Miguel A PiÃ±eros

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Plant HKT Channels: An Updated View on Structure, Function and Gene Regulation. International Journal of Molecular Sciences, 2021, 22, 1892.	1.8	38
2	YSL3-mediated copper distribution is required for fertility, seed size and protein accumulation in <i>Brachypodium</i>. Plant Physiology, 2021, 186, 655-676.	2.3	25
3	Indoleâ€3â€glycerolphosphate synthase, a branchpoint for the biosynthesis of tryptophan, indole, and benzoxazinoids in maize. Plant Journal, 2021, 106, 245-257.	2.8	29
4	Cell-Free Synthesis of a Transmembrane Mechanosensitive Channel Protein into a Hybrid-Supported Lipid Bilayer. ACS Applied Bio Materials, 2021, 4, 3101-3112.	2.3	16
5	Grain mineral nutrient profiling and iron bioavailability of an ancient crop tef (Eragrostis tef). Australian Journal of Crop Science, 2021, , 1314-1324.	0.1	3
6	Apple ALMT9 Requires a Conserved C-Terminal Domain for Malate Transport Underlying Fruit Acidity. Plant Physiology, 2020, 182, 992-1006.	2.3	41
7	A Sugar Transporter Takes Up both Hexose and Sucrose for Sorbitol-Modulated In Vitro Pollen Tube Growth in Apple. Plant Cell, 2020, 32, 449-469.	3.1	49
8	Low Additive Genetic Variation in a Trait Under Selection in Domesticated Rice. G3: Genes, Genomes, Genetics, 2020, 10, 2435-2443.	0.8	9
9	Elucidation of Structural Domains Underlying Substrate Recognition in Plant MATE Transporters. Biophysical Journal, 2020, 118, 442a.	0.2	0
10	An extracellular cation coordination site influences ion conduction of OsHKT2;2. BMC Plant Biology, 2019, 19, 316.	1.6	11
11	Signal coordination before, during and after stomatal closure in response to drought stress. New Phytologist, 2019, 224, 675-688.	3.5	27
12	Cryo-EM structure of OSCA1.2 from <i>Oryza sativa</i> elucidates the mechanical basis of potential membrane hyperosmolality gating. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14309-14318.	3.3	71
13	Structure Function Studies of a Plant Non Selective Cation Channel Involved in Drough Tolerance. Biophysical Journal, 2019, 116, 399a.	0.2	0
14	Two citrate transporters coordinately regulate citrate secretion from rice bean root tip under aluminum stress. Plant, Cell and Environment, 2018, 41, 809-822.	2.8	45
15	Emerging Pleiotropic Mechanisms Underlying Aluminum Resistance and Phosphorus Acquisition on Acidic Soils. Frontiers in Plant Science, 2018, 9, 1420.	1.7	30
16	Lossâ€ofâ€function mutation of the calcium sensor <scp>CBL</scp>1 increases aluminum sensitivity in <i>Arabidopsis</i>. New Phytologist, 2017, 214, 830-841.	3.5	50
17	An Arabidopsis ABC Transporter Mediates Phosphate Deficiency-Induced Remodeling of Root Architecture by Modulating Iron Homeostasis in Roots. Molecular Plant, 2017, 10, 244-259.	3.9	133
18	Functional characterization and discovery of modulators of SbMATE, the agronomically important aluminium tolerance transporter from Sorghum bicolor. Scientific Reports, 2017, 7, 17996.	1.6	23

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19	<i><scp>ALUMINUM RESISTANCE TRANSCRIPTION FACTOR</scp> 1</i> (<i><scp>ART</scp>1</i>) contributes to natural variation in aluminum resistance in diverse genetic backgrounds of rice (<i>O.) Tj ETQq1 1 0.784314 rg BT /Overlo	[illegible]	23
20	The ALMT Family of Organic Acid Transporters in Plants and Their Involvement in Detoxification and Nutrient Security. Frontiers in Plant Science, 2016, 7, 1488.	1.7	98
21	The Raf-like kinase ILK1 and the high affinity K+ transporter HAK5 are required for Innate Immunity and Abiotic Stress Response. Plant Physiology, 2016, 171, pp.00035.2016.	2.3	59
22	Redefining â€˜stress resistance genesâ€™, and why it matters. Journal of Experimental Botany, 2016, 67, 5588-5591.	2.4	7
23	Evolving technologies for growing, imaging and analyzing 3D root system architecture of crop plants. Journal of Integrative Plant Biology, 2016, 58, 230-241.	4.1	43
24	Plant Adaptation to Acid Soils: The Molecular Basis for Crop Aluminum Resistance. Annual Review of Plant Biology, 2015, 66, 571-598.	8.6	705
25	OPT3 Is a Phloem-Specific Iron Transporter That Is Essential for Systemic Iron Signaling and Redistribution of Iron and Cadmium in<i>Arabidopsis</i>Â Â. Plant Cell, 2014, 26, 2249-2264.	3.1	215
26	The role of aluminum sensing and signaling in plant aluminum resistance. Journal of Integrative Plant Biology, 2014, 56, 221-230.	4.1	153
27	Physiological and molecular analysis of aluminum tolerance in selected Kenyan maize lines. Plant and Soil, 2014, 377, 357-367.	1.8	14
28	Phosphate transporters <scp><scp>OsPHT1</scp></scp>;9 and <scp><scp>OsPHT1</scp></scp>;10 are involved in phosphate uptake in rice. Plant, Cell and Environment, 2014, 37, 1159-1170.	2.8	135
29	Functional, structural and phylogenetic analysis of domains underlying the <scp>A</scp>l sensitivity of the aluminumâ€activated malate/anion transporter, <scp>T</scp>a<scp>ALMT</scp>1. Plant Journal, 2013, 76, 766-780.	2.8	50
30	Incomplete transfer of accessory loci influencing <i><scp>S</scp>b<scp>MATE</scp></i> expression underlies genetic background effects for aluminum tolerance in sorghum. Plant Journal, 2013, 73, 276-288.	2.8	31
31	Low pH, Aluminum, and Phosphorus Coordinately Regulate Malate Exudation through <i>GmALMT1</i> to Improve Soybean Adaptation to Acid Soils Â Â. Plant Physiology, 2013, 161, 1347-1361.	2.3	210
32	Aluminum tolerance in maize is associated with higher<i>MATE1</i>gene copy number. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5241-5246.	3.3	265
33	Maize ZmALMT2 is a root anion transporter that mediates constitutive root malate efflux. Plant, Cell and Environment, 2012, 35, 1185-1200.	2.8	74
34	A <i>de novo</i> synthesis citrate transporter, <i>Vigna umbellata</i> multidrug and toxic compound extrusion, implicates in Alâ€activated citrate efflux in rice bean (<i>Vigna umbellata</i>) root apex. Plant, Cell and Environment, 2011, 34, 2138-2148.	2.8	84
35	Calcium Inhibits Dihydropyridine-Stimulated Increases in Opening and Unitary Conductance of a Plant Ca2+ Channel. Journal of Membrane Biology, 2011, 240, 13-20.	1.0	3
36	Two functionally distinct members of the MATE (multi-drug and toxic compound extrusion) family of transporters potentially underlie two major aluminum tolerance QTLs in maize. Plant Journal, 2010, 61, 728-740.	2.8	266

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37	Phosphorylation at S384 regulates the activity of the TaALMT1 malate transporter that underlies aluminum resistance in wheat. Plant Journal, 2009, 60, 411-423.	2.8	54
38	Maize Al Tolerance. , 2009, , 367-380.		2
39	Not all ALMT1â€type transporters mediate aluminumâ€activated organic acid responses: the case of <i>ZmALMT1 â€“</i> an anionâ€selective transporter. Plant Journal, 2008, 53, 352-367.	2.8	97
40	Novel Properties of the Wheat Aluminum Tolerance Organic Acid Transporter (TaALMT1) Revealed by Electrophysiological Characterization in <i>Xenopus</i> Oocytes: Functional and Structural Implications. Plant Physiology, 2008, 147, 2131-2146.	2.3	99
41	Characterization of <i>AtALMT1</i> Expression in Aluminum-Inducible Malate Release and Its Role for Rhizotoxic Stress Tolerance in Arabidopsis. Plant Physiology, 2007, 145, 843-852.	2.3	184
42	A gene in the multidrug and toxic compound extrusion (MATE) family confers aluminum tolerance in sorghum. Nature Genetics, 2007, 39, 1156-1161.	9.4	665
43	Plant Cd 2+ and Zn 2+ status effects on root and shoot heavy metal accumulation in Thlaspi caerulescens. New Phytologist, 2007, 175, 51-58.	3.5	90
44	AtALMT1, which encodes a malate transporter, is identified as one of several genes critical for aluminum tolerance in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 9738-9743.	3.3	509
45	The Physiology, Genetics and Molecular Biology of Plant Aluminum Resistance and Toxicity. Plant and Soil, 2005, 274, 175-195.	1.8	597
46	Aluminum Resistance in Maize Cannot Be Solely Explained by Root Organic Acid Exudation. A Comparative Physiological Study. Plant Physiology, 2005, 137, 231-241.	2.3	146
47	The physiology, genetics and molecular biology of plant aluminum resistance and toxicity. Plant Ecophysiology, 2005, , 175-195.	1.5	65
48	HOW DO CROP PLANTS TOLERATE ACID SOILS? MECHANISMS OF ALUMINUM TOLERANCE AND PHOSPHOROUS EFFICIENCY. Annual Review of Plant Biology, 2004, 55, 459-493.	8.6	1,460
49	Differences in Whole-Cell and Single-Channel Ion Currents across the Plasma Membrane of Mesophyll Cells from Two Closely RelatedThlaspi Species. Plant Physiology, 2003, 131, 583-594.	2.3	21
50	The Physiology and Biophysics of an Aluminum Tolerance Mechanism Based on Root Citrate Exudation in Maize. Plant Physiology, 2002, 129, 1194-1206.	2.3	186
51	Mechanisms of metal resistance in plants: aluminum and heavy metals. Plant and Soil, 2002, 247, 109-119.	1.8	66
52	A Patch-Clamp Study on the Physiology of Aluminum Toxicity and Aluminum Tolerance in Maize. Identification and Characterization of Al3+-Induced Anion Channels. Plant Physiology, 2001, 125, 292-305.	2.3	179
53	Cation Permeability and Selectivity of a Root Plasma Membrane Calcium Channel. Journal of Membrane Biology, 2000, 174, 71-83.	1.0	28
54	Selectivity of Liquid Membrane Cadmium Microelectrodes Based on the IonophoreN,N,Nâ€²,Nâ€²-Tetrabutyl-3,6-dioxaoctanedithioamide. Electroanalysis, 1998, 10, 937-941.	1.5	26

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55	Characterization of the High-Affinity Verapamil Binding Site in a Plant Plasma Membrane Ca 2+ -selective Channel. Journal of Membrane Biology, 1997, 157, 139-145.	1.0	29
56	Characterization of a voltage-dependent Ca2+-selective channel from wheat roots. Planta, 1995, 195, 478.	1.6	110