Wieland Fricke

List of Publications by Year
in descending order

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67 papers	3,468 citations	101535 36 h-index	144002 57 g-index
71 all docs	71 docs citations	71 times ranked	3321 citing authors

#	ARTICLE	IF	CITATIONS
1	Salinity and night-time transpiration under current climate scenarios. Advances in Botanical Research, 2022, , 221-248.	1.1	0
2	Salt stress reduces root water uptake in barley (<i>Hordeum vulgare</i> L.) through modification of the transcellular transport path. Plant, Cell and Environment, 2021, 44, 458-475.	5.7	24
3	A redundant hydraulic function of root hairs in barley plants grown in hydroponics. Functional Plant Biology, 2021, 48, 448.	2.1	1
4	Apoplastic barriers, aquaporin gene expression and root and cell hydraulic conductivity in phosphateâ€limited sheepgrass plants. Physiologia Plantarum, 2020, 168, 118-132.	5.2	25
5	Energy costs of salt tolerance in crop plants. New Phytologist, 2020, 225, 1072-1090.	7.3	284
6	Energy costs of salinity tolerance in crop plants: nightâ€time transpiration and growth. New Phytologist, 2020, 225, 1152-1165.	7.3	29
7	Photosynthetically active radiation impacts significantly on root and cell hydraulics in barley (<scp><i>Hordeum vulgare</i></scp> L.). Physiologia Plantarum, 2020, 170, 357-372.	5.2	7
8	Cortex cell hydraulic conductivity, endodermal apoplastic barriers and root hydraulics change in barley (Hordeum vulgare L.) in response to a low supply of N and P. Annals of Botany, 2019, 124, 1091-1107.	2.9	18
9	Night-Time Transpiration â€" Favouring Growth?. Trends in Plant Science, 2019, 24, 311-317.	8.8	54
10	Zinc treatment of hydroponically grown barley plants causes a reduction in root and cell hydraulic conductivity and isoformâ€dependent decrease in aquaporin gene expression. Physiologia Plantarum, 2018, 164, 176-190.	5.2	31
11	The Pressure Is On â€" Epiphyte Water-Relations Altered Under Elevated CO2. Frontiers in Plant Science, 2018, 9, 1758.	3.6	5
12	Root and cell hydraulic conductivity, apoplastic barriers and aquaporin gene expression in barley (<i>Hordeum vulgare</i>L.) grown with low supply of potassium. Annals of Botany, 2018, 122, 1131-1141.	2.9	27
13	Night-time transpiration in barley (Hordeum vulgare) facilitates respiratory carbon dioxide release and is regulated during salt stress. Annals of Botany, 2018, 122, 569-582.	2.9	30
14	Plant Aquaporins and Cell Elongation. Signaling and Communication in Plants, 2017, , 107-131.	0.7	5
15	Aquaporins and Root Water Uptake. Signaling and Communication in Plants, 2017, , 133-153.	0.7	47
16	Changes in root hydraulic conductivity facilitate the overall hydraulic response of rice (Oryza sativa) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	5.8	45
17	Water transport and energy. Plant, Cell and Environment, 2017, 40, 977-994.	5.7	42
18	Exogenous application of abscisic acid (ABA) increases root and cell hydraulic conductivity and abundance of some aquaporin isoforms in the ABA-deficient barley mutant Az34. Annals of Botany, 2016, 118, 777-785.	2.9	58

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19	Rapid changes in root hydraulic conductivity and aquaporin expression in rice (<i>Oryza sativa</i>L.) in response to shoot removal â€“ xylem tension as a possible signal. Annals of Botany, 2016, 118, 809-819.	2.9	39
20	The significance of water co-transport for sustaining transpirational water flow in plants: a quantitative approach. Journal of Experimental Botany, 2015, 66, 731-739.	4.8	25
21	Limitation of Cell Elongation in Barley (Hordeum vulgareL.) Leaves Through Mechanical and Tissue-Hydraulic Properties. Plant and Cell Physiology, 2015, 56, 1364-1373.	3.1	7
22	Do root hydraulic properties change during the early vegetative stage of plant development in barley (Hordeum vulgare)?. Annals of Botany, 2014, 113, 385-402.	2.9	43
23	Root hydraulics in salt-stressed wheat. Functional Plant Biology, 2014, 41, 366.	2.1	17
24	Root Aquaporins. Soil Biology, 2014, , 269-296.	0.8	2
25	Plant Single Cell Sampling. , 2013, 953, 209-231.		2
26	Apoplast Acidification in Growing Barley (Hordeum vulgare L.) Leaves. Journal of Plant Growth Regulation, 2013, 32, 131-139.	5.1	9
27	Plasma membrane H⁺â€ATPase gene expression, protein level and activity in growing and nonâ€growing regions of barley (<i>Hordeum vulgare</i>) leaves. Physiologia Plantarum, 2012, 144, 382-393.	5.2	10
28	Shortâ€term control of maize cell and root water permeability through plasma membrane aquaporin isoforms. Plant, Cell and Environment, 2012, 35, 185-198.	5.7	127
29	Single-Cell Sampling and Analysis (SiCSA). , 2012, 913, 79-100.		1
30	Water uptake by seminal and adventitious roots in relation to whole-plant water flow in barley (Hordeum vulgare L.). Journal of Experimental Botany, 2011, 62, 717-733.	4.8	105
31	Aquaporin-facilitated water uptake in barley (Hordeum vulgare L.) roots. Journal of Experimental Botany, 2011, 62, 4115-4126.	4.8	114
32	Developmental pattern of aquaporin expression in barley (Hordeum vulgare L.) leaves. Journal of Experimental Botany, 2011, 62, 4127-4142.	4.8	70
33	In planta function of compatible solute transporters of the AtProT family. Journal of Experimental Botany, 2011, 62, 787-796.	4.8	100
34	Root pressure and a solute reflection coefficient close to unity exclude a purely apoplastic pathway of radial water transport in barley (<i>Hordeum vulgare</i>). New Phytologist, 2010, 187, 159-170.	7.3	100
35	Potassium channels in barley: cloning, functional characterization and expression analyses in relation to leaf growth and development. Plant, Cell and Environment, 2009, 32, 1761-1777.	5.7	70
36	Electrophysiological characterization of pathways for K⁺ uptake into growing and nonâ€growing leaf cells of barley. Plant, Cell and Environment, 2009, 32, 1778-1790.	5.7	14

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37	HvPIP1;6, a Barley (Hordeum vulgare L.) Plasma Membrane Water Channel Particularly Expressed in Growing Compared with Non-Growing Leaf Tissues. Plant and Cell Physiology, 2007, 48, 1132-1147.	3.1	44
38	Cuticular permeance in relation to wax and cutin development along the growing barley (Hordeum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	3.2	53
39	Cloning and expression analysis of candidate genes involved in wax deposition along the growing barley (Hordeum vulgare) leaf. Planta, 2007, 226, 1459-1473.	3.2	44
40	The short-term growth response to salt of the developing barley leaf. Journal of Experimental Botany, 2006, 57, 1079-1095.	4.8	150
41	Water permeability differs between growing and non-growing barley leaf tissues. Journal of Experimental Botany, 2006, 58, 377-390.	4.8	68
42	Solute and Water Relations of Growing Plant Cells. , 2006, , 7-31.		4
43	Salinity and the growth of non-halophytic grass leaves: the role of mineral nutrient distribution. Functional Plant Biology, 2005, 32, 973.	2.1	53
44	Cuticular wax deposition in growing barley (Hordeum vulgare) leaves commences in relation to the point of emergence of epidermal cells from the sheaths of older leaves. Planta, 2005, 222, 472-483.	3.2	67
45	Rapid and tissue-specific changes in ABA and in growth rate in response to salinity in barley leaves. Journal of Experimental Botany, 2004, 55, 1115-1123.	4.8	195
46	Solute sorting in grass leaves: the transpiration stream. Planta, 2004, 219, 507-14.	3.2	11
47	Rapid and tissue-specific accumulation of solutes in the growth zone of barley leaves in response to salinity. Planta, 2004, 219, 515-25.	3.2	42
48	Thellungiella halophila, a salt-tolerant relative of Arabidopsis thaliana, possesses effective mechanisms to discriminate between potassium and sodium. Plant, Cell and Environment, 2004, 27, 1-14.	5.7	172
49	Biophysical Limitation of Cell Elongation in Cereal Leaves. Annals of Botany, 2002, 90, 157-167.	2.9	71
50	The Biophysics of Leaf Growth in Salt-Stressed Barley. A Study at the Cell Level. Plant Physiology, 2002, 129, 374-388.	4.8	180
51	Biophysical limitation of leaf cell elongation in source-reduced barley. Planta, 2002, 215, 327-338.	3.2	18
52	Turgor pressure, membrane tension and the control of exocytosis in higher plants. Plant, Cell and Environment, 2000, 23, 999-1003.	5.7	30
53	Water movement between epidermal cells of barley leaves â€“ a symplastic connection?. Plant, Cell and Environment, 2000, 23, 991-997.	5.7	19
54	XET-related genes and growth kinematics in barley leaves. Plant, Cell and Environment, 1999, 22, 331-332.	5.7	6

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55	Control of leaf cell elongation in barley. Generation rates of osmotic pressure and turgor, and growth-associated water potential gradients. Planta, 1998, 206, 53-65.	3.2	54
56	Cell turgor, osmotic pressure and water potential in the upper epidermis of barley leaves in relation to cell location and in response to NaCl and air humidity. Journal of Experimental Botany, 1997, 48, 45-58.	4.8	38
57	Why do leaves and leaf cells of N-limited barley elongate at reduced rates?. Planta, 1997, 202, 522-530.	3.2	82
58	Turgor-regulation during extension growth and osmotic stress of maize roots. An example of single-cell mapping. , 1997, , 11-21.		9
59	The intercellular distribution of vacuolar solutes in the epidermis and mesophyll of barley leaves changes in response to NaCl. Journal of Experimental Botany, 1996, 47, 1413-1426.	4.8	84
60	Turgor-regulation during extension growth and osmotic stress of maize roots. An example of single-cell mapping. Plant and Soil, 1996, 187, 11-21.	3.7	41
61	Mannitol and hexoses are components of Buller's drop. Mycological Research, 1995, 99, 833-838.	2.5	45
62	Vacuolar solutes in the upper epidermis of barley leaves. Planta, 1995, 196, 40.	3.2	44
63	Cells of the Upper and Lower Epidermis of Barley (Hordeum vulgare L.) Leaves Exhibit Distinct Patterns of Vacuolar Solutes. Plant Physiology, 1994, 104, 1201-1208.	4.8	35
64	Concentrations of inorganic and organic solutes in extracts from individual epidermal, mesophyll and bundle-sheath cells of barley leaves. Planta, 1994, 192, 310.	3.2	90
65	Epidermal solute concentrations and osmolality in barley leaves studied at the single-cell level. Planta, 1994, 192, 317.	3.2	38
66	Glutamine synthetase and glutamate synthase activities in high ammonium grown wheat cells. Phytochemistry, 1993, 34, 637-644.	2.9	8
67	Malate: A Possible Source of Error in the NAD Glutamate Dehydrogenase Assay. Journal of Experimental Botany, 1992, 43, 1515-1518.	4.8	21