J Andrew C Smith

List of Publications by Year
in descending order

105 papers	9,587 citations	39113 52 h-index	43601 95 g-index
106 all docs	106 docs citations	106 times ranked	8963 citing authors

#	Article	IF	Citations
1	CAM photosynthesis: the acid test. New Phytologist, 2022, 233, 599-609.	3.5	42
2	A comparison in species distribution model performance of succulents using key species and subsets of environmental predictors. Ecology and Evolution, 2022, 12, .	0.8	2
3	Low-level CAM photosynthesis in a succulent-leaved member of the Urticaceae,. Functional Plant Biology, 2021, 48, 683-690.	1.1	21
4	Intraspecific Variation in Nickel Tolerance and Hyperaccumulation among Serpentine and Limestone Populations of Odontarrhena serpyllifolia (Brassicaceae: Alysseae) from the Iberian Peninsula. Plants, 2021, 10, 800.	1.6	3
5	Anaerobic digestion of Crassulacean Acid Metabolism plants: Exploring alternative feedstocks for semi-arid lands. Bioresource Technology, 2020, 297, 122262.	4.8	15
6	Variation in defence strategies in the metal hyperaccumulator plant <i>Noccaea caerulescens</i> is indicative of synergies and trade-offs between forms of defence. Royal Society Open Science, 2019, 6, 172418.	1.1	12
7	Ammonium intensifies CAM photosynthesis and counteracts drought effects by increasing malate transport and antioxidant capacity in Guzmania monostachia. Journal of Experimental Botany, 2018, 69, 1993-2003.	2.4	17
8	Temporal and spatial transcriptomic and micro<scp>RNA</scp> dynamics of <scp>CAM</scp> photosynthesis in pineapple. Plant Journal, 2017, 92, 19-30.	2.8	78
9	The KalanchoÃ« genome provides insights into convergent evolution and building blocks of crassulacean acid metabolism. Nature Communications, 2017, 8, 1899.	5.8	159
10	Using AFLP genome scanning to explore serpentine adaptation and nickel hyperaccumulation in Alyssum serpyllifolium. Plant and Soil, 2017, 416, 391-408.	1.8	6
11	Evolution of nickel hyperaccumulation and serpentine adaptation in the Alyssum serpyllifolium species complex. Heredity, 2017, 118, 31-41.	1.2	27
12	Local adaptation is associated with zinc tolerance in Pseudomonas endophytes of the metal-hyperaccumulator plant Noccaea caerulescens. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20160648.	1.2	11
13	The regulatory roles of ethylene and reactive oxygen species (ROS) in plant salt stress responses. Plant Molecular Biology, 2016, 91, 651-659.	2.0	217
14	Physiological basis of differential zinc and copper tolerance of Verbascum populations from metal-contaminated and uncontaminated areas. Environmental Science and Pollution Research, 2016, 23, 10005-10020.	2.7	23
15	Crassulacean acid metabolism: a continuous or discrete trait?. New Phytologist, 2015, 208, 73-78.	3.5	117
16	A roadmap for research on crassulacean acid metabolism (<scp>CAM</scp>) to enhance sustainable food and bioenergy production in a hotter, drier world. New Phytologist, 2015, 207, 491-504.	3.5	211
17	A tonoplast Glu/Asp/<scp>GABA</scp> exchanger that affects tomato fruit amino acid composition. Plant Journal, 2015, 81, 651-660.	2.8	73
18	Photosynthetic pathways in Bromeliaceae: phylogenetic and ecological significance of CAM and C₃based on carbon isotope ratios for 1893 species. Botanical Journal of the Linnean Society, 2015, 178, 169-221.	0.8	148

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19	A macroâ€ecological perspective on crassulacean acid metabolism (<scp>CAM</scp>) photosynthesis evolution in Afroâ€Madagascan drylands: Eulophiinae orchids as a case study. New Phytologist, 2015, 208, 469-481.	3.5	37
20	The potential of CAM crops as a globally significant bioenergy resource: moving from â€˜fuel or foodâ€™ to â€˜fuel and more foodâ€™. Energy and Environmental Science, 2015, 8, 2320-2329.	15.6	47
21	The pineapple genome and the evolution of CAM photosynthesis. Nature Genetics, 2015, 47, 1435-1442.	9.4	472
22	Isolation of Tonoplast Vesicles from Tomato Fruit Pericarp. Bio-protocol, 2015, 5, .	0.2	2
23	Adaptive radiation, correlated and contingent evolution, and net species diversification in Bromeliaceae. Molecular Phylogenetics and Evolution, 2014, 71, 55-78.	1.2	333
24	ROS-mediated vascular homeostatic control of root-to-shoot soil Na delivery in Arabidopsis. EMBO Journal, 2013, 32, 914-914.	3.5	6
25	Sedum plumbizincicola X.H. Guo et S.B. Zhou ex L.H. Wu (Crassulaceae): a new species from Zhejiang Province, China. Plant Systematics and Evolution, 2013, 299, 487-498.	0.3	93
26	Uncoupling of reactive oxygen species accumulation and defence signalling in the metal hyperaccumulator plant <i><scp>N</scp>occaea caerulescens</i>. New Phytologist, 2013, 199, 916-924.	3.5	33
27	An <i>Arabidopsis</i> Soil-Salinityâ€“Tolerance Mutation Confers Ethylene-Mediated Enhancement of Sodium/Potassium Homeostasis. Plant Cell, 2013, 25, 3535-3552.	3.1	208
28	Cloning, Expression and Characterization of the Î²â€carbonic Anhydrase of <i>Thalassiosira weissflogii</i> (Bacillariophyceae). Journal of Phycology, 2013, 49, 170-177.	1.0	25
29	ROS-mediated vascular homeostatic control of root-to-shoot soil Na delivery in<i>Arabidopsis</i>. EMBO Journal, 2012, 31, 4359-4370.	3.5	178
30	Rubisco Evolution in C4 Eudicots: An Analysis of Amaranthaceae Sensu Lato. PLoS ONE, 2012, 7, e52974.	1.1	51
31	Life cycle energy and greenhouse gas analysis for agave-derived bioethanol. Energy and Environmental Science, 2011, 4, 3110.	15.6	81
32	Phylogeny, adaptive radiation, and historical biogeography in Bromeliaceae: Insights from an eightâ€locus plastid phylogeny. American Journal of Botany, 2011, 98, 872-895.	0.8	401
33	Photosynthesis, Reorganized. Science, 2011, 332, 311-312.	6.0	57
34	<i>Karatophyllum bromelioides</i> L.D. GÃ³mez revisited: A probable fossil CAM bromeliad. American Journal of Botany, 2011, 98, 1905-1908.	0.8	10
35	High-resolution elemental localization in vacuolate plant cells by nanoscale secondary ion mass spectrometry. Plant Journal, 2010, 63, 870-879.	2.8	65
36	Metal Hyperaccumulation Armors Plants against Disease. PLoS Pathogens, 2010, 6, e1001093.	2.1	111

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37	Exploiting the potential of plants with crassulacean acid metabolism for bioenergy production on marginal lands. Journal of Experimental Botany, 2009, 60, 2879-2896.	2.4	288
38	Relative contributions of nine genes in the pathway of histidine biosynthesis to the control of free histidine concentrations in<i>Arabidopsis thaliana</i>. Plant Biotechnology Journal, 2009, 7, 499-511.	4.1	21
39	Chelation by histidine inhibits the vacuolar sequestration of nickel in roots of the hyperaccumulator <i>Thlaspi caerulescens</i>. New Phytologist, 2009, 183, 106-116.	3.5	127
40	Evidence for nickel/proton antiport activity at the tonoplast of the hyperaccumulator plant <i>Alyssum lesbiacum</i>. Plant Biology, 2008, 10, 746-753.	1.8	20
41	Cloning, localization and expression analysis of vacuolar sugar transporters in the CAM plant Ananas comosus (pineapple). Journal of Experimental Botany, 2007, 59, 1895-1908.	2.4	43
42	Phytoremediation of mixed-contaminated soil using the hyperaccumulator plant Alyssum lesbiacum: Evidence of histidine as a measure of phytoextractable nickel. Environmental Pollution, 2007, 147, 74-82.	3.7	69
43	NanoSIMS and EPMA analysis of nickel localisation in leaves of the hyperaccumulator plant Alyssum lesbiacum. International Journal of Mass Spectrometry, 2007, 260, 107-114.	0.7	68
44	Metal hyperaccumulation in plants: mechanisms of defence against insect herbivores. Functional Ecology, 2005, 19, 55-66.	1.7	113
45	Responses to Nickel in the Proteome of the Hyperaccumulator Plant Alyssum lesbiacum. BioMetals, 2005, 18, 627-641.	1.8	58
46	Constitutively High Expression of the Histidine Biosynthetic Pathway Contributes to Nickel Tolerance in Hyperaccumulator Plants. Plant Cell, 2005, 17, 2089-2106.	3.1	152
47	Intracellular transport and pathways of carbon flow in plants with crassulacean acid metabolism. Functional Plant Biology, 2005, 32, 429.	1.1	84
48	Multiple origins of crassulacean acid metabolism and the epiphytic habit in the Neotropical family Bromeliaceae. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 3703-3708.	3.3	265
49	Natural variation in cadmium tolerance and its relationship to metal hyperaccumulation for seven populations of Thlaspi caerulescens from western Europe. Plant, Cell and Environment, 2003, 26, 1657-1672.	2.8	242
50	Vacuolar malate uptake is mediated by an anion-selective inward rectifier. Plant Journal, 2003, 35, 116-128.	2.8	90
51	Sucrose transport across the vacuolar membrane of Ananas comosus. Functional Plant Biology, 2002, 29, 717.	1.1	30
52	The Genetic Basis of Metal Hyperaccumulation in Plants. Critical Reviews in Plant Sciences, 2002, 21, 539-566.	2.7	357
53	Sensitivity of the Plant Vacuolar Malate Channel to pH, Ca2+ and Anion-Channel Blockers. Journal of Membrane Biology, 2002, 186, 31-42.	1.0	35
54	Vacuolar Chloride Transport in Mesembryanthemum crystallinum L. Measured Using the Fluorescent Dye Lucigenin. Journal of Membrane Biology, 2000, 177, 199-208.	1.0	28

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55	Plant acuaporins: their molecular biology, biophysics and significance for plant water relations. Journal of Experimental Botany, 1999, 50, 1055-1071.	2.4	257
56	Determination of cell water-relation parameters using the pressure probe: extended theory and practice of the pressure-clamp technique. Plant, Cell and Environment, 1998, 21, 637-657.	2.8	26
57	Malate transport and vacuolar ion channels in CAM plants. Journal of Experimental Botany, 1997, 48, 623-631.	2.4	49
58	Micro-PIXE as a technique for studying nickel localization in leaves of the hyperaccumulator plant Alyssum lesbiacum. Nuclear Instruments & Methods in Physics Research B, 1997, 130, 346-350.	0.6	126
59	Salt regulation of transcript levels for the c subunit of a leaf vacuolar H+-ATPase in the halophyte Mesembryanthemum crystallinum. Plant Journal, 1996, 9, 729-736.	2.8	116
60	Isolation and sequence analysis of a cDNA encoding the c subunit of a vacuolar-type H+-ATPase from the CAM plant Kalanchoï¿½ daigremontiana. Plant Molecular Biology, 1996, 31, 435-442.	2.0	12
61	Free histidine as a metal chelator in plants that accumulate nickel. Nature, 1996, 379, 635-638.	13.7	878
62	Taxonomic Distribution of Crassulacean Acid Metabolism. Ecological Studies, 1996, , 427-436.	0.4	95
63	Transport Across the Vacuolar Membrane in CAM Plants. Ecological Studies, 1996, , 53-71.	0.4	33
64	Tonoplast Na+/H+ Antiport Activity and Its Energization by the Vacuolar H+-ATPase in the Halophytic Plant Mesembryanthemum crystallinum L. Plant Physiology, 1995, 109, 549-556.	2.3	178
65	A critical comparison of the pressure-probe and pressure-chamber techniques for estimating leaf-ceil turgor pressure in Kalanchoe daigremontiana. Plant, Cell and Environment, 1994, 17, 15-29.	2.8	36
66	Dicarboxylate transport at the vacuolar membrane of the CAM plant KalanchoÃ« daigremontiana: sensitivity to protein-modifying and sulphydryl reagents. Biochimica Et Biophysica Acta - Biomembranes, 1993, 1152, 270-279.	1.4	12
67	Malate-Dependent Proton Transport in Tonoplast Vesicles Isolated from Orchid Leaves Correlates with the Expression of Crassulacean Acid Metabolism. Journal of Plant Physiology, 1992, 139, 533-538.	1.6	8
68	Ion Transport and the Transpiration Stream. Botanica Acta, 1991, 104, 416-421.	1.6	43
69	Substrate Kinetics of the Tonoplast H+-Translocating Inorganic Pyrophosphatase and Its Activation by Free Mg2+. Plant Physiology, 1990, 93, 1063-1070.	2.3	50
70	Proton and anion transport at the tonoplast in crassulacean-acid-metabolism plants: specificity of the malate-influx system in Kalanchoï¿½ daigremontiana. Planta, 1989, 179, 265-274.	1.6	61
71	Ecophysiology of xerophytic and halophytic vegetation of a coastal alluvial plain in northern Venezuela. New Phytologist, 1989, 111, 233-243.	3.5	38
72	Ecophysiology of xerophytic and halophytic vegetation of a coastal alluvial plain in northern Venezuela. New Phytologist, 1989, 111, 245-251.	3.5	17

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73	Ecophysiology of xerophytic and halophytic vegetation of a coastal alluvial plain in northern Venezuela. New Phytologist, 1989, 111, 253-271.	3.5	55
74	Ecophysiology of xerophytic and halophytic vegetation of a coastal alluvial plain in northern Venezuela. New Phytologist, 1989, 111, 273-282.	3.5	49
75	Ecophysiology of xerophytic and halophytic vegetation of a coastal alluvial plain in northern Venezuela. New Phytologist, 1989, 111, 283-291.	3.5	23
76	Ecophysiology of xerophytic and halophytic vegetation of a coastal alluvial plain in northern Venezuela. New Phytologist, 1989, 111, 293-307.	3.5	66
77	Water storage and osmotic pressure influences on the water relations of a dicotyledonous desert succulent. Plant, Cell and Environment, 1989, 12, 831-842.	2.8	30
78	Water droplets and ice deposits in leaf intercellular spaces: redistribution of water during cryofixation for scanning electron microscopy. Planta, 1987, 172, 20-37.	1.6	52
79	Water flow and water storage in Agave deserti: osmotic implications of crassulacean acid metabolism. Plant, Cell and Environment, 1987, 10, 639-648.	2.8	65
80	Comparative ecophysiology of CAM and C3 bromeliads. IV. Plant water relations. Plant, Cell and Environment, 1986, 9, 395-410.	2.8	75
81	Ammonium Nutrition inRicinus communis: Its Effect on Plant Growth and the Chemical Composition of the Whole Plant, Xylem and Phloem Saps. Journal of Experimental Botany, 1986, 37, 1599-1610.	2.4	76
82	Comparative ecophysiology of CAM and C3 bromeliads. I. The ecology of the Bromeliaceae in Trinidad. Plant, Cell and Environment, 1986, 9, 359-376.	2.8	75
83	Comparative ecophysiology of CAM and C3 bromeliads. II. Field measurements of gas exchange of CAM bromeliads in the humid tropics. Plant, Cell and Environment, 1986, 9, 377-383.	2.8	83
84	Comparative ecophysiology of CAM and C3 bromeliads. III. Environmental influences on CO2 assimilation and transpiration. Plant, Cell and Environment, 1986, 9, 385-393.	2.8	112
85	Comparative ecophysiology of CAM and C3 bromeliads. V. Gas exchange and leaf structure of the C3 bromeliad Pitcairnia integrifolia. Plant, Cell and Environment, 1986, 9, 411-419.	2.8	26
86	Day-night changes in leaf water relations associated with the rhythm of crassulacean acid metabolism in KalanchoÃ« daigremontiana. Planta, 1985, 163, 272-282.	1.6	136
87	Day-night changes in the leaf water relations of epiphytic bromeliads in the rain forests of Trinidad. Oecologia, 1985, 67, 475-485.	0.9	40
88	Increased Vacuolar ATPase Activity Correlated With CAM Induction in Mesembryanthemum crystallinum and KalanchoÃ« blossfeldiana cv. Tom Thumb. Journal of Plant Physiology, 1985, 117, 451-468.	1.6	47
89	Anion-sensitive ATPase activity and proton transport in isolated vacuoles of species of the CAM genus Kalanchoe. Physiologia Plantarum, 1984, 62, 410-415.	2.6	44
90	Characterization of the vacuolar ATPase activity of the crassulacean-acid-metabolism plant Kalanchoe daigremontiana Receptor modulating. FEBS Journal, 1984, 141, 415-420.	0.2	73

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91	Mechanism of passive malic-acid efflux from vacuoles of the CAM plantKalanchoÃ« daigremontiana. Journal of Membrane Biology, 1984, 81, 149-158.	1.0	74
92	ATPase activity associated with isolated vacuoles of the crassulacean acid metabolism plant Kalanchoï¿½ daigremontiana. Planta, 1984, 162, 299-304.	1.6	52
93	Circadian rhythms in crassulacean acid metabolism: phase relationships between gas exchange, leaf water relations and malate metabolism in Kalanchoï¿½ daigremontiana. Planta, 1984, 161, 314-319.	1.6	35
94	Photosynthetic pathways in the Bromeliaceae of Trinidad: relations between life-forms, habitat preference and the occurrence of CAM. Oecologia, 1983, 60, 176-184.	0.9	150
95	Cytoplasmic pH and the Control of Crassulacean Acid Metabolism. Zeitschrift FÃ¼r Pflanzenphysiologie, 1983, 109, 405-413.	1.4	17
96	Adenine-nucleotide levels during crassulacean acid metabolism and the energetics of malate accumulation in KalanchoÃ« tubiflora. Plant Science Letters, 1982, 26, 13-21.	1.9	46
97	Use of the DMO Technique for the Study of Relative Changes of Cytoplasmic pH in Leaf Cells in Relation to CAM. Zeitschrift FÃ¼r Pflanzenphysiologie, 1982, 108, 223-233.	1.4	18
98	Energetics of malate accumulation in the vacuoles of KalanchoÃ« tubiflora cells. FEBS Letters, 1981, 126, 81-84.	1.3	83
99	The electrochemical proton gradient and its influence on citrate uptake in tonoplast vesicles of Hevea brasiliensis. Planta, 1981, 153, 486-493.	1.6	49
100	Determination of the Volume of Intercellular Spaces in Leaves and Some Values for CAM Plants. Annals of Botany, 1981, 48, 915-917.	1.4	41
101	Osmoregulation and the control of phloem-sap composition in Ricinus communis L.. Planta, 1980, 148, 28-34.	1.6	93
102	Phloem transport, solute flux and the kinetics of sap exudation in Ricinus communis L.. Planta, 1980, 148, 35-41.	1.6	40
103	Phloem turgor and the regulation of sucrose loading in Ricinus communis L.. Planta, 1980, 148, 42-48.	1.6	85
104	Water-relation Parameters of Individual Mesophyll Cells of the Crassulacean Acid Metabolism Plant <i>KalanchoÃ« daigremontiana</i>. Plant Physiology, 1980, 66, 1155-1163.	2.3	143
105	Metabolite compartmentation and transport in CAM plants. , 0, , 141-168.		14