Peter J Franks

List of Publications by Year
in descending order

37 papers	5,654 citations	201575 27 h-index	330025 37 g-index
37 all docs	37 docs citations	37 times ranked	5736 citing authors

#	Article	IF	Citations
1	Maximum leaf conductance driven by CO ₂ effects on stomatal size and density over geologic time. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10343-10347.	3.3	750
2	The Mechanical Diversity of Stomata and Its Significance in Gas-Exchange Control. Plant Physiology, 2007, 143, 78-87.	2.3	508
3	Smaller, faster stomata: scaling of stomatal size, rate of response, and stomatal conductance. Journal of Experimental Botany, 2013, 64, 495-505.	2.4	459
4	Sensitivity of plants to changing atmospheric <scp>CO</scp>₂ concentration: from the geological past to the next century. New Phytologist, 2013, 197, 1077-1094.	3.5	336
5	Plasticity in maximum stomatal conductance constrained by negative correlation between stomatal size and density: an analysis using <i>Eucalyptus globulus</i>. Plant, Cell and Environment, 2009, 32, 1737-1748.	2.8	283
6	The Effect of Exogenous Abscisic Acid on Stomatal Development, Stomatal Mechanics, and Leaf Gas Exchange in Tradescantia virginiana. Plant Physiology, 2001, 125, 935-942.	2.3	277
7	Increasing waterâ€use efficiency directly through genetic manipulation of stomatal density. New Phytologist, 2015, 207, 188-195.	3.5	270
8	Anisohydric but isohydrodynamic: seasonally constant plant water potential gradient explained by a stomatal control mechanism incorporating variable plant hydraulic conductance. Plant, Cell and Environment, 2007, 30, 19-30.	2.8	266
9	Stomata: key players in the earth system, past and present. Current Opinion in Plant Biology, 2010, 13, 232-239.	3.5	265
10	Genetic manipulation of stomatal density influences stomatal size, plant growth and tolerance to restricted water supply across a growth carbon dioxide gradient. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 547-555.	1.8	263
11	Molecular Evolution of Grass Stomata. Trends in Plant Science, 2017, 22, 124-139.	4.3	202
12	New constraints on atmospheric CO₂ concentration for the Phanerozoic. Geophysical Research Letters, 2014, 41, 4685-4694.	1.5	189
13	Land Plants Acquired Active Stomatal Control Early in Their Evolutionary History. Current Biology, 2011, 21, 1030-1035.	1.8	162
14	Evolutionary Conservation of ABA Signaling for Stomatal Closure. Plant Physiology, 2017, 174, 732-747.	2.3	158
15	Optimal allocation of leaf epidermal area for gas exchange. New Phytologist, 2016, 210, 1219-1228.	3.5	139
16	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.	3.3	138
17	Stomatal Function across Temporal and Spatial Scales: Deep-Time Trends, Land-Atmosphere Coupling and Global Models. Plant Physiology, 2017, 174, 583-602.	2.3	119
18	Physiological framework for adaptation of stomata to CO ₂ from glacial to future concentrations. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 537-546.	1.8	108

#	Article	IF	Citations
19	Stomatal control and hydraulic conductance, with special reference to tall trees. Tree Physiology, 2004, 24, 865-878.	1.4	94
20	Higher rates of leaf gas exchange are associated with higher leaf hydrodynamic pressure gradients. Plant, Cell and Environment, 2006, 29, 584-592.	2.8	93
21	Plasticity in maximum stomatal conductance constrained by negative correlation between stomatal size and density: An analysis usingEucalyptus globulus. Plant, Cell and Environment, 2009, 32, 1737-1748.	2.8	84
22	Comparing optimal and empirical stomatal conductance models for application in Earth system models. Global Change Biology, 2018, 24, 5708-5723.	4.2	75
23	Increasing leaf hydraulic conductance with transpiration rate minimizes the water potential drawdown from stem to leaf. Journal of Experimental Botany, 2015, 66, 1303-1315.	2.4	58
24	No evidence of general CO₂ insensitivity in ferns: one stomatal control mechanism for all land plants?. New Phytologist, 2016, 211, 819-827.	3.5	49
25	Passive and active stomatal control: either or both?. New Phytologist, 2013, 198, 325-327.	3.5	48
26	Megacycles of atmospheric carbon dioxide concentration correlate with fossil plant genome size. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 556-564.	1.8	39
27	The global trend in plant twining direction. Global Ecology and Biogeography, 2007, 16, 795-800.	2.7	34
28	Evolution of rapid blueâ€light response linked to explosive diversification of ferns in angiosperm forests. New Phytologist, 2021, 230, 1201-1213.	3.5	33
29	Use of the pressure probe in studies of stomatal function. Journal of Experimental Botany, 2003, 54, 1495-1504.	2.4	27
30	Size is not everything for desiccationâ€sensitive seeds. Journal of Ecology, 2012, 100, 1131-1140.	1.9	27
31	No Evidence for a Large Atmospheric CO₂ Spike Across the Cretaceousâ€Paleogene Boundary. Geophysical Research Letters, 2019, 46, 3462-3472.	1.5	21
32	Multiple Proxy Estimates of Atmospheric CO₂ From an Early Paleocene Rainforest. Paleoceanography and Paleoclimatology, 2018, 33, 1427-1438.	1.3	20
33	Connecting stomatal development and physiology. New Phytologist, 2014, 201, 1079-1082.	3.5	17
34	Sensitivity of a leaf gas-exchange model for estimating paleoatmospheric CO₂ concentration. Climate of the Past, 2019, 15, 795-809.	1.3	16
35	Quantitative critique of leafâ€based paleoâ€CO₂ proxies: Consequences for their reliability and applicability. Geological Journal, 2021, 56, 886-902.	0.6	11
36	Comment on â€œWas atmospheric CO2 capped at 1000 ppm over the past 300 million years?â€• by McElwain J. C. et al. [Palaeogeogr. Palaeoclimatol. Palaeoecol. 441 (2016) 653â€“658]. Palaeogeography, Palaeoclimatology, Palaeoecology, 2017, 472, 256-259.	1.0	9

#	Article	IF	Citations
37	Seasonal patterns in rainforest litterfall: Detecting endogenous and environmental influences from longâ€term sampling. Austral Ecology, 2018, 43, 225-235.	0.7	7