Jon K Pittman

List of Publications by Citations

103 papers	7,237 citations	41 h-index	84 g-index
108 ext. papers	8,202 ext. citations	6.2 avg, IF	6.34 L-index

#	Paper	IF	Citations
103	The potential of sustainable algal biofuel production using wastewater resources. *Bioresource Technology*, **2011**, 102, 17-25	11	1075
102	Shaping the calcium signature. *New Phytologist*, **2009**, 181, 275-294	9.8	524
101	Emerging mechanisms for heavy metal transport in plants. *Biochimica Et Biophysica Acta - Biomembranes*, **2000**, 1465, 104-26	3.8	412
100	Using FTIR spectroscopy for rapid determination of lipid accumulation in response to nitrogen limitation in freshwater microalgae. *Bioresource Technology*, **2010**, 101, 4499-507	11	360
99	Protein Phylogenetic Analysis of Ca(2+)/cation Antiporters and Insights into their Evolution in Plants. *Frontiers in Plant Science*, **2012**, 3, 1	6.2	330
98	Managing the manganese: molecular mechanisms of manganese transport and homeostasis. *New Phytologist*, **2005**, 167, 733-42	9.8	259
97	Up-regulation of a H+-pyrophosphatase (H+-PPase) as a strategy to engineer drought-resistant crop plants. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 18830-5	11.5	218
96	The monosaccharide transporter gene, AtSTP4, and the cell-wall invertase, Atbetafruct1, are induced in Arabidopsis during infection with the fungal biotroph Erysiphe cichoracearum. *Plant Physiology*, **2003**, 132, 821-9	6.6	198
95	The protein kinase SOS2 activates the Arabidopsis H(+)/Ca(2+) antiporter CAX1 to integrate calcium transport and salt tolerance. *Journal of Biological Chemistry*, **2004**, 279, 2922-6	5.4	197
94	A role for the AtMTP11 gene of Arabidopsis in manganese transport and tolerance. *Plant Journal*, **2007**, 51, 198-210	6.9	188
93	The Arabidopsis cax1 mutant exhibits impaired ion homeostasis, development, and hormonal responses and reveals interplay among vacuolar transporters. *Plant Cell*, **2003**, 15, 347-64	11.6	186
92	Functional association of Arabidopsis CAX1 and CAX3 is required for normal growth and ion homeostasis. *Plant Physiology*, **2005**, 138, 2048-60	6.6	157
91	Increased calcium levels and prolonged shelf life in tomatoes expressing Arabidopsis H+/Ca2+ transporters. *Plant Physiology*, **2005**, 139, 1194-206	6.6	130
90	ECA3, a Golgi-localized P2A-type ATPase, plays a crucial role in manganese nutrition in Arabidopsis. *Plant Physiology*, **2008**, 146, 116-28	6.6	128
89	Vacuolar Ca(2+) uptake. *Cell Calcium*, **2011**, 50, 139-46	4	104
88	The Arabidopsis cax3 mutants display altered salt tolerance, pH sensitivity and reduced plasma membrane H+-ATPase activity. *Planta*, **2008**, 227, 659-69	4.7	97
87	Regulation of CAX1, an Arabidopsis Ca2+/H+ Antiporter. Identification of an N-Terminal Autoinhibitory Domain. *Plant Physiology*, **2001**, 127, 1020-1029	6.6	94

86	Characterization of CAX4, an Arabidopsis H(+)/cation antiporter. *Plant Physiology*, **2002**, 128, 1245-54	6.6	94
85	Oxidative stress-tolerant microalgae strains are highly efficient for biofuel feedstock production on wastewater. *Biomass and Bioenergy*, **2013**, 56, 284-294	5.3	93
84	Elucidating the mechanisms of assembly and subunit interaction of the cellulose synthase complex of Arabidopsis secondary cell walls. *Journal of Biological Chemistry*, **2009**, 284, 3833-41	5.4	89
83	Root development under metal stress in Arabidopsis thaliana requires the H+/cation antiporter CAX4. *New Phytologist*, **2009**, 183, 95-105	9.8	87
82	Manganese specificity determinants in the Arabidopsis metal/H+ antiporter CAX2. *Journal of Biological Chemistry*, **2003**, 278, 6610-7	5.4	84
81	CAX-ing a wide net: Cation/H(+) transporters in metal remediation and abiotic stress signalling. *Plant Biology*, **2016**, 18, 741-9	3.7	82
80	Ca2+/H+ exchange by acidic organelles regulates cell migration in vivo. *Journal of Cell Biology*, **2016** , 212, 803-13	7.3	78
79	Ca2+/H+exchange by acidic organelles regulates cell migration in vivo. *Journal of Experimental Medicine*, **2016**, 213, 2134OIA28	16.6	78
78	Functional and regulatory analysis of the Arabidopsis thaliana CAX2 cation transporter. *Plant Molecular Biology*, **2004**, 56, 959-71	4.6	76
77	Acclimation of microalgae to wastewater environments involves increased oxidative stress tolerance activity. *Plant and Cell Physiology*, **2014**, 55, 1848-57	4.9	73
76	Bioaccumulation of silver nanoparticles into Daphnia magna from a freshwater algal diet and the impact of phosphate availability. *Nanotoxicology*, **2014**, 8, 305-16	5.3	73
75	Transcriptional Engineering of Microalgae: Prospects for High-Value Chemicals. *Trends in Biotechnology*, **2017**, 35, 95-99	15.1	69
74	Comparative analysis of CAX2-like cation transporters indicates functional and regulatory diversity. *Biochemical Journal*, **2009**, 418, 145-54	3.8	60
73	Microbial degradation of four biodegradable polymers in soil and compost demonstrating polycaprolactone as an ideal compostable plastic. *Waste Management*, **2019**, 97, 105-114	8.6	59
72	PSR1 Is a Global Transcriptional Regulator of Phosphorus Deficiency Responses and Carbon Storage Metabolism in Chlamydomonas reinhardtii. *Plant Physiology*, **2016**, 170, 1216-34	6.6	59
71	Mechanism of N-terminal autoinhibition in the Arabidopsis Ca(2+)/H(+) antiporter CAX1. *Journal of Biological Chemistry*, **2002**, 277, 26452-9	5.4	58
70	Metabolic responses of eukaryotic microalgae to environmental stress limit the ability of FT-IR spectroscopy for species identification. *Algal Research*, **2015**, 11, 148-155	5	57
69	Multiple Transport Pathways for Mediating Intracellular pH Homeostasis: The Contribution of H(+)/ion Exchangers. *Frontiers in Plant Science*, **2012**, 3, 11	6.2	57

68	Structural determinants of Ca2+ transport in the Arabidopsis H+/Ca2+ antiporter CAX1. *Journal of Biological Chemistry*, **2001**, 276, 43152-9	5.4	56
67	Don't shoot the (second) messenger: endomembrane transporters and binding proteins modulate cytosolic Ca2+ levels. *Current Opinion in Plant Biology*, **2003**, 6, 257-62	9.9	55
66	Distinct N-terminal regulatory domains of Ca(2+)/H(+) antiporters. *Plant Physiology*, **2002**, 130, 1054-62	6.6	53
65	Metal bioremediation by CrMTP4 over-expressing Chlamydomonas reinhardtii in comparison to natural wastewater-tolerant microalgae strains. *Algal Research*, **2017**, 24, 89-96	5	52
64	In planta regulation of the Arabidopsis Ca(2+)/H(+) antiporter CAX1. *Journal of Experimental Botany* , **2007**, 58, 3419-27	7	52
63	Functional dependence on calcineurin by variants of the Saccharomyces cerevisiae vacuolar Ca2+/H+ exchanger Vcx1p. *Molecular Microbiology*, **2004**, 54, 1104-16	4.1	41
62	A cation-regulated and proton gradient-dependent cation transporter from Chlamydomonas reinhardtii has a role in calcium and sodium homeostasis. *Journal of Biological Chemistry*, **2009**, 284, 525-533	5.4	39
61	Evidence of differential pH regulation of the Arabidopsis vacuolar Ca2+/H+ antiporters CAX1 and CAX2. *FEBS Letters*, **2005**, 579, 2648-56	3.8	39
60	Carbon dioxide sequestration in wastewater by a consortium of elevated carbon dioxide-tolerant microalgae. *Journal of CO2 Utilization*, **2015**, 10, 105-112	7.6	38
59	Characterization of a rice (Oryza sativa L.) gene encoding a temperature-dependent chloroplast omega-3 fatty acid desaturase. *Biochemical and Biophysical Research Communications*, **2006**, 340, 1209-16	3.4	37
58	ILR2, a novel gene regulating IAA conjugate sensitivity and metal transport in Arabidopsis thaliana. *Plant Journal*, **2003**, 35, 523-34	6.9	37
57	Cadmium exposure and phosphorus limitation increases metal content in the freshwater alga Chlamydomonas reinhardtii. *Environmental Science & Technology*, **2011**, 45, 7489-96	10.3	36
56	A vacuolar iron-transporter homologue acts as a detoxifier in Plasmodium. *Nature Communications*, **2016**, 7, 10403	17.4	35
55	Implications of sludge liquor addition for wastewater-based open pond cultivation of microalgae for biofuel generation and pollutant remediation. *Bioresource Technology*, **2014**, 152, 355-63	11	35
54	Functional studies of split Arabidopsis Ca2+/H+ exchangers. *Journal of Biological Chemistry*, **2009**, 284, 34075-83	5.4	35
53	Natural wetlands are efficient at providing long-term metal remediation of freshwater systems polluted by acid mine drainage. *Environmental Science & Technology*, **2013**, 47, 12029-36	10.3	31
52	Microalgal biomass as a biorefinery platform for biobutanol and biodiesel production. *Biochemical Engineering Journal*, **2020**, 153, 107396	4.2	31
51	Phylogenetic analysis and protein structure modelling identifies distinct Ca(2+)/Cation antiporters and conservation of gene family structure within Arabidopsis and rice species. *Rice*, **2016**, 9, 3	5.8	30

50	Kinetic modelling of starch and lipid formation during mixotrophic, nutrient-limited microalgal growth. *Bioresource Technology*, **2017**, 241, 868-878	11	28
49	High-throughput metabolic screening of microalgae genetic variation in response to nutrient limitation. *Metabolomics*, **2016**, 12, 9	4.7	28
48	The Plasmodium berghei Ca(2+)/H(+) exchanger, PbCAX, is essential for tolerance to environmental Ca(2+) during sexual development. *PLoS Pathogens*, **2013**, 9, e1003191	7.6	27
47	Production of lipid-based fuels and chemicals from microalgae: An integrated experimental and model-based optimization study. *Algal Research*, **2017**, 23, 78-87	5	26
46	Two Glycerol-3-Phosphate Dehydrogenases from Have Distinct Roles in Lipid Metabolism. *Plant Physiology*, **2017**, 174, 2083-2097	6.6	26
45	Dissecting Pathways Involved in Manganese Homeostasis and Stress in Higher Plant Cells. *Plant Cell Monographs*, **2010**, 95-117	0.6	26
44	Metabolic adaptation of a Chlamydomonas acidophila strain isolated from acid mine drainage ponds with low eukaryotic diversity. *Science of the Total Environment*, **2019**, 647, 75-87	10.2	25
43	Expression in yeast links field polymorphisms in PfATP6 to in vitro artemisinin resistance and identifies new inhibitor classes. *Journal of Infectious Diseases*, **2013**, 208, 468-78	7	24
42	Potential of Bioenergy Production from Microalgae. *Current Sustainable/Renewable Energy Reports*, **2014**, 1, 94-103	2.8	23
41	Spatial and temporal specificity of Ca signalling in Chlamydomonas reinhardtii in response to osmotic stress. *New Phytologist*, **2016**, 212, 920-933	9.8	23
40	Microbial Community Shifts in Response to Acid Mine Drainage Pollution Within a Natural Wetland Ecosystem. *Frontiers in Microbiology*, **2018**, 9, 1445	5.7	22
39	Organic complexation of U(VI) in reducing soils at a natural analogue site: Implications for uranium transport. *Chemosphere*, **2020**, 254, 126859	8.4	19
38	Knockout of multiple Arabidopsis cation/H(+) exchangers suggests isoform-specific roles in metal stress response, germination and seed mineral nutrition. *PLoS ONE*, **2012**, 7, e47455	3.7	19
37	Multi-factor kinetic modelling of microalgal biomass cultivation for optimised lipid production. *Bioresource Technology*, **2018**, 269, 417-425	11	17
36	Two additional type IIA Ca(2+)-ATPases are expressed in Arabidopsis thaliana: evidence that type IIA sub-groups exist. *Gene*, **1999**, 236, 137-47	3.8	17
35	Exchangers man the pumps: Functional interplay between proton pumps and proton-coupled Ca exchangers. *Plant Signaling and Behavior*, **2008**, 3, 354-6	2.5	14
34	Models of microalgal cultivation for added-value products - A review. *Biotechnology Advances*, **2020**, 44, 107609	17.8	13
33	Radioactivity and the environment: technical approaches to understand the role of arbuscular mycorrhizal plants in radionuclide bioaccumulation. *Frontiers in Plant Science*, **2015**, 6, 580	6.2	12

32	Ca2+ Pumps and Ca2+ Antiporters in Plant Development. *Signaling and Communication in Plants*, **2011**, 133-161	1	12
31	Cloning and characterization of a PI-like MADS-box gene in Phalaenopsis orchid. *BMB Reports*, **2007**, 40, 845-52	5.5	12
30	Microbial bloom formation in a high pH spent nuclear fuel pond. *Science of the Total Environment*, **2020**, 720, 137515	10.2	11
29	Macroalgae as spatial and temporal bioindicators of coastal metal pollution following remediation and diversion of acid mine drainage. *Ecotoxicology and Environmental Safety*, **2019**, 182, 109458	7	11
28	Increased metal tolerance and bioaccumulation of zinc and cadmium in Chlamydomonas reinhardtii expressing a AtHMA4 C-terminal domain protein. *Biotechnology and Bioengineering*, **2020**, 117, 2996-3005	4.9	9
27	Optimisation of microalgal cultivation via nutrient-enhanced strategies: the biorefinery paradigm. *Biotechnology for Biofuels*, **2021**, 14, 64	7.8	8
26	The association of microbial activity with Fe, S and trace element distribution in sediment cores within a natural wetland polluted by acid mine drainage. *Chemosphere*, **2019**, 231, 432-441	8.4	7
25	Multi-genomic analysis of the cation diffusion facilitator transporters from algae. *Metallomics*, **2020** , 12, 617-630	4.5	7
24	Role of Cation/Proton Exchangers in Abiotic Stress Signaling and Stress Tolerance in Plants **2015**, 95-117		6
23	Radiation Tolerance of , a Cyanobacterium Relevant to the First Generation Magnox Storage Pond. *Frontiers in Microbiology*, **2020**, 11, 515	5.7	6
22	Calcium Signalling in Plants **2012**,		6
21	Multiple environmental factors influence U, Th and Ra bioaccumulation in arbuscular mycorrhizal-associated plants. *Science of the Total Environment*, **2018**, 640-641, 921-934	10.2	6
20	Biochemical signatures of acclimation by Chlamydomonas reinhardtii to different ionic stresses. *Algal Research*, **2019**, 37, 83-91	5	6
19	Effects of air pollutants on proton and sucrose transport at the plasma membrane of Ricinus communis. *Plant, Cell and Environment*, **1999**, 22, 221-227	8.4	3
18	Mechanisms of detoxification of high copper concentrations by the microalga Chlorella sorokiniana. *Biochemical Journal*, **2020**, 477, 3729-3741	3.8	3
17	Isolation of fungal strains for biodegradation and saccharification of microalgal biomass. *Biomass and Bioenergy*, **2020**, 137, 105547	5.3	3
16	Specific arbuscular mycorrhizal fungal-plant interactions determine radionuclide and metal transfer into Plantago lanceolata. *Plants People Planet*, **2021**, 3, 667-678	4.1	3
15	Integrated Computational and Experimental Studies of Microalgal Production of Fuels and Chemicals. *Computer Aided Chemical Engineering*, **2015**, 2393-2398	0.6	2

14	Increased metal tolerance and bioaccumulation of zinc and cadmium in Chlamydomonas reinhardtii expressing a AtHMA4 C-terminal domain protein		2
13	Biomineralization of Sr by the Cyanobacterium Pseudanabaena catenata Under Alkaline Conditions. *Frontiers in Earth Science*, **2020**, 8,	3.5	2
12	Improved saccharification of Chlorella vulgaris biomass by fungal secreted enzymes for bioethanol production. *Algal Research*, **2021**, 58, 102402	5	2
11	Addition of organic acids to acid mine drainage polluted wetland sediment leads to microbial community structure and functional changes and improved water quality. *Environmental Pollution*, **2021**, 290, 118064	9.3	2
10	Mechanism and Evolution of Calcium Transport Across the Plant Plasma Membrane. *Plant Cell Monographs*, **2011**, 275-289	0.6	1
9	The effects of ionizing radiation on the structure and antioxidative and metal-binding capacity of the cell wall of microalga Chlorella sorokiniana. *Chemosphere*, **2020**, 260, 127553	8.4	1
8	Experimental Studies and Model Based Optimisation of Microalgal Production of Fuels and Chemicals. *Computer Aided Chemical Engineering*, **2016**, 38, 2145-2150	0.6	1
7	Tea plant roots respond to aluminum-induced mineral nutrient imbalances by transcriptional regulation of multiple cation and anion transporters.. *BMC Plant Biology*, **2022**, 22, 203	5.3	1
6	Kinetic Modelling and Scaled-up Experimental Studies of Microalgal Fuels and Chemicals Production. *Computer Aided Chemical Engineering*, **2017**, 2833-2838	0.6	
5	Model-based Fed-batch Algal Cultivation Strategy for Enhanced Starch Production. *Computer Aided Chemical Engineering*, **2018**, 1595-1600	0.6	
4	A multiscale model approach for cell growth for lipids and pigments production by Haematococcus pluvialis under different environmental conditions.. *Computer Aided Chemical Engineering*, **2019**, 46, 1573-1578	0.6	
3	Characterisation of Metal Transport Proteins for providing metal stress tolerance in green microalgae. *New Biotechnology*, **2014**, 31, S141	6.4	
2	Optimisation of microalgal starch formation for the biochemical production of biobutanol. *Computer Aided Chemical Engineering*, **2017**, 2899-2904	0.6	
1	Modelling of Starch Production by Microalgal Biomass under Multi-nutrient Limitation. *Computer Aided Chemical Engineering*, **2016**, 2133-2138	0.6	