# Jon K Pittman

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 105 papers | 8,955 citations | 57719<br>44 h-index | 40954<br>93 g-index |
| 108 all docs | 108 docs citations | 108 times ranked | 10014 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The potential of sustainable algal biofuel production using wastewater resources. Bioresource Technology, 2011, 102, 17-25. | 4.8 | 1,240 |
| 2 | Shaping the calcium signature. New Phytologist, 2009, 181, 275-294. | 3.5 | 638 |
| 3 | Emerging mechanisms for heavy metal transport in plants. Biochimica Et Biophysica Acta - Biomembranes, 2000, 1465, 104-126. | 1.4 | 495 |
| 4 | Protein Phylogenetic Analysis of Ca2+/cation Antiporters and Insights into their Evolution in Plants. Frontiers in Plant Science, 2012, 3, 1. | 1.7 | 490 |
| 5 | Using FTIR spectroscopy for rapid determination of lipid accumulation in response to nitrogen limitation in freshwater microalgae. Bioresource Technology, 2010, 101, 4499-4507. | 4.8 | 438 |
| 6 | Managing the manganese: molecular mechanisms of manganese transport and homeostasis. New Phytologist, 2005, 167, 733-742. | 3.5 | 312 |
| 7 | 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, 18830-18835. | 3.3 | 253 |
| 8 | A role for theAtMTP11gene of Arabidopsis in manganese transport and tolerance. Plant Journal, 2007, 51, 198-210. | 2.8 | 235 |
| 9 | The Protein Kinase SOS2 Activates the Arabidopsis H+/Ca2+ Antiporter CAX1 to Integrate Calcium Transport and Salt Tolerance. Journal of Biological Chemistry, 2004, 279, 2922-2926. | 1.6 | 223 |
| 10 | The Monosaccharide Transporter Gene, AtSTP4, and the Cell-Wall Invertase, AtÎ²fruct1, Are Induced in Arabidopsis during Infection with the Fungal Biotroph Erysiphe cichoracearum Â. Plant Physiology, 2003, 132, 821-829. | 2.3 | 222 |
| 11 | The Arabidopsis cax1 Mutant Exhibits Impaired Ion Homeostasis, Development, and Hormonal Responses and Reveals Interplay among Vacuolar Transporters. Plant Cell, 2003, 15, 347-364. | 3.1 | 207 |
| 12 | Functional Association of Arabidopsis CAX1 and CAX3 Is Required for Normal Growth and Ion Homeostasis. Plant Physiology, 2005, 138, 2048-2060. | 2.3 | 190 |
| 13 | ECA3, a Golgi-Localized P2A-Type ATPase, Plays a Crucial Role in Manganese Nutrition in Arabidopsis. Plant Physiology, 2008, 146, 116-128. | 2.3 | 155 |
| 14 | Increased Calcium Levels and Prolonged Shelf Life in Tomatoes Expressing Arabidopsis H+/Ca2+ Transporters. Plant Physiology, 2005, 139, 1194-1206. | 2.3 | 153 |
| 15 | Microbial degradation of four biodegradable polymers in soil and compost demonstrating polycaprolactone as an ideal compostable plastic. Waste Management, 2019, 97, 105-114. | 3.7 | 130 |
| 16 | Vacuolar Ca2+ uptake. Cell Calcium, 2011, 50, 139-146. | 1.1 | 126 |
| 17 | <scp>CAX</scp>â€ing a wide net: Cation/H<sup>+</sup> transporters in metal remediation and abiotic stress signalling. Plant Biology, 2016, 18, 741-749. | 1.8 | 115 |
| 18 | The Arabidopsis cax3 mutants display altered salt tolerance, pH sensitivity and reduced plasma membrane H+-ATPase activity. Planta, 2008, 227, 659-669. | 1.6 | 110 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Characterization of CAX4, an Arabidopsis H+/Cation Antiporter. Plant Physiology, 2002, 128, 1245-1254. | 2.3 | 109 |
| 20 | Elucidating the Mechanisms of Assembly and Subunit Interaction of the Cellulose Synthase Complex of Arabidopsis Secondary Cell Walls. Journal of Biological Chemistry, 2009, 284, 3833-3841. | 1.6 | 108 |
| 21 | Oxidative stress-tolerant microalgae strains are highly efficient for biofuel feedstock production onÂwastewater. Biomass and Bioenergy, 2013, 56, 284-294. | 2.9 | 106 |
| 22 | Regulation of CAX1, an Arabidopsis Ca2+/H+ Antiporter. Identification of an N-Terminal Autoinhibitory Domain. Plant Physiology, 2001, 127, 1020-1029. | 2.3 | 102 |
| 23 | Root development under metal stress in <i>Arabidopsis thaliana</i> requires the H<sup>+</sup>/cation antiporter CAX4. New Phytologist, 2009, 183, 95-105. | 3.5 | 102 |
| 24 | Acclimation of Microalgae to Wastewater Environments Involves Increased Oxidative Stress Tolerance Activity. Plant and Cell Physiology, 2014, 55, 1848-1857. | 1.5 | 99 |
| 25 | Manganese Specificity Determinants in the ArabidopsisMetal/H+ Antiporter CAX2. Journal of Biological Chemistry, 2003, 278, 6610-6617. | 1.6 | 98 |
| 26 | Transcriptional Engineering of Microalgae: Prospects for High-Value Chemicals. Trends in Biotechnology, 2017, 35, 95-99. | 4.9 | 92 |
| 27 | Ca2+/H+ exchange by acidic organelles regulates cell migration in vivo. Journal of Cell Biology, 2016, 212, 803-813. | 2.3 | 91 |
| 28 | PSR1 Is a Global Transcriptional Regulator of Phosphorus Deficiency Responses and Carbon Storage Metabolism in <i>Chlamydomonas reinhardtii</i> Â Â. Plant Physiology, 2016, 170, 1216-1234. | 2.3 | 91 |
| 29 | Functional and regulatory analysis of the Arabidopsis thaliana CAX2 cation transporter. Plant Molecular Biology, 2004, 56, 959-971. | 2.0 | 89 |
| 30 | Metal bioremediation by CrMTP4 over-expressing Chlamydomonas reinhardtii in comparison to natural wastewater-tolerant microalgae strains. Algal Research, 2017, 24, 89-96. | 2.4 | 87 |
| 31 | Bioaccumulation of silver nanoparticles into<i>Daphnia magna</i>from a freshwater algal diet and the impact of phosphate availability. Nanotoxicology, 2014, 8, 305-316. | 1.6 | 84 |
| 32 | Multiple Transport Pathways for Mediating Intracellular pH Homeostasis: The Contribution of H+/ion Exchangers. Frontiers in Plant Science, 2012, 3, 11. | 1.7 | 79 |
| 33 | Metabolic responses of eukaryotic microalgae to environmental stress limit the ability of FT-IR spectroscopy for species identification. Algal Research, 2015, 11, 148-155. | 2.4 | 74 |
| 34 | Mechanism of N-terminal Autoinhibition in theArabidopsis Ca2+/H+ Antiporter CAX1. Journal of Biological Chemistry, 2002, 277, 26452-26459. | 1.6 | 67 |
| 35 | Comparative analysis of CAX2-like cation transporters indicates functional and regulatory diversity. Biochemical Journal, 2009, 418, 145-154. | 1.7 | 66 |
| 36 | Structural Determinants of Ca2+ Transport in the Arabidopsis H+/Ca2+Antiporter CAX1. Journal of Biological Chemistry, 2001, 276, 43152-43159. | 1.6 | 62 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Distinct N-Terminal Regulatory Domains of Ca2+/H+ Antiporters. Plant Physiology, 2002, 130, 1054-1062. | 2.3 | 60 |
| 38 | In planta regulation of the Arabidopsis Ca2+/H+ antiporter CAX1. Journal of Experimental Botany, 2007, 58, 3419-3427. | 2.4 | 59 |
| 39 | Donâ€™t shoot the (second) messenger: endomembrane transporters and binding proteins modulate cytosolic Ca2+ levels. Current Opinion in Plant Biology, 2003, 6, 257-262. | 3.5 | 58 |
| 40 | Microalgal biomass as a biorefinery platform for biobutanol and biodiesel production. Biochemical Engineering Journal, 2020, 153, 107396. | 1.8 | 51 |
| 41 | Cadmium Exposure and Phosphorus Limitation Increases Metal Content in the Freshwater Alga <i>Chlamydomonas reinhardtii</i>. Environmental Science & Technology, 2011, 45, 7489-7496. | 4.6 | 48 |
| 42 | Carbon dioxide sequestration in wastewater by a consortium of elevated carbon dioxide-tolerant microalgae. Journal of CO2 Utilization, 2015, 10, 105-112. | 3.3 | 48 |
| 43 | Functional dependence on calcineurin by variants of the Saccharomyces cerevisiae vacuolar Ca2+/H+ exchanger Vcx1p. Molecular Microbiology, 2004, 54, 1104-1116. | 1.2 | 47 |
| 44 | Evidence of differential pH regulation of theArabidopsisvacuolar Ca2+/H+antiporters CAX1 and CAX2. FEBS Letters, 2005, 579, 2648-2656. | 1.3 | 46 |
| 45 | 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. | 1.6 | 46 |
| 46 | Natural Wetlands Are Efficient at Providing Long-Term Metal Remediation of Freshwater Systems Polluted by Acid Mine Drainage. Environmental Science & Technology, 2013, 47, 12029-12036. | 4.6 | 45 |
| 47 | A vacuolar iron-transporter homologue acts as a detoxifier in Plasmodium. Nature Communications, 2016, 7, 10403. | 5.8 | 45 |
| 48 | Characterization of a rice (Oryza sativa L.) gene encoding a temperature-dependent chloroplast Ï‰-3 fatty acid desaturase. Biochemical and Biophysical Research Communications, 2006, 340, 1209-1216. | 1.0 | 44 |
| 49 | Phylogenetic analysis and protein structure modelling identifies distinct Ca2+/Cation antiporters and conservation of gene family structure within Arabidopsis and rice species. Rice, 2016, 9, 3. | 1.7 | 43 |
| 50 | Microbial Community Shifts in Response to Acid Mine Drainage Pollution Within a Natural Wetland Ecosystem. Frontiers in Microbiology, 2018, 9, 1445. | 1.5 | 43 |
| 51 | ILR2, a novel gene regulating IAA conjugate sensitivity and metal transport in Arabidopsis thaliana. Plant Journal, 2003, 35, 523-534. | 2.8 | 41 |
| 52 | Functional Studies of Split Arabidopsis Ca2+/H+ Exchangers. Journal of Biological Chemistry, 2009, 284, 34075-34083. | 1.6 | 41 |
| 53 | Production of lipid-based fuels and chemicals from microalgae: An integrated experimental and model-based optimization study. Algal Research, 2017, 23, 78-87. | 2.4 | 41 |
| 54 | Kinetic modelling of starch and lipid formation during mixotrophic, nutrient-limited microalgal growth. Bioresource Technology, 2017, 241, 868-878. | 4.8 | 41 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Models of microalgal cultivation for added-value products - A review. Biotechnology Advances, 2020, 44, 107609. | 6.0 | 39 |
| 56 | Implications of sludge liquor addition for wastewater-based open pond cultivation of microalgae for biofuel generation and pollutant remediation. Bioresource Technology, 2014, 152, 355-363. | 4.8 | 38 |
| 57 | 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. | 3.9 | 38 |
| 58 | 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. | 1.1 | 37 |
| 59 | Two Glycerol-3-Phosphate Dehydrogenases from <i>Chlamydomonas</i> Have Distinct Roles in Lipid Metabolism. Plant Physiology, 2017, 174, 2083-2097. | 2.3 | 36 |
| 60 | Organic complexation of U(VI) in reducing soils at a natural analogue site: Implications for uranium transport. Chemosphere, 2020, 254, 126859. | 4.2 | 36 |
| 61 | The Plasmodium berghei Ca2+/H+ Exchanger, PbCAX, Is Essential for Tolerance to Environmental Ca2+ during Sexual Development. PLoS Pathogens, 2013, 9, e1003191. | 2.1 | 35 |
| 62 | Spatial and temporal specificity of Ca<sup>2+</sup> signalling in <i>Chlamydomonas reinhardtii</i> in response to osmotic stress. New Phytologist, 2016, 212, 920-933. | 3.5 | 35 |
| 63 | High-throughput metabolic screening of microalgae genetic variation in response to nutrient limitation. Metabolomics, 2016, 12, 9. | 1.4 | 35 |
| 64 | Dissecting Pathways Involved in Manganese Homeostasis and Stress in Higher Plant Cells. Plant Cell Monographs, 2010, , 95-117. | 0.4 | 32 |
| 65 | Potential of Bioenergy Production from Microalgae. Current Sustainable/Renewable Energy Reports, 2014, 1, 94-103. | 1.2 | 32 |
| 66 | Optimisation of microalgal cultivation via nutrient-enhanced strategies: the biorefinery paradigm. Biotechnology for Biofuels, 2021, 14, 64. | 6.2 | 29 |
| 67 | Expression in Yeast Links Field Polymorphisms in PfATP6 to in Vitro Artemisinin Resistance and Identifies New Inhibitor Classes. Journal of Infectious Diseases, 2013, 208, 468-478. | 1.9 | 25 |
| 68 | Multi-factor kinetic modelling of microalgal biomass cultivation for optimised lipid production. Bioresource Technology, 2018, 269, 417-425. | 4.8 | 25 |
| 69 | Microbial bloom formation in a high pH spent nuclear fuel pond. Science of the Total Environment, 2020, 720, 137515. | 3.9 | 24 |
| 70 | Increased metal tolerance and bioaccumulation of zinc and cadmium in <i>Chlamydomonas reinhardtii</i> expressing a AtHMA4 Câ€terminal domain protein. Biotechnology and Bioengineering, 2020, 117, 2996-3005. | 1.7 | 22 |
| 71 | 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. | 2.9 | 21 |
| 72 | Two additional type IIA Ca2+-ATPases are expressed in Arabidopsis thaliana: evidence that type IIA sub-groups exist. Gene, 1999, 236, 137-147. | 1.0 | 18 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Exchangers man the pumps. Plant Signaling and Behavior, 2008, 3, 354-356. | 1.2 | 18 |
| 74 | Radioactivity and the environment: technical approaches to understand the role of arbuscular mycorrhizal plants in radionuclide bioaccumulation. Frontiers in Plant Science, 2015, 6, 580. | 1.7 | 16 |
| 75 | Ca2+ Pumps and Ca2+ Antiporters in Plant Development. Signaling and Communication in Plants, 2011, , 133-161. | 0.5 | 15 |
| 76 | Multi-genomic analysis of the cation diffusion facilitator transporters from algae. Metallomics, 2020, 12, 617-630. | 1.0 | 13 |
| 77 | Radiation Tolerance of Pseudanabaena catenata, a Cyanobacterium Relevant to the First Generation Magnox Storage Pond. Frontiers in Microbiology, 2020, 11, 515. | 1.5 | 13 |
| 78 | Cloning and Characterization of a PI-like MADS-Box Gene in Phalaenopsis Orchid. BMB Reports, 2007, 40, 845-852. | 1.1 | 13 |
| 79 | Biochemical signatures of acclimation by Chlamydomonas reinhardtii to different ionic stresses. Algal Research, 2019, 37, 83-91. | 2.4 | 12 |
| 80 | 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. | 4.2 | 11 |
| 81 | 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. | 3.7 | 10 |
| 82 | Improved saccharification of Chlorella vulgaris biomass by fungal secreted enzymes for bioethanol production. Algal Research, 2021, 58, 102402. | 2.4 | 9 |
| 83 | 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. | 1.6 | 9 |
| 84 | Mechanisms of detoxification of high copper concentrations by the microalga <i>Chlorella sorokiniana</i>. Biochemical Journal, 2020, 477, 3729-3741. | 1.7 | 8 |
| 85 | Role of Cation/Proton Exchangers in Abiotic Stress Signaling and Stress Tolerance in Plants. , 2015, , 95-117. | | 7 |
| 86 | Biomineralization of Sr by the Cyanobacterium Pseudanabaena catenata Under Alkaline Conditions. Frontiers in Earth Science, 2020, 8, . | 0.8 | 7 |
| 87 | Multiple environmental factors influence 238U, 232Th and 226Ra bioaccumulation in arbuscular mycorrhizal-associated plants. Science of the Total Environment, 2018, 640-641, 921-934. | 3.9 | 7 |
| 88 | Isolation of fungal strains for biodegradation and saccharification of microalgal biomass. Biomass and Bioenergy, 2020, 137, 105547. | 2.9 | 6 |
| 89 | A highly productive mixotrophic fed-batch strategy for enhanced microalgal cultivation. Sustainable Energy and Fuels, 2022, 6, 2771-2782. | 2.5 | 6 |
| 90 | 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. | 4.2 | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Specific arbuscular mycorrhizal fungalâ€"plant interactions determine radionuclide and metal transfer into <i>Plantago lanceolata</i>. Plants People Planet, 2021, 3, 667-678. | 1.6 | 4 |
| 92 | Effects of air pollutants on proton and sucrose transport at the plasma membrane of Ricinus communis. Plant, Cell and Environment, 1999, 22, 221-227. | 2.8 | 3 |
| 93 | Mechanism and Evolution of Calcium Transport Across the Plant Plasma Membrane. Plant Cell Monographs, 2011, , 275-289. | 0.4 | 3 |
| 94 | Integrated Computational and Experimental Studies of Microalgal Production of Fuels and Chemicals. Computer Aided Chemical Engineering, 2015, , 2393-2398. | 0.3 | 3 |
| 95 | Experimental Studies and Model Based Optimisation of Microalgal Production of Fuels and Chemicals. Computer Aided Chemical Engineering, 2016, 38, 2145-2150. | 0.3 | 2 |
| 96 | Modelling of Starch Production by Microalgal Biomass under Multi-nutrient Limitation. Computer Aided Chemical Engineering, 2016, , 2133-2138. | 0.3 | 1 |
| 97 | An assessment of ionomic changes in Chlamydomonas reinhardtii during phosphorus deficiency and cadmium stress. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2009, 153, S187-S188. | 0.8 | 0 |
| 98 | Ion-coupled cation exchangers from Chlamydomonas reinhardtii with roles in nutrient stress homeostasis. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2009, 153, S192. | 0.8 | 0 |
| 99 | Characterisation of Metal Transport Proteins for providing metal stress tolerance in green microalgae. New Biotechnology, 2014, 31, S141. | 2.4 | 0 |
| 100 | Optimisation of microalgal starch formation for the biochemical production of biobutanol. Computer Aided Chemical Engineering, 2017, , 2899-2904. | 0.3 | 0 |
| 101 | Kinetic Modelling and Scaled-up Experimental Studies of Microalgal Fuels and Chemicals Production. Computer Aided Chemical Engineering, 2017, , 2833-2838. | 0.3 | 0 |
| 102 | Model-based Fed-batch Algal Cultivation Strategy for Enhanced Starch Production. Computer Aided Chemical Engineering, 2018, , 1595-1600. | 0.3 | 0 |
| 103 | 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. | 0.3 | 0 |
| 104 | Ca<sup>2+</sup>/H<sup>+</sup>exchange by acidic organelles regulates cell migration in vivo. Journal of Experimental Medicine, 2016, 213, 2134OIA28. | 4.2 | 0 |
| 105 | Mechanisms of detoxification of high manganese concentrations by the microalga Chlorella sorokiniana. Free Radical Biology and Medicine, 2021, 177, S102. | 1.3 | 0 |