Sergey Shabala

List of Publications by Year in Descending Order

336 papers	19,164 citations	78 h-index	126 g-index
359 ext. papers	23,623 ext. citations	5.7 avg, IF	7.48 L-index

#	Paper	IF	Citations
336	Transcriptome analyses of quinoa leaves revealed critical function of epidermal bladder cells in salt stress acclimation. *Plant Stress*, **2022**, 3, 100061		0
335	Proto Kranz-like leaf traits and cellular ionic regulation are associated with salinity tolerance in a halophytic wild rice. *Stress Biology*, **2022**, 2, 1		0
334	Impacts of barley root cortical aerenchyma on growth, physiology, yield components, and grain quality under field waterlogging conditions. *Field Crops Research*, **2022**, 279, 108461	5.5	0
333	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	12.8	1
332	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	5.9	1
331	Entangling the interaction between essential and nonessential nutrients: implications for global food security **2022**, 1-25		
330	Rethinking Rehabilitation of Salt-Affected Land: New Perspectives from Australian Experience. *Earth*, **2022**, 3, 245-258	1	1
329	Evolutionary Significance of NHX Family and NHX1 in Salinity Stress Adaptation in the Genus .. *International Journal of Molecular Sciences*, **2022**, 23,	6.3	1
328	pH-Dependent mitigation of aluminum toxicity in pea (Pisum sativum) roots by boron.. *Plant Science*, **2022**, 318, 111208	5.3	0
327	Tissue-Specific Responses of Cereals to Two Fusarium Diseases and Effects of Plant Height and Drought Stress on Their Susceptibility. *Agronomy*, **2022**, 12, 1108	3.6	1
326	Evaluation of salt tolerance of oat cultivars and the mechanism of adaptation to salinity.. *Journal of Plant Physiology*, **2022**, 273, 153708	3.6	1
325	Jasmonate signaling and remodelling of cell wall metabolism induced by boron deficiency in pea shoots. *Environmental and Experimental Botany*, **2022**, 104947	5.9	3
324	Effects of Potassium Availability on Growth and Development of Barley Cultivars. *Agronomy*, **2021**, 11, 2269	3.6	2
323	Genome-wide association study reveals a genomic region on 5AL for salinity tolerance in wheat. *Theoretical and Applied Genetics*, **2021**, 1	6	0
322	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	5.4	4
321	Mechanisms of Salinity Tolerance in Quinoa **2021**, 221-242		
320	Rewilding staple crops for the lost halophytism: Toward sustainability and profitability of agricultural production systems.. *Molecular Plant*, **2021**,	14.4	1

319	Cell surface and intracellular auxin signalling for H fluxes in root growth. *Nature*, **2021**, 599, 273-277	50.4	8
318	Tissue tolerance mechanisms conferring salinity tolerance in a halophytic perennial species Nitraria sibirica Pall. *Tree Physiology*, **2021**, 41, 1264-1277	4.2	3
317	Sodium sequestration confers salinity tolerance in an ancestral wild rice. *Physiologia Plantarum*, **2021**, 172, 1594-1608	4.6	6
316	Biochemical and biophysical pH clamp controlling Net H efflux across the plasma membrane of plant cells. *New Phytologist*, **2021**, 230, 408-415	9.8	5
315	Understanding the mechanistic basis of adaptation of perennial Sarcocornia quinqueflora species to soil salinity. *Physiologia Plantarum*, **2021**, 172, 1997-2010	4.6	6
314	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	9	14
313	Early responses to salt stress in quinoa genotypes with opposite behavior. *Physiologia Plantarum*, **2021**, 173, 1392-1420	4.6	1
312	Improving Performance of Salt-Grown Crops by Exogenous Application of Plant Growth Regulators. *Biomolecules*, **2021**, 11,	5.9	14
311	Molecular mechanisms of salinity tolerance in rice. *Crop Journal*, **2021**, 9, 506-520	4.6	19
310	Rewilding crops for climate resilience: economic analysis and de novo domestication strategies. *Journal of Experimental Botany*, **2021**, 72, 6123-6139	7	12
309	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,	4.5	1
308	Non-stomatal limitation of photosynthesis by soil salinity. *Critical Reviews in Environmental Science and Technology*, **2021**, 51, 791-825	11.1	40
307	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	5.9	14
306	Salinity Effects on Guard Cell Proteome in. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	7
305	Antioxidant Enzymatic Activity and Osmotic Adjustment as Components of the Drought Tolerance Mechanism in. *Plants*, **2021**, 10,	4.5	6
304	AFB1 controls rapid auxin signalling through membrane depolarization in Arabidopsis thaliana root. *Nature Plants*, **2021**, 7, 1229-1238	11.5	7
303	Early signalling processes in roots play a crucial role in the differential salt tolerance in contrasting Chenopodium quinoa accessions. *Journal of Experimental Botany*, **2021**,	7	1
302	Tissue-specificity of ROS-induced K and Ca 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	5.4	3

301	Understanding a Mechanistic Basis of ABA Involvement in Plant Adaptation to Soil Flooding: The Current Standing. *Plants*, **2021**, 10,	4.5	4
300	Phosphoinositides: Emerging players in plant salinity stress tolerance. *Molecular Plant*, **2021**, 14, 1973-1975	14.4	1
299	Ion Transport in Salt Glands and Bladders in Halophyte Species **2021**, 1859-1876		
298	Leaf mesophyll K+ and Cl⁻ 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	3.2	12
297	Understanding the role of root-related traits in salinity tolerance of quinoa accessions with contrasting epidermal bladder cell patterning. *Planta*, **2020**, 251, 103	4.7	8
296	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	4.9	9
295	Calcium-Dependent Hydrogen Peroxide Mediates Hydrogen-Rich Water-Reduced Cadmium Uptake in Plant Roots. *Plant Physiology*, **2020**, 183, 1331-1344	6.6	19
294	Understanding the mechanistic basis of ameliorating effects of hydrogen rich water on salinity tolerance in barley. *Environmental and Experimental Botany*, **2020**, 177, 104136	5.9	5
293	Mechanisms of Plant Responses and Adaptation to Soil Salinity. *Innovation(China)*, **2020**, 1, 100017	17.8	156
292	Developing and validating protocols for mechanical isolation of guard-cell enriched epidermal peels for omics studies. *Functional Plant Biology*, **2020**, 47, 803-814	2.7	4
291	Melatonin improves rice salinity stress tolerance by NADPH oxidase-dependent control of the plasma membrane K transporters and K homeostasis. *Plant, Cell and Environment*, **2020**, 43, 2591-2605	8.4	37
290	Prospects for the accelerated improvement of the resilient crop quinoa. *Journal of Experimental Botany*, **2020**, 71, 5333-5347	7	19
289	Understanding Mechanisms of Salinity Tolerance in Barley by Proteomic and Biochemical Analysis of Near-Isogenic Lines. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	21
288	Function of NHX-type transporters in improving rice tolerance to aluminum stress and soil acidity. *Planta*, **2020**, 251, 71	4.7	12
287	Reducing Cadmium Accumulation in Plants: Structure-Function Relations and Tissue-Specific Operation of Transporters in the Spotlight. *Plants*, **2020**, 9,	4.5	34
286	GORK Channel: A Master Switch of Plant Metabolism?. *Trends in Plant Science*, **2020**, 25, 434-445	13.1	43
285	Identification of new QTL for salt tolerance from rice variety Pokkali. *Journal of Agronomy and Crop Science*, **2020**, 206, 202-213	3.9	20
284	Distinct Evolutionary Origins of Intron Retention Splicing Events in Antiporter Transcripts Relate to Sequence Specific Distinctions in Species. *Frontiers in Plant Science*, **2020**, 11, 267	6.2	10

283	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	7	13
282	Neurotransmitters in Signalling and Adaptation to Salinity Stress in Plants. *Signaling and Communication in Plants*, **2020**, 49-73	1	2
281	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	3.2	7
280	Crop Halophytism: An Environmentally Sustainable Solution for Global Food Security. *Trends in Plant Science*, **2020**, 25, 630-634	13.1	25
279	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	7.9	10
278	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, 771-778	2.7	7
277	Comparing Kinetics of Xylem Ion Loading and Its Regulation in Halophytes and Glycophytes. *Plant and Cell Physiology*, **2020**, 61, 403-415	4.9	12
276	Stomatal traits as a determinant of superior salinity tolerance in wild barley. *Journal of Plant Physiology*, **2020**, 245, 153108	3.6	17
275	Phylogenetic Diversity and Physiological Roles of Plant Monovalent Cation/H Antiporters. *Frontiers in Plant Science*, **2020**, 11, 573564	6.2	22
274	Ion Transport in Salt Glands and Bladders in Halophyte Species **2020**, 1-19		1
273	NADPH oxidases and the evolution of plant salinity tolerance. *Plant, Cell and Environment*, **2020**, 43, 2957-2968	8.4	19
272	What makes a plant science manuscript successful for publication?. *Functional Plant Biology*, **2020**, 47, 1138-1146	2.7	2
271	Lipid kinases PIP5K7 and PIP5K9 are required for polyamine-triggered K efflux in Arabidopsis roots. *Plant Journal*, **2020**, 104, 416-432	6.9	13
270	Changes in Expression Level of Alters Activity of Membrane Transporters Involved in K and Ca Acquisition and Homeostasis in Salinized Rice Roots. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	8
269	Evidence for multiple receptors mediating RALF-triggered Ca signaling and proton pump inhibition. *Plant Journal*, **2020**, 104, 433-446	6.9	14
268	Candidate genes for salinity tolerance in barley revealed by RNA-seq analysis of near-isogenic lines. *Plant Growth Regulation*, **2020**, 92, 571-582	3.2	7
267	Doing 'business as usual' comes with a cost: evaluating energy cost of maintaining plant intracellular K homeostasis under saline conditions. *New Phytologist*, **2020**, 225, 1097-1104	9.8	69
266	Energy costs of salt tolerance in crop plants. *New Phytologist*, **2020**, 225, 1072-1090	9.8	144

265	The energy cost of the tonoplast futile sodium leak. *New Phytologist*, **2020**, 225, 1105-1110	9.8	54
264	Biochemical pH clamp: the forgotten resource in membrane bioenergetics. *New Phytologist*, **2020**, 225, 37-47	9.8	14
263	Back to the Wild: On a Quest for Donors Toward Salinity Tolerant Rice. *Frontiers in Plant Science*, **2020**, 11, 323	6.2	27
262	Sugar Beet () Guard Cells Responses to Salinity Stress: A Proteomic Analysis. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	5
261	Modulation of Ion Transport Across Plant Membranes by Polyamines: Understanding Specific Modes of Action Under Stress. *Frontiers in Plant Science*, **2020**, 11, 616077	6.2	5
260	Extracellular Spermine Triggers a Rapid Intracellular Phosphatidic Acid Response in Arabidopsis, Involving PLD Activation and Stimulating Ion Flux. *Frontiers in Plant Science*, **2019**, 10, 601	6.2	12
259	Root vacuolar Na sequestration but not exclusion from uptake correlates with barley salt tolerance. *Plant Journal*, **2019**, 100, 55-67	6.9	38
258	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	5.3	9
257	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	9.4	7
256	Soil and Crop Management Practices to Minimize the Impact of Waterlogging on Crop Productivity. *Frontiers in Plant Science*, **2019**, 10, 140	6.2	53
255	Wild barley shows a wider diversity in genes regulating heading date compared with cultivated barley. *Euphytica*, **2019**, 215, 1	2.1	8
254	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,	6.3	21
253	Developing a high-throughput phenotyping method for oxidative stress tolerance in barley roots. *Plant Methods*, **2019**, 15, 12	5.8	15
252	Linking ploidy level with salinity tolerance: NADPH-dependent 'ROS-Ca2+ hub' in the spotlight. *Journal of Experimental Botany*, **2019**, 70, 1063-1067	7	9
251	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	4.6	29
250	An RNA-binding protein MUG13.4 interacts with AtAGO2 to modulate salinity tolerance in Arabidopsis. *Plant Science*, **2019**, 288, 110218	5.3	3
249	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	4.9	3
248	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	7	42

247	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	7	46
246	Temperature influences waterlogging stress-induced damage in Arabidopsis through the regulation of photosynthesis and hypoxia-related genes. *Plant Growth Regulation*, **2019**, 89, 143-152	3.2	10
245	Tissue-Specific Regulation of Na and K Transporters Explains Genotypic Differences in Salinity Stress Tolerance in Rice. *Frontiers in Plant Science*, **2019**, 10, 1361	6.2	22
244	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	5.9	24
243	Friend or Foe? Chloride Patterning in Halophytes. *Trends in Plant Science*, **2019**, 24, 142-151	13.1	32
242	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	5.9	17
241	Understanding physiological and morphological traits contributing to drought tolerance in barley. *Journal of Agronomy and Crop Science*, **2019**, 205, 129-140	3.9	16
240	Targeting Redox Regulatory Mechanisms for Salinity Stress Tolerance in Crops **2018**, 213-234		33
239	Transcriptional stimulation of rate-limiting components of the autophagic pathway improves plant fitness. *Journal of Experimental Botany*, **2018**, 69, 1415-1432	7	73
238	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	7	21
237	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	7	54
236	Potassium Uptake and Homeostasis in Plants Grown Under Hostile Environmental Conditions, and Its Regulation by CBL-Interacting Protein Kinases **2018**, 137-158		
235	Mechanisms of cytosolic calcium elevation in plants: the role of ion channels, calcium extrusion systems and NADPH oxidase-mediated 'ROS-Ca Hub'. *Functional Plant Biology*, **2018**, 45, 9-27	2.7	86
234	Revealing mechanisms of salinity tissue tolerance in succulent halophytes: A case study for Carpobrotus rossi. *Plant, Cell and Environment*, **2018**, 41, 2654-2667	8.4	23
233	Hydrogen Peroxide-Induced Root Ca and K+ Fluxes Correlate with Salt Tolerance in Cereals: Towards the Cell-Based Phenotyping. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	36
232	An Anion Conductance, the Essential Component of the Hydroxyl-Radical-Induced Ion Current in Plant Roots. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	9
231	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	7	36
230	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	7	46

229	Evaluation of salt tolerance and contributing ionic mechanism in nine Hami melon landraces in Xinjiang, China. *Scientia Horticulturae*, **2018**, 237, 277-286	4.1	7
228	Can highly saline irrigation water improve sodicity and alkalinity in sodic clayey subsoils?. *Journal of Soils and Sediments*, **2018**, 18, 3290-3302	3.4	4
227	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	5.9	14
226	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	4.2	129
225	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	3.2	35
224	Stomata in a saline world. *Current Opinion in Plant Biology*, **2018**, 46, 87-95	9.9	49
223	Calcium transport across plant membranes: mechanisms and functions. *New Phytologist*, **2018**, 220, 49-69	9.8	185
222	Agronomical, biochemical and histological response of resistant and susceptible wheat and barley under BYDV stress. *PeerJ*, **2018**, 6, e4833	3.1	3
221	Reproductive Physiology of Halophytes: Current Standing. *Frontiers in Plant Science*, **2018**, 9, 1954	6.2	55
220	A multiple near isogenic line (multi-NIL) RNA-seq approach to identify candidate genes underpinning QTL. *Theoretical and Applied Genetics*, **2018**, 131, 613-624	6	20
219	Understanding the Molecular Basis of Salt Sequestration in Epidermal Bladder Cells of Chenopodium quinoa. *Current Biology*, **2018**, 28, 3075-3085.e7	6.3	57
218	Fish gill damage by harmful microalgae newly explored by microelectrode ion flux estimation techniques. *Harmful Algae*, **2018**, 80, 55-63	5.3	8
217	Xylem Ion Loading and Its Implications for Plant Abiotic Stress Tolerance. *Advances in Botanical Research*, **2018**, 87, 267-301	2.2	9
216	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	2.5	3
215	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	4.2	3
214	Hydroxyl radical scavenging by cerium oxide nanoparticles improves Arabidopsis salinity tolerance by enhancing leaf mesophyll potassium retention. *Environmental Science: Nano*, **2018**, 5, 1567-1583	7.1	95
213	Boron Alleviates Aluminum Toxicity by Promoting Root Alkalization in Transition Zone via Polar Auxin Transport. *Plant Physiology*, **2018**, 177, 1254-1266	6.6	41
212	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	8.4	59

211	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	4.2	6
210	QTLs for stomatal and photosynthetic traits related to salinity tolerance in barley. *BMC Genomics*, **2017**, 18, 9	4.5	43
209	Halophytic NHXs confer salt tolerance by altering cytosolic and vacuolar K+ and Na+ in Arabidopsis root cell. *Plant Growth Regulation*, **2017**, 82, 333-351	3.2	28
208	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	11.5	34
207	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	6.9	117
206	Chloroplast function and ion regulation in plants growing on saline soils: lessons from halophytes. *Journal of Experimental Botany*, **2017**, 68, 3129-3143	7	102
205	Epidermal bladder cells confer salinity stress tolerance in the halophyte quinoa and Atriplex species. *Plant, Cell and Environment*, **2017**, 40, 1900-1915	8.4	61
204	Assessing the suitability of various screening methods as a proxy for drought tolerance in barley. *Functional Plant Biology*, **2017**, 44, 253-266	2.7	14
203	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	24.7	104
202	Barley yellow dwarf viruses: infection mechanisms and breeding strategies. *Euphytica*, **2017**, 213, 1	2.1	13
201	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	4.9	27
200	A new major-effect QTL for waterlogging tolerance in wild barley (H. spontaneum). *Theoretical and Applied Genetics*, **2017**, 130, 1559-1568	6	31
199	Hypoxia Sensing in Plants: On a Quest for Ion Channels as Putative Oxygen Sensors. *Plant and Cell Physiology*, **2017**, 58, 1126-1142	4.9	43
198	Residual transpiration as a component of salinity stress tolerance mechanism: a case study for barley. *BMC Plant Biology*, **2017**, 17, 107	5.3	28
197	Meta-analysis of major QTL for abiotic stress tolerance in barley and implications for barley breeding. *Planta*, **2017**, 245, 283-295	4.7	46
196	Signalling by potassium: another second messenger to add to the list?. *Journal of Experimental Botany*, **2017**, 68, 4003-4007	7	108
195	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	6.2	20
194	Plant ionic relation and whole-plant physiological responses to waterlogging, salinity and their combination in barley. *Functional Plant Biology*, **2017**, 44, 941-953	2.7	12

193	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, 1147-1159	2.7	15
192	Revealing the roles of GORK channels and NADPH oxidase in acclimation to hypoxia in Arabidopsis. *Journal of Experimental Botany*, **2017**, 68, 3191-3204	7	33
191	Difference in root K+ retention ability and reduced sensitivity of K+-permeable channels to reactive oxygen species confer differential salt tolerance in three Brassica species. *Journal of Experimental Botany*, **2016**, 67, 4611-25	7	84
190	Potassium retention in leaf mesophyll as an element of salinity tissue tolerance in halophytes. *Plant Physiology and Biochemistry*, **2016**, 109, 346-354	5.4	47
189	Cell-Type-Specific H+-ATPase Activity in Root Tissues Enables K+ Retention and Mediates Acclimation of Barley (Hordeum vulgare) to Salinity Stress. *Plant Physiology*, **2016**, 172, 2445-2458	6.6	99
188	Acclimation improves salt stress tolerance in Zea mays plants. *Journal of Plant Physiology*, **2016**, 201, 1-8	3.6	41
187	A new allele for aluminium tolerance gene in barley (Hordeum vulgare L.). *BMC Genomics*, **2016**, 17, 186	4.5	25
186	Evaluating relative contribution of osmotolerance and tissue tolerance mechanisms toward salinity stress tolerance in three Brassica species. *Physiologia Plantarum*, **2016**, 158, 135-51	4.6	41
185	Mechanisms of thaxtomin A-induced root toxicity revealed by a thaxtomin A sensitive Arabidopsis mutant (ucu2-2/gi-2). *Plant Cell Reports*, **2016**, 35, 347-56	5.1	3
184	The Venus Flytrap Dionaea muscipula Counts Prey-Induced Action Potentials to Induce Sodium Uptake. *Current Biology*, **2016**, 26, 286-95	6.3	92
183	Root-to-shoot signalling: integration of diverse molecules, pathways and functions. *Functional Plant Biology*, **2016**, 43, 87-104	2.7	77
182	Identification of aerenchyma formation-related QTL in barley that can be effective in breeding for waterlogging tolerance. *Theoretical and Applied Genetics*, **2016**, 129, 1167-77	6	40
181	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, 3747-62	7	42
180	Nax loci affect SOS1-like Na+/H+ exchanger expression and activity in wheat. *Journal of Experimental Botany*, **2016**, 67, 835-44	7	70
179	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, 160-73	4.9	8
178	On a quest for stress tolerance genes: membrane transporters in sensing and adapting to hostile soils. *Journal of Experimental Botany*, **2016**, 67, 1015-31	7	102
177	Transport Across Chloroplast Membranes: Optimizing Photosynthesis for Adverse Environmental Conditions. *Molecular Plant*, **2016**, 9, 356-370	14.4	75
176	A Thermodynamic Model of Monovalent Cation Homeostasis in the Yeast Saccharomyces cerevisiae. *PLoS Computational Biology*, **2016**, 12, e1004703	5	8

175	Exploration and Utilization of Waterlogging-Tolerant Barley Germplasm **2016**, 153-179		0
174	Halophytes as a Possible Alternative to Desalination Plants: Prospects of Recycling Saline Wastewater During Coal Seam Gas Operations **2016**, 317-329		10
173	Genome-Wide Association Study Reveals a New QTL for Salinity Tolerance in Barley (Hordeum vulgare L.). *Frontiers in Plant Science*, **2016**, 7, 946	6.2	40
172	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	5.9	20
171	Effect of potassium fertilization on leaf physiology, fiber yield and quality in cotton (Gossypium hirsutum L.) under irrigated Mediterranean conditions. *Field Crops Research*, **2016**, 193, 94-103	5.5	22
170	Near-isogenic lines developed for a major QTL on chromosome arm 4HL conferring Fusarium crown rot resistance in barley. *Euphytica*, **2016**, 209, 555-563	2.1	15
169	Salinity effects on chloroplast PSII performance in glycophytes and halophytes. *Functional Plant Biology*, **2016**, 43, 1003-1015	2.7	24
168	Using QTL mapping to investigate the relationships between abiotic stress tolerance (drought and salinity) and agronomic and physiological traits. *BMC Genomics*, **2015**, 16, 43	4.5	79
167	Linking salinity stress tolerance with tissue-specific Na(+) sequestration in wheat roots. *Frontiers in Plant Science*, **2015**, 6, 71	6.2	65
166	GABA signalling modulates plant growth by directly regulating the activity of plant-specific anion transporters. *Nature Communications*, **2015**, 6, 7879	17.4	192
165	Chloroplast-generated ROS dominate NaCl(-) induced K(+) efflux in wheat leaf mesophyll. *Plant Signaling and Behavior*, **2015**, 10, e1013793	2.5	15
164	Expressing AtNHX1 in barley (Hordium vulgare L.) does not improve plant performance under saline conditions. *Plant Growth Regulation*, **2015**, 77, 289-297	3.2	20
163	Salt stress sensing and early signalling events in plant roots: Current knowledge and hypothesis. *Plant Science*, **2015**, 241, 109-19	5.3	109
162	K+ retention in leaf mesophyll, an overlooked component of salinity tolerance mechanism: a case study for barley. *Journal of Integrative Plant Biology*, **2015**, 57, 171-85	8.3	98
161	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* , **2015**, 43, 75-86	2.7	56
160	Oxygen deficiency and salinity affect cell-specific ion concentrations in adventitious roots of barley (Hordeum vulgare). *New Phytologist*, **2015**, 208, 1114-25	9.8	44
159	Ion flux kinetics in blue light-grown field dodder (Cuscuta campestris) seedlings. *Weed Biology and Management*, **2015**, 15, 159-164	1.4	1
158	Developing and validating a high-throughput assay for salinity tissue tolerance in wheat and barley. *Planta*, **2015**, 242, 847-57	4.7	24

157	Waterlogging tolerance in barley is associated with faster aerenchyma formation in adventitious roots. *Plant and Soil*, **2015**, 394, 355-372	4.2	44
156	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, 7309-14	11.5	72
155	Plant Breeding for Flood Tolerance: Advances and Limitations **2015**, 43-72		1
154	Mechanisms underlying turgor regulation in the estuarine alga Vaucheria erythrospora (Xanthophyceae) exposed to hyperosmotic shock. *Plant, Cell and Environment*, **2015**, 38, 1514-27	8.4	5
153	Enhancing Fusarium crown rot resistance by pyramiding large-effect QTL in barley. *Molecular Breeding*, **2015**, 35, 1	3.4	12
152	The NPR1-dependent salicylic acid signalling pathway is pivotal for enhanced salt and oxidative stress tolerance in Arabidopsis. *Journal of Experimental Botany*, **2015**, 66, 1865-75	7	80
151	Salicylic acid in plant salinity stress signalling and tolerance. *Plant Growth Regulation*, **2015**, 76, 25-40	3.2	139
150	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, 481-94	4.1	125
149	Linking osmotic adjustment and stomatal characteristics with salinity stress tolerance in contrasting barley accessions. *Functional Plant Biology*, **2015**, 42, 252-263	2.7	34
148	Targeting Vacuolar Sodium Sequestration in Plant Breeding for Salinity Tolerance **2015**, 35-50		1
147	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	3.7	21
146	MIFE Technique-based Screening for Mesophyll K+ Retention for Crop Breeding for Salinity Tolerance. *Bio-protocol*, **2015**, 5,	0.9	2
145	Specificity of Ion Uptake and Homeostasis Maintenance During Acid and Aluminium Stresses. *Signaling and Communication in Plants*, **2015**, 229-251	1	9
144	Going beyond nutrition: regulation of potassium homoeostasis as a common denominator of plant adaptive responses to environment. *Journal of Plant Physiology*, **2014**, 171, 670-87	3.6	300
143	Regulation of potassium transport in plants under hostile conditions: implications for abiotic and biotic stress tolerance. *Physiologia Plantarum*, **2014**, 151, 257-79	4.6	386
142	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, 1271-83	7	152
141	ROS homeostasis in halophytes in the context of salinity stress tolerance. *Journal of Experimental Botany*, **2014**, 65, 1241-57	7	515
140	Choline but not its derivative betaine blocks slow vacuolar channels in the halophyte Chenopodium quinoa: implications for salinity stress responses. *FEBS Letters*, **2014**, 588, 3918-23	3.8	21

139	Linking oxygen availability with membrane potential maintenance and K+ retention of barley roots: implications for waterlogging stress tolerance. *Plant, Cell and Environment*, **2014**, 37, 2325-38	8.4	34
138	Receptor kinase-mediated control of primary active proton pumping at the plasma membrane. *Plant Journal*, **2014**, 80, 951-64	6.9	69
137	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, 1749-62	4.9	40
136	Salinity-induced accumulation of organic osmolytes in barley and wheat leaves correlates with increased oxidative stress tolerance: in planta evidence for cross-tolerance. *Plant Physiology and Biochemistry*, **2014**, 83, 32-9	5.4	72
135	Evaluating contribution of ionic, osmotic and oxidative stress components towards salinity tolerance in barley. *BMC Plant Biology*, **2014**, 14, 113	5.3	118
134	Cyclic mononucleotides modulate potassium and calcium flux responses to H2O2 in Arabidopsis roots. *FEBS Letters*, **2014**, 588, 1008-15	3.8	37
133	Halophyte agriculture: Success stories. *Environmental and Experimental Botany*, **2014**, 107, 71-83	5.9	269
132	Kinetics of xylem loading, membrane potential maintenance, and sensitivity of K(+) -permeable channels to reactive oxygen species: physiological traits that differentiate salinity tolerance between pea and barley. *Plant, Cell and Environment*, **2014**, 37, 589-600	8.4	88
131	Polyamines cause plasma membrane depolarization, activate Ca2+-, and modulate H+-ATPase pump activity in pea roots. *Journal of Experimental Botany*, **2014**, 65, 2463-72	7	61
130	Ion transport in broad bean leaf mesophyll under saline conditions. *Planta*, **2014**, 240, 729-43	4.7	19
129	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	6.2	33
128	Polyamines control of cation transport across plant membranes: implications for ion homeostasis and abiotic stress signaling. *Frontiers in Plant Science*, **2014**, 5, 154	6.2	131
127	Annexin 1 regulates the H2O2-induced calcium signature in Arabidopsis thaliana roots. *Plant Journal*, **2014**, 77, 136-45	6.9	89
126	Salt bladders: do they matter?. *Trends in Plant Science*, **2014**, 19, 687-91	13.1	186
125	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	4.7	24
124	Membrane transporters mediating root signalling and adaptive responses to oxygen deprivation and soil flooding. *Plant, Cell and Environment*, **2014**, 37, 2216-33	8.4	84
123	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, 2255-68	7	171
122	Modulation of flavonoid and tannin production of Carpobrotus rossii by environmental conditions. *Environmental and Experimental Botany*, **2013**, 87, 19-31	5.9	20

121	Thraustochytrids can be grown in low-salt media without affecting PUFA production. *Marine Biotechnology*, **2013**, 15, 437-44	3.4	13
120	Salt tolerance mechanisms in quinoa (Chenopodium quinoa Willd.). *Environmental and Experimental Botany*, **2013**, 92, 43-54	5.9	195
119	Ability of leaf mesophyll to retain potassium correlates with salinity tolerance in wheat and barley. *Physiologia Plantarum*, **2013**, 149, 515-27	4.6	88
118	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, 906-14	3.6	131
117	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	1.4	3
116	Calcium- and potassium-permeable plasma membrane transporters are activated by copper in Arabidopsis root tips: linking copper transport with cytosolic hydroxyl radical production. *Plant, Cell and Environment*, **2013**, 36, 844-55	8.4	69
115	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	4.2	46
114	Reduced tonoplast fast-activating and slow-activating channel activity is essential for conferring salinity tolerance in a facultative halophyte, quinoa. *Plant Physiology*, **2013**, 162, 940-52	6.6	119
113	Salinity-induced calcium signaling and root adaptation in Arabidopsis require the calcium regulatory protein annexin1. *Plant Physiology*, **2013**, 163, 253-62	6.6	93
112	Barley responses to combined waterlogging and salinity stress: separating effects of oxygen deprivation and elemental toxicity. *Frontiers in Plant Science*, **2013**, 4, 313	6.2	64
111	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, 9267-85	6.3	78
110	Uptake and regulation of resource allocation for optimal plant performance and adaptation to stress. *Frontiers in Plant Science*, **2013**, 4, 455	6.2	8
109	Learning from halophytes: physiological basis and strategies to improve abiotic stress tolerance in crops. *Annals of Botany*, **2013**, 112, 1209-21	4.1	486
108	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, 471-81	7	60
107	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, 1093-104	4.9	53
106	Transition metals: a double edge sward in ROS generation and signaling. *Plant Signaling and Behavior*, **2013**, 8, e23425	2.5	48
105	Exposure of colonic epithelial cells to oxidative and endoplasmic reticulum stress causes rapid potassium efflux and calcium influx. *Cell Biochemistry and Function*, **2013**, 31, 603-11	4.2	6
104	Ion flux measurements using the MIFE technique. *Methods in Molecular Biology*, **2013**, 953, 171-83	1.4	16

103	Arabidopsis annexin1 mediates the radical-activated plasma membrane Ca□+- and K+-permeable conductance in root cells. *Plant Cell*, **2012**, 24, 1522-33	11.6	146
102	Physiology of acclimation to salinity stress in pea (Pisum sativum). *Environmental and Experimental Botany*, **2012**, 84, 44-51	5.9	78
101	Quantifying kinetics of net ion fluxes from plant tissues by non-invasive microelectrode measuring MIFE technique. *Methods in Molecular Biology*, **2012**, 913, 119-34	1.4	6
100	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	5.4	82
99	Application of Non-invasive Microelectrode Flux Measurements in Plant Stress Physiology **2012**, 91-126		8
98	Studying Membrane Transport Processes by Non-invasive Microelectrodes: Basic Principles and Methods **2012**, 167-186		2
97	Varietal differences of quinoa□ tolerance to saline conditions. *Plant and Soil*, **2012**, 357, 117-129	4.2	114
96	Oxidative stress protection and stomatal patterning as components of salinity tolerance mechanism in quinoa (Chenopodium quinoa). *Physiologia Plantarum*, **2012**, 146, 26-38	4.6	145
95	Synergism between polyamines and ROS in the induction of Ca (2+) and K (+) fluxes in roots. *Plant Signaling and Behavior*, **2012**, 7, 1084-7	2.5	33
94	Ion Transport in Halophytes. *Advances in Botanical Research*, **2011**, 57, 151-199	2.2	225
93	Release of extracellular purines from plant roots and effect on ion fluxes. *Plant Signaling and Behavior*, **2011**, 6, 1855-7	2.5	30
92	Calcium efflux systems in stress signaling and adaptation in plants. *Frontiers in Plant Science*, **2011**, 2, 85	6.2	163
91	Plasma membrane Ca□+ transporters mediate virus-induced acquired resistance to oxidative stress. *Plant, Cell and Environment*, **2011**, 34, 406-17	8.4	36
90	Sequential depolarization of root cortical and stelar cells induced by an acute salt shock - implications for Na(+) and K(+) transport into xylem vessels. *Plant, Cell and Environment*, **2011**, 34, 859-69	8.4	37
89	Assessing the role of root plasma membrane and tonoplast Na+/H+ exchangers in salinity tolerance in wheat: in planta quantification methods. *Plant, Cell and Environment*, **2011**, 34, 947-961	8.4	126
88	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, 289-98	9.8	143
87	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	8.5	40
86	Ionic and osmotic relations in quinoa (Chenopodium quinoa Willd.) plants grown at various salinity levels. *Journal of Experimental Botany*, **2011**, 62, 185-93	7	222

85	Polyamines interact with hydroxyl radicals in activating Ca(2+) and K(+) transport across the root epidermal plasma membranes. *Plant Physiology*, **2011**, 157, 2167-80	6.6	129
84	Ion transport and osmotic adjustment in plants and bacteria. *Biomolecular Concepts*, **2011**, 2, 407-19	3.7	76
83	Endomembrane Ca2+-ATPases play a significant role in virus-induced adaptation to oxidative stress. *Plant Signaling and Behavior*, **2011**, 6, 1053-6	2.5	14
82	Receptor-like activity evoked by extracellular ADP in Arabidopsis root epidermal plasma membrane. *Plant Physiology*, **2011**, 156, 1375-85	6.6	53
81	Xylem ionic relations and salinity tolerance in barley. *Plant Journal*, **2010**, 61, 839-53	6.9	159
80	Aluminum-dependent dynamics of ion transport in Arabidopsis: specificity of low pH and aluminum responses. *Physiologia Plantarum*, **2010**, 139, 401-12	4.6	29
79	Aluminium-induced ion transport in Arabidopsis: the relationship between Al tolerance and root ion flux. *Journal of Experimental Botany*, **2010**, 61, 3163-75	7	43
78	Arabidopsis 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, 1468-79	5.3	350
77	Competition between uptake of ammonium and potassium in barley and Arabidopsis roots: molecular mechanisms and physiological consequences. *Journal of Experimental Botany*, **2010**, 61, 2303-15	7	128
76	Specificity of polyamine effects on NaCl-induced ion flux kinetics and salt stress amelioration in plants. *Plant and Cell Physiology*, **2010**, 51, 422-34	4.9	74
75	Wheat cultivars can be screened for NaCl salinity tolerance by measuring leaf chlorophyll content and shoot sap potassium. *Functional Plant Biology*, **2010**, 37, 656	2.7	34
74	Ionic relations and osmotic adjustment in durum and bread wheat under saline conditions. *Functional Plant Biology*, **2010**, 36, 1110-1119	2.7	105
73	Non-invasive microelectrode potassium flux measurements as a potential tool for early recognition of virus-host compatibility in plants. *Planta*, **2010**, 232, 807-15	4.7	18
72	Membrane Transporters and Waterlogging Tolerance **2010**, 197-219		6
71	Potassium and Potassium-Permeable Channels in Plant Salt Tolerance. *Signaling and Communication in Plants*, **2010**, 87-110	1	25
70	Salinity and programmed cell death: unravelling mechanisms for ion specific signalling. *Journal of Experimental Botany*, **2009**, 60, 709-12	7	205
69	Using excised leaves to screen lucerne for salt tolerance: physiological and cytological evidence. *Plant Signaling and Behavior*, **2009**, 4, 39-41	2.5	18
68	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, C1544-53	5.4	39

67	SV channels dominate the vacuolar Ca2+ release during intracellular signaling. *FEBS Letters*, **2009**, 583, 921-6	3.8	49
66	Metal cations in CO2 assimilation and conversion by plants. *Jom*, **2009**, 61, 28-34	2.1	3
65	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	8.4	40
64	Ion transport and osmotic adjustment in Escherichia coli in response to ionic and non-ionic osmotica. *Environmental Microbiology*, **2009**, 11, 137-48	5.2	97
63	Osmotic adjustment and requirement for sodium in marine protist thraustochytrid. *Environmental Microbiology*, **2009**, 11, 1835-43	5.2	22
62	Potassium transport and plant salt tolerance. *Physiologia Plantarum*, **2008**, 133, 651-69	4.6	785
61	A root's ability to retain K+ correlates with salt tolerance in wheat. *Journal of Experimental Botany*, **2008**, 59, 2697-706	7	205
60	Calcium efflux as a component of the hypersensitive response of Nicotiana benthamiana to Pseudomonas syringae. *Plant and Cell Physiology*, **2008**, 49, 40-6	4.9	31
59	Na-K transport in roots under salt stress. *Plant Signaling and Behavior*, **2008**, 3, 401-3	2.5	45
58	Compatible solutes mitigate damaging effects of salt stress by reducing the impact of stress-induced reactive oxygen species. *Plant Signaling and Behavior*, **2008**, 3, 207-8	2.5	21
57	Combining Ability of Salinity Tolerance on the Basis of NaCl-Induced K+ Flux from Roots of Barley. *Crop Science*, **2008**, 48, 1382-1388	2.4	43
56	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	2.3	7
55	Multiple traits associated with salt tolerance in lucerne: revealing the underlying cellular mechanisms. *Functional Plant Biology*, **2008**, 35, 640-650	2.7	61
54	Amelioration of detrimental effects of waterlogging by foliar nutrient sprays in barley. *Functional Plant Biology*, **2007**, 34, 221-227	2.7	26
53	Compatible solutes reduce ROS-induced potassium efflux in Arabidopsis roots. *Plant, Cell and Environment*, **2007**, 30, 875-85	8.4	202
52	Potassium and sodium relations in salinised barley tissues as a basis of differential salt tolerance. *Functional Plant Biology*, **2007**, 34, 150-162	2.7	222
51	Amino acids regulate salinity-induced potassium efflux in barley root epidermis. *Planta*, **2007**, 225, 753-64	4.7	107
50	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, 189-97	4.7	94

49	Compatible solute accumulation and stress-mitigating effects in barley genotypes contrasting in their salt tolerance. *Journal of Experimental Botany*, **2007**, 58, 4245-55	7	284
48	Root plasma membrane transporters controlling K+/Na+ homeostasis in salt-stressed barley. *Plant Physiology*, **2007**, 145, 1714-25	6.6	357
47	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	4.9	11
46	Effect of secondary metabolites associated with anaerobic soil conditions on ion fluxes and electrophysiology in barley roots. *Plant Physiology*, **2007**, 145, 266-76	6.6	55
45	Arabidopsis protein kinase PKS5 inhibits the plasma membrane H+ -ATPase by preventing interaction with 14-3-3 protein. *Plant Cell*, **2007**, 19, 1617-34	11.6	299
44	Polyamines prevent NaCl-induced K+ efflux from pea mesophyll by blocking non-selective cation channels. *FEBS Letters*, **2007**, 581, 1993-9	3.8	129
43	Oscillations in plant membrane transport: model predictions, experimental validation, and physiological implications. *Journal of Experimental Botany*, **2006**, 57, 171-84	7	73
42	Oscillations in Plants **2006**, 261-275		3
41	Extracellular Ca2+ ameliorates NaCl-induced K+ loss from Arabidopsis root and leaf cells by controlling plasma membrane K+ -permeable channels. *Plant Physiology*, **2006**, 141, 1653-65	6.6	361
40	Non-Invasive Microelectrode Ion Flux Measurements In Plant Stress Physiology **2006**, 35-71		17
39	Non-invasive microelectrode ion flux measurements to study adaptive responses of microorganisms to the environment. *FEMS Microbiology Reviews*, **2006**, 30, 472-86	15.1	88
38	Microelectrode ion and O2 fluxes measurements reveal differential sensitivity of barley root tissues to hypoxia. *Plant, Cell and Environment*, **2006**, 29, 1107-21	8.4	82
37	Potassium Homeostasis in Salinized Plant Tissues **2006**, 287-317		8
36	Different properties of SV channels in root vacuoles from near isogenic Al-tolerant and Al-sensitive wheat cultivars. *FEBS Letters*, **2005**, 579, 6890-4	3.8	11
35	Effect of aluminium on membrane potential and ion fluxes at the apices of wheat roots. *Functional Plant Biology*, **2005**, 32, 199-208	2.7	23
34	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	4.7	65
33	Salinity-induced ion flux patterns from the excised roots of Arabidopsis sos mutants. *Planta*, **2005**, 222, 1041-50	4.7	200
32	Nutritional and chlorophyll fluorescence responses of lucerne (Medicago sativa) to waterlogging and subsequent recovery. *Plant and Soil*, **2005**, 270, 31-45	4.2	109

31	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, 638-48	4.9	57
30	Effect of divalent cations on ion fluxes and leaf photochemistry in salinized barley leaves. *Journal of Experimental Botany*, **2005**, 56, 1369-78	7	79
29	Exogenously supplied compatible solutes rapidly ameliorate NaCl-induced potassium efflux from barley roots. *Plant and Cell Physiology*, **2005**, 46, 1924-33	4.9	159
28	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, 1093-8	4.9	34
27	Screening broad beans (Vicia faba) for magnesium deficiency. I. Growth characteristics, visual deficiency symptoms and plant nutritional status. *Functional Plant Biology*, **2004**, 31, 529-537	2.7	15
26	Growth and physiological responses of six barley genotypes to waterlogging and subsequent recovery. *Australian Journal of Agricultural Research*, **2004**, 55, 895		112
25	Screening broad beans (Vicia faba) for magnesium deficiency. II. Photosynthetic performance and leaf bioelectrical responses. *Functional Plant Biology*, **2004**, 31, 539-549	2.7	37
24	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, 335-343	2.7	76
23	Effect of calcium on root development and root ion fluxes in salinised barley seedlings. *Functional Plant Biology*, **2003**, 30, 507-514	2.7	154
22	Regulation of potassium transport in leaves: from molecular to tissue level. *Annals of Botany*, **2003**, 92, 627-34	4.1	127
21	Kinetics of net H+, Ca2+, K+, Na+, NH+4, 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	4.6	51
20	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, 2433-8	11.5	99
19	Rhythmic patterns of nutrient acquisition by wheat roots. *Functional Plant Biology*, **2002**, 29, 595-605	2.7	30
18	Heterogeneity in bean leaf mesophyll tissue and ion flux profiles: leaf electrophysiological characteristics correlate with the anatomical structure. *Annals of Botany*, **2002**, 89, 221-6	4.1	29
17	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	2.7	8
16	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, 119-29	2.8	38
15	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	2.4	3
14	K+ transport by Arabidopsis root hairs at low pH. *Functional Plant Biology*, **2001**, 28, 637	2.7	7

13	Ion-specific mechanisms of osmoregulation in bean mesophyll cells. *Journal of Experimental Botany*, **2000**, 51, 1243-1253	7	2
12	Ion-specific mechanisms of osmoregulation in bean mesophyll cells. *Journal of Experimental Botany*, **2000**, 51, 1243-1253	7	87
11	Salinity Effects on the Activity of Plasma Membrane H + and Ca 2+ Transporters in Bean Leaf Mesophyll: Masking Role of the Cell Wall. *Annals of Botany*, **2000**, 85, 681-686	4.1	57
10	Effect of Sudden Salt Stress on Ion Fluxes in Intact Wheat Suspension Cells. *Annals of Botany*, **2000**, 85, 759-767	4.1	21
9	Nutrient uptake patterns over the surface of germinating wheat seeds. *Functional Plant Biology*, **2000**, 27, 89	2.7	2
8	Verapamil-induced kinetics of ion flux in oat seedlings. *Functional Plant Biology*, **2000**, 27, 1031	2.7	6
7	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 bioelectrogenesis. *Plant Physiology*, **1999**, 119, 1115-24	6.6	91
6	Protoplast ion fluxes: their measurement and variation with time, position and osmoticum. *Planta*, **1998**, 204, 146-152	4.7	27
5	Observations of Bifurcation and Chaos in Plant Physiological Responses to Light. *Functional Plant Biology*, **1997**, 24, 91	2.7	10
4	Transport from Root to Shoot214-234		4
3	Computational modeling and quantitative cell physiology reveal central parameters for the brassinosteroid-regulated cell growth of the Arabidopsis root		1
2	The AFB1 auxin receptor controls rapid auxin signaling and root growth through membrane depolarization in Arabidopsis thaliana		1
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