Miguel A Pieros

List of Publications by Year in Descending Order

56 papers	5,952 citations	30 h-index	61 g-index
61 ext. papers	6,868 ext. citations	7.7 avg, IF	5.64 L-index

#	Paper	IF	Citations
56	Grain mineral nutrient profiling and iron bioavailability of an ancient crop tef (Eragrostis tef). *Australian Journal of Crop Science*, **2021**, 1314-1324	0.5	1
55	Indole-3-glycerolphosphate synthase, a branchpoint for the biosynthesis of tryptophan, indole, and benzoxazinoids in maize. *Plant Journal*, **2021**, 106, 245-257	6.9	10
54	Cell-Free Synthesis of a Transmembrane Mechanosensitive Channel Protein into a Hybrid-Supported Lipid Bilayer.. *ACS Applied Bio Materials*, **2021**, 4, 3101-3112	4.1	7
53	Plant HKT Channels: An Updated View on Structure, Function and Gene Regulation. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	10
52	YSL3-mediated copper distribution is required for fertility, seed size and protein accumulation in Brachypodium. *Plant Physiology*, **2021**, 186, 655-676	6.6	8
51	Apple ALMT9 Requires a Conserved C-Terminal Domain for Malate Transport Underlying Fruit Acidity. *Plant Physiology*, **2020**, 182, 992-1006	6.6	20
50	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	11.6	20
49	Low Additive Genetic Variation in a Trait Under Selection in Domesticated Rice. *G3: Genes, Genomes, Genetics*, **2020**, 10, 2435-2443	3.2	5
48	Cryo-EM structure of OSCA1.2 from 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	11.5	33
47	An extracellular cation coordination site influences ion conduction of OsHKT2;2. *BMC Plant Biology*, **2019**, 19, 316	5.3	7
46	Signal coordination before, during and after stomatal closure in response to drought stress. *New Phytologist*, **2019**, 224, 675-688	9.8	15
45	Two citrate transporters coordinately regulate citrate secretion from rice bean root tip under aluminum stress. *Plant, Cell and Environment*, **2018**, 41, 809-822	8.4	39
44	Emerging Pleiotropic Mechanisms Underlying Aluminum Resistance and Phosphorus Acquisition on Acidic Soils. *Frontiers in Plant Science*, **2018**, 9, 1420	6.2	16
43	Loss-of-function mutation of the calcium sensor CBL1 increases aluminum sensitivity in Arabidopsis. *New Phytologist*, **2017**, 214, 830-841	9.8	28
42	() contributes to natural variation in aluminum resistance in diverse genetic backgrounds of rice (). *Plant Direct*, **2017**, 1, e00014	3.3	14
41	An Arabidopsis ABC Transporter Mediates Phosphate Deficiency-Induced Remodeling of Root Architecture by Modulating Iron Homeostasis in Roots. *Molecular Plant*, **2017**, 10, 244-259	14.4	79
40	Functional characterization and discovery of modulators of SbMATE, the agronomically important aluminium tolerance transporter from Sorghum bicolor. *Scientific Reports*, **2017**, 7, 17996	4.9	17

39	The ALMT Family of Organic Acid Transporters in Plants and Their Involvement in Detoxification and Nutrient Security. *Frontiers in Plant Science*, **2016**, 7, 1488	6.2	65
38	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, 1470-84	6.6	38
37	Redefining Rstress resistance genesR and why it matters. *Journal of Experimental Botany*, **2016**, 67, 5588-5591	7	3
36	Evolving technologies for growing, imaging and analyzing 3D root system architecture of crop plants. *Journal of Integrative Plant Biology*, **2016**, 58, 230-41	8.3	30
35	Plant Adaptation to Acid Soils: The Molecular Basis for Crop Aluminum Resistance. *Annual Review of Plant Biology*, **2015**, 66, 571-98	30.7	474
34	Phosphate transporters OsPHT1;9 and OsPHT1;10 are involved in phosphate uptake in rice. *Plant, Cell and Environment*, **2014**, 37, 1159-70	8.4	91
33	Molecular and physiological mechanisms of plant tolerance to toxic metals **2014**, 179-201		0
32	OPT3 Is a Phloem-Specific Iron Transporter That Is Essential for Systemic Iron Signaling and Redistribution of Iron and Cadmium in Arabidopsis. *Plant Cell*, **2014**, 26, 2249-2264	11.6	152
31	The role of aluminum sensing and signaling in plant aluminum resistance. *Journal of Integrative Plant Biology*, **2014**, 56, 221-30	8.3	105
30	Physiological and molecular analysis of aluminum tolerance in selected Kenyan maize lines. *Plant and Soil*, **2014**, 377, 357-367	4.2	13
29	Functional, structural and phylogenetic analysis of domains underlying the Al sensitivity of the aluminum-activated malate/anion transporter, TaALMT1. *Plant Journal*, **2013**, 76, 766-80	6.9	43
28	Incomplete transfer of accessory loci influencing SbMATE expression underlies genetic background effects for aluminum tolerance in sorghum. *Plant Journal*, **2013**, 73, 276-88	6.9	27
27	Aluminum Tolerance in Sorghum and Maize **2013**, 83-98		1
26	Low pH, aluminum, and phosphorus coordinately regulate malate exudation through GmALMT1 to improve soybean adaptation to acid soils. *Plant Physiology*, **2013**, 161, 1347-61	6.6	153
25	Aluminum tolerance in maize is associated with higher MATE1 gene copy number. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 5241-6	11.5	199
24	Maize ZmALMT2 is a root anion transporter that mediates constitutive root malate efflux. *Plant, Cell and Environment*, **2012**, 35, 1185-200	8.4	55
23	A de novo synthesis citrate transporter, Vigna umbellata multidrug and toxic compound extrusion, implicates in Al-activated citrate efflux in rice bean (Vigna umbellata) root apex. *Plant, Cell and Environment*, **2011**, 34, 2138-48	8.4	74
22	Calcium inhibits dihydropyridine-stimulated increases in opening and unitary conductance of a plant Ca□+ channel. *Journal of Membrane Biology*, **2011**, 240, 13-20	2.3	3

21	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, 728-40	6.9	222
20	Phosphorylation at S384 regulates the activity of the TaALMT1 malate transporter that underlies aluminum resistance in wheat. *Plant Journal*, **2009**, 60, 411-23	6.9	46
19	Maize Al Tolerance **2009**, 367-380		2
18	Novel properties of the wheat aluminum tolerance organic acid transporter (TaALMT1) revealed by electrophysiological characterization in Xenopus Oocytes: functional and structural implications. *Plant Physiology*, **2008**, 147, 2131-46	6.6	89
17	Not all ALMT1-type transporters mediate aluminum-activated organic acid responses: the case of ZmALMT1 - an anion-selective transporter. *Plant Journal*, **2008**, 53, 352-67	6.9	83
16	A gene in the multidrug and toxic compound extrusion (MATE) family confers aluminum tolerance in sorghum. *Nature Genetics*, **2007**, 39, 1156-61	36.3	561
15	Plant Cd2+ and Zn2+ status effects on root and shoot heavy metal accumulation in Thlaspi caerulescens. *New Phytologist*, **2007**, 175, 51-58	9.8	73
14	Characterization of AtALMT1 expression in aluminum-inducible malate release and its role for rhizotoxic stress tolerance in Arabidopsis. *Plant Physiology*, **2007**, 145, 843-52	6.6	150
13	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, 9738-43	11.5	420
12	The Physiology, Genetics and Molecular Biology of Plant Aluminum Resistance and Toxicity. *Plant and Soil*, **2005**, 274, 175-195	4.2	530
11	Aluminum resistance in maize cannot be solely explained by root organic acid exudation. A comparative physiological study. *Plant Physiology*, **2005**, 137, 231-41	6.6	127
10	The physiology, genetics and molecular biology of plant aluminum resistance and toxicity. *Plant Ecophysiology*, **2005**, 175-195		24
9	How do crop plants tolerate acid soils? Mechanisms of aluminum tolerance and phosphorous efficiency. *Annual Review of Plant Biology*, **2004**, 55, 459-93	30.7	1220
8	Differences in whole-cell and single-channel ion currents across the plasma membrane of mesophyll cells from two closely related Thlaspi species. *Plant Physiology*, **2003**, 131, 583-94	6.6	21
7	Mechanisms of metal resistance in plants: aluminum and heavy metals. *Plant and Soil*, **2002**, 247, 109-119	4.2	61
6	The physiology and biophysics of an aluminum tolerance mechanism based on root citrate exudation in maize. *Plant Physiology*, **2002**, 129, 1194-206	6.6	170
5	A patch-clamp study on the physiology of aluminum toxicity and aluminum tolerance in maize. Identification and characterization of Al(3+)-induced anion channels. *Plant Physiology*, **2001**, 125, 292-305	6.6	158
4	Cation permeability and selectivity of a root plasma membrane calcium channel. *Journal of Membrane Biology*, **2000**, 174, 71-83	2.3	25

3	Selectivity of Liquid Membrane Cadmium Microelectrodes Based on the Ionophore N,N,N?,N?-Tetrabutyl-3,6-dioxaoctanedithioamide. *Electroanalysis*, **1998**, 10, 937-941	3	21
2	Characterization of the high-affinity verapamil binding site in a plant plasma membrane Ca2+-selective channel. *Journal of Membrane Biology*, **1997**, 157, 139-45	2.3	23
1	Characterization of a voltage-dependent Ca2+-selective channel from wheat roots. *Planta*, **1995**, 195, 478	4.7	71