Sergey Shabala

List of Publications by Year
in descending order

351 papers	27,162 citations	3531 90 h-index	8630 146 g-index
359 all docs	359 docs citations	359 times ranked	14872 citing authors

#	Article	IF	Citations
1	Potassium transport and plant salt tolerance. Physiologia Plantarum, 2008, 133, 651-669.	5.2	1,038
2	ROS homeostasis in halophytes in the context of salinity stress tolerance. Journal of Experimental Botany, 2014, 65, 1241-1257.	4.8	714
3	Learning from halophytes: physiological basis and strategies to improve abiotic stress tolerance in crops. Annals of Botany, 2013, 112, 1209-1221.	2.9	645
4	Regulation of potassium transport in plants under hostile conditions: implications for abiotic and biotic stress tolerance. Physiologia Plantarum, 2014, 151, 257-279.	5.2	534
5	Root Plasma Membrane Transporters Controlling K+/Na+ Homeostasis in Salt-Stressed Barley. Plant Physiology, 2007, 145, 1714-1725.	4.8	458
6	<i>Arabidopsis</i> root K+-efflux conductance activated by hydroxyl radicals: single-channel properties, genetic basis and involvement in stress-induced cell death. Journal of Cell Science, 2010, 123, 1468-1479.	2.0	424
7	Extracellular Ca2+ Ameliorates NaCl-Induced K+ Loss from Arabidopsis Root and Leaf Cells by Controlling Plasma Membrane K+-Permeable Channels. Plant Physiology, 2006, 141, 1653-1665.	4.8	418
8	Arabidopsis Protein Kinase PKS5 Inhibits the Plasma Membrane H+-ATPase by Preventing Interaction with 14-3-3 Protein. Plant Cell, 2007, 19, 1617-1634.	6.6	388
9	Going beyond nutrition: Regulation of potassium homoeostasis as a common denominator of plant adaptive responses to environment. Journal of Plant Physiology, 2014, 171, 670-687.	3.5	388
10	Mechanisms of Plant Responses and Adaptation to Soil Salinity. Innovation(China), 2020, 1, 100017.	9.1	387
11	Compatible solute accumulation and stress-mitigating effects in barley genotypes contrasting in their salt tolerance. Journal of Experimental Botany, 2007, 58, 4245-4255.	4.8	358
12	Halophyte agriculture: Success stories. Environmental and Experimental Botany, 2014, 107, 71-83.	4.2	358
13	Calcium transport across plant membranes: mechanisms and functions. New Phytologist, 2018, 220, 49-69.	7.3	289
14	Ionic and osmotic relations in quinoa (Chenopodium quinoa Willd.) plants grown at various salinity levels. Journal of Experimental Botany, 2011, 62, 185-193.	4.8	284
15	Energy costs of salt tolerance in crop plants. New Phytologist, 2020, 225, 1072-1090.	7.3	284
16	Potassium and sodium relations in salinised barley tissues as a basis of differential salt tolerance. Functional Plant Biology, 2007, 34, 150.	2.1	277
17	Ion Transport in Halophytes. Advances in Botanical Research, 2011, 57, 151-199.	1.1	276
18	GABA signalling modulates plant growth by directly regulating the activity of plant-specific anion transporters. Nature Communications, 2015, 6, 7879.	12.8	268

#	Article	IF	Citations
19	Salt tolerance mechanisms in quinoa (Chenopodium quinoa Willd.). Environmental and Experimental Botany, 2013, 92, 43-54.	4.2	263
20	A root's ability to retain K+ correlates with salt tolerance in wheat. Journal of Experimental Botany, 2008, 59, 2697-2706.	4.8	249
21	Salt bladders: do they matter?. Trends in Plant Science, 2014, 19, 687-691.	8.8	247
22	It is not all about sodium: revealing tissue specificity and signalling roles of potassium in plant responses to salt stress. Plant and Soil, 2018, 431, 1-17.	3.7	245
23	Salinity and programmed cell death: unravelling mechanisms for ion specific signalling. Journal of Experimental Botany, 2009, 60, 709-712.	4.8	240
24	Salicylic acid improves salinity tolerance in Arabidopsis by restoring membrane potential and preventing salt-induced K+ loss via a GORK channel. Journal of Experimental Botany, 2013, 64, 2255-2268.	4.8	226
25	Salinity-induced ion flux patterns from the excised roots of Arabidopsis sos mutants. Planta, 2005, 222, 1041-1050.	3.2	223
26	Compatible solutes reduce ROS-induced potassium efflux in Arabidopsis roots. Plant, Cell and Environment, 2007, 30, 875-885.	5.7	220
27	OsHKT1;5 mediates Na⁺ exclusion in the vasculature to protect leaf blades and reproductive tissues from salt toxicity in rice. Plant Journal, 2017, 91, 657-670.	5.7	210
28	Calcium Efflux Systems in Stress Signaling and Adaptation in Plants. Frontiers in Plant Science, 2011, 2, 85.	3.6	206
29	Xylem ionic relations and salinity tolerance in barley. Plant Journal, 2010, 61, 839-853.	5.7	198
30	Cross-talk between reactive oxygen species and polyamines in regulation of ion transport across the plasma membrane: implications for plant adaptive responses. Journal of Experimental Botany, 2014, 65, 1271-1283.	4.8	197
31	Salt stress sensing and early signalling events in plant roots: Current knowledge and hypothesis. Plant Science, 2015, 241, 109-119.	3.6	189
32	Chloroplast function and ion regulation in plants growing on saline soils: lessons from halophytes. Journal of Experimental Botany, 2017, 68, 3129-3143.	4.8	187
33	Salicylic acid in plant salinity stress signalling and tolerance. Plant Growth Regulation, 2015, 76, 25-40.	3.4	186
34	Genotypic difference in salinity tolerance in quinoa is determined by differential control of xylem Na+ loading and stomatal density. Journal of Plant Physiology, 2013, 170, 906-914.	3.5	185
35	Oxidative stress protection and stomatal patterning as components of salinity tolerance mechanism in quinoa (<i>Chenopodium quinoa</i>). Physiologia Plantarum, 2012, 146, 26-38.	5.2	181
36	Rapid regulation of the plasma membrane H+-ATPase activity is essential to salinity tolerance in two halophyte species, Atriplex lentiformis and Chenopodium quinoa. Annals of Botany, 2015, 115, 481-494.	2.9	181

#	ARTICLE	IF	CITATIONS
37	Exogenously Supplied Compatible Solutes Rapidly Ameliorate NaCl-induced Potassium Efflux from Barley Roots. Plant and Cell Physiology, 2005, 46, 1924-1933.	3.1	179
38	Physiological and cellular aspects of phytotoxicity tolerance in plants: the role of membrane transporters and implications for crop breeding for waterlogging tolerance. New Phytologist, 2011, 190, 289-298.	7.3	179
39	Effect of calcium on root development and root ion fluxes in salinised barley seedlings. Functional Plant Biology, 2003, 30, 507.	2.1	177
40	<i>Arabidopsis</i> Annexin1 Mediates the Radical-Activated Plasma Membrane Ca²⁺- and K⁺-Permeable Conductance in Root Cells. Plant Cell, 2012, 24, 1522-1533.	6.6	173
41	A high-quality genome assembly of quinoa provides insights into the molecular basis of salt bladder-based salinity tolerance and the exceptional nutritional value. Cell Research, 2017, 27, 1327-1340.	12.0	170
42	Polyamines control of cation transport across plant membranes: implications for ion homeostasis and abiotic stress signaling. Frontiers in Plant Science, 2014, 5, 154.	3.6	168
43	Assessing the role of root plasma membrane and tonoplast Na⁺/H⁺ exchangers in salinity tolerance in wheat: <i>in planta</i> quantification methods. Plant, Cell and Environment, 2011, 34, 947-961.	5.7	159
44	Signalling by potassium: another second messenger to add to the list?. Journal of Experimental Botany, 2017, 68, 4003-4007.	4.8	159
45	Cell-Type-Specific H⁺-ATPase Activity in Root Tissues Enables K⁺ Retention and Mediates Acclimation of Barley (<i>Hordeum vulgare</i>) to Salinity Stress. Plant Physiology, 2016, 172, 2445-2458.	4.8	158
46	Competition between uptake of ammonium and potassium in barley and Arabidopsis roots: molecular mechanisms and physiological consequences. Journal of Experimental Botany, 2010, 61, 2303-2315.	4.8	157
47	Regulation of Potassium Transport in Leaves: from Molecular to Tissue Level. Annals of Botany, 2003, 92, 627-634.	2.9	155
48	Evaluating contribution of ionic, osmotic and oxidative stress components towards salinity tolerance in barley. BMC Plant Biology, 2014, 14, 113.	3.6	152
49	Polyamines prevent NaCl-induced K+efflux from pea mesophyll by blocking non-selective cation channels. FEBS Letters, 2007, 581, 1993-1999.	2.8	149
50	Varietal differences of quinoaâ€™s tolerance to saline conditions. Plant and Soil, 2012, 357, 117-129.	3.7	149
51	Hydroxyl radical scavenging by cerium oxide nanoparticles improves <i>Arabidopsis</i> salinity tolerance by enhancing leaf mesophyll potassium retention. Environmental Science: Nano, 2018, 5, 1567-1583.	4.3	147
52	Polyamines Interact with Hydroxyl Radicals in Activating Ca2+ and K+ Transport across the Root Epidermal Plasma Membranes Â. Plant Physiology, 2011, 157, 2167-2180.	4.8	144
53	Doing â€˜business as usualâ€™ comes with a cost: evaluating energy cost of maintaining plant intracellular K⁺ homeostasis under saline conditions. New Phytologist, 2020, 225, 1097-1104.	7.3	140
54	Using QTL mapping to investigate the relationships between abiotic stress tolerance (drought and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.8	139

#	ARTICLE	IF	CITATIONS
55	Reduced Tonoplast Fast-Activating and Slow-Activating Channel Activity Is Essential for Conferring Salinity Tolerance in a Facultative Halophyte, Quinoa Â Â Â. Plant Physiology, 2013, 162, 940-952.	4.8	138
56	On a quest for stress tolerance genes: membrane transporters in sensing and adapting to hostile soils. Journal of Experimental Botany, 2016, 67, 1015-1031.	4.8	135
57	Nutritional and chlorophyll fluorescence responses of lucerne (Medicago sativa) to waterlogging and subsequent recovery. Plant and Soil, 2005, 270, 31-45.	3.7	134
58	Salinity-Induced Calcium Signaling and Root Adaptation in Arabidopsis Require the Calcium Regulatory Protein Annexin1 Â Â. Plant Physiology, 2013, 163, 253-262.	4.8	132
59	K⁺ retention in leaf mesophyll, an overlooked component of salinity tolerance mechanism: A case study for barley. Journal of Integrative Plant Biology, 2015, 57, 171-185.	8.5	132
60	Membrane transporters mediating root signalling and adaptive responses to oxygen deprivation and soil flooding. Plant, Cell and Environment, 2014, 37, 2216-2233.	5.7	130
61	Non-stomatal limitation of photosynthesis by soil salinity. Critical Reviews in Environmental Science and Technology, 2021, 51, 791-825.	12.8	129
62	Cell surface and intracellular auxin signalling for H+ fluxes in root growth. Nature, 2021, 599, 273-277.	27.8	128
63	Amino acids regulate salinity-induced potassium efflux in barley root epidermis. Planta, 2007, 225, 753-761.	3.2	127
64	Difference in root K⁺retention ability and reduced sensitivity of K⁺-permeable channels to reactive oxygen species confer differential salt tolerance in three<i>Brassica</i>species. Journal of Experimental Botany, 2016, 67, 4611-4625.	4.8	127
65	The Venus Flytrap Dionaea muscipula Counts Prey-Induced Action Potentials to Induce Sodium Uptake. Current Biology, 2016, 26, 286-295.	3.9	127
66	Growth and physiological responses of six barley genotypes to waterlogging and subsequent recovery. Australian Journal of Agricultural Research, 2004, 55, 895.	1.5	126
67	Ionic relations and osmotic adjustment in durum and bread wheat under saline conditions. Functional Plant Biology, 2009, 36, 1110.	2.1	124
68	Transcriptional stimulation of rate-limiting components of the autophagic pathway improves plant fitness. Journal of Experimental Botany, 2018, 69, 1415-1432.	4.8	120
69	Soil and Crop Management Practices to Minimize the Impact of Waterlogging on Crop Productivity. Frontiers in Plant Science, 2019, 10, 140.	3.6	120
70	Mechanisms of cytosolic calcium elevation in plants: the role of ion channels, calcium extrusion systems and NADPH oxidase-mediated 'ROS-Ca2+ Hub'. Functional Plant Biology, 2018, 45, 9.	2.1	115
71	Blue light-induced kinetics of H+ and Ca2+ fluxes in etiolated wild-type and phototropin-mutant Arabidopsis seedlings. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 2433-2438.	7.1	114
72	Ion transport and osmotic adjustment in <i>Escherichia coli</i> in response to ionic and nonâ€ionic osmotica. Environmental Microbiology, 2009, 11, 137-148.	3.8	113

#	Article	IF	Citations
73	Ability of leaf mesophyll to retain potassium correlates with salinity tolerance in wheat and barley. Physiologia Plantarum, 2013, 149, 515-527.	5.2	113
74	Receptor kinaseâ€mediated control of primary active proton pumping at the plasma membrane. Plant Journal, 2014, 80, 951-964.	5.7	112
75	Stomata in a saline world. Current Opinion in Plant Biology, 2018, 46, 87-95.	7.1	111
76	Annexin 1 regulates the <scp>H</scp>₂<scp>O</scp>₂â€induced calcium signature in <i><scp>A</scp>rabidopsis thaliana</i> roots. Plant Journal, 2014, 77, 136-145.	5.7	109
77	QTLs for stomatal and photosynthetic traits related to salinity tolerance in barley. BMC Genomics, 2017, 18, 9.	2.8	108
78	Kinetics of xylem loading, membrane potential maintenance, and sensitivity of <scp><scp>K⁺</scp></scp>â€permeable channels to reactive oxygen species: physiological traits that differentiate salinity tolerance between pea and barley. Plant, Cell and Environment, 2014, 37, 589-600.	5.7	107
79	Root-to-shoot signalling: integration of diverse molecules, pathways and functions. Functional Plant Biology, 2016, 43, 87.	2.1	107
80	The NPR1-dependent salicylic acid signalling pathway is pivotal for enhanced salt and oxidative stress tolerance in Arabidopsis. Journal of Experimental Botany, 2015, 66, 1865-1875.	4.8	105
81	Ion transport and osmotic adjustment in plants and bacteria. Biomolecular Concepts, 2011, 2, 407-419.	2.2	104
82	Transport Across Chloroplast Membranes: Optimizing Photosynthesis for Adverse Environmental Conditions. Molecular Plant, 2016, 9, 356-370.	8.3	104
83	Expression of animal CED-9 anti-apoptotic gene in tobacco modifies plasma membrane ion fluxes in response to salinity and oxidative stress. Planta, 2007, 227, 189-197.	3.2	102
84	Screening methods for waterlogging tolerance in lucerne: comparative analysis of waterlogging effects on chlorophyll fluorescence, photosynthesis, biomass and chlorophyll content. Functional Plant Biology, 2003, 30, 335.	2.1	101
85	Light-Induced Changes in Hydrogen, Calcium, Potassium, and Chloride Ion Fluxes and Concentrations from the Mesophyll and Epidermal Tissues of Bean Leaves. Understanding the Ionic Basis of Light-Induced Bioelectrogenesis1. Plant Physiology, 1999, 119, 1115-1124.	4.8	100
86	Calcium sensor kinase activates potassium uptake systems in gland cells of Venus flytraps. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7309-7314.	7.1	98
87	Epidermal bladder cells confer salinity stress tolerance in the halophyte quinoa and Atriplex species. Plant, Cell and Environment, 2017, 40, 1900-1915.	5.7	98
88	Understanding the Molecular Basis of Salt Sequestration in Epidermal Bladder Cells of Chenopodium quinoa. Current Biology, 2018, 28, 3075-3085.e7.	3.9	98
89	Non-invasive microelectrode ion flux measurements to study adaptive responses of microorganisms to the environment. FEMS Microbiology Reviews, 2006, 30, 472-486.	8.6	97
90	Physiology of acclimation to salinity stress in pea (Pisum sativum). Environmental and Experimental Botany, 2012, 84, 44-51.	4.2	96

#	Article	IF	Citations
91	Differential Activity of Plasma and Vacuolar Membrane Transporters Contributes to Genotypic Differences in Salinity Tolerance in a Halophyte Species, Chenopodium quinoa. International Journal of Molecular Sciences, 2013, 14, 9267-9285.	4.1	96
92	Root respiratory burst oxidase homologue-dependent H2O2 production confers salt tolerance on a grafted cucumber by controlling Na+ exclusion and stomatal closure. Journal of Experimental Botany, 2018, 69, 3465-3476.	4.8	96
93	<i>Nax</i>loci affect SOS1-like Na⁺/H⁺exchanger expression and activity in wheat. Journal of Experimental Botany, 2016, 67, 835-844.	4.8	95
94	Ionâ€specific mechanisms of osmoregulation in bean mesophyll cells. Journal of Experimental Botany, 2000, 51, 1243-1253.	4.8	94
95	Reproductive Physiology of Halophytes: Current Standing. Frontiers in Plant Science, 2018, 9, 1954.	3.6	94
96	Melatonin improves rice salinity stress tolerance by <scp>NADPH</scp> oxidaseâ€dependent control of the plasma membrane K⁺ transporters and K⁺ homeostasis. Plant, Cell and Environment, 2020, 43, 2591-2605.	5.7	93
97	Meta-analysis of major QTL for abiotic stress tolerance in barley and implications for barley breeding. Planta, 2017, 245, 283-295.	3.2	91
98	Molecular mechanisms of salinity tolerance in rice. Crop Journal, 2021, 9, 506-520.	5.2	91
99	Barley responses to combined waterlogging and salinity stress: separating effects of oxygen deprivation and elemental toxicity. Frontiers in Plant Science, 2013, 4, 313.	3.6	90
100	Salinity-induced accumulation of organic osmolytes in barley and wheat leaves correlates with increased oxidative stress tolerance: InÂplanta evidence for cross-tolerance. Plant Physiology and Biochemistry, 2014, 83, 32-39.	5.8	90
101	Tissue-specific respiratory burst oxidase homolog-dependent H2O2 signaling to the plasma membrane H+-ATPase confers potassium uptake and salinity tolerance in Cucurbitaceae. Journal of Experimental Botany, 2019, 70, 5879-5893.	4.8	90
102	Salt-sensitive and salt-tolerant barley varieties differ in the extent of potentiation of the ROS-induced K+ efflux by polyamines. Plant Physiology and Biochemistry, 2012, 61, 18-23.	5.8	89
103	Physiological and molecular mechanisms mediating xylem Na⁺ loading in barley in the context of salinity stress tolerance. Plant, Cell and Environment, 2017, 40, 1009-1020.	5.7	89
104	Microelectrode ion and O2 fluxes measurements reveal differential sensitivity of barley root tissues to hypoxia. Plant, Cell and Environment, 2006, 29, 1107-1121.	5.7	88
105	Reducing Cadmium Accumulation in Plants: Structureâ€“Function Relations and Tissue-Specific Operation of Transporters in the Spotlight. Plants, 2020, 9, 223.	3.5	88
106	Effect of divalent cations on ion fluxes and leaf photochemistry in salinized barley leaves. Journal of Experimental Botany, 2005, 56, 1369-1378.	4.8	86
107	Linking salinity stress tolerance with tissue-specific Na+ sequestration in wheat roots. Frontiers in Plant Science, 2015, 6, 71.	3.6	86
108	The energy cost of the tonoplast futile sodium leak. New Phytologist, 2020, 225, 1105-1110.	7.3	86

#	Article	IF	Citations
109	Calciumâ€•and potassiumâ€permeable plasma membrane transporters are activated by copper in <i>Arabidopsis</i> root tips: linking copper transport with cytosolic hydroxyl radical production. Plant, Cell and Environment, 2013, 36, 844-855.	5.7	85
110	Oscillations in plant membrane transport: model predictions, experimental validation, and physiological implications. Journal of Experimental Botany, 2006, 57, 171-184.	4.8	83
111	Genome-Wide Association Study Reveals a New QTL for Salinity Tolerance in Barley (Hordeum vulgare) Tj ETQq1 1 0.784314 rgBT /Overl	3.6	83
112	Polyamines cause plasma membrane depolarization, activate Ca2+-, and modulate H+-ATPase pump activity in pea roots. Journal of Experimental Botany, 2014, 65, 2463-2472.	4.8	82
113	Specificity of Polyamine Effects on NaCl-induced Ion Flux Kinetics and Salt Stress Amelioration in Plants. Plant and Cell Physiology, 2010, 51, 422-434.	3.1	80
114	Root vacuolar Na⁺ sequestration but not exclusion from uptake correlates with barley salt tolerance. Plant Journal, 2019, 100, 55-67.	5.7	80
115	An early ABA-induced stomatal closure, Na+ sequestration in leaf vein and K+ retention in mesophyll confer salt tissue tolerance in Cucurbita species. Journal of Experimental Botany, 2018, 69, 4945-4960.	4.8	77
116	Crop Halophytism: An Environmentally Sustainable Solution for Global Food Security. Trends in Plant Science, 2020, 25, 630-634.	8.8	77
117	Effects of magnesium availability on the activity of plasma membrane ion transporters and light-induced responses from broad bean leaf mesophyll. Planta, 2005, 221, 56-65.	3.2	76
118	Rutin, a flavonoid with antioxidant activity, improves plant salinity tolerance by regulating K+ retention and Na+ exclusion from leaf mesophyll in quinoa and broad beans. Functional Plant Biology, 2016, 43, 75.	2.1	76
119	Na+ extrusion from the cytosol and tissue-specific Na+ sequestration in roots confer differential salt stress tolerance between durum and bread wheat. Journal of Experimental Botany, 2018, 69, 3987-4001.	4.8	73
120	GABA operates upstream of H+-ATPase and improves salinity tolerance in Arabidopsis by enabling cytosolic K+ retention and Na+ exclusion. Journal of Experimental Botany, 2019, 70, 6349-6361.	4.8	73
121	GORK Channel: A Master Switch of Plant Metabolism?. Trends in Plant Science, 2020, 25, 434-445.	8.8	73
122	Waterlogging tolerance in barley is associated with faster aerenchyma formation in adventitious roots. Plant and Soil, 2015, 394, 355-372.	3.7	72
123	Piriformospora indica improves salinity stress tolerance in Zea mays L. plants by regulating Na+ and K+ loading in root and allocating K+ in shoot. Plant Growth Regulation, 2018, 86, 323-331.	3.4	71
124	Haem oxygenase modifies salinity tolerance in Arabidopsis by controlling K+ retention via regulation of the plasma membrane H+-ATPase and by altering SOS1 transcript levels in roots. Journal of Experimental Botany, 2013, 64, 471-481.	4.8	70
125	Low-pH and Aluminum Resistance in Arabidopsis Correlates with High Cytosolic Magnesium Content and Increased Magnesium Uptake by Plant Roots. Plant and Cell Physiology, 2013, 54, 1093-1104.	3.1	69
126	Tissue-Specific Regulation of Na+ and K+ Transporters Explains Genotypic Differences in Salinity Stress Tolerance in Rice. Frontiers in Plant Science, 2019, 10, 1361.	3.6	67

#	Article	IF	Citations
127	Plant Cell Growth and Ion Flux Responses to the Streptomycete Phytotoxin Thaxtomin A: Calcium and Hydrogen Flux Patterns Revealed by the Non-invasive MIFE Technique. Plant and Cell Physiology, 2005, 46, 638-648.	3.1	65
128	Boron Alleviates Aluminum Toxicity by Promoting Root Alkalization in Transition Zone via Polar Auxin Transport. Plant Physiology, 2018, 177, 1254-1266.	4.8	65
129	Multiple traits associated with salt tolerance in lucerne: revealing the underlying cellular mechanisms. Functional Plant Biology, 2008, 35, 640.	2.1	64
130	Salinity Effects on the Activity of Plasma Membrane H+and Ca2+Transporters in Bean Leaf Mesophyll: Masking Role of the Cell Wall. Annals of Botany, 2000, 85, 681-686.	2.9	63
131	Effect of Secondary Metabolites Associated with Anaerobic Soil Conditions on Ion Fluxes and Electrophysiology in Barley Roots. Plant Physiology, 2007, 145, 266-276.	4.8	63
132	Receptor-Like Activity Evoked by Extracellular ADP in Arabidopsis Root Epidermal Plasma Membrane. Plant Physiology, 2011, 156, 1375-1385.	4.8	62
133	SV channels dominate the vacuolar Ca²⁺ release during intracellular signaling. FEBS Letters, 2009, 583, 921-926.	2.8	61
134	Tissue-specific root ion profiling reveals essential roles of the CAX and ACA calcium transport systems in response to hypoxia in Arabidopsis. Journal of Experimental Botany, 2016, 67, 3747-3762.	4.8	60
135	Kinetics of net H+ , Ca2+ , K+ , Na+ , , and Cl- fluxes associated with post-chilling recovery of plasma membrane transporters in Zea mays leaf and root tissues. Physiologia Plantarum, 2002, 114, 47-56.	5.2	59
136	Oxygen deficiency and salinity affect cellâ€specific ion concentrations in adventitious roots of barley (<i><scp>H</scp>ordeum vulgare</i>). New Phytologist, 2015, 208, 1114-1125.	7.3	59
137	AFB1 controls rapid auxin signalling through membrane depolarization in Arabidopsis thaliana root. Nature Plants, 2021, 7, 1229-1238.	9.3	59
138	Potassium retention in leaf mesophyll as an element of salinity tissue tolerance in halophytes. Plant Physiology and Biochemistry, 2016, 109, 346-354.	5.8	58
139	Evaluating relative contribution of osmotolerance and tissue tolerance mechanisms toward salinity stress tolerance in three <i>Brassica</i> species. Physiologia Plantarum, 2016, 158, 135-151.	5.2	58
140	Identification of aerenchyma formation-related QTL in barley that can be effective in breeding for waterlogging tolerance. Theoretical and Applied Genetics, 2016, 129, 1167-1177.	3.6	58
141	Transition metals: A double edge sward in ROS generation and signaling. Plant Signaling and Behavior, 2013, 8, e23425.	2.4	57
142	Hypoxia Sensing in Plants: On a Quest for Ion Channels as Putative Oxygen Sensors. Plant and Cell Physiology, 2017, 58, 1126-1142.	3.1	55
143	Back to the Wild: On a Quest for Donors Toward Salinity Tolerant Rice. Frontiers in Plant Science, 2020, 11, 323.	3.6	54
144	Na+- K+transport in roots under salt stress. Plant Signaling and Behavior, 2008, 3, 401-403.	2.4	53

#	Article	IF	Citations
145	Linking oxidative and salinity stress tolerance in barley: can root antioxidant enzyme activity be used as a measure of stress tolerance?. Plant and Soil, 2013, 365, 141-155.	3.7	53
146	Combining Ability of Salinity Tolerance on the Basis of NaClâ€Induced K⁺ Flux from Roots of Barley. Crop Science, 2008, 48, 1382-1388.	1.8	52
147	Rewilding crops for climate resilience: economic analysis and <i>de novo</i> domestication strategies. Journal of Experimental Botany, 2021, 72, 6123-6139.	4.8	52
148	Aluminium-induced ion transport in Arabidopsis: the relationship between Al tolerance and root ion flux. Journal of Experimental Botany, 2010, 61, 3163-3175.	4.8	51
149	Sequential depolarization of root cortical and stelar cells induced by an acute salt shock â€“ implications for Na⁺ and K⁺ transport into xylem vessels. Plant, Cell and Environment, 2011, 34, 859-869.	5.7	51
150	Microfluidic chips for capillary electrophoresis with integrated electrodes for capacitively coupled conductivity detection based on printed circuit board technology. Sensors and Actuators B: Chemical, 2011, 159, 307-313.	7.8	50
151	Insect haptoelectrical stimulation of Venus flytrap triggers exocytosis in gland cells. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4822-4827.	7.1	50
152	A new major-effect QTL for waterlogging tolerance in wild barley (H. spontaneum). Theoretical and Applied Genetics, 2017, 130, 1559-1568.	3.6	50
153	Control of xylem Na⁺ loading and transport to the shoot in rice and barley as a determinant of differential salinity stress tolerance. Physiologia Plantarum, 2019, 165, 619-631.	5.2	50
154	Linking stomatal traits and expression of slow anion channel genes HvSLAH1 and HvSLAC1 with grain yield for increasing salinity tolerance in barley. Frontiers in Plant Science, 2014, 5, 634.	3.6	49
155	Acclimation improves salt stress tolerance in Zea mays plants. Journal of Plant Physiology, 2016, 201, 1-8.	3.5	49
156	Residual transpiration as a component of salinity stress tolerance mechanism: a case study for barley. BMC Plant Biology, 2017, 17, 107.	3.6	49
157	Hydrogen Peroxide-Induced Root Ca2+ and K+ Fluxes Correlate with Salt Tolerance in Cereals: Towards the Cell-Based Phenotyping. International Journal of Molecular Sciences, 2018, 19, 702.	4.1	49
158	Friend or Foe? Chloride Patterning in Halophytes. Trends in Plant Science, 2019, 24, 142-151.	8.8	49
159	NADPH oxidases and the evolution of plant salinity tolerance. Plant, Cell and Environment, 2020, 43, 2957-2968.	5.7	49
160	Prospects for the accelerated improvement of the resilient crop quinoa. Journal of Experimental Botany, 2020, 71, 5333-5347.	4.8	49
161	The State of the Art in Modeling Waterlogging Impacts on Plants: What Do We Know and What Do We Need to Know. Earth's Future, 2020, 8, e2020EF001801.	6.3	49
162	Electrical signalling and cytokinins mediate effects of light and root cutting on ion uptake in intact plants. Plant, Cell and Environment, 2009, 32, 194-207.	5.7	48

#	Article	IF	Citations
163	Durum and Bread Wheat Differ in Their Ability to Retain Potassium in Leaf Mesophyll: Implications for Salinity Stress Tolerance. Plant and Cell Physiology, 2014, 55, 1749-1762.	3.1	48
164	Cyclic mononucleotides modulate potassium and calcium flux responses to H₂O₂ in Arabidopsis roots. FEBS Letters, 2014, 588, 1008-1015.	2.8	48
165	Exogenously Applied 24-Epibrassinolide (EBL) Ameliorates Detrimental Effects of Salinity by Reducing K+ Efflux via Depolarization-Activated K+ Channels. Plant and Cell Physiology, 2017, 58, 802-810.	3.1	48
166	Release of extracellular purines from plant roots and effect on ion fluxes. Plant Signaling and Behavior, 2011, 6, 1855-1857.	2.4	47
167	Hypoxia-induced increase in GABA content is essential for restoration of membrane potential and preventing ROS-induced disturbance to ion homeostasis. Plant Communications, 2021, 2, 100188.	7.7	47
168	Screening broad beans (Vicia faba) for magnesium deficiency. II.Photosynthetic performance and leaf bioelectrical responses. Functional Plant Biology, 2004, 31, 539.	2.1	46
169	Revealing the roles of GORK channels and NADPH oxidase in acclimation to hypoxia in Arabidopsis. Journal of Experimental Botany, 2017, 68, erw378.	4.8	46
170	Improving Performance of Salt-Grown Crops by Exogenous Application of Plant Growth Regulators. Biomolecules, 2021, 11, 788.	4.0	46
171	Measurements of net fluxes and extracellular changes of H+, Ca2+, K+, and NH4+ in Escherichia coli using ion-selective microelectrodes. Journal of Microbiological Methods, 2001, 46, 119-129.	1.6	45
172	Linking oxygen availability with membrane potential maintenance and <scp><scp>K</scp>⁺</scp> retention of barley roots: implications for waterlogging stress tolerance. Plant, Cell and Environment, 2014, 37, 2325-2338.	5.7	45
173	Targeting Redox Regulatory Mechanisms for Salinity Stress Tolerance in Crops. , 2018, , 213-234.		45
174	Phylogenetic Diversity and Physiological Roles of Plant Monovalent Cation/H+ Antiporters. Frontiers in Plant Science, 2020, 11, 573564.	3.6	45
175	Understanding Mechanisms of Salinity Tolerance in Barley by Proteomic and Biochemical Analysis of Near-Isogenic Lines. International Journal of Molecular Sciences, 2020, 21, 1516.	4.1	45
176	A Recombinant Plant Natriuretic Peptide Causes Rapid and Spatially Differentiated K+, Na+ and H+ Flux Changes in Arabidopsis thaliana Roots. Plant and Cell Physiology, 2004, 45, 1093-1098.	3.1	43
177	Linking osmotic adjustment and stomatal characteristics with salinity stress tolerance in contrasting barley accessions. Functional Plant Biology, 2015, 42, 252.	2.1	43
178	Identification of QTL Related to ROS Formation under Hypoxia and Their Association with Waterlogging and Salt Tolerance in Barley. International Journal of Molecular Sciences, 2019, 20, 699.	4.1	42
179	K_{bg}and Kv1.3 channels mediate potassium efflux in the early phase of apoptosis in Jurkat T lymphocytes. American Journal of Physiology - Cell Physiology, 2009, 297, C1544-C1553.	4.6	41
180	Plasma membrane Ca²⁺ transporters mediate virusâ€induced acquired resistance to oxidative stress. Plant, Cell and Environment, 2011, 34, 406-417.	5.7	41

#	Article	IF	Citations
181	Stomatal traits as a determinant of superior salinity tolerance in wild barley. Journal of Plant Physiology, 2020, 245, 153108.	3.5	41
182	Wheat cultivars can be screened for NaCl salinity tolerance by measuring leaf chlorophyll content and shoot sap potassium. Functional Plant Biology, 2010, 37, 656.	2.1	40
183	Synergism between polyamines and ROS in the induction of Ca²⁺and K⁺fluxes in roots. Plant Signaling and Behavior, 2012, 7, 1084-1087.	2.4	40
184	Evidence for multiple receptors mediating RALFâ€triggered Ca²⁺ signaling and proton pump inhibition. Plant Journal, 2020, 104, 433-446.	5.7	40
185	A large-scale screening of quinoa accessions reveals an important role of epidermal bladder cells and stomatal patterning in salinity tolerance. Environmental and Experimental Botany, 2019, 168, 103885.	4.2	39
186	Halophytic NHXs confer salt tolerance by altering cytosolic and vacuolar K+ and Na+ in Arabidopsis root cell. Plant Growth Regulation, 2017, 82, 333-351.	3.4	37
187	Amelioration of detrimental effects of waterlogging by foliar nutrient sprays in barley. Functional Plant Biology, 2007, 34, 221.	2.1	36
188	A comparative analysis of stomatal traits and photosynthetic responses in closely related halophytic and glycophytic species under saline conditions. Environmental and Experimental Botany, 2021, 181, 104300.	4.2	36
189	Potassium and Potassium-Permeable Channels in Plant Salt Tolerance. Signaling and Communication in Plants, 2010, , 87-110.	0.7	36
190	Calcium Efflux as a Component of the Hypersensitive Response of Nicotiana benthamiana to Pseudomonas syringae. Plant and Cell Physiology, 2008, 49, 40-46.	3.1	35
191	Aluminum-dependent dynamics of ion transport in Arabidopsis: specificity of low pH and aluminum responses. Physiologia Plantarum, 2010, 139, no-no.	5.2	35
192	Effect of potassium fertilization on leaf physiology, fiber yield and quality in cotton (Gossypium) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	5.1	34
193	Factors determining stomatal and non-stomatal (residual) transpiration and their contribution towards salinity tolerance in contrasting barley genotypes. Environmental and Experimental Botany, 2018, 153, 10-20.	4.2	34
194	Understanding physiological and morphological traits contributing to drought tolerance in barley. Journal of Agronomy and Crop Science, 2019, 205, 129-140.	3.5	34
195	Calcium-Dependent Hydrogen Peroxide Mediates Hydrogen-Rich Water-Reduced Cadmium Uptake in Plant Roots. Plant Physiology, 2020, 183, 1331-1344.	4.8	34
196	A new allele for aluminium tolerance gene in barley (Hordeum vulgare L.). BMC Genomics, 2016, 17, 186.	2.8	33
197	Revealing mechanisms of salinity tissue tolerance in succulent halophytes: <scp>A</scp> case study for <scp><i>Carpobrotus rossi</i></scp>. Plant, Cell and Environment, 2018, 41, 2654-2667.	5.7	33
198	Biochemical pH clamp: the forgotten resource in membrane bioenergetics. New Phytologist, 2020, 225, 37-47.	7.3	33

#	ARTICLE	IF	CITATIONS
199	Rhythmic patterns of nutrient acquisition by wheat roots. Functional Plant Biology, 2002, 29, 595.	2.1	31
200	Heterogeneity in Bean Leaf Mesophyll Tissue and Ion Flux Profiles: Leaf Electrophysiological Characteristics Correlate with the Anatomical Structure. Annals of Botany, 2002, 89, 221-226.	2.9	31
201	Identification of new QTL for salt tolerance from rice variety Pokkali. Journal of Agronomy and Crop Science, 2020, 206, 202-213.	3.5	31
202	Salinity effects on chloroplast PSII performance in glycophytes and halophytes. Functional Plant Biology, 2016, 43, 1003.	2.1	30
203	The ability to regulate voltage-gated K+-permeable channels in the mature root epidermis is essential for waterlogging tolerance in barley. Journal of Experimental Botany, 2018, 69, 667-680.	4.8	30
204	A multiple near isogenic line (multi-NIL) RNA-seq approach to identify candidate genes underpinning QTL. Theoretical and Applied Genetics, 2018, 131, 613-624.	3.6	30
205	Osmotic adjustment and requirement for sodium in marine protist thraustochytrid. Environmental Microbiology, 2009, 11, 1835-1843.	3.8	29
206	Differentiation of Photoperiod-Induced ABA and Soluble Sugar Responses of Two Quinoa (Chenopodium quinoa Willd.) Cultivars. Journal of Plant Growth Regulation, 2014, 33, 562-570.	5.1	29
207	Cell-Based Phenotyping Reveals QTL for Membrane Potential Maintenance Associated with Hypoxia and Salinity Stress Tolerance in Barley. Frontiers in Plant Science, 2017, 8, 1941.	3.6	29
208	The loss of RBOHD function modulates root adaptive responses to combined hypoxia and salinity stress in Arabidopsis. Environmental and Experimental Botany, 2019, 158, 125-135.	4.2	29
209	Lipid kinases PIP5K7 and PIP5K9 are required for polyamineâ€triggered K⁺ efflux in Arabidopsis roots. Plant Journal, 2020, 104, 416-432.	5.7	28
210	Protoplast ion fluxes: their measurement and variation with time, position and osmoticum. Planta, 1998, 204, 146-152.	3.2	27
211	Choline but not its derivative betaine blocks slow vacuolar channels in the halophyte <i>Chenopodium quinoa</i>: Implications for salinity stress responses. FEBS Letters, 2014, 588, 3918-3923.	2.8	26
212	Developing and validating a high-throughput assay for salinity tissue tolerance in wheat and barley. Planta, 2015, 242, 847-857.	3.2	26
213	Growth responses of Atriplex lentiformis and Medicago arborea in three soil types treated with saline water irrigation. Environmental and Experimental Botany, 2016, 128, 39-50.	4.2	26
214	Melatonin as a regulator of plant ionic homeostasis: implications for abiotic stress tolerance. Journal of Experimental Botany, 2022, 73, 5886-5902.	4.8	26
215	Effect of aluminium on membrane potential and ion fluxes at the apices of wheat roots. Functional Plant Biology, 2005, 32, 199.	2.1	25
216	Compatible solutes mitigate damaging effects of salt stress by reducing the impact of stress-induced reactive oxygen species. Plant Signaling and Behavior, 2008, 3, 207-208.	2.4	25

#	Article	IF	Citations
217	Antioxidant Enzymatic Activity and Osmotic Adjustment as Components of the Drought Tolerance Mechanism in Carex duriuscula. Plants, 2021, 10, 436.	3.5	25
218	Biochemical and biophysical pH clamp controlling Net H⁺ efflux across the plasma membrane of plant cells. New Phytologist, 2021, 230, 408-415.	7.3	25
219	Quantitative Trait Loci for Salinity Tolerance Identified under Drained and Waterlogged Conditions and Their Association with Flowering Time in Barley (Hordeum vulgare. L). PLoS ONE, 2015, 10, e0134822.	2.5	25
220	Effect of Sudden Salt Stress on Ion Fluxes in Intact Wheat Suspension Cells. Annals of Botany, 2000, 85, 759-767.	2.9	24
221	Screening broad beans (Vicia faba) for magnesium deficiency. I. Growth characteristics, visual deficiency symptoms and plant nutritional status. Functional Plant Biology, 2004, 31, 529.	2.1	24
222	Plant ionic relation and whole-plant physiological responses to waterlogging, salinity and their combination in barley. Functional Plant Biology, 2017, 44, 941.	2.1	24
223	Microsensors in plant biology: in vivo visualization of inorganic analytes with high spatial and/or temporal resolution. Journal of Experimental Botany, 2020, 71, 3941-3954.	4.8	24
224	Non-Invasive Microelectrode Ion Flux Measurements In Plant Stress Physiology. , 2006, , 35-71.		23
225	Modulation of flavonoid and tannin production of Carpobrotus rossii by environmental conditions. Environmental and Experimental Botany, 2013, 87, 19-31.	4.2	23
226	Chloroplast-generated ROS dominate NaCl⁻induced K⁺efflux in wheat leaf mesophyll. Plant Signaling and Behavior, 2015, 10, e1013793.	2.4	23
227	Assessing the suitability of various screening methods as a proxy for drought tolerance in barley. Functional Plant Biology, 2017, 44, 253.	2.1	23
228	Changes in Expression Level of OsHKT1;5 Alters Activity of Membrane Transporters Involved in K+ and Ca2+ Acquisition and Homeostasis in Salinized Rice Roots. International Journal of Molecular Sciences, 2020, 21, 4882.	4.1	23
229	Homology Modeling Identifies Crucial Amino-Acid Residues That Confer Higher Na+ Transport Capacity of OcHKT1;5 from Oryza coarctata Roxb. Plant and Cell Physiology, 2020, 61, 1321-1334.	3.1	23
230	Function of NHX-type transporters in improving rice tolerance to aluminum stress and soil acidity. Planta, 2020, 251, 71.	3.2	23
231	Rewilding staple crops for the lost halophytism: Toward sustainability and profitability of agricultural production systems. Molecular Plant, 2022, 15, 45-64.	8.3	23
232	Ion transport in broad bean leaf mesophyll under saline conditions. Planta, 2014, 240, 729-743.	3.2	22
233	Expressing AtNHX1 in barley (Hordium vulgare L.) does not improve plant performance under saline conditions. Plant Growth Regulation, 2015, 77, 289-297.	3.4	22
234	Comparing Kinetics of Xylem Ion Loading and Its Regulation in Halophytes and Glycophytes. Plant and Cell Physiology, 2020, 61, 403-415.	3.1	22

#	Article	IF	Citations
235	Sodium sequestration confers salinity tolerance in an ancestral wild rice. Physiologia Plantarum, 2021, 172, 1594-1608.	5.2	22
236	Tissue tolerance mechanisms conferring salinity tolerance in a halophytic perennial species <i>Nitraria sibirica</i> Pall.. Tree Physiology, 2021, 41, 1264-1277.	3.1	22
237	Near-isogenic lines developed for a major QTL on chromosome arm 4HL conferring Fusarium crown rot resistance in barley. Euphytica, 2016, 209, 555-563.	1.2	21
238	Expressing Arabidopsis thaliana V-ATPase subunit C in barley (Hordeum vulgare) improves plant performance under saline condition by enabling better osmotic adjustment. Functional Plant Biology, 2017, 44, 1147.	2.1	21
239	Modulation of Ion Transport Across Plant Membranes by Polyamines: Understanding Specific Modes of Action Under Stress. Frontiers in Plant Science, 2020, 11, 616077.	3.6	21
240	Ion Flux Measurements Using the MIFE Technique. Methods in Molecular Biology, 2013, 953, 171-183.	0.9	21
241	Using excised leaves to screen lucerne for salt tolerance. Plant Signaling and Behavior, 2009, 4, 39-41.	2.4	20
242	Non-invasive microelectrode potassium flux measurements as a potential tool for early recognition of virusâ€“host compatibility in plants. Planta, 2010, 232, 807-815.	3.2	20
243	Barley yellow dwarf viruses: infection mechanisms and breeding strategies. Euphytica, 2017, 213, 1.	1.2	20
244	Linking ploidy level with salinity tolerance: NADPH-dependent â€˜ROSâ€“Ca2+ hubâ€™ in the spotlight. Journal of Experimental Botany, 2019, 70, 1063-1067.	4.8	20
245	Salinity Effects on Guard Cell Proteome in Chenopodium quinoa. International Journal of Molecular Sciences, 2021, 22, 428.	4.1	20
246	To exclude or to accumulate? Revealing the role of the sodium HKT1;5 transporter in plant adaptive responses to varying soil salinity. Plant Physiology and Biochemistry, 2021, 169, 333-342.	5.8	20
247	Extracellular Spermine Triggers a Rapid Intracellular Phosphatidic Acid Response in Arabidopsis, Involving PLDÎ´ Activation and Stimulating Ion Flux. Frontiers in Plant Science, 2019, 10, 601.	3.6	19
248	Evolutionary Significance of NHX Family and NHX1 in Salinity Stress Adaptation in the Genus Oryza. International Journal of Molecular Sciences, 2022, 23, 2092.	4.1	19
249	Temperature influences waterlogging stress-induced damage in Arabidopsis through the regulation of photosynthesis and hypoxia-related genes. Plant Growth Regulation, 2019, 89, 143-152.	3.4	18
250	Leaf mesophyll K+ and Clâˆ’ fluxes and reactive oxygen species production predict rice salt tolerance at reproductive stage in greenhouse and field conditions. Plant Growth Regulation, 2020, 92, 53-64.	3.4	18
251	Understanding the mechanistic basis of adaptation of perennial <i>Sarcocornia quinqueflora</i> species to soil salinity. Physiologia Plantarum, 2021, 172, 1997-2010.	5.2	18
252	Observations of Bifurcation and Chaos in Plant Physiological Responses to Light. Functional Plant Biology, 1997, 24, 91.	2.1	18

#	Article	IF	Citations
253	Fish gill damage by harmful microalgae newly explored by microelectrode ion flux estimation techniques. Harmful Algae, 2018, 80, 55-63.	4.8	17
254	Oscillations in proton transport revealed from simultaneous measurements of net current and net proton fluxes from isolated root protoplasts: MIFE meets patch-clamp. Functional Plant Biology, 2001, 28, 591.	2.1	16
255	Endomembrane Ca²⁺-ATPases play a significant role in virus-induced adaptation to oxidative stress. Plant Signaling and Behavior, 2011, 6, 1053-1056.	2.4	16
256	Enhancing Fusarium crown rot resistance by pyramiding large-effect QTL in barley. Molecular Breeding, 2015, 35, 1.	2.1	16
257	Microhair on the adaxial leaf surface of salt secreting halophytic Oryza coarctata Roxb. show distinct morphotypes: Isolation for molecular and functional analysis. Plant Science, 2019, 285, 248-257.	3.6	16
258	Developing a high-throughput phenotyping method for oxidative stress tolerance in barley roots. Plant Methods, 2019, 15, 12.	4.3	16
259	Distinct Evolutionary Origins of Intron Retention Splicing Events in NHX1 Antiporter Transcripts Relate to Sequence Specific Distinctions in Oryza Species. Frontiers in Plant Science, 2020, 11, 267.	3.6	16
260	Sugar Beet (Beta vulgaris) Guard Cells Responses to Salinity Stress: A Proteomic Analysis. International Journal of Molecular Sciences, 2020, 21, 2331.	4.1	16
261	Understanding a Mechanistic Basis of ABA Involvement in Plant Adaptation to Soil Flooding: The Current Standing. Plants, 2021, 10, 1982.	3.5	16
262	Thraustochytrids Can Be Grown in Low-Salt Media Without Affecting PUFA Production. Marine Biotechnology, 2013, 15, 437-444.	2.4	15
263	Extracellular silica nanocoat formed by layer-by-layer (LBL) self-assembly confers aluminum resistance in root border cells of pea (Pisum sativum). Journal of Nanobiotechnology, 2019, 17, 53.	9.1	15
264	Hydrogen-rich water promotes elongation of hypocotyls and roots in plants through mediating the level of endogenous gibberellin and auxin. Functional Plant Biology, 2020, 47, 771.	2.1	15
265	K+ transport by Arabidopsis root hairs at low pH. Functional Plant Biology, 2001, 28, 637.	2.1	15
266	Evaluation of salt tolerance of oat cultivars and the mechanism of adaptation to salinity. Journal of Plant Physiology, 2022, 273, 153708.	3.5	15
267	An Anion Conductance, the Essential Component of the Hydroxyl-Radical-Induced Ion Current in Plant Roots. International Journal of Molecular Sciences, 2018, 19, 897.	4.1	14
268	Evaluation of salt tolerance and contributing ionic mechanism in nine Hami melon landraces in Xinjiang, China. Scientia Horticulturae, 2018, 237, 277-286.	3.6	14
269	Candidate genes for salinity tolerance in barley revealed by RNA-seq analysis of near-isogenic lines. Plant Growth Regulation, 2020, 92, 571-582.	3.4	14
270	Understanding the role of root-related traits in salinity tolerance of quinoa accessions with contrasting epidermal bladder cell patterning. Planta, 2020, 251, 103.	3.2	14

#	Article	IF	Citations
271	Jasmonate signaling and remodeling of cell wall metabolism induced by boron deficiency in pea shoots. Environmental and Experimental Botany, 2022, 201, 104947.	4.2	14
272	Different properties of SV channels in root vacuoles from near isogenic Al-tolerant and Al-sensitive wheat cultivars. FEBS Letters, 2005, 579, 6890-6894.	2.8	13
273	Conditioning of Roots with Hypoxia Increases Aluminum and Acid Stress Tolerance by Mitigating Activation of K⁺Efflux Channels by ROS in Barley: Insights into Cross-Tolerance Mechanisms. Plant and Cell Physiology, 2016, 57, 160-173.	3.1	13
274	Xylem Ion Loading and Its Implications for Plant Abiotic Stress Tolerance. Advances in Botanical Research, 2018, 87, 267-301.	1.1	13
275	Linking sensitivity of photosystem II to UV-B with chloroplast ultrastructure and UV-B absorbing pigments contents in A. thaliana L. phyAphyB double mutants. Plant Growth Regulation, 2020, 91, 13-21.	3.4	13
276	Plant responses to heterogeneous salinity: agronomic relevance and research priorities. Annals of Botany, 2022, 129, 499-518.	2.9	13
277	Unravelling the physiological basis of salinity stress tolerance in cultivated and wild rice species. Functional Plant Biology, 2022, 49, 351-364.	2.1	12
278	Spectral and Dose Dependence of Light-Induced Ion Flux Responses from Maize Leaves and their Involvement in Leaf Expansion Growth. Plant and Cell Physiology, 2007, 48, 598-605.	3.1	11
279	Uptake and regulation of resource allocation for optimal plant performance and adaptation to stress. Frontiers in Plant Science, 2013, 4, 455.	3.6	11
280	Halophytes as a Possible Alternative to Desalination Plants. , 2016, , 317-329.		11
281	Genomic regions on chromosome 5H containing a novel QTL conferring barley yellow dwarf virus-PAV (BYDV-PAV) tolerance in barley. Scientific Reports, 2019, 9, 11298.	3.3	11
282	The role of NADPH oxidases in regulating leaf gas exchange and ion homeostasis in Arabidopsis plants under cadmium stress. Journal of Hazardous Materials, 2022, 429, 128217.	12.4	11
283	Multidimensional screening and evaluation of morphoâ€physiological indices for salinity stress tolerance in wheat. Journal of Agronomy and Crop Science, 2022, 208, 454-471.	3.5	11
284	Wild barley shows a wider diversity in genes regulating heading date compared with cultivated barley. Euphytica, 2019, 215, 1.	1.2	10
285	Early responses to salt stress in quinoa genotypes with opposite behavior. Physiologia Plantarum, 2021, 173, 1392-1420.	5.2	10
286	Specificity of Ion Uptake and Homeostasis Maintenance During Acid and Aluminium Stresses. Signaling and Communication in Plants, 2015, , 229-251.	0.7	10
287	A Thermodynamic Model of Monovalent Cation Homeostasis in the Yeast Saccharomyces cerevisiae. PLoS Computational Biology, 2016, 12, e1004703.	3.2	10
288	Genome-wide association study reveals a genomic region on 5AL for salinity tolerance in wheat. Theoretical and Applied Genetics, 2022, 135, 709-721.	3.6	10

#	Article	IF	Citations
289	Potassium Homeostasis in Salinized Plant Tissues. , 2006, , 287-317.		9
290	Quantifying Kinetics of Net Ion Fluxes from Plant Tissues by Non-invasive Microelectrode Measuring MIFE Technique. Methods in Molecular Biology, 2012, 913, 119-134.	0.9	9
291	Cation selectivity in cotton (Gossypium hirsutum L.) grown on calcareous soil as affected by potassium fertilization, cultivar and growth stage. Plant and Soil, 2017, 415, 331-346.	3.7	9
292	An RNA-binding protein MUG13.4 interacts with AtAGO2 to modulate salinity tolerance in Arabidopsis. Plant Science, 2019, 288, 110218.	3.6	9
293	Revealing the Role of the Calcineurin B-Like Protein-Interacting Protein Kinase 9 (CIPK9) in Rice Adaptive Responses to Salinity, Osmotic Stress, and K+ Deficiency. Plants, 2021, 10, 1513.	3.5	9
294	Impacts of barley root cortical aerenchyma on growth, physiology, yield components, and grain quality under field waterlogging conditions. Field Crops Research, 2022, 279, 108461.	5.1	9
295	Genome-Wide Association Study Reveals Marker Trait Associations (MTA) for Waterlogging-Triggered Adventitious Roots and Aerenchyma Formation in Barley. International Journal of Molecular Sciences, 2022, 23, 3341.	4.1	9
296	Effects of Verapamil and Gadolinium on Caffeine-Induced Contractures and Calcium Fluxes in Frog Slow Skeletal Muscle Fibers. Journal of Membrane Biology, 2008, 221, 7-13.	2.1	8
297	Application of Non-invasive Microelectrode Flux Measurements in Plant Stress Physiology. , 2012, , 91-126.		8
298	Understanding the mechanistic basis of ameliorating effects of hydrogen rich water on salinity tolerance in barley. Environmental and Experimental Botany, 2020, 177, 104136.	4.2	8
299	Developing and validating protocols for mechanical isolation of guard-cell enriched epidermal peels for omics studies. Functional Plant Biology, 2020, 47, 803.	2.1	8
300	Stalk cell polar ion transport provide for bladderâ€based salinity tolerance in <i>Chenopodium quinoa</i>. New Phytologist, 2022, 235, 1822-1835.	7.3	8
301	Root K+ homeostasis and signalling as a determinant of salinity stress tolerance in cultivated and wild rice species. Environmental and Experimental Botany, 2022, 201, 104944.	4.2	8
302	Cell-type-specific H+-ATPase activity and antioxidant enzymes improve the Echinacea purpurea L. Moench tolerance to salinity stress at different NO3-/NH4+ ratios. Industrial Crops and Products, 2022, 186, 115199.	5.2	8
303	Mechanisms underlying turgor regulation in the estuarine alga <scp><i>V</i></scp><i>aucheria erythrospora</i> (<scp>X</scp>anthophyceae) exposed to hyperosmotic shock. Plant, Cell and Environment, 2015, 38, 1514-1527.	5.7	7
304	Can highly saline irrigation water improve sodicity and alkalinity in sodic clayey subsoils?. Journal of Soils and Sediments, 2018, 18, 3290-3302.	3.0	7
305	Tissue-specificity of ROS-induced K+ and Ca2+ fluxes in succulent stems of the perennial halophyte Sarcocornia quinqueflora in the context of salinity stress tolerance. Plant Physiology and Biochemistry, 2021, 166, 1022-1031.	5.8	7
306	Membrane Transporters and Waterlogging Tolerance. , 2010, , 197-219.		7

#	Article	IF	Citations
307	Cation transporters in cell fate determination and plant adaptive responses to a low-oxygen environment. Journal of Experimental Botany, 2022, 73, 636-645.	4.8	7
308	Comparative Analysis of Root Na+ Relation under Salinity between OryzaÂsativa and Oryza coarctata. Plants, 2022, 11, 656.	3.5	7
309	pH-Dependent mitigation of aluminum toxicity in pea (Pisum sativum) roots by boron. Plant Science, 2022, 318, 111208.	3.6	7
310	Exposure of colonic epithelial cells to oxidative and endoplasmic reticulum stress causes rapid potassium efflux and calcium influx. Cell Biochemistry and Function, 2013, 31, 603-611.	2.9	6
311	Neurotransmitters in Signalling and Adaptation to Salinity Stress in Plants. Signaling and Communication in Plants, 2020, , 49-73.	0.7	6
312	Verapamil-induced kinetics of ion flux in oat seedlings. Functional Plant Biology, 2000, 27, 1031.	2.1	6
313	Effects of Potassium Availability on Growth and Development of Barley Cultivars. Agronomy, 2021, 11, 2269.	3.0	6
314	Effects of exogenously-applied L-ascorbic acid on root expansive growth and viability of the border-like cells. Plant Signaling and Behavior, 2018, 13, e1514895.	2.4	5
315	Agronomical, biochemical and histological response of resistant and susceptible wheat and barley under BYDV stress. PeerJ, 2018, 6, e4833.	2.0	5
316	Fluctuations in light intensity modulate ion fluxes from grape berry mesocarp: direct evidence from microelectrode ion flux estimations. Australian Journal of Grape and Wine Research, 2001, 7, 137-143.	2.1	4
317	Transport from Root to Shoot. , 0, , 214-234.		4
318	Metal cations in CO2 assimilation and conversion by plants. Jom, 2009, 61, 28-34.	1.9	4
319	Studying Membrane Transport Processes by Non-invasive Microelectrodes: Basic Principles and Methods. , 2012, , 167-186.		4
320	Noninvasive Microelectrode Ion Flux Estimation Technique (MIFE) for the Study of the Regulation of Root Membrane Transport by Cyclic Nucleotides. Methods in Molecular Biology, 2013, 1016, 95-106.	0.9	4
321	Mechanisms of thaxtomin A-induced root toxicity revealed by a thaxtomin A sensitive Arabidopsis mutant (ucu2-2/gi-2). Plant Cell Reports, 2016, 35, 347-356.	5.6	4
322	Temporal changes in soil properties and physiological characteristics of Atriplex species and Medicago arborea grown in different soil types under saline irrigation. Plant and Soil, 2018, 432, 315-331.	3.7	4
323	Early signalling processes in roots play a crucial role in the differential salt tolerance in contrasting Chenopodium quinoa accessions. Journal of Experimental Botany, 2021, , .	4.8	4
324	Transcriptome analyses of quinoa leaves revealed critical function of epidermal bladder cells in salt stress acclimation. Plant Stress, 2022, 3, 100061.	5.5	4

#	Article	IF	Citations
325	Proto Kranz-like leaf traits and cellular ionic regulation are associated with salinity tolerance in a halophytic wild rice. Stress Biology, 2022, 2, 1.	3.1	4
326	Oscillations in Plants. , 2006, , 261-275.		3
327	What makes a plant science manuscript successful for publication?. Functional Plant Biology, 2020, 47, 1138.	2.1	3
328	Nutrient uptake patterns over the surface of germinating wheat seeds. Functional Plant Biology, 2000, 27, 89.	2.1	3
329	Rethinking Rehabilitation of Salt-Affected Land: New Perspectives from Australian Experience. Earth, 2022, 3, 245-258.	2.2	3
330	Tissue-Specific Responses of Cereals to Two Fusarium Diseases and Effects of Plant Height and Drought Stress on Their Susceptibility. Agronomy, 2022, 12, 1108.	3.0	3
331	Ionâ€specific mechanisms of osmoregulation in bean mesophyll cells. Journal of Experimental Botany, 2000, 51, 1243-1253.	4.8	2
332	Plant Breeding for Flood Tolerance: Advances and Limitations. , 2015, , 43-72.		2
333	Phosphoinositides: Emerging players in plant salinity stress tolerance. Molecular Plant, 2021, 14, 1973-1975.	8.3	2
334	Membrane transport activity and ultradian ion flux oscillations associated with cell cycle of Thraustochytrium sp.. Functional Plant Biology, 2001, 28, 87.	2.1	2
335	MIFE Technique-based Screening for Mesophyll K+ Retention for Crop Breeding for Salinity Tolerance. Bio-protocol, 2015, 5, .	0.4	2
336	Development of suberized barrier is critical for ion partitioning between senescent and non-senescent tissues in a succulent halophyte Sarcocornia quinqueflora. Environmental and Experimental Botany, 2022, 194, 104692.	4.2	2
337	Application of omics technologies in single-type guard cell studies for understanding the mechanistic basis of plant adaptation to saline conditions. Advances in Botanical Research, 2022, , 249-270.	1.1	2
338	Root Border Cells as a Convenient Single Cell System to Study Plant-Environmental Interactions: A Case Study for Aluminum Tolerance. Frontiers in Soil Science, 0, 2, .	2.2	2
339	Genome wide association study and haplotype analysis reveals the role of HvHKT1;5 in potassium retention but not Na+ exclusion in barley (Hordeum vulgare L.). Environmental and Experimental Botany, 2022, 201, 104973.	4.2	2
340	Ion flux kinetics in blue lightâ€grown field dodder (<scp><i>C</i></scp><i>uscuta campestris</i>) seedlings. Weed Biology and Management, 2015, 15, 159-164.	1.4	1
341	Exploration and Utilization of Waterlogging-Tolerant Barley Germplasm. , 2016, , 153-179.		1
342	Ion Transport in Salt Glands and Bladders in Halophyte Species. , 2020, , 1-19.		1

#	Article	IF	Citations
343	Ion Transport in Salt Glands and Bladders in Halophyte Species. , 2021, , 1859-1876.		1
344	Targeting Vacuolar Sodium Sequestration in Plant Breeding for Salinity Tolerance. , 2015, , 35-50.		1
345	Nucleotide-binding leucine-rich repeat proteins: a missing link in controlling cell fate and plant adaptation to hostile environment?. Journal of Experimental Botany, 2022, 73, 631-635.	4.8	1
346	A novel R3H protein, OsDIP1, confers ABA-mediated adaptation to drought and salinity stress in rice. Plant and Soil, 2022, 477, 501-519.	3.7	1
347	Potassium Uptake and Homeostasis in Plants Grown Under Hostile Environmental Conditions, and Its Regulation by CBL-Interacting Protein Kinases. , 2018, , 137-158.		0
348	Entangling the interaction between essential and nonessential nutrients: implications for global food security. , 2022, , 1-25.		0
349	Mechanisms of Salinity Tolerance in Quinoa. , 2021, , 221-242.		0
350	Signaling molecules and transcriptional reprogramming for stomata operation under salt stress. Advances in Botanical Research, 2022, , .	1.1	0
351	Oscillations in Plants. , 0, , 261-275.		0