Tomoaki Horie

List of Publications by Year
in descending order

37	7,518	186209 28	315616 38
papers	citations	h-index	g-index

39	39	39	5680
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Distinct Functions of the Atypical Terminal Hydrophilic Domain of the HKT Transporter in the Liverwort <i>Marchantia polymorpha</i>. Plant and Cell Physiology, 2022, , .	1.5	1
2	Mechanisms Activating Latent Functions of PIP Aquaporin Water Channels via the Interaction between PIP1 and PIP2 Proteins. Plant and Cell Physiology, 2021, 62, 92-99.	1.5	8
3	Functions and structure of roots and their contributions to salinity tolerance in plants. Breeding Science, 2021, 71, 89-108.	0.9	10
4	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.	3.5	140
5	Expression and Ion Transport Activity of Rice OsHKT1;1 Variants. Plants, 2020, 9, 16.	1.6	15
6	A Survey of Barley PIP Aquaporin Ionic Conductance Reveals Ca2+-Sensitive HvPIP2;8 Na+ and K+ Conductance. International Journal of Molecular Sciences, 2020, 21, 7135.	1.8	17
7	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
8	High-Affinity K+ Transporters from a Halophyte,<i>Sporobolus virginicus</i>, Mediate Both K+ and Na+ Transport in Transgenic Arabidopsis,<i>X. laevis</i>Oocytes and Yeast. Plant and Cell Physiology, 2019, 60, 176-187.	1.5	12
9	T-DNA Tagging-Based Gain-of-Function of OsHKT1;4 Reinforces Na Exclusion from Leaves and Stems but Triggers Na Toxicity in Roots of Rice Under Salt Stress. International Journal of Molecular Sciences, 2018, 19, 235.	1.8	35
10	Genomics, Physiology, and Molecular Breeding Approaches for Improving Salt Tolerance. Annual Review of Plant Biology, 2017, 68, 405-434.	8.6	359
11	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.	2.8	210
12	A Magnesium Transporter OsMGT1 Plays a Critical Role in Salt Tolerance in Rice. Plant Physiology, 2017, 174, 1837-1849.	2.3	105
13	Identification of an <scp>H₂O₂</scp> permeable <scp>PIP</scp> aquaporin in barley and a serine residue promoting <scp>H₂O₂</scp> transport. Physiologia Plantarum, 2017, 159, 120-128.	2.6	17
14	OsHKT1;4-mediated Na+ transport in stems contributes to Na+ exclusion from leaf blades of rice at the reproductive growth stage upon salt stress. BMC Plant Biology, 2016, 16, 22.	1.6	168
15	OsHKT2;2/1-mediated Na+ influx over K+ uptake in roots potentially increases toxic Na+ accumulation in a salt-tolerant landrace of rice Nona Bokra upon salinity stress. Journal of Plant Research, 2016, 129, 67-77.	1.2	32
16	HKT transporters mediate salt stress resistance in plants: from structure and function to the field. Current Opinion in Biotechnology, 2015, 32, 113-120.	3.3	195
17	Dynamic Regulation of the Root Hydraulic Conductivity of Barley Plants in Response to Salinity/Osmotic Stress. Plant and Cell Physiology, 2015, 56, 875-882.	1.5	28
18	Functional and molecular characteristics of rice and barley NIP aquaporins transporting water, hydrogen peroxide and arsenite. Plant Biotechnology, 2014, 31, 213-219.	0.5	81

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19	Plant salt-tolerance mechanisms. Trends in Plant Science, 2014, 19, 371-379.	4.3	1,343
20	Using membrane transporters to improve crops for sustainable food production. Nature, 2013, 497, 60-66.	13.7	440
21	Salinity tolerance mechanisms in glycophytes: An overview with the central focus on rice plants. Rice, 2012, 5, 11.	1.7	279
22	Rice sodium-insensitive potassium transporter, OsHAK5, confers increased salt tolerance in tobacco BY2 cells. Journal of Bioscience and Bioengineering, 2011, 111, 346-356.	1.1	129
23	K+ Transport by the OsHKT2;4 Transporter from Rice with Atypical Na+ Transport Properties and Competition in Permeation of K+ over Mg2+ and Ca2+ Ions Â Â Â. Plant Physiology, 2011, 156, 1493-1507.	2.3	138
24	Mechanisms of Water Transport Mediated by PIP Aquaporins and Their Regulation Via Phosphorylation Events Under Salinity Stress in Barley Roots. Plant and Cell Physiology, 2011, 52, 663-675.	1.5	151
25	AtHKT1;1 Mediates Nernstian Sodium Channel Transport Properties in Arabidopsis Root Stelar Cells. PLoS ONE, 2011, 6, e24725.	1.1	61
26	A conserved primary salt tolerance mechanism mediated by HKT transporters: a mechanism for sodium exclusion and maintenance of high K⁺/Na⁺ ratio in leaves during salinity stress. Plant, Cell and Environment, 2010, 33, 552-565.	2.8	455
27	Differential Sodium and Potassium Transport Selectivities of the Rice OsHKT2;1 and OsHKT2;2 Transporters in Plant Cells Â Â. Plant Physiology, 2009, 152, 341-355.	2.3	135
28	HKT transporter-mediated salinity resistance mechanisms in Arabidopsis and monocot crop plants. Trends in Plant Science, 2009, 14, 660-668.	4.3	433
29	Functions of HKT transporters in sodium transport in roots and in protecting leaves from salinity stress. Plant Biotechnology, 2008, 25, 233-239.	0.5	22
30	Rice OsHKT2;1 transporter mediates large Na+ influx component into K+-starved roots for growth. EMBO Journal, 2007, 26, 3003-3014.	3.5	333
31	Nomenclature for HKT transporters, key determinants of plant salinity tolerance. Trends in Plant Science, 2006, 11, 372-374.	4.3	329
32	Calcium Regulation of Sodium Hypersensitivities of sos3 and athkt1 Mutants. Plant and Cell Physiology, 2006, 47, 622-633.	1.5	80
33	Enhanced salt tolerance mediated by AtHKT1 transporter-induced Na+ unloading from xylem vessels to xylem parenchyma cells. Plant Journal, 2005, 44, 928-938.	2.8	572
34	Sodium Transporters in Plants. Diverse Genes and Physiological Functions. Plant Physiology, 2004, 136, 2457-2462.	2.3	199
35	Glycine residues in potassium channel-like selectivity filters determine potassium selectivity in four-loop-per-subunit HKT transporters from plants. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6428-6433.	3.3	257
36	Altered shoot/root Na+ distribution and bifurcating salt sensitivity in Arabidopsis by genetic disruption of the Na+ transporter AtHKT1. FEBS Letters, 2002, 531, 157-161.	1.3	336

#	Article	IF	Citations
37	Two types of HKT transporters with different properties of Na+ and K+ transport in Oryza sativa. Plant Journal, 2001, 27, 129-138.	2.8	314