

Jayakumar Bose

List of Publications by Year in descending order

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Version: 2024-02-01

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	ROS homeostasis in halophytes in the context of salinity stress tolerance. <i>Journal of Experimental Botany</i> , 2014, 65, 1241-1257.	2.4	714
2	Energy costs of salt tolerance in crop plants. <i>New Phytologist</i> , 2020, 225, 1072-1090.	3.5	284
3	GABA signalling modulates plant growth by directly regulating the activity of plant-specific anion transporters. <i>Nature Communications</i> , 2015, 6, 7879.	5.8	268
4	Salt bladders: do they matter?. <i>Trends in Plant Science</i> , 2014, 19, 687-691.	4.3	247
5	Salicylic acid improves salinity tolerance in <i>Arabidopsis</i> by restoring membrane potential and preventing salt-induced K ⁺ loss via a GORK channel. <i>Journal of Experimental Botany</i> , 2013, 64, 2255-2268.	2.4	226
6	Calcium Efflux Systems in Stress Signaling and Adaptation in Plants. <i>Frontiers in Plant Science</i> , 2011, 2, 85.	1.7	206
7	Cross-talk between reactive oxygen species and polyamines in regulation of ion transport across the plasma membrane: implications for plant adaptive responses. <i>Journal of Experimental Botany</i> , 2014, 65, 1271-1283.	2.4	197
8	Role of magnesium in alleviation of aluminium toxicity in plants. <i>Journal of Experimental Botany</i> , 2011, 62, 2251-2264.	2.4	195
9	Salt stress sensing and early signalling events in plant roots: Current knowledge and hypothesis. <i>Plant Science</i> , 2015, 241, 109-119.	1.7	189
10	Chloroplast function and ion regulation in plants growing on saline soils: lessons from halophytes. <i>Journal of Experimental Botany</i> , 2017, 68, 3129-3143.	2.4	187
11	Salicylic acid in plant salinity stress signalling and tolerance. <i>Plant Growth Regulation</i> , 2015, 76, 25-40.	1.8	186
12	Rapid regulation of the plasma membrane H ⁺ -ATPase activity is essential to salinity tolerance in two halophyte species, <i>Atriplex lentiformis</i> and <i>Chenopodium quinoa</i> . <i>Annals of Botany</i> , 2015, 115, 481-494.	1.4	181
13	Assessing the role of root plasma membrane and tonoplast Na ⁺ /H ⁺ exchangers in salinity tolerance in wheat: <i>in planta</i> quantification methods. <i>Plant, Cell and Environment</i> , 2011, 34, 947-961.	2.8	159
14	Cell-Type-Specific H ⁺ -ATPase Activity in Root Tissues Enables K ⁺ Retention and Mediates Acclimation of Barley (<i>Hordeum vulgare</i>) to Salinity Stress. <i>Plant Physiology</i> , 2016, 172, 2445-2458.	2.3	158
15	Non-selective cation channel activity of aquaporin AtPIP2;1 regulated by Ca ²⁺ and pH. <i>Plant, Cell and Environment</i> , 2017, 40, 802-815.	2.8	153
16	Polyamines Interact with Hydroxyl Radicals in Activating Ca ²⁺ and K ⁺ Transport across the Root Epidermal Plasma Membranes. <i>Plant Physiology</i> , 2011, 157, 2167-2180.	2.3	144
17	On a quest for stress tolerance genes: membrane transporters in sensing and adapting to hostile soils. <i>Journal of Experimental Botany</i> , 2016, 67, 1015-1031.	2.4	135
18	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. <i>Journal of Experimental Botany</i> , 2016, 67, 4611-4625.	2.4	127

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19	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. <i>Plant, Cell and Environment</i> , 2014, 37, 589-600.	2.8	107
20	The NPR1-dependent salicylic acid signalling pathway is pivotal for enhanced salt and oxidative stress tolerance in <i>Arabidopsis</i> . <i>Journal of Experimental Botany</i> , 2015, 66, 1865-1875.	2.4	105
21	Linking salinity stress tolerance with tissue-specific Na^{+} sequestration in wheat roots. <i>Frontiers in Plant Science</i> , 2015, 6, 71.	1.7	86
22	Polyamines cause plasma membrane depolarization, activate Ca^{2+} , and modulate H^{+} -ATPase pump activity in pea roots. <i>Journal of Experimental Botany</i> , 2014, 65, 2463-2472.	2.4	82
23	Magnesium alleviates plant toxicity of aluminium and heavy metals. <i>Crop and Pasture Science</i> , 2015, 66, 1298.	0.7	71
24	Haem oxygenase modifies salinity tolerance in <i>Arabidopsis</i> by controlling K^{+} retention via regulation of the plasma membrane H^{+} -ATPase and by altering SOS1 transcript levels in roots. <i>Journal of Experimental Botany</i> , 2013, 64, 471-481.	2.4	70
25	Low-pH and Aluminum Resistance in <i>Arabidopsis</i> Correlates with High Cytosolic Magnesium Content and Increased Magnesium Uptake by Plant Roots. <i>Plant and Cell Physiology</i> , 2013, 54, 1093-1104.	1.5	69
26	Potassium retention in leaf mesophyll as an element of salinity tissue tolerance in halophytes. <i>Plant Physiology and Biochemistry</i> , 2016, 109, 346-354.	2.8	58
27	Evaluating relative contribution of osmotolerance and tissue tolerance mechanisms toward salinity stress tolerance in three <i>Brassica</i> species. <i>Physiologia Plantarum</i> , 2016, 158, 135-151.	2.6	58
28	Aluminium-induced ion transport in <i>Arabidopsis</i> : the relationship between Al tolerance and root ion flux. <i>Journal of Experimental Botany</i> , 2010, 61, 3163-3175.	2.4	51
29	Aluminum-dependent dynamics of ion transport in <i>Arabidopsis</i> : specificity of low pH and aluminum responses. <i>Physiologia Plantarum</i> , 2010, 139, no-no.	2.6	35
30	Chemical Profile and Biological Activities of Essential Oil from <i>Artemisia vulgaris</i> L. Cultivated in Brazil. <i>Pharmaceuticals</i> , 2019, 12, 49.	1.7	32
31	Salinity effects on chloroplast PSII performance in glycophytes and halophytes. <i>Functional Plant Biology</i> , 2016, 43, 1003.	1.1	30
32	Applying both biochar and phosphobacteria enhances <i>Vigna mungo</i> L. growth and yield in acid soils by increasing soil pH, moisture content, microbial growth and P availability. <i>Agriculture, Ecosystems and Environment</i> , 2021, 308, 107258.	2.5	29
33	Changes in Expression Level of OsHKT1;5 Alters Activity of Membrane Transporters Involved in K^{+} and Ca^{2+} Acquisition and Homeostasis in Salinized Rice Roots. <i>International Journal of Molecular Sciences</i> , 2020, 21, 4882.	1.8	23
34	Ion transport in broad bean leaf mesophyll under saline conditions. <i>Planta</i> , 2014, 240, 729-743.	1.6	22
35	Soybean CHX-type ion transport protein GmSALT3 confers leaf Na^{+} exclusion via a root derived mechanism, and Cl^{-} exclusion via a shoot derived process. <i>Plant, Cell and Environment</i> , 2021, 44, 856-869.	2.8	21
36	Ion Flux Measurements Using the MIFE Technique. <i>Methods in Molecular Biology</i> , 2013, 953, 171-183.	0.4	21

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37	Rice GWAS reveals key genomic regions essential for salinity tolerance at reproductive stage. <i>Acta Physiologiae Plantarum</i> , 2020, 42, 1.	1.0	20
38	A single nucleotide substitution in <i>TaHKT1</i> ; <i>5â€D</i> controls shoot Na ⁺ accumulation in bread wheat. <i>Plant, Cell and Environment</i> , 2020, 43, 2158-2171.	2.8	18
39	Role of <i>TaALMT1 malateâ€GABA</i> transporter in alkaline pH tolerance of wheat. <i>Plant, Cell and Environment</i> , 2020, 43, 2443-2459.	2.8	16
40	An Anion Conductance, the Essential Component of the Hydroxyl-Radical-Induced Ion Current in Plant Roots. <i>International Journal of Molecular Sciences</i> , 2018, 19, 897.	1.8	14
41	Editorial: New Insights Into Salinity Sensing, Signaling and Adaptation in Plants. <i>Frontiers in Plant Science</i> , 2020, 11, 604139.	1.7	12
42	Specificity of Ion Uptake and Homeostasis Maintenance During Acid and Aluminium Stresses. <i>Signaling and Communication in Plants</i> , 2015, , 229-251.	0.5	10
43	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. <i>Plants</i> , 2021, 10, 1513.	1.6	9
44	Application of Non-invasive Microelectrode Flux Measurements in Plant Stress Physiology. , 2012, , 91-126.		8
45	Nitric Oxide in Drought Stress Signalling and Tolerance in Plants. , 2015, , 95-114.		8
46	Effect of Integrated Crop Management Practices on Rice (<i>Oryza sativa</i> L.) Root Volume and Rhizosphere Redox Potential. <i>Journal of Agronomy</i> , 2005, 4, 311-314.	0.4	6
47	Heat Shock Protein and Salinity Tolerance in Plants. , 2015, , 148-157.		3
48	Irrigation Regimes and N Levels Influence Chlorophyll, Leaf Area Index, Proline and Soluble Protein Content of Aerobic Rice (<i>Oryza sativa</i> L.). <i>International Journal of Agricultural Research</i> , 2008, 3, 307-316.	0.0	3
49	Oxygen uptake rates have contrasting responses to temperature in the root meristem and elongation zone. <i>Physiologia Plantarum</i> , 2022, 174, e13682.	2.6	2
50	Polyamines Depolarize the Membrane and Initiate a Cross-Talk Between Plasma Membrane Ca ²⁺ and H ⁺ Pumps. <i>Biophysical Journal</i> , 2014, 106, 586a.	0.2	1
51	Targeting Vacuolar Sodium Sequestration in Plant Breeding for Salinity Tolerance. , 2015, , 35-50.		1
52	Relationship Between Index Leaf Nitrogen and Leaf Colour Chart (LCC) Values in Direct Wet Seeded Rice (<i>Oryza sativa</i> L.). <i>Asian Journal of Plant Sciences</i> , 2007, 6, 477-483.	0.2	1
53	Potassium Uptake and Homeostasis in Plants Grown Under Hostile Environmental Conditions, and Its Regulation by CBL-Interacting Protein Kinases. , 2018, , 137-158.		0