Menachem Moshelion

List of Publications by Year
in descending order

76 papers	5,044 citations	117625 34 h-index	95266 68 g-index
85 all docs	85 docs citations	85 times ranked	5226 citing authors

#	Article	IF	Citations
1	The potential of dynamic physiological traits in young tomato plants to predict field-yield performance. Plant Science, 2022, 315, 111122.	3.6	9
2	Out of the blue: Phototropins of the leaf vascular bundle sheath mediate the regulation of leaf hydraulic conductance by blue light. Plant Cell, 2022, 34, 2328-2342.	6.6	9
3	Detection of Potassium Deficiency and Momentary Transpiration Rate Estimation at Early Growth Stages Using Proximal Hyperspectral Imaging and Extreme Gradient Boosting. Sensors, 2021, 21, 958.	3.8	17
4	Pepper Plants Leaf Spectral Reflectance Changes as a Result of Root Rot Damage. Remote Sensing, 2021, 13, 980.	4.0	5
5	Arabidopsis leaf hydraulic conductance is regulated by xylem sap pH, controlled, in turn, by a Pâ€type H⁺â€ATPase of vascular bundle sheath cells. Plant Journal, 2021, 106, 301-313.	5.7	24
6	Functional physiological phenotyping with functional mapping: A general framework to bridge the phenotype-genotype gap in plant physiology. IScience, 2021, 24, 102846.	4.1	8
7	Compensatory hydraulic uptake of water by tomato due to variable rootâ€zone salinity. Vadose Zone Journal, 2021, 20, e20161.	2.2	0
8	Tomato Yellow Leaf Curl Virus (TYLCV) Promotes Plant Tolerance to Drought. Cells, 2021, 10, 2875.	4.1	19
9	Vascular bundle sheath and mesophyll cells modulate leaf water balance in response to chitin. Plant Journal, 2020, 101, 1368-1377.	5.7	18
10	A Hyperspectral-Physiological Phenomics System: Measuring Diurnal Transpiration Rates and Diurnal Reflectance. Remote Sensing, 2020, 12, 1493.	4.0	17
11	Remember where you came from: ABA insensitivity is epigenetically inherited in mesophyll, but not seeds. Plant Science, 2020, 295, 110455.	3.6	3
12	Wide vessels sustain marginal transpiration flux and do not optimize inefficient gas exchange activity under impaired hydraulic control and salinity. Physiologia Plantarum, 2020, 170, 60-74.	5.2	4
13	A Telemetric, Gravimetric Platform for Real-Time Physiological Phenotyping of Plant–Environment Interactions. Journal of Visualized Experiments, 2020, , .	0.3	17
14	The dichotomy of yield and drought resistance. EMBO Reports, 2020, 21, e51598.	4.5	12
15	Quantitative and comparative analysis of whole-plant performance for functional physiological traits phenotyping: New tools to support pre-breeding and plant stress physiology studies. Plant Science, 2019, 282, 49-59.	3.6	73
16	Dynamic Physiological Phenotyping of Drought-Stressed Pepper Plants Treated With â€œProductivity-Enhancingâ€•and â€œSurvivability-Enhancingâ€•Biostimulants. Frontiers in Plant Science, 2019, 10, 905.	3.6	48
17	Guard-Cell Hexokinase Increases Water-Use Efficiency Under Normal and Drought Conditions. Frontiers in Plant Science, 2019, 10, 1499.	3.6	22
18	Role of guard-cell ABA in determining steady-state stomatal aperture and prompt vapor-pressure-deficit response. Plant Science, 2019, 281, 31-40.	3.6	25

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19	Mechanisms for minimizing heightâ€related stomatal conductance declines in tall vines. Plant, Cell and Environment, 2019, 42, 3121-3139.	5.7	7
20	Accelerating Climate Resilient Plant Breeding by Applying Next-Generation Artificial Intelligence. Trends in Biotechnology, 2019, 37, 1217-1235.	9.3	134
21	Mesophyll Abscisic Acid Restrains Early Growth and Flowering But Does Not Directly Suppress Photosynthesis. Plant Physiology, 2019, 180, 910-925.	4.8	29
22	Transcriptome analysis of Pinus halepensis under drought stress and during recovery. Tree Physiology, 2018, 38, 423-441.	3.1	96
23	Starch biosynthesis by <scp>AGP</scp>ase, but not starch degradation by <scp>BAM</scp>1/3 and <scp>SEX</scp>1, is rateâ€limiting for <scp>CO</scp>₂â€regulated stomatal movements under shortâ€day conditions. FEBS Letters, 2018, 592, 2739-2759.	2.8	10
24	Riskâ€management strategies and transpiration rates of wild barley in uncertain environments. Physiologia Plantarum, 2018, 164, 412-428.	5.2	17
25	Sugar and hexokinase suppress expression of <scp>PIP</scp> aquaporins and reduce leaf hydraulics that preserves leaf water potential. Plant Journal, 2017, 91, 325-339.	5.7	34
26	The advantages of functional phenotyping in pre-field screening for drought-tolerant crops. Functional Plant Biology, 2017, 44, 107.	2.1	89
27	A combination of stomata deregulation and a distinctive modulation of amino acid metabolism are associated with enhanced tolerance of wheat varieties to transient drought. Metabolomics, 2017, 13, 1.	3.0	6
28	Differential gene expression and transport functionality in the bundle sheath versus mesophyll â€“ a potential role in leaf mineral homeostasis. Journal of Experimental Botany, 2017, 68, 3179-3190.	4.8	22
29	Highâ€throughput physiological phenotyping and screening system for the characterization of plantâ€“environment interactions. Plant Journal, 2017, 89, 839-850.	5.7	123
30	To Produce or to Survive: How Plastic Is Your Crop Stress Physiology?. Frontiers in Plant Science, 2017, 8, 2067.	3.6	45
31	Role of Aquaporins in a Composite Model of Water Transport in the Leaf. International Journal of Molecular Sciences, 2016, 17, 1045.	4.1	15
32	The Role of Aquaporins in pH-Dependent Germination of Rhizopus delemar Spores. PLoS ONE, 2016, 11, e0150543.	2.5	25
33	The evolution of the role of ABA in the regulation of water-use efficiency: From biochemical mechanisms to stomatal conductance. Plant Science, 2016, 251, 82-89.	3.6	79
34	Natural variation and gene regulatory basis for the responses of asparagus beans to soil drought. Frontiers in Plant Science, 2015, 6, 891.	3.6	21
35	Expression of Arabidopsis Hexokinase in Citrus Guard Cells Controls Stomatal Aperture and Reduces Transpiration. Frontiers in Plant Science, 2015, 6, 1114.	3.6	72
36	Growth and physiological responses of isohydric and anisohydric poplars to drought. Journal of Experimental Botany, 2015, 66, 4373-4381.	4.8	137

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37	Do phosphoinositides regulate membrane water permeability of tobacco protoplasts by enhancing the aquaporin pathway?. Planta, 2015, 241, 741-755.	3.2	11
38	Bundle-sheath aquaporins play a role in controlling Arabidopsis leaf hydraulic conductivity. Plant Signaling and Behavior, 2015, 10, e1017177.	2.4	23
39	Current challenges and future perspectives of plant and agricultural biotechnology. Trends in Biotechnology, 2015, 33, 337-342.	9.3	90
40	Role of aquaporins in determining transpiration and photosynthesis in waterâ€stressed plants: crop waterâ€use efficiency, growth and yield. Plant, Cell and Environment, 2015, 38, 1785-1793.	5.7	195
41	Measuring Arabidopsis, Tomato and Barley Leaf Relative Water Content (RWC). Bio-protocol, 2015, 5, .	0.4	55
42	Relationship between Hexokinase and the Aquaporin PIP1 in the Regulation of Photosynthesis and Plant Growth. PLoS ONE, 2014, 9, e87888.	2.5	36
43	The dynamic isohydric-anisohydric behavior of plants upon fruit development: taking a risk for the next generation. Tree Physiology, 2014, 34, 1199-1202.	3.1	25
44	Water Balance, Hormone Homeostasis, and Sugar Signaling Are All Involved in Tomato Resistance to<i>Tomato Yellow Leaf Curl Virus</i>Â Â Â Â. Plant Physiology, 2014, 165, 1684-1697.	4.8	60
45	Genetics of superior growth traits in trees are being mapped but will the faster-growing risk-takers make it in the wild?. Tree Physiology, 2014, 34, 1141-1148.	3.1	5
46	The Role of Plasma Membrane Aquaporins in Regulating the Bundle Sheath-Mesophyll Continuum and Leaf Hydraulics Â Â Â. Plant Physiology, 2014, 166, 1609-1620.	4.8	105
47	The <i><scp>A</scp>rabidopsis <scp>GIBBERELLIN METHYL TRANSFERASE</scp> 1</i> suppresses gibberellin activity, reduces wholeâ€plant transpiration and promotes drought tolerance in transgenic tomato. Plant, Cell and Environment, 2014, 37, 113-123.	5.7	130
48	Differential tissue-specific expression of NtAQP1 in Arabidopsis thaliana reveals a role for this protein in stomatal and mesophyll conductance of CO2 under standard and salt-stress conditions. Planta, 2014, 239, 357-366.	3.2	76
49	Is the leaf bundle sheath a â€œsmart flux valveâ€•for K+ nutrition?. Journal of Plant Physiology, 2014, 171, 715-722.	3.5	34
50	Measuring the Osmotic Water Permeability Coefficient (P_f) of Spherical Cells: Isolated Plant Protoplasts as an Example. Journal of Visualized Experiments, 2014, , e51652.	0.3	12
51	Hexokinase mediates stomatal closure. Plant Journal, 2013, 75, 977-988.	5.7	181
52	The Pitfalls of Transgenic Selection and New Roles of<i>AtHXK1</i>: A High Level of<i>AtHXK1</i>Expression Uncouples Hexokinase1-Dependent Sugar Signaling from Exogenous Sugar Â. Plant Physiology, 2012, 159, 47-51.	4.8	67
53	Risk-taking plants. Plant Signaling and Behavior, 2012, 7, 767-770.	2.4	220
54	Smart pipes. Plant Signaling and Behavior, 2012, 7, 1088-1091.	2.4	27

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55	The <i>Arabidopsis</i>â€related halophyte <i>Thellungiella halophila</i>: boron tolerance via boron complexation with metabolites?. Plant, Cell and Environment, 2012, 35, 735-746.	5.7	24
56	Bundleâ€sheath cell regulation of xylemâ€mesophyll water transport via aquaporins under drought stress: a target of xylemâ€borne ABA?. Plant Journal, 2011, 67, 72-80.	5.7	269
57	From Organelle to Organ: ZRIZI MATE-Type Transporter is an Organelle Transporter that Enhances Organ Initiation. Plant and Cell Physiology, 2011, 52, 518-527.	3.1	42
58	Development of synchronized, autonomous, and self-regulated oscillations in transpiration rate of a whole tomato plant under water stress. Journal of Experimental Botany, 2010, 61, 3439-3449.	4.8	22
59	The Role of Tobacco Aquaporin1 in Improving Water Use Efficiency, Hydraulic Conductivity, and Yield Production Under Salt Stress Â Â Â. Plant Physiology, 2009, 152, 245-254.	4.8	218
60	Membrane water permeability and aquaporin expression increase during growth of maize suspension cultured cells. Plant, Cell and Environment, 2009, 32, 1334-1345.	5.7	22
61	Cytosolic activity of SPINDLY implies the existence of a DELLAâ€independent gibberellinâ€response pathway. Plant Journal, 2009, 58, 979-988.	5.7	39
62	Improving plant stress tolerance and yield production: is the tonoplast aquaporin SlTIP2;2 a key to isohydric to anisohydric conversion?. New Phytologist, 2009, 181, 651-661.	7.3	302
63	Characterization of Plant Aquaporins. Methods in Enzymology, 2007, 428, 505-531.	1.0	42
64	Localization and Quantification of Plasma Membrane Aquaporin Expression in Maize Primary Root: A Clue to Understanding their Role as Cellular Plumbers. Plant Molecular Biology, 2006, 62, 305-323.	3.9	211
65	Water permeability differs between growing and non-growing barley leaf tissues. Journal of Experimental Botany, 2006, 58, 377-390.	4.8	68
66	Phosphorylation of SPICK2, an AKT2 channel homologue from Samanea motor cells. Journal of Experimental Botany, 2006, 57, 3583-3594.	4.8	13
67	Regulation of plant aquaporin activity. Biology of the Cell, 2005, 97, 749-764.	2.0	256
68	Dynamic Changes in the Osmotic Water Permeability of Protoplast Plasma Membrane. Plant Physiology, 2004, 135, 2301-2317.	4.8	78
69	Interactions between Plasma Membrane Aquaporins Modulate Their Water Channel Activity. Plant Cell, 2004, 16, 215-228.	6.6	400
70	Plasma Membrane Aquaporins in the Motor Cells of Samanea saman. Plant Cell, 2002, 14, 727-739.	6.6	212
71	Diurnal and Circadian Regulation of Putative Potassium Channels in a Leaf Moving Organ. Plant Physiology, 2002, 128, 634-642.	4.8	91
72	Extracellular Protons Inhibit the Activity of Inward- Rectifying Potassium Channels in the Motor Cells of <i>Samanea saman</i>Pulvini. Plant Physiology, 2001, 127, 1310-1322.	4.8	24

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73	Potassium-Efflux Channels in Extensor and Flexor Cells of the Motor Organ of Samanea saman Are Not Identical. Effects of Cytosolic Calcium. Plant Physiology, 2001, 125, 1142-1150.	4.8	3
74	Extracellular Protons Inhibit the Activity of Inward- Rectifying Potassium Channels in the Motor Cells of Samanea saman Pulvini. Plant Physiology, 2001, 127, 1310-1322.	4.8	5
75	Extracellular protons inhibit the activity of inward-rectifying potassium channels in the motor cells of Samanea saman pulvini. Plant Physiology, 2001, 127, 1310-22.	4.8	7
76	Potassium-Efflux Channels in Extensor and Flexor Cells of the Motor Organ of Samanea saman Are Not Identical. Effects of Cytosolic Calcium. Plant Physiology, 2000, 124, 911-919.	4.8	32