stress under moderate boron toxicity. *Plant Growth Regulation*, **2013**, 70, 217-226	3.2	29
46	A novel mechanism of aluminum-induced cell death involving vacuolar processing enzyme and vacuolar collapse in tobacco cell line BY-2. *Journal of Inorganic Biochemistry*, **2013**, 128, 196-201	4.2	28
45	The effects of boron toxicity on root antioxidant systems of two chickpea (Cicer arietinum L.) cultivars. *Plant and Soil*, **2009**, 314, 99-108	4.2	27
44	Plant response to salinity: an analysis of ROS formation, signaling, and antioxidant defense. *Turkish Journal of Botany*, **2020**, 44, 1-13	1.3	23
43	Opportunities and Limitations of Crop Phenotyping in Southern European Countries. *Frontiers in Plant Science*, **2019**, 10, 1125	6.2	21
42	Time course analysis of ABA and non-ionic osmotic stress-induced changes in water status, chlorophyll fluorescence and osmotic adjustment in Arabidopsis thaliana wild-type (Columbia) and ABA-deficient mutant (aba2). *Environmental and Experimental Botany*, **2013**, 86, 44-51	5.9	21
41	Effect of Coronatine on Antioxidant Enzyme Response of Chickpea Roots to Combination of PEG-Induced Osmotic Stress and Heat Stress. *Journal of Plant Growth Regulation*, **2013**, 32, 72-82	4.7	20
40	The regulation of antioxidant enzymes in two Plantago species differing in salinity tolerance under combination of waterlogging and salinity. *Functional Plant Biology*, **2013**, 40, 484-493	2.7	20
39	Effects of Paclobutrazol on Response of Two Barley Cultivars to Salt Stress. *Biologia Plantarum*, **2003**, 46, 263-268	2.1	20
38	Reactive oxygen species and redox regulation in mesophyll and bundle sheath cells of C4 plants. *Journal of Experimental Botany*, **2018**, 69, 3321-3331	7	19
37	Understanding the Role of the Antioxidant System and the Tetrapyrrole Cycle in Iron Deficiency Chlorosis. *Plants*, **2019**, 8,	4.5	18
36	The roles of reactive carbonyl species in induction of antioxidant defence and ROS signalling in extreme halophytic model Eutrema parvulum and glycophytic model Arabidopsis thaliana. *Environmental and Experimental Botany*, **2019**, 160, 81-91	5.9	16
35	Halophytes as a source of salt tolerance genes and mechanisms: a case study for the Salt Lake area, Turkey. *Functional Plant Biology*, **2016**, 43, 575-589	2.7	16
34	Is there a room for GABA in ROS and RNS signalling?. *Environmental and Experimental Botany*, **2019**, 161, 67-73	5.9	16
33	Endoplasmic reticulum stress regulates glutathione metabolism and activities of glutathione related enzymes in Arabidopsis. *Functional Plant Biology*, **2018**, 45, 284-296	2.7	15
32	Combined effects of salt stress and cucurbit downy mildew (Pseudoperospora cubensis Berk. and Curt. Rostov.) infection on growth, physiological traits and antioxidant activity in cucumber (Cucumis sativus L.) seedlings. *Physiological and Molecular Plant Pathology*, **2013**, 83, 84-92	2.6	15

31	Ferulic acid confers tolerance against excess boron by regulating ROS levels and inducing antioxidant system in wheat leaves (Triticum aestivum). *Environmental and Experimental Botany*, **2019**, 161, 193-202	5.9	14
30	The impact of GABA in harpin-elicited biotic stress responses in Nicotiana tabaccum. *Journal of Plant Physiology*, **2015**, 188, 51-7	3.6	13
29	NaCl pre-treatments mediate salt adaptation in melon plants through antioxidative system. *Seed Science and Technology*, **2008**, 36, 360-370	0.6	13
28	Indoleacetic acid, gibberellic acid, zeatin, and abscisic acid levels in NaCl-treated tomato species differing in salt tolerance. *Israel Journal of Plant Sciences*, **2001**, 49, 269-278	0.6	13
27	Flavonoid Naringenin Alleviates Short-Term Osmotic and Salinity Stresses Through Regulating Photosynthetic Machinery and Chloroplastic Antioxidant Metabolism in. *Frontiers in Plant Science*, **2020**, 11, 682	6.2	12
26	Identification and Characterization of the Glucosinolate-Myrosinase System in Caper (Capparis ovata Desf.). *Plant Molecular Biology Reporter*, **2009**, 27, 518-525	1.7	11
25	Signalling Strategies During Drought and Salinity, Recent News. *Advances in Botanical Research*, **2011**, 57, 293-317	2.2	10
24	Melatonin mitigates UV-B stress via regulating oxidative stress response, cellular redox and alternative electron sinks in Arabidopsis thaliana. *Phytochemistry*, **2021**, 182, 112592	4	9
23	Mg deficiency changes the isoenzyme pattern of reactive oxygen species-related enzymes and regulates NADPH-oxidase-mediated ROS signaling in cotton. *Turkish Journal of Biology*, **2017**, 41, 868-880	1.1	8
22	Can Plants Normally Produce Seeds under Microgravity in Space?. *Japanese Journal of Crop Science*, **1991**, 60, 427-433	0.1	8
21	Redox Regulation and Antioxidant Defence During Abiotic Stress: What Have We Learned from Arabidopsis and Its Relatives? **2015**, 83-113		7
20	The Effects of Melatonin on Transcriptional Profile of Unfolded Protein Response Genes Under Endoplasmic Reticulum Stress in Arabidopsis thaliana. *Plant Molecular Biology Reporter*, **2017**, 35, 188-202	1.7	7
19	Naringenin induces tolerance to salt/osmotic stress through the regulation of nitrogen metabolism, cellular redox and ROS scavenging capacity in bean plants. *Plant Physiology and Biochemistry*, **2020**, 157, 264-275	5.4	6
18	THE EFFECT OF HARPINEA AS PLANT ACTIVATOR IN CONTROL OF BACTERIAL AND FUNGAL DISEASES OF TOMATO. *Acta Horticulturae*, **2003**, 251-254	0.3	6
17	Effects of salinity, light, and temperature on seed germination in a Turkish endangered halophyte, Kalidiopsis wagenitzii (Chenopodiaceae). *Israel Journal of Plant Sciences*, **2004**, 52, 21-30	0.6	6
16	Changes in redox regulation during transition from C to single cell C photosynthesis in Bienertia sinuspersici. *Journal of Plant Physiology*, **2018**, 220, 1-10	3.6	6
15	Growth performance and antioxidative response in bread and durum wheat plants grown with varied potassium treatments under ambient and elevated carbon dioxide. *Environmental and Experimental Botany*, **2017**, 137, 26-35	5.9	5
14	Transgenic bialaphos-resistant snapdragon (Antirrhinum majus L.) produced by Agrobacterium rhizogenes transformation. *Scientia Horticulturae*, **1998**, 76, 37-57	4.1	5

13	Deploying root microbiome of halophytes to improve salinity tolerance of crops. *Plant Biotechnology Reports*, **2020**, 14, 143-150	2.5	3
12	Survey of endogenous gibberellins in a barley mutant showing abnormal response to gravity.. *Japanese Journal of Genetics*, **1991**, 66, 41-48		3
11	Current Concepts about Salinity and Salinity Tolerance in Plants **2013**, 163-188		2
10	Endogenous gibberellin relationships in internode elongation of floating rice: A genetic study.. *Japanese Journal of Genetics*, **1990**, 65, 183-191		2
9	Three (Turkish) olive cultivars display contrasting salt stress-coping mechanisms under high salinity. *Trees - Structure and Function*, **2021**, 35, 1283-1298	2.6	2
8	Nanomaterial sulfonated graphene oxide advances the tolerance against nitrate and ammonium toxicity by regulating chloroplastic redox balance, photochemistry of photosystems and antioxidant capacity in Triticum aestivum. *Journal of Hazardous Materials*, **2022**, 424, 127310	12.8	2
7	Pretreatment of seeds with hydrogen peroxide improves deep-sowing tolerance of wheat seedlings. *Plant Physiology and Biochemistry*, **2021**, 167, 321-336	5.4	2
6	The involvement of gamma-aminobutyric acid shunt in the endoplasmic reticulum stress response of Arabidopsis thaliana. *Journal of Plant Physiology*, **2020**, 253, 153250	3.6	1
5	Day and Night Fluctuations in GABA Biosynthesis Contribute to Drought Responses in L. *Plant Signaling and Behavior*, **2021**, 16, 1899672	2.5	1
4	Differential responses of the scavenging systems for reactive oxygen species (ROS) and reactive carbonyl species (RCS) to UV-B irradiation in Arabidopsis thaliana and its high altitude perennial relative Arabis alpina. *Photochemical and Photobiological Sciences*, **2021**, 20, 889-901	4.2	1
3	Redox regulation in C 3 and C 4 plants during climate change and its implications on food security. *Food and Energy Security*,	4.1	0
2	Localization of High Concentration of Gibberellins in Elongating Internodes of Floating Rice.. *Breeding Science*, **1991**, 41, 553-559		
1	Induced accumulation of chloroplastic and mitochondrial reactive oxygen species (ROS) differentially regulates the enzymatic antioxidant system of C3 Flaveria robusta and C4 F. bidentis. *Environmental and Experimental Botany*, **2022**, 198, 104863	5.9	