Stephen D Tyerman

List of Publications by Citations

188 papers	11,512 citations	59 h-index	102 g-index
195 ext. papers	13,384 ext. citations	6.1 avg, IF	6.51 L-index

#	Paper	IF	Citations
188	Wheat grain yield on saline soils is improved by an ancestral Na+ transporter gene. *Nature Biotechnology*, **2012**, 30, 360-4	44.5	515
187	Plant aquaporins: multifunctional water and solute channels with expanding roles. *Plant, Cell and Environment*, **2002**, 25, 173-194	8.4	467
186	Aquaporins: highly regulated channels controlling plant water relations. *Plant Physiology*, **2014**, 164, 1600-18	6.6	400
185	The role of plasma membrane intrinsic protein aquaporins in water transport through roots: diurnal and drought stress responses reveal different strategies between isohydric and anisohydric cultivars of grapevine. *Plant Physiology*, **2009**, 149, 445-60	6.6	353
184	Mechanisms of Cl(-) transport contributing to salt tolerance. *Plant, Cell and Environment*, **2010**, 33, 566-89	8.4	318
183	The role of molybdenum in agricultural plant production. *Annals of Botany*, **2005**, 96, 745-54	4.1	294
182	Plant aquaporins: their molecular biology, biophysics and significance for plant water relations. *Journal of Experimental Botany*, **1999**, 50, 1055-1071	7	285
181	The identification of aluminium-resistance genes provides opportunities for enhancing crop production on acid soils. *Journal of Experimental Botany*, **2011**, 62, 9-20	7	234
180	New potent inhibitors of aquaporins: silver and gold compounds inhibit aquaporins of plant and human origin. *FEBS Letters*, **2002**, 531, 443-7	3.8	234
179	Inhibition of water channels by HgCl2 in intact wheat root cells. *Plant Physiology*, **1999**, 120, 849-58	6.6	216
178	GABA signalling modulates plant growth by directly regulating the activity of plant-specific anion transporters. *Nature Communications*, **2015**, 6, 7879	17.4	192
177	The emerging importance of the SPX domain-containing proteins in phosphate homeostasis. *New Phytologist*, **2012**, 193, 842-51	9.8	190
176	Cell-specific vacuolar calcium storage mediated by CAX1 regulates apoplastic calcium concentration, gas exchange, and plant productivity in Arabidopsis. *Plant Cell*, **2011**, 23, 240-57	11.6	184
175	Aluminum activates an anion channel in the apical cells of wheat roots. *Proceedings of the National Academy of Sciences of the United States of America*, **1997**, 94, 6547-52	11.5	181
174	Roles of morphology, anatomy, and aquaporins in determining contrasting hydraulic behavior of roots. *Plant Physiology*, **2009**, 150, 348-64	6.6	162
173	Malate-permeable channels and cation channels activated by aluminum in the apical cells of wheat roots. *Plant Physiology*, **2001**, 125, 1459-72	6.6	159
172	A channel-like transporter for NH4+ on the symbiotic interface of N2-fixing plants. *Nature*, **1995**, 378, 629-632	50.4	153

171	Fruit Calcium: Transport and Physiology. *Frontiers in Plant Science*, **2016**, 7, 569	6.2	153
170	Energy costs of salt tolerance in crop plants. *New Phytologist*, **2020**, 225, 1072-1090	9.8	144
169	Review: Nutrient loading of developing seeds. *Functional Plant Biology*, **2007**, 34, 314-331	2.7	143
168	Calcium delivery and storage in plant leaves: exploring the link with water flow. *Journal of Experimental Botany*, **2011**, 62, 2233-50	7	141
167	Aminobutyric acid (GABA) signalling in plants. *Cellular and Molecular Life Sciences*, **2017**, 74, 1577-1603	10.3	136
166	Boron toxicity tolerance in barley through reduced expression of the multifunctional aquaporin HvNIP2;1. *Plant Physiology*, **2010**, 153, 1706-15	6.6	135
165	Plasma membrane of Beta vulgaris storage root shows high water channel activity regulated by cytoplasmic pH and a dual range of calcium concentrations. *Journal of Experimental Botany*, **2006**, 57, 609-21	7	135
164	A putative role for TIP and PIP aquaporins in dynamics of leaf hydraulic and stomatal conductances in grapevine under water stress and re-watering. *Plant, Cell and Environment*, **2013**, 36, 828-43	8.4	133
163	Sources of water used by riparian Eucalyptus camaldulensis overlying highly saline groundwater. *Oecologia*, **1994**, 100, 21-28	2.9	133
162	Root ion channels and salinity. *Scientia Horticulturae*, **1998**, 78, 175-235	4.1	128
161	Rapid shoot-to-root signalling regulates root hydraulic conductance via aquaporins. *Plant, Cell and Environment*, **2014**, 37, 520-38	8.4	118
160	Channel-mediated permeation of ammonia gas through the peribacteroid membrane of soybean nodules. *FEBS Letters*, **2000**, 465, 110-4	3.8	117
159	Protocol: optimising hydroponic growth systems for nutritional and physiological analysis of Arabidopsis thaliana and other plants. *Plant Methods*, **2013**, 9, 4	5.8	115
158	The k/na selectivity of a cation channel in the plasma membrane of root cells does not differ in salt-tolerant and salt-sensitive wheat species. *Plant Physiology*, **1991**, 97, 598-605	6.6	114
157	Characterization of Water Channels in Wheat Root Membrane Vesicles. *Plant Physiology*, **1997**, 115, 561-567	6.6	113
156	Functional characterization of the rice SPX-MFS family reveals a key role of OsSPX-MFS1 in controlling phosphate homeostasis in leaves. *New Phytologist*, **2012**, 196, 139-148	9.8	112
155	Non-selective cation channel activity of aquaporin AtPIP2;1 regulated by Ca and pH. *Plant, Cell and Environment*, **2017**, 40, 802-815	8.4	108
154	Transposon-mediated alteration of TaMATE1B expression in wheat confers constitutive citrate efflux from root apices. *Plant Physiology*, **2013**, 161, 880-92	6.6	104

153	Chloroplast function and ion regulation in plants growing on saline soils: lessons from halophytes. *Journal of Experimental Botany*, **2017**, 68, 3129-3143	7	102
152	Nitrate transport capacity of the Arabidopsis thaliana NRT2 family members and their interactions with AtNAR2.1. *New Phytologist*, **2012**, 194, 724-731	9.8	98
151	Molybdate transport through the plant sulfate transporter SHST1. *FEBS Letters*, **2008**, 582, 1508-13	3.8	91
150	Ammonia and amino acid transport across symbiotic membranes in nitrogen-fixing legume nodules. *Cellular and Molecular Life Sciences*, **2001**, 58, 61-71	10.3	91
149	Determination of permeability coefficients, reflection coefficients, and hydraulic conductivity ofChara corallina using the pressure probe: Effects of solute concentrations. *Journal of Membrane Biology*, **1983**, 75, 85-96	2.3	91
148	Computational water stress indices obtained from thermal image analysis of grapevine canopies. *Irrigation Science*, **2012**, 30, 523-536	3.1	90
147	Calcium storage in plants and the implications for calcium biofortification. *Protoplasma*, **2010**, 247, 215-31	3.14	85
146	Linking Metabolism to Membrane Signaling: The GABA-Malate Connection. *Trends in Plant Science*, **2016**, 21, 295-301	13.1	81
145	Rice SPX-Major Facility Superfamily3, a Vacuolar Phosphate Efflux Transporter, Is Involved in Maintaining Phosphate Homeostasis in Rice. *Plant Physiology*, **2015**, 169, 2822-31	6.6	78
144	Anion Channels in Plants. *Annual Review of Plant Biology*, **1992**, 43, 351-373		78
143	Non-destructive measurement of grapevine water potential using near infrared spectroscopy. *Australian Journal of Grape and Wine Research*, **2011**, 17, 62-71	2.4	77
142	HvALMT1 from barley is involved in the transport of organic anions. *Journal of Experimental Botany*, **2010**, 61, 1455-67	7	76
141	Magnesium transporters, MGT2/MRS2-1 and MGT3/MRS2-5, are important for magnesium partitioning within Arabidopsis thaliana mesophyll vacuoles. *New Phytologist*, **2011**, 190, 583-94	9.8	75
140	Evolution of chloroplast retrograde signaling facilitates green plant adaptation to land. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 5015-5020	11.5	74
139	Roles of Aquaporins in Root Responses to Irrigation. *Plant and Soil*, **2005**, 274, 141-161	4.2	72
138	A channel that allows inwardly directed fluxes of anions in protoplasts derived from wheat roots. *Planta*, **1994**, 192, 295	4.7	71
137	Citrate-permeable channels in the plasma membrane of cluster roots from white lupin. *Plant Physiology*, **2004**, 136, 3771-83	6.6	70
136	Potassium in the Grape (L.) Berry: Transport and Function. *Frontiers in Plant Science*, **2017**, 8, 1629	6.2	67

135	Identification and functional characterisation of aquaporins in the grapevine, Vitis vinifera. *Functional Plant Biology*, **2010**, 36, 1065-1078	2.7	67
134	Characterization of the TaALMT1 protein as an Al3+-activated anion channel in transformed tobacco (Nicotiana tabacum L.) cells. *Plant and Cell Physiology*, **2008**, 49, 1316-30	4.9	67
133	Direct Effects of Ca2+-Channel Blockers on Plasma Membrane Cation Channels of Amaranthus tricolor Protoplasts. *Journal of Experimental Botany*, **1992**, 43, 1457-1473	7	66
132	Cell death in grape berries: varietal differences linked to xylem pressure and berry weight loss. *Functional Plant Biology*, **2008**, 35, 173-184	2.7	64
131	Characterization of an ammonium transport protein from the peribacteroid membrane of soybean nodules. *Science*, **1998**, 281, 1202-6	33.3	63
130	Water Flow in the Roots of Crop Species: The Influence of Root Structure, Aquaporin Activity, and Waterlogging. *Advances in Agronomy*, **2007**, 96, 133-196	7.7	60
129	Channel-like characteristics of the low-affinity barley phosphate transporter PHT1;6 when expressed in Xenopus oocytes. *Plant Physiology*, **2010**, 152, 1431-41	6.6	59
128	Direct measurement of hydraulic properties in developing berries of Vitis vinifera L. cv Shiraz and Chardonnay. *Australian Journal of Grape and Wine Research*, **2008**, 10, 170-181	2.4	59
127	Maize NPF6 Proteins Are Homologs of Arabidopsis CHL1 That Are Selective for Both Nitrate and Chloride. *Plant Cell*, **2017**, 29, 2581-2596	11.6	54
126	Soybean SAT1 (Symbiotic Ammonium Transporter 1) encodes a bHLH transcription factor involved in nodule growth and NH4+ transport. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 4814-9	11.5	54
125	Guard cell pressure/aperture characteristics measured with the pressure probe. *Plant, Cell and Environment*, **1995**, 18, 795-800	8.4	54
124	Current-Voltage Curves of Single Cl□Channels which Coexist with Two Types of K+Channel in the Tonoplast ofChara corallina. *Journal of Experimental Botany*, **1989**, 40, 105-117	7	54
123	Constitutive overexpression of soybean plasma membrane intrinsic protein GmPIP1;6 confers salt tolerance. *BMC Plant Biology*, **2014**, 14, 181	5.3	52
122	Hydraulic connection of grape berries to the vine: varietal differences in water conductance into and out of berries, and potential for backflow. *Functional Plant Biology*, **2009**, 36, 541-550	2.7	50
121	Water channels inChara corallina. *Journal of Experimental Botany*, **1997**, 48, 1511-1518	7	50
120	Aquaporins and unloading of phloem-imported water in coats of developing bean seeds. *Plant, Cell and Environment*, **2007**, 30, 1566-77	8.4	49
119	Adjustment of host cells for accommodation of symbiotic bacteria: vacuole defunctionalization, HOPS suppression, and TIP1g retargeting in Medicago. *Plant Cell*, **2014**, 26, 3809-22	11.6	47
118	Engineering Strategies to Boost Crop Productivity by Cutting Respiratory Carbon Loss. *Plant Cell*, **2019**, 31, 297-314	11.6	46

117	Comparison between gradient-dependent hydraulic conductivities of roots using the root pressure probe: the role of pressure propagations and implications for the relative roles of parallel radial pathways. *Plant, Cell and Environment*, **2007**, 30, 861-74	8.4	46
116	Multiple conductances in the large K+ channel from Chara corallina shown by a transient analysis method. *Biophysical Journal*, **1992**, 61, 736-49	2.9	46
115	Inward membrane current inChara inflata: II. Effects of pH, Cl□channel blockers and NH +4 , and significance for the hyperpolarized state. *Journal of Membrane Biology*, **1986**, 89, 153-161	2.3	46
114	Effect of Low O2 Concentration and Azide on Hydraulic Conductivity and Osmotic Volume of the Cortical Cells of Wheat Roots. *Functional Plant Biology*, **1991**, 18, 603	2.7	46
113	Aluminum-Activated Malate Transporters Can Facilitate GABA Transport. *Plant Cell*, **2018**, 30, 1147-1164	11.6	45
112	OsPAP10c, a novel secreted acid phosphatase in rice, plays an important role in the utilization of external organic phosphorus. *Plant, Cell and Environment*, **2016**, 39, 2247-59	8.4	45
111	Grapevine and Arabidopsis Cation-Chloride Cotransporters Localize to the Golgi and Trans-Golgi Network and Indirectly Influence Long-Distance Ion Transport and Plant Salt Tolerance. *Plant Physiology*, **2015**, 169, 2215-29	6.6	45
110	The contrasting influence of short-term hypoxia on the hydraulic properties of cells and roots of wheat and lupin. *Functional Plant Biology*, **2010**, 37, 183	2.7	44
109	Impact of flooding on the water use of semi-arid riparian eucalypts. *Journal of Hydrology*, **1998**, 206, 104-117	6	43
108	Proton-coupled high-affinity phosphate transport revealed from heterologous characterization in Xenopus of barley-root plasma membrane transporter, HvPHT1;1. *Plant, Cell and Environment*, **2011**, 34, 681-9	8.4	41
107	A novel analysis of grapevine berry tissue demonstrates a variety-dependent correlation between tissue vitality and berry shrivel. *Australian Journal of Grape and Wine Research*, **2010**, 16, 327-336	2.4	40
106	Tree water sources over shallow, saline groundwater in the lower River Murray, south-eastern Australia: implications for groundwater recharge mechanisms. *Australian Journal of Botany*, **2006**, 54, 193	1.2	40
105	Composition and synthesis of raphide crystals and druse crystals in berries of Vitis vinifera L. cv. Cabernet Sauvignon: Ascorbic acid as precursor for both oxalic and tartaric acids as revealed by radiolabelling studies. *Australian Journal of Grape and Wine Research*, **2004**, 10, 134-142	2.4	40
104	Automated estimation of leaf area index from grapevine canopies using cover photography, video and computational analysis methods. *Australian Journal of Grape and Wine Research*, **2014**, 20, 465-473	2.4	39
103	Voltage-dependent cation channels permeable to NH(+)(4), K(+), and Ca(2+) in the symbiosome membrane of the model legume Lotus japonicus. *Plant Physiology*, **2002**, 128, 370-8	6.6	39
102	Ion channels in the plasma membrane of Amaranthus protoplasts: one cation and one anion channel dominate the conductance. *Journal of Membrane Biology*, **1991**, 121, 223-36	2.3	39
101	Ethylene negatively regulates aluminium-induced malate efflux from wheat roots and tobacco cells transformed with TaALMT1. *Journal of Experimental Botany*, **2014**, 65, 2415-26	7	38
100	Pump and K+ inward rectifiers in the plasmalemma of wheat root protoplasts. *Journal of Membrane Biology*, **1994**, 139, 103-16	2.3	38

99	Waterlogging in Australian agricultural landscapes: a review of plant responses and crop models. *Crop and Pasture Science*, **2013**, 64, 549	2.2	37
98	Water Relations of Seagrasses: STATIONARY VOLUMETRIC ELASTIC MODULUS AND OSMOTIC PRESSURE OF THE LEAF CELLS OF HALOPHILA OVALIS, ZOSTERA CAPRICORNI, AND POSIDONIA AUSTRALIS. *Plant Physiology*, **1982**, 69, 957-65	6.6	36
97	Divalent Cations Regulate the Ion Conductance Properties of Diverse Classes of Aquaporins. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	35
96	Inward membrane current inChara inflata: I. A voltage- and time-dependent Cl component. *Journal of Membrane Biology*, **1986**, 89, 139-152	2.3	34
95	The dual benefit of arbuscular mycorrhizal fungi under soil zinc deficiency and toxicity: linking plant physiology and gene expression. *Plant and Soil*, **2017**, 420, 375-388	4.2	33
94	Floodwater infiltration through root channels on a sodic clay floodplain and the influence on a local tree species Eucalyptus largiflorens. *Plant and Soil*, **2003**, 253, 275-286	4.2	32
93	Abscisic Acid Down-Regulates Hydraulic Conductance of Grapevine Leaves in Isohydric Genotypes Only. *Plant Physiology*, **2017**, 175, 1121-1134	6.6	30
92	Posidonia australis Growing in Altered Salinities: Leaf Growth, Regulation of Turgor and the Development of Osmotic Gradients. *Functional Plant Biology*, **1984**, 11, 35	2.7	29
91	Application of shade treatments during Shiraz berry ripening to reduce the impact of high temperature. *Australian Journal of Grape and Wine Research*, **2016**, 22, 422-437	2.4	29
90	Cell-specific compartmentation of mineral nutrients is an essential mechanism for optimal plant productivity--another role for TPC1?. *Plant Signaling and Behavior*, **2011**, 6, 1656-61	2.5	28
89	Structural variations in wheat HKT1;5 underpin differences in Na transport capacity. *Cellular and Molecular Life Sciences*, **2018**, 75, 1133-1144	10.3	28
88	Nonselective currents and channels in plasma membranes of protoplasts from coats of developing seeds of bean. *Plant Physiology*, **2002**, 128, 388-99	6.6	27
87	Divalent cation gating of an ammonium permeable channel in the symbiotic membrane from soybean nodules. *Plant Journal*, **1998**, 16, 313-324	6.9	25
86	Hypoxia in grape berries: the role of seed respiration and lenticels on the berry pedicel and the possible link to cell death. *Journal of Experimental Botany*, **2018**, 69, 2071-2083	7	23
85	Role of membrane transport in phloem translocation of assimilates and water. *Functional Plant Biology*, **2001**, 28, 697	2.7	23
84	Water use of grazed salt bush plantations with saline watertable. *Agricultural Water Management*, **1999**, 39, 169-185	5.9	23
83	Tissue and nitrogen-linked expression profiles of ammonium and nitrate transporters in maize. *BMC Plant Biology*, **2019**, 19, 206	5.3	22
82	Impact of grapevine exposure to smoke on vine physiology and the composition and sensory properties of wine. *Theoretical and Experimental Plant Physiology*, **2016**, 28, 67-83	2.4	22

81	A Barley Efflux Transporter Operates in a Na+-Dependent Manner, as Revealed by a Multidisciplinary Platform. *Plant Cell*, **2016**, 28, 202-18	11.6	22
80	NH4+ currents across the peribacteroid membrane of soybean. Macroscopic and microscopic properties, inhibition by Mg2+, and temperature dependence indicate a SubpicoSiemens channel finely regulated by divalent cations. *Plant Physiology*, **2005**, 139, 1015-29	6.6	22
79	Water channels in Chara corallina. *Journal of Experimental Botany*, **1997**, 48, 1511-1518	7	22
78	Night-time responses to water supply in grapevines (Vitis vinifera L.) under deficit irrigation and partial root-zone drying. *Agricultural Water Management*, **2014**, 138, 1-9	5.9	21
77	Tolerance of salinized floodplain conditions in a naturally occurring Eucalyptus hybrid related to lowered plant water potential. *Tree Physiology*, **2000**, 20, 953-63	4.2	21
76	Ion channels in the plasma membrane of protoplasts from the halophytic angiosperm Zostera muelleri. *Journal of Membrane Biology*, **1994**, 142, 381-93	2.3	21
75	Determination of Solute Permeability in Chara Internodes by a Turgor Minimum Method : Effects of External pH. *Plant Physiology*, **1984**, 74, 464-8	6.6	21
74	Association between water and carbon dioxide transport in leaf plasma membranes: assessing the role of aquaporins. *Plant, Cell and Environment*, **2017**, 40, 789-801	8.4	20
73	Phosphorylation influences water and ion channel function of AtPIP2;1. *Plant, Cell and Environment*, **2020**, 43, 2428-2442	8.4	20
72	Adaptable and Multifunctional Ion-Conducting Aquaporins. *Annual Review of Plant Biology*, **2021**, 72, 703-736	30.7	20
71	Effect of low oxygen concentration on the electrical properties of cortical cells of wheat roots. *Journal of Plant Physiology*, **1997**, 150, 567-72	3.6	19
70	Variable effects of arbuscular mycorrhizal fungal inoculation on physiological and molecular measures of root and stomatal conductance of diverse Medicago truncatula accessions. *Plant, Cell and Environment*, **2019**, 42, 285-294	8.4	18
69	Electrical impedance of Shiraz berries correlates with decreasing cell vitality during ripening. *Australian Journal of Grape and Wine Research*, **2015**, 21, 430-438	2.4	18
68	Simultaneous flux and current measurement from single plant protoplasts reveals a strong link between K+ fluxes and current, but no link between Ca2+ fluxes and current. *Plant Journal*, **2006**, 46, 134-44	6.9	18
67	Turgor-Volume Regulation and Cellular Water Relations of Nicotiana tabacum Roots Grown in High Salinities. *Functional Plant Biology*, **1989**, 16, 517	2.7	18
66	Non-Invasive Tools to Detect Smoke Contamination in Grapevine Canopies, Berries and Wine: A Remote Sensing and Machine Learning Modeling Approach. *Sensors*, **2019**, 19,	3.8	17
65	Comparison Between Osmotic and Hydrostatic Water Flows in a Higher Plant Cell: Determination of Hydraulic Conductivities and Reflection Coefficients in Isolated Epidermis of Tradescantia virginiana. *Functional Plant Biology*, **1982**, 9, 461	2.7	17
64	Comparison of isohydric and anisohydric Vitis vinifera L. cultivars reveals a fine balance between hydraulic resistances, driving forces and transpiration in ripening berries. *Functional Plant Biology*, **2017**, 44, 324-338	2.7	16

63	Root Ideotype Influences Nitrogen Transport and Assimilation in Maize. *Frontiers in Plant Science*, **2018**, 9, 531	6.2	16
62	Fast activation of a time-dependent outward current in protoplasts derived from coats of developing Phaseolus vulgaris seeds. *Planta*, **2000**, 211, 894-8	4.7	15
61	Root Hydraulic and Aquaporin Responses to N Availability. *Signaling and Communication in Plants*, **2017**, 207-236	1	15
60	Plant transporters involved in combating boron toxicity: beyond 3D structures. *Biochemical Society Transactions*, **2020**, 48, 1683-1696	5.1	15
59	Effects of Nppb and Niflumic Acid on Outward K+ and Cl- Currents Across the Plasma Membrane of Wheat Root Protoplasts. *Functional Plant Biology*, **1996**, 23, 527	2.7	15
58	Cytosolic GABA inhibits anion transport by wheat ALMT1. *New Phytologist*, **2020**, 225, 671-678	9.8	15
57	Chloride transport and compartmentation within main and lateral roots of two grapevine rootstocks differing in salt tolerance. *Trees - Structure and Function*, **2013**, 27, 1317-1325	2.6	14
56	A Comparison of Petiole Hydraulics and Aquaporin Expression in an Anisohydric and Isohydric Cultivar of Grapevine in Response to Water-Stress Induced Cavitation. *Frontiers in Plant Science*, **2017**, 8, 1893	6.2	14
55	Root growth of lupins is more sensitive to waterlogging than wheat. *Functional Plant Biology*, **2011**, 38, 910-918	2.7	14
54	Transfer of photosynthate and naturally occurring insecticidal compounds from host plants to the root hemiparasite Santalum acuminatum (Santalaceae). *Australian Journal of Botany*, **2001**, 49, 9	1.2	14
53	Nonselective Cation Channels. Multiple Functions and Commonalities. *Plant Physiology*, **2002**, 128, 327-328	6.8	14
52	Comparing Hydraulics Between Two Grapevine Cultivars Reveals Differences in Stomatal Regulation Under Water Stress and Exogenous ABA Applications. *Frontiers in Plant Science*, **2020**, 11, 705	6.2	13
51	Modified Method for Producing Grapevine Plants in Controlled Environments. *American Journal of Enology and Viticulture*, **2014**, 65, 261-267	2.2	13
50	Pulsing Cl- channels in coat cells of developing bean seeds linked to hypo-osmotic turgor regulation. *Journal of Experimental Botany*, **2004**, 55, 993-1001	7	13
49	Mechanisms of solute efflux from seed coats: whole-cell K+currents in transfer cell protoplasts derived from coats of developing seeds ofVicia fabaL.. *Journal of Experimental Botany*, **1997**, 48, 1565-1572	7	12
48	Water relations and gas exchange of the root hemiparasite Santalum acuminatum (quandong). *Australian Journal of Botany*, **2001**, 49, 479	1.2	12
47	Water Relations of Coral Cay Vegetation on the Great Barrier Reef: Water Potentials and Osmotic Content. *Australian Journal of Botany*, **1984**, 32, 449	1.2	12
46	Roles of Aquaporins in Stem Development and Sugar Storage. *Frontiers in Plant Science*, **2016**, 7, 1815	6.2	12

45	Differential fruitset between grapevine cultivars is related to differences in pollen viability and amine concentration in flowers. *Australian Journal of Grape and Wine Research*, **2016**, 22, 149-158	2.4	12
44	Comparative effects of deficit and partial root-zone drying irrigation techniques using moderately saline water on ion partitioning in Shiraz and Grenache grapevines. *Australian Journal of Grape and Wine Research*, **2016**, 22, 296-306	2.4	11
43	Effect of water stress and elevated temperature on hypoxia and cell death in the mesocarp of Shiraz berries. *Australian Journal of Grape and Wine Research*, **2018**, 24, 487-497	2.4	11
42	Impact of deficit irrigation strategies in a saline environment on Shiraz yield, physiology, water use and tissue ion concentration. *Australian Journal of Grape and Wine Research*, **2015**, 21, 468-478	2.4	11
41	Root Water Transport Under Waterlogged Conditions and the Roles of Aquaporins **2010**, 151-180		11
40	Regulating Root Aquaporin Function in Response to Changes in Salinity **2018**, 381-416		11
39	Application of sprinkler cooling within the bunch zone during ripening of Cabernet Sauvignon berries to reduce the impact of high temperature. *Australian Journal of Grape and Wine Research*, **2017**, 23, 48-57	2.4	10
38	Correlations between morpho-anatomical changes and radial hydraulic conductivity in roots of olive trees under water deficit and rewatering. *Tree Physiology*, **2015**, 35, 1356-65	4.2	10
37	A novel method based on combination of semi-in vitro and in vivo conditions in Agrobacterium rhizogenes-mediated hairy root transformation of Glycine species. *In Vitro Cellular and Developmental Biology - Plant*, **2014**, 50, 282-291	2.3	10
36	The role of ion channels in plant nutrition and prospects for their genetic manipulation. *Plant and Soil*, **1992**, 146, 137-144	4.2	10
35	Deciphering aquaporin regulation and roles in seed biology. *Journal of Experimental Botany*, **2020**, 71, 1763-1773	7	9
34	Voltage-Dependent Cation Channels Permeable to NH4+, K+, and Ca2+ in the Symbiosome Membrane of the Model Legume Lotus japonicus. *Plant Physiology*, **2002**, 128, 370-378	6.6	9
33	Expression Patterns of Genes Encoding Sugar and Potassium Transport Proteins Are Simultaneously Upregulated or Downregulated When Carbon and Potassium Availability Is Modified in Shiraz (Vitis vinifera L.) Berries. *Plant and Cell Physiology*, **2019**, 60, 2331-2342	4.9	8
32	The devil in the detail of secretions. *Plant, Cell and Environment*, **2013**, 36, 1407-9	8.4	8
31	Calcium-dependent K current in plasma membranes of dermal cells of developing bean cotyledons. *Plant, Cell and Environment*, **2004**, 27, 251-262	8.4	8
30	Oscillations in proton transport revealed from simultaneous measurements of net current and net proton fluxes from isolated root protoplasts: MIFE meets patch-clamp. *Functional Plant Biology*, **2001**, 28, 591	2.7	8
29	A Survey of Barley PIP Aquaporin Ionic Conductance Reveals Ca-Sensitive Na and K Conductance. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	8
28	Roles of membrane transporters: connecting the dots from sequence to phenotype. *Annals of Botany*, **2019**, 124, 201-208	4.1	7

27	The effect of different growing conditions on water relations parameters of leaf epidermal cells of Tradescantia virginiana L. *Oecologia*, **1984**, 62, 110-117	2.9	7
26	Polyamines as potential regulators of nutrient exchange across the peribacteroid membrane in soybean root nodules. *Functional Plant Biology*, **2001**, 28, 677	2.7	7
25	The Genetic Envelope of Winegrape Vines: Potential for Adaptation to Future Climate Challenges **2011**, 464-481		6
24	Effect of different host plants on the growth of the root hemiparasite Santalum acuminatum (quandong). *Australian Journal of Experimental Agriculture*, **2002**, 42, 97		6
23	Exogenous application of abscisic acid to root systems of grapevines with or without salinity influences water relations and ion allocation. *Australian Journal of Grape and Wine Research*, **2017**, 23, 66-76	2.4	5
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