Maria Del Carmen MartÃ-nez-Ballesta

List of Publications by Year
in descending order

64 papers	3,580 citations	147801 31 h-index	138484 58 g-index
66 all docs	66 docs citations	66 times ranked	4274 citing authors

#	Article	IF	Citations
1	The Physiological Importance of Glucosinolates on Plant Response to Abiotic Stress in Brassica. International Journal of Molecular Sciences, 2013, 14, 11607-11625.	4.1	284
2	Physiological aspects of rootstockâ€“scion interactions. Scientia Horticulturae, 2010, 127, 112-118.	3.6	255
3	Arbuscular mycorrhizal symbiosis increases relative apoplastic water flow in roots of the host plant under both well-watered and drought stress conditions. Annals of Botany, 2012, 109, 1009-1017.	2.9	220
4	Changes in plasma membrane lipids, aquaporins and proton pump of broccoli roots, as an adaptation mechanism to salinity. Phytochemistry, 2009, 70, 492-500.	2.9	182
5	Multiwalled carbon nanotubes enter broccoli cells enhancing growth and water uptake of plants exposed to salinity. Journal of Nanobiotechnology, 2016, 14, 42.	9.1	167
6	Minerals in plant food: effect of agricultural practices and role in human health. A review. Agronomy for Sustainable Development, 2010, 30, 295-309.	5.3	158
7	Silicon-mediated Improvement in Plant Salinity Tolerance: The Role of Aquaporins. Frontiers in Plant Science, 2017, 8, 948.	3.6	132
8	Broccoliâ€Derived Byâ€Productsâ€”A Promising Source of Bioactive Ingredients. Journal of Food Science, 2010, 75, C383-92.	3.1	130
9	Growing Hardier Crops for Better Health: Salinity Tolerance and the Nutritional Value of Broccoli. Journal of Agricultural and Food Chemistry, 2009, 57, 572-578.	5.2	120
10	Leaf water balance mediated by aquaporins under salt stress and associated glucosinolate synthesis in broccoli. Plant Science, 2008, 174, 321-328.	3.6	111
11	Influence of saline stress on root hydraulic conductance and PIP expression inArabidopsis. Journal of Plant Physiology, 2003, 160, 689-697.	3.5	106
12	Osmotic adjustment, water relations and gas exchange in pepper plants grown under NaCl or KCl. Environmental and Experimental Botany, 2004, 52, 161-174.	4.2	104
13	Enhancement of root hydraulic conductivity by methyl jasmonate and the role of calcium and abscisic acid in this process. Plant, Cell and Environment, 2014, 37, 995-1008.	5.7	88
14	Plant Aquaporins: New Perspectives on Water and Nutrient Uptake in Saline Environment. Plant Biology, 2006, 8, 535-546.	3.8	77
15	Nutritional and phytochemical value of <i>Brassica</i> crops from the agriâ€food perspective. Annals of Applied Biology, 2017, 170, 273-285.	2.5	70
16	Identification and differential induction of the expression of aquaporins by salinity in broccoli plants. Molecular BioSystems, 2011, 7, 1322.	2.9	67
17	New challenges in plant aquaporin biotechnology. Plant Science, 2014, 217-218, 71-77.	3.6	57
18	Agricultural practices for enhanced human health. Phytochemistry Reviews, 2008, 7, 251-260.	6.5	56

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19	Improvement of broccoli sprouts (Brassica oleracea L. var. italica) growth and quality by KCl seed priming and methyl jasmonate under salinity stress. Scientia Horticulturae, 2017, 226, 141-151.	3.6	53
20	The impact of the absence of aliphatic glucosinolates on water transport under salt stress in Arabidopsis thaliana. Frontiers in Plant Science, 2015, 6, 524.	3.6	48
21	Intrinsic stability of Brassicaceae plasma membrane in relation to changes in proteins and lipids as a response to salinity. Journal of Plant Physiology, 2015, 175, 148-156.	3.5	48
22	Boric acid and salinity effects on maize roots. Response of aquaporins ZmPIP1 and ZmPIP2, and plasma membrane H⁺â€ATPase, in relation to water and nutrient uptake. Physiologia Plantarum, 2008, 132, 479-490.	5.2	46
23	Myrosinase in Brassicaceae: the most important issue for glucosinolate turnover and food quality. Phytochemistry Reviews, 2015, 14, 1045-1051.	6.5	45
24	Interactions between salinity and boron toxicity in tomato plants involve apoplastic calcium. Journal of Plant Physiology, 2010, 167, 54-60.	3.5	41
25	Effects of seed priming, salinity and methyl jasmonate treatment on bioactive composition of <i>Brassica oleracea</i> var. <i>capitata</i> (white and red varieties) sprouts. Journal of the Science of Food and Agriculture, 2017, 97, 2291-2299.	3.5	41
26	Two different effects of calcium on aquaporins in salinity-stressed pepper plants. Planta, 2008, 228, 15-25.	3.2	38
27	New Evidence About the Relationship Between Water Channel Activity and Calcium in Salinity-stressed Pepper Plants. Plant and Cell Physiology, 2006, 47, 224-233.	3.1	37
28	Aquaporin functionality in relation to H+ -ATPase activity in root cells of Capsicum annuum grown under salinity. Physiologia Plantarum, 2003, 117, 413-420.	5.2	36
29	Novel varieties of broccoli for optimal bioactive components under saline stress. Journal of the Science of Food and Agriculture, 2011, 91, 1638-1647.	3.5	35
30	Involvement of a glucosinolate (sinigrin) in the regulation of water transport in <scp><i>Brassica oleracea</i></scp> grown under salt stress. Physiologia Plantarum, 2014, 150, 145-160.	5.2	35
31	Basis for the new challenges of growing broccoli for health in hydroponics. Journal of the Science of Food and Agriculture, 2008, 88, 1472-1481.	3.5	34
32	Plant plasma membrane vesicles interaction with keratinocytes reveals their potential as carriers. Journal of Advanced Research, 2020, 23, 101-111.	9.5	33
33	Elevated CO2 alleviates negative effects of salinity on broccoli (Brassica oleracea L. var Italica) plants by modulating water balance through aquaporins abundance. Environmental and Experimental Botany, 2013, 95, 15-24.	4.2	32
34	Protective effects of cerium oxide nanoparticles in grapevine (Vitis vinifera L.) cv. Flame Seedless under salt stress conditions. Ecotoxicology and Environmental Safety, 2021, 220, 112402.	6.0	31
35	Differential Responses of Two Broccoli (<i>Brassica oleracea</i>L. var Italica) Cultivars to Salinity and Nutritional Quality Improvement. Scientific World Journal, The, 2012, 2012, 1-12.	2.1	30
36	Plasma membrane aquaporins mediates vesicle stability in broccoli. PLoS ONE, 2018, 13, e0192422.	2.5	30

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37	Water balance and N-metabolism in broccoli (Brassica oleracea L. var. Italica) plants depending on nitrogen source under salt stress and elevated CO_2. Science of the Total Environment, 2016, 571, 763-771.	8.0	29
38	Healthâ€promoting compounds of broccoli (<i>Brassica oleracea</i> L. var. <i>italica</i>) plants as affected by nitrogen fertilisation in projected future climatic change environments. Journal of the Science of Food and Agriculture, 2016, 96, 392-403.	3.5	27
39	The Importance of Ion Homeostasis and Nutrient Status in Seed Development and Germination. Agronomy, 2020, 10, 504.	3.0	27
40	Combined Effect of Salinity and LED Lights on the Yield and Quality of Purslane (Portulaca oleracea L.) Microgreens. Horticulturae, 2021, 7, 180.	2.8	27
41	Response of three broccoli cultivars to salt stress, in relation to water status and expression of two leaf aquaporins. Planta, 2013, 237, 1297-1310.	3.2	26
42	Mutual Interactions between Aquaporins and Membrane Components. Frontiers in Plant Science, 2016, 7, 1322.	3.6	26
43	Plant plasma membrane aquaporins in natural vesicles as potential stabilizers and carriers of glucosinolates. Colloids and Surfaces B: Biointerfaces, 2016, 143, 318-326.	5.0	26
44	Analysis of Root Plasma Membrane Aquaporins from <i>Brassica oleracea</i>: Post-Translational Modifications, <i>de novo</i> Sequencing and Detection of Isoforms by High Resolution Mass Spectrometry. Journal of Proteome Research, 2010, 9, 3479-3494.	3.7	25
45	The response of broccoli plants to high temperature and possible role of root aquaporins. Environmental and Experimental Botany, 2010, 68, 83-90.	4.2	23
46	Interactive effects of boron and NaCl stress on water and nutrient transport in two broccoli cultivars. Functional Plant Biology, 2013, 40, 739.	2.1	23
47	Genotype Influences Sulfur Metabolism in Broccoli (Brassica oleracea L.) Under Elevated CO_2 and NaCl Stress. Plant and Cell Physiology, 2014, 55, 2047-2059.	3.1	23
48	Differential Aquaporin Response to Distinct Effects of Two Zn Concentrations after Foliar Application in Pak Choi (Brassica rapa L.) Plants. Agronomy, 2020, 10, 450.	3.0	23
49	Different blocking effects of $HgCl_2$ and NaCl on aquaporins of pepper plants. Journal of Plant Physiology, 2003, 160, 1487-1492.	3.5	22
50	Halophytes of the Mediterranean Basinâ€"Underutilized Species with the Potential to Be Nutritious Crops in the Scenario of the Climate Change. Foods, 2021, 10, 119.	4.3	21
51	Natural Antioxidants in Purple Sprouting Broccoli under Mediterranean Climate. Journal of Food Science, 2012, 77, C1058-63.	3.1	19
52	Effect of Exogenously Applied Methyl Jasmonate on Yield and Quality of Salt-Stressed Hydroponically Grown Sea Fennel (Crithmum maritimum L.). Agronomy, 2021, 11, 1083.	3.0	18
53	Cytometry of Freshwater Phytoplankton. Methods in Cell Biology, 2004, 75, 375-407.	1.1	16
54	Analysis of physiological traits in the response of Chenopodiaceae, Amaranthaceae, and Brassicaceae plants to salinity stress. Plant Physiology and Biochemistry, 2018, 132, 145-155.	5.8	16

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55	Regulation of water channel activity in whole roots and in protoplasts from roots of melon plants grown under saline conditions. Functional Plant Biology, 2000, 27, 685.	2.1	16
56	Improvement in the Adaptation of<i>Lygeum Spartum</i>L. to Salinity In the Presence of Calcium. Communications in Soil Science and Plant Analysis, 2010, 41, 2301-2317.	1.4	12
57	The Response of the Leguminous Fodder Plant <i>Bituminaria bituminosa</i> to Water Stress. Journal of Agronomy and Crop Science, 2012, 198, 442-451.	3.5	9
58	CHARACTERIZATION OF THE PHYSIOLOGICAL RESPONSE OF THE HIGHLY-TOLERANT TOMATO CV. â€˜PONCHO NEGROâ€™ TO SALINITY AND EXCESS BORON. Journal of Plant Nutrition, 2011, 34, 1254-1267.	1.9	8
59	Efficient leaf solute partioning in Salicornia fruticosa allows growth under salinity. Environmental and Experimental Botany, 2019, 157, 177-186.	4.2	8
60	Effect of Saline-Nutrient Solution on Yield, Quality, and Shelf-Life of Sea Fennel (Crithmum maritimum) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.8	8
61	Water relations of the tos1 tomato mutant at contrasting evaporative demand. Physiologia Plantarum, 2009, 137, 36-43.	5.2	5
62	Plant Hydraulic Conductivity: The Aquaporins Contribution. , 2011, , .		5
63	The effects of the combination of salinity and excess boron on the water relations of tolerant tomato (Solanum lycopersicum L.) cv. Poncho Negro, in relation to aquaporin functionality. Spanish Journal of Agricultural Research, 2011, 9, 494.	0.6	5
64	Aquaporins as targets of pharmacological plant-derived compounds. Phytochemistry Reviews, 2014, 13, 573-586.	6.5	1