Greg C Vanlerberghe

List of Publications by Year
in descending order

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Version: 2024-02-01

68	5,425	76326	98798
papers	citations	40 h-index	67 g-index

70	70	70	3618
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Role of Alternative Oxidase in the Interplay between Nitric Oxide, Reactive Oxygen Species, and Ethylene in Tobacco (Nicotiana tabacum L.) Plants Incubated under Normoxic and Hypoxic Conditions. International Journal of Molecular Sciences, 2022, 23, 7153.	4.1	9
2	The flexibility of metabolic interactions between chloroplasts and mitochondria in Nicotiana tabacum leaf. Plant Journal, 2021, 106, 1625-1646.	5.7	18
3	The Complementary Roles of Chloroplast Cyclic Electron Transport and Mitochondrial Alternative Oxidase to Ensure Photosynthetic Performance. Frontiers in Plant Science, 2021, 12, 748204.	3.6	15
4	Nitric Oxide Turnover Under Hypoxia Results in the Rapid Increased Expression of the Plastid-Localized Phosphorylated Pathway of Serine Biosynthesis. Frontiers in Plant Science, 2021, 12, 780842.	3.6	4
5	Distinctive mitochondrial and chloroplast components contributing to the maintenance of carbon balance during plant growth at elevated CO2. Plant Signaling and Behavior, 2020, 15, 1795395.	2.4	5
6	Roles for Plant Mitochondrial Alternative Oxidase Under Normoxia, Hypoxia, and Reoxygenation Conditions. Frontiers in Plant Science, 2020, 11, 566.	3.6	46
7	Photosynthesis, respiration and growth: A carbon and energy balancing act for alternative oxidase. Mitochondrion, 2020, 52, 197-211.	3.4	84
8	Does the stromal concentration of P_i control chloroplast ATP synthase protein amount in contrasting growth environments?. Plant Signaling and Behavior, 2019, 14, 1675473.	2.4	3
9	Signaling interactions between mitochondria andÂchloroplasts in Nicotiana tabacum leaf. Physiologia Plantarum, 2019, 167, 188-204.	5.2	8
10	Improved chloroplast energy balance during water deficit enhances plant growth: more crop per drop. Journal of Experimental Botany, 2018, 69, 1183-1197.	4.8	31
11	Growth at Elevated CO₂ Requires Acclimation of the Respiratory Chain to Support Photosynthesis. Plant Physiology, 2018, 178, 82-100.	4.8	34
12	The occurrence and control of nitric oxide generation by the plant mitochondrial electron transport chain. Plant, Cell and Environment, 2017, 40, 1074-1085.	5.7	45
13	Alternative oxidase respiration maintains both mitochondrial and chloroplast function during drought. New Phytologist, 2017, 213, 560-571.	7.3	111
14	Coordinated regulation of photosynthetic and respiratory components is necessary to maintain chloroplast energy balance in varied growth conditions. Journal of Experimental Botany, 2016, 68, erw469.	4.8	37
15	Alternative oxidase: a respiratory electron transport chain pathway essential for maintaining photosynthetic performance during drought stress. Physiologia Plantarum, 2016, 157, 322-337.	5.2	106
16	Improved photosynthetic performance during severe drought in Nicotiana tabacum overexpressing a nonenergy conserving respiratory electron sink. New Phytologist, 2015, 208, 382-395.	7.3	51
17	In Planta Analysis of Leaf Mitochondrial Superoxide and Nitric Oxide. Methods in Molecular Biology, 2015, 1305, 253-261.	0.9	1
18	Plant respiration in a high CO₂ world: How will alternative oxidase respond to future atmospheric and climatic conditions?. Canadian Journal of Plant Science, 2014, 94, 1091-1101.	0.9	14

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19	Knockdown of mitochondrial alternative oxidase induces the â€˜stress stateâ€™ of signaling molecule pools in Nicotiana tabacum, with implications for stomatal function. New Phytologist, 2014, 203, 449-461.	7.3	48
20	Mitochondrial Alternative Oxidase Maintains Respiration and Preserves Photosynthetic Capacity during Moderate Drought in Nicotiana tabacum Â Â. Plant Physiology, 2014, 166, 1560-1574.	4.8	79
21	Quinol Oxidases. Advances in Photosynthesis and Respiration, 2014, , 167-185.	1.0	1
22	Alternative oxidase impacts the plant response to biotic stress by influencing the mitochondrial generation of reactive oxygen species. Plant, Cell and Environment, 2013, 36, 721-732.	5.7	101
23	Alternative Oxidase: A Mitochondrial Respiratory Pathway to Maintain Metabolic and Signaling Homeostasis during Abiotic and Biotic Stress in Plants. International Journal of Molecular Sciences, 2013, 14, 6805-6847.	4.1	576
24	A lack of mitochondrial alternative oxidase compromises capacity to recover from severe drought stress. Physiologia Plantarum, 2013, 149, 461-473.	5.2	65
25	The signaling role of a mitochondrial superoxide burst during stress. Plant Signaling and Behavior, 2013, 8, e22749.	2.4	25
26	Alternative oxidase modulates leaf mitochondrial concentrations of superoxide and nitric oxide. New Phytologist, 2012, 195, 32-39.	7.3	150
27	Coordination of a mitochondrial superoxide burst during the hypersensitive response to bacterial pathogen in Nicotiana tabacum. Plant, Cell and Environment, 2012, 35, 1121-1136.	5.7	54
28	Impact of mitochondrial alternative oxidase expression on the response of Nicotiana tabacum to cold temperature. Physiologia Plantarum, 2011, 142, 339-351.	5.2	86
29	The product of the alternative oxidase is still H2O. Archives of Biochemistry and Biophysics, 2010, 495, 93-94.	3.0	12
30	Alternative oxidase in animals: unique characteristics and taxonomic distribution. Journal of Experimental Biology, 2009, 212, 2627-2634.	1.7	118
31	Is the maintenance of homeostatic mitochondrial signaling during stress a physiological role for alternative oxidase?. Physiologia Plantarum, 2009, 137, 392-406.	5.2	150
32	Interactions between mitochondrial electron transport, reactive oxygen species, and the susceptibility of Nicotiana tabacum cells to programmed cell death. Botany, 2008, 86, 278-290.	1.0	3
33	The role of the mitochondrion in plant responses to biotic stress. Physiologia Plantarum, 2007, 129, 253-266.	5.2	121
34	A glucocorticoid-inducible gene expression system can cause growth defects in tobacco. Planta, 2007, 226, 453-463.	3.2	38
35	Origins, evolutionary history, and taxonomic distribution of alternative oxidase and plastoquinol terminal oxidase. Comparative Biochemistry and Physiology Part D: Genomics and Proteomics, 2006, 1, 357-364.	1.0	78
36	Changes in Plant Mitochondrial Electron Transport Alter Cellular Levels of Reactive Oxygen Species and Susceptibility to Cell Death Signaling Molecules. Plant and Cell Physiology, 2006, 47, 1509-1519.	3.1	113

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37	Partitioning of respiratory electrons in the dark in leaves of transgenic tobacco with modified levels of alternative oxidase. Physiologia Plantarum, 2005, 125, 171-180.	5.2	58
38	The role of alternative oxidase in modulating carbon use efficiency and growth during macronutrient stress in tobacco cells. Journal of Experimental Botany, 2005, 56, 1499-1515.	4.8	160
39	Alternative oxidase and plastoquinol terminal oxidase in marine prokaryotes of the Sargasso Sea. Gene, 2005, 349, 15-24.	2.2	76
40	Branched Mitochondrial Electron Transport in the Animalia: Presence of Alternative Oxidase in Several Animal Phyla. IUBMB Life, 2004, 56, 333-341.	3.4	104
41	Mitochondria-Nucleus Interactions: Evidence for Mitochondrial Retrograde Communication in Plant Cells. Advances in Photosynthesis and Respiration, 2004, , 83-106.	1.0	10
42	Prokaryotic orthologues of mitochondrial alternative oxidase and plastid terminal oxidase. Plant Molecular Biology, 2003, 53, 865-876.	3.9	50
43	Mitochondrial Alternative Oxidase Is Not a Critical Component of Plant Viral Resistance But May Play a Role in the Hypersensitive Response. Plant Physiology, 2002, 129, 1858-1865.	4.8	99
44	Transgenic Plant Cells Lacking Mitochondrial Alternative Oxidase Have Increased Susceptibility to Mitochondria-Dependent and -Independent Pathways of Programmed Cell Death. Plant Physiology, 2002, 129, 1908-1920.	4.8	214
45	Induction of Mitochondrial Alternative Oxidase in Response to a Cell Signal Pathway Down-Regulating the Cytochrome Pathway Prevents Programmed Cell Death. Plant Physiology, 2002, 129, 1829-1842.	4.8	188
46	Methods and approaches to study plant mitochondrial alternative oxidase. Physiologia Plantarum, 2002, 116, 135-143.	5.2	50
47	Mitochondrial alternative oxidase acts to dampen the generation of active oxygen species during a period of rapid respiration induced to support a high rate of nutrient uptake. Physiologia Plantarum, 2001, 112, 327-333.	5.2	73
48	In Organello and in Vivo Evidence of the Importance of the Regulatory Sulfhydryl/Disulfide System and Pyruvate for Alternative Oxidase Activity in Tobacco. Plant Physiology, 1999, 121, 793-803.	4.8	56
49	Increased Respiratory Restriction during Phosphate-Limited Growth in Transgenic Tobacco Cells Lacking Alternative Oxidase. Plant Physiology, 1999, 121, 1309-1320.	4.8	138
50	Molecular Localization of a Redox-Modulated Process Regulating Plant Mitochondrial Electron Transport. Plant Cell, 1998, 10, 1551-1560.	6.6	93
51	Molecular Localization of a Redox-Modulated Process Regulating Plant Mitochondrial Electron Transport. Plant Cell, 1998, 10, 1551.	6.6	3
52	ALTERNATIVE OXIDASE: From Gene to Function. Annual Review of Plant Biology, 1997, 48, 703-734.	14.3	707
53	Coordinate Regulation of Cytochrome and Alternative Pathway Respiration in Tobacco. Plant Physiology, 1992, 100, 1846-1851.	4.8	106
54	Evidence for Activation of the Oxidative Pentose Phosphate Pathway during Photosynthetic Assimilation of NO3â˜ but Not NH4+ by a Green Alga. Plant Physiology, 1992, 100, 2096-2099.	4.8	22

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55	Lower Growth Temperature Increases Alternative Pathway Capacity and Alternative Oxidase Protein in Tobacco. Plant Physiology, 1992, 100, 115-119.	4.8	198
56	Activation of Respiration to Support Dark NO3â˜' and NH4+ Assimilation in the Green Alga Selenastrum minutum. Plant Physiology, 1992, 99, 495-500.	4.8	28
57	Normal Growth of Transgenic Tobacco Plants in the Absence of Cytosolic Pyruvate Kinase. Plant Physiology, 1992, 100, 820-825.	4.8	62
58	Demonstration of Both a Photosynthetic and a Nonphotosynthetic CO₂ Requirement for NH₄⁺ Assimilation in the Green Alga Selenastrum minutum. Plant Physiology, 1991, 95, 192-196.	4.8	27
59	The inorganic carbon requirements for nitrogen assimilation. Canadian Journal of Botany, 1991, 69, 1139-1145.	1.1	34
60	Anaerobic Metabolism in the N-Limited Green Alga Selenastrum minutum. Plant Physiology, 1991, 95, 655-658.	4.8	28
61	Relationship between NH⁺₄ Assimilation Rate and in Vivo Phosphoenolpyruvate Carboxylase Activity. Plant Physiology, 1990, 94, 284-290.	4.8	94
62	Anaerobic Metabolism in the N-Limited Green Alga Selenastrum minutum. Plant Physiology, 1990, 94, 1124-1130.	4.8	19
63	Regulation of Carbon Partitioning to Respiration during Dark Ammonium Assimilation by the Green Alga Selenastrum minutum. Plant Physiology, 1990, 93, 166-175.	4.8	74
64	Anaerobic Metabolism in the N-Limited Green Alga Selenastrum minutum. Plant Physiology, 1990, 94, 1116-1123.	4.8	43
65	Significance of Phosphoenolpyruvate Carboxylase during Ammonium Assimilation. Plant Physiology, 1989, 89, 1150-1157.	4.8	74
66	Anaerobic Carbon Metabolism by the Tricarboxylic Acid Cycle. Plant Physiology, 1989, 91, 1551-1557.	4.8	35
67	Short-Term Metabolite Changes during Transient Ammonium Assimilation by the N-Limited Green Alga Selenastrum minutum. Plant Physiology, 1989, 91, 749-755.	4.8	43
68	The Organization and Control of Plant Mitochondrial Metabolism. , 0, , 290-324.		12