Jayakumar Bose

List of Publications by Year
in descending order

53 papers	5,137 citations	159358 30 h-index	189595 50 g-index
58 all docs	58 docs citations	58 times ranked	5164 citing authors

#	Article	IF	Citations
1	Oxygen uptake rates have contrasting responses to temperature in the root meristem and elongation zone. Physiologia Plantarum, 2022, 174, e13682.	2.6	2
2	Soybean CHXâ€type ion transport protein GmSALT3 confers leaf Na⁺ exclusion via a root derived mechanism, and Cl^{â^'}â€‰exclusion via a shoot derived process. Plant, Cell and Environment, 2021, 44, 856-869.	2.8	21
3	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.	2.5	29
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, 1513.	1.6	9
5	Energy costs of salt tolerance in crop plants. New Phytologist, 2020, 225, 1072-1090.	3.5	284
6	A single nucleotide substitution in <scp><i>TaHKT1</i></scp>;<scp><i>5â€D</i></scp> controls shoot Na⁺ accumulation in bread wheat. Plant, Cell and Environment, 2020, 43, 2158-2171.	2.8	18
7	Role of <scp>TaALMT1 malateâ€GABA</scp> transporter in alkaline <scp>pH</scp> tolerance of wheat. Plant, Cell and Environment, 2020, 43, 2443-2459.	2.8	16
8	Rice GWAS reveals key genomic regions essential for salinity tolerance at reproductive stage. Acta Physiologiae Plantarum, 2020, 42, 1.	1.0	20
9	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.	1.8	23
10	Editorial: New Insights Into Salinity Sensing, Signaling and Adaptation in Plants. Frontiers in Plant Science, 2020, 11, 604139.	1.7	12
11	Chemical Profile and Biological Activities of Essential Oil from Artemisia vulgaris L. Cultivated in Brazil. Pharmaceuticals, 2019, 12, 49.	1.7	32
12	Potassium Uptake and Homeostasis in Plants Grown Under Hostile Environmental Conditions, and Its Regulation by CBL-Interacting Protein Kinases. , 2018, , 137-158.		0
13	An Anion Conductance, the Essential Component of the Hydroxyl-Radical-Induced Ion Current in Plant Roots. International Journal of Molecular Sciences, 2018, 19, 897.	1.8	14
14	Chloroplast function and ion regulation in plants growing on saline soils: lessons from halophytes. Journal of Experimental Botany, 2017, 68, 3129-3143.	2.4	187
15	Nonâ€selective cation channel activity of aquaporin AtPIP2;1 regulated by Ca²⁺ and pH. Plant, Cell and Environment, 2017, 40, 802-815.	2.8	153
16	Salinity effects on chloroplast PSII performance in glycophytes and halophytes. Functional Plant Biology, 2016, 43, 1003.	1.1	30
17	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.	2.4	127
18	Potassium retention in leaf mesophyll as an element of salinity tissue tolerance in halophytes. Plant Physiology and Biochemistry, 2016, 109, 346-354.	2.8	58

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19	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.	2.3	158
20	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.	2.6	58
21	On a quest for stress tolerance genes: membrane transporters in sensing and adapting to hostile soils. Journal of Experimental Botany, 2016, 67, 1015-1031.	2.4	135
22	Magnesium alleviates plant toxicity of aluminium and heavy metals. Crop and Pasture Science, 2015, 66, 1298.	0.7	71
23	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.	2.4	105
24	Salicylic acid in plant salinity stress signalling and tolerance. Plant Growth Regulation, 2015, 76, 25-40.	1.8	186
25	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.	1.4	181
26	Linking salinity stress tolerance with tissue-specific Na+ sequestration in wheat roots. Frontiers in Plant Science, 2015, 6, 71.	1.7	86
27	GABA signalling modulates plant growth by directly regulating the activity of plant-specific anion transporters. Nature Communications, 2015, 6, 7879.	5.8	268
28	Nitric Oxide in Drought Stress Signalling and Tolerance in Plants. , 2015, , 95-114.		8
29	Salt stress sensing and early signalling events in plant roots: Current knowledge and hypothesis. Plant Science, 2015, 241, 109-119.	1.7	189
30	Specificity of Ion Uptake and Homeostasis Maintenance During Acid and Aluminium Stresses. Signaling and Communication in Plants, 2015, , 229-251.	0.5	10
31	Heat Shock Protein and Salinity Tolerance in Plants. , 2015, , 148-157.		3
32	Targeting Vacuolar Sodium Sequestration in Plant Breeding for Salinity Tolerance. , 2015, , 35-50.		1
33	Ion transport in broad bean leaf mesophyll under saline conditions. Planta, 2014, 240, 729-743.	1.6	22
34	Salt bladders: do they matter?. Trends in Plant Science, 2014, 19, 687-691.	4.3	247
35	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.	2.4	197
36	ROS homeostasis in halophytes in the context of salinity stress tolerance. Journal of Experimental Botany, 2014, 65, 1241-1257.	2.4	714

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37	Polyamines Depolarize the Membrane and Initiate a Cross-Talk Between Plasma Membrane Ca2+ and H+ Pumps. Biophysical Journal, 2014, 106, 586a.	0.2	1
38	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.	2.8	107
39	Polyamines cause plasma membrane depolarization, activate Ca2+-, and modulate H+-ATPase pump activity in pea roots. Journal of Experimental Botany, 2014, 65, 2463-2472.	2.4	82
40	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.	2.4	226
41	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.	2.4	70
42	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.	1.5	69
43	Ion Flux Measurements Using the MIFE Technique. Methods in Molecular Biology, 2013, 953, 171-183.	0.4	21
44	Application of Non-invasive Microelectrode Flux Measurements in Plant Stress Physiology. , 2012, , 91-126.		8
45	Role of magnesium in alleviation of aluminium toxicity in plants. Journal of Experimental Botany, 2011, 62, 2251-2264.	2.4	195
46	Polyamines Interact with Hydroxyl Radicals in Activating Ca2+ and K+ Transport across the Root Epidermal Plasma Membranes Â. Plant Physiology, 2011, 157, 2167-2180.	2.3	144
47	Calcium Efflux Systems in Stress Signaling and Adaptation in Plants. Frontiers in Plant Science, 2011, 2, 85.	1.7	206
48	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.	2.8	159
49	Aluminum-dependent dynamics of ion transport in Arabidopsis: specificity of low pH and aluminum responses. Physiologia Plantarum, 2010, 139, no-no.	2.6	35
50	Aluminium-induced ion transport in Arabidopsis: the relationship between Al tolerance and root ion flux. Journal of Experimental Botany, 2010, 61, 3163-3175.	2.4	51
51	Irrigation Regimes and N Levels Influence Chlorophyll, Leaf Area Index, Proline and Soluble Protein Content of Aerobic Rice (Oryza sativa L.). International Journal of Agricultural Research, 2008, 3, 307-316.	0.0	3
52	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.	0.2	1
53	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	6