Jayakumar Bose

List of Publications by Citations

52 papers	3,637 citations	29 h-index	58 g-index
58 ext. papers	4,525 ext. citations	5.8 avg, IF	5.59 L-index

#	Paper	IF	Citations
52	ROS homeostasis in halophytes in the context of salinity stress tolerance. *Journal of Experimental Botany*, **2014**, 65, 1241-57	7	515
51	GABA signalling modulates plant growth by directly regulating the activity of plant-specific anion transporters. *Nature Communications*, **2015**, 6, 7879	17.4	192
50	Salt bladders: do they matter?. *Trends in Plant Science*, **2014**, 19, 687-91	13.1	186
49	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
48	Calcium efflux systems in stress signaling and adaptation in plants. *Frontiers in Plant Science*, **2011**, 2, 85	6.2	163
47	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
46	Role of magnesium in alleviation of aluminium toxicity in plants. *Journal of Experimental Botany*, **2011**, 62, 2251-64	7	149
45	Energy costs of salt tolerance in crop plants. *New Phytologist*, **2020**, 225, 1072-1090	9.8	144
44	Salicylic acid in plant salinity stress signalling and tolerance. *Plant Growth Regulation*, **2015**, 76, 25-40	3.2	139
43	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
42	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
41	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
40	Salt stress sensing and early signalling events in plant roots: Current knowledge and hypothesis. *Plant Science*, **2015**, 241, 109-19	5.3	109
39	Non-selective cation channel activity of aquaporin AtPIP2;1 regulated by Ca and pH. *Plant, Cell and Environment*, **2017**, 40, 802-815	8.4	108
38	Chloroplast function and ion regulation in plants growing on saline soils: lessons from halophytes. *Journal of Experimental Botany*, **2017**, 68, 3129-3143	7	102
37	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
36	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

35	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
34	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
33	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
32	Linking salinity stress tolerance with tissue-specific Na(+) sequestration in wheat roots. *Frontiers in Plant Science*, **2015**, 6, 71	6.2	65
31	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
30	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
29	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
28	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
27	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
26	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
25	Magnesium alleviates plant toxicity of aluminium and heavy metals. *Crop and Pasture Science*, **2015**, 66, 1298	2.2	41
24	Aluminum-dependent dynamics of ion transport in Arabidopsis: specificity of low pH and aluminum responses. *Physiologia Plantarum*, **2010**, 139, 401-12	4.6	29
23	Salinity effects on chloroplast PSII performance in glycophytes and halophytes. *Functional Plant Biology*, **2016**, 43, 1003-1015	2.7	24
22	Ion transport in broad bean leaf mesophyll under saline conditions. *Planta*, **2014**, 240, 729-43	4.7	19
21	Chemical Profile and Biological Activities of Essential Oil from L. Cultivated in Brazil. *Pharmaceuticals*, **2019**, 12,	5.2	16
20	Ion flux measurements using the MIFE technique. *Methods in Molecular Biology*, **2013**, 953, 171-83	1.4	16
19	A single nucleotide substitution in TaHKT1;5-D controls shoot Na accumulation in bread wheat. *Plant, Cell and Environment*, **2020**, 43, 2158-2171	8.4	11
18	Applying both biochar and phosphobacteria enhances Vigna mungo L. growth and yield in acid soils by increasing soil pH, moisture content, microbial growth and P availability. *Agriculture, Ecosystems and Environment*, **2021**, 308, 107258	5.7	11

17	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
16	Specificity of Ion Uptake and Homeostasis Maintenance During Acid and Aluminium Stresses. *Signaling and Communication in Plants*, **2015**, 229-251	1	9
15	Rice GWAS reveals key genomic regions essential for salinity tolerance at reproductive stage. *Acta Physiologiae Plantarum*, **2020**, 42, 1	2.6	9
14	Application of Non-invasive Microelectrode Flux Measurements in Plant Stress Physiology **2012**, 91-126		8
13	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
12	Nitric Oxide in Drought Stress Signalling and Tolerance in Plants **2015**, 95-114		7
11	Soybean CHX-type ion transport protein GmSALT3 confers leaf Na exclusion via a root derived mechanism, and Cl exclusion via a shoot derived process. *Plant, Cell and Environment*, **2021**, 44, 856-869	8.4	7
10	Effect of Integrated Crop Management Practices on Rice (Oryza sativa L.) Root Volume and Rhizosphere Redox Potential. *Journal of Agronomy*, **2005**, 4, 311-314	0.4	4
9	Role of TaALMT1 malate-GABA transporter in alkaline pH tolerance of wheat. *Plant, Cell and Environment*, **2020**, 43, 2443-2459	8.4	4
8	Heat Shock Protein and Salinity Tolerance in Plants **2015**, 148-157		3
7	A single nucleotide substitution in TaHKT1;5-D controls shoot Na+ accumulation in bread wheat		3
6	Targeting Vacuolar Sodium Sequestration in Plant Breeding for Salinity Tolerance **2015**, 35-50		1
5	Soybean CHX protein GmSALT3 confers leaf Na+ exclusion via a root derived mechanism, and Cl exclusion via a shoot derived process		1
4	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
3	Oxygen uptake rates have contrasting responses to temperature in the root meristem and elongation zone.. *Physiologia Plantarum*, **2022**, e13682	4.6	1
2	Relationship Between Index Leaf Nitrogen and Leaf Colour Chart (LCC) Values in Direct Wet Seeded Rice (Oryza sativa L.). *Asian Journal of Plant Sciences*, **2007**, 6, 477-483	0.6	0
1	Potassium Uptake and Homeostasis in Plants Grown Under Hostile Environmental Conditions, and Its Regulation by CBL-Interacting Protein Kinases **2018**, 137-158		