Archie R Portis

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/11603147/publications.pdf

Version: 2024-02-01

70	8,039	57758	102487
papers	citations	44 h-index	66 g-index

76	76	76	6950
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Frontiers, Opportunities, and Challenges in Biochemical and Chemical Catalysis of CO₂ Fixation. Chemical Reviews, 2013, 113, 6621-6658.	47.7	1,786
2	Temperature Response of Mesophyll Conductance. Implications for the Determination of Rubisco Enzyme Kinetics and for Limitations to Photosynthesis in Vivo. Plant Physiology, 2002, 130, 1992-1998.	4.8	659
3	Rubisco activase - Rubisco's catalytic chaperone. Photosynthesis Research, 2003, 75, 11-27.	2.9	494
4	Light-dependent changes of the Mg2+ concentration in the stroma in relation to the Mg2+ dependency of CO2 fixation in intact chloroplasts. Biochimica Et Biophysica Acta - Bioenergetics, 1976, 449, 434-446.	1.0	249
5	A soluble chloroplast protein catalyzes ribulosebisphosphate carboxylase/oxygenase activation in vivo. Photosynthesis Research, 1985, 7, 193-201.	2.9	230
6	Regulation of Rubisco activase and its interaction with Rubisco. Journal of Experimental Botany, 2007, 59, 1597-1604.	4.8	205
7	Activation of Ribulosebisphosphate Carboxylase/Oxygenase at Physiological CO₂ and Ribulosebisphosphate Concentrations by Rubisco Activase. Plant Physiology, 1986, 82, 967-971.	4.8	191
8	Light modulation of Rubisco in Arabidopsis requires a capacity for redox regulation of the larger Rubisco activase isoform. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 3330-3334.	7.1	186
9	Enhanced translation of a chloroplast-expressed RbcS gene restores small subunit levels and photosynthesis in nuclear RbcS antisense plants. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 6315-6320.	7.1	180
10	A Mutant of Arabidopsis thaliana Which Lacks Activation of RuBP Carboxylase In Vivo. Plant Physiology, 1982, 70, 381-387.	4.8	167
11	Temperature Dependence of Photosynthesis in Arabidopsis Plants with Modifications in Rubisco Activase and Membrane Fluidity. Plant and Cell Physiology, 2005, 46, 522-530.	3.1	149
12	Purification and Species Distribution of Rubisco Activase. Plant Physiology, 1987, 84, 930-936.	4.8	143
13	Cool C4 Photosynthesis: Pyruvate Pi Dikinase Expression and Activity Corresponds to the Exceptional Cold Tolerance of Carbon Assimilation inMiscanthusÃ—giganteusÂ Â Â. Plant Physiology, 2008, 148, 557-567.	4.8	143
14	Rubisco Activase Mediates ATP-Dependent Activation of Ribulose Bisphosphate Carboxylase. Plant Physiology, 1987, 85, 152-154.	4.8	140
15	Adenosine triphosphate hydrolysis by purified rubisco activase. Archives of Biochemistry and Biophysics, 1989, 268, 93-99.	3.0	139
16	Discoveries in Rubisco (Ribulose 1,5-bisphosphate carboxylase/oxygenase): a historical perspective. Photosynthesis Research, 2007, 94, 121-143.	2.9	138
17	Light and CO2 Response of Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase Activation in Arabidopsis Leaves. Plant Physiology, 1986, 80, 655-659.	4.8	130
18	ArabidopsisÂthaliana expressing a thermostable chimeric Rubisco activase exhibits enhanced growth and higher rates of photosynthesis at moderately high temperatures. Photosynthesis Research, 2009, 100, 143-153.	2.9	127

#	Article	IF	Citations
19	The regulation of Rubisco by Rubisco activase. Journal of Experimental Botany, 1995, 46, 1285-1291.	4.8	123
20	Effects of Adenine Nucleotides and of Photophosphorylation on H+ Uptake and the Magnitude of the H+ Gradient in Illuminated Chloroplasts. Journal of Biological Chemistry, 1974, 249, 6250-6254.	3.4	117
21	Fructose-and sedoheptulosebisphosphatase. The sites of a possible control of CO2 fixation by light-dependent changes of the stromal Mg2+ concentration. Biochimica Et Biophysica Acta - Bioenergetics, 1977, 461, 313-325.	1.0	105
22	Potent Inhibition of Ribulose-Bisphosphate Carboxylase by an Oxidized Impurity in Ribulose-1,5-Bisphosphate1. Plant Physiology, 1998, 117, 1059-1069.	4.8	105
23	Impaired reductive activation of stromal bisphosphatases in tomato leaves following low-temperature exposure at high light. Archives of Biochemistry and Biophysics, 1990, 282, 302-308.	3.0	103
24	Dissociation of Ribulose-1,5-Bisphosphate Bound to Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase and Its Enhancement by Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase Activase-Mediated Hydrolysis of ATP. Plant Physiology, 1992, 99, 1348-1353.	4.8	99
25	Evidence of a Low Stromal Mg²⁺ Concentration in Intact Chloroplasts in the Dark. Plant Physiology, 1981, 67, 985-989.	4.8	95
26	Species-Dependent Variation in the Interaction of Substrate-Bound Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase (Rubisco) and Rubisco Activase. Plant Physiology, 1992, 100, 1858-1862.	4.8	95
27	Rubisco activase. Biochimica Et Biophysica Acta - Bioenergetics, 1990, 1015, 15-28.	1.0	92
28	Involvement of Stromal ATP in the Light Activation of Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase in Intact Isolated Chloroplasts. Plant Physiology, 1988, 86, 293-298.	4.8	91
29	Release of the nocturnal inhibitor, carâ˜yarabinitol-1 -phosphate, from ribulose bisphosphate carâ˜ylase/oxygenase by rubisco activase. FEBS Letters, 1988, 233, 413-416.	2.8	90
30	Purification and Assay of Rubisco Activase from Leaves. Plant Physiology, 1988, 88, 1008-1014.	4.8	87
31	The life of ribulose 1,5-bisphosphate carboxylase/oxygenaseâ€”posttranslational facts and mysteries. Archives of Biochemistry and Biophysics, 2003, 414, 150-158.	3.0	86
32	Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase Activase Protein Prevents the in Vitro Decline in Activity of Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase. Plant Physiology, 1989, 90, 968-971.	4.8	83
33	Protein-Bound Ribulose Bisphosphate Correlates with Deactivation of Ribulose Bisphosphate Carboxylase in Leaves. Plant Physiology, 1988, 87, 244-249.	4.8	76
34	Oxygen-dependent H2O2production by Rubisco. FEBS Letters, 2004, 571, 124-128.	2.8	73
35	Specificity for Activase Is Changed by a Pro-89 to Arg Substitution in the Large Subunit of Ribulose-1,5-bisphosphate Carboxylase/Oxygenase. Journal of Biological Chemistry, 1997, 272, 17033-17037.	3.4	68
36	Targeting a Nuclear Anthranilate Synthase Î±-Subunit Gene to the Tobacco Plastid Genome Results in Enhanced Tryptophan Biosynthesis. Return of a Gene to Its Pre-Endosymbiotic Origin. Plant Physiology, 2001, 127, 131-141.	4.8	64

#	Article	IF	Citations
37	Characterization of the regulatory function of the 46-kDa isoform of Rubisco activase from Arabidopsis. Photosynthesis Research, 2001, 68, 29-37.	2.9	60
38	Conformational changes in coupling factor 1 may control the rate of electron flow in spinach chloroplasts. Biochemical and Biophysical Research Communications, 1975, 64, 877-884.	2.1	57
39	Activase Region on Chloroplast Ribulose-1,5-bisphosphate Carboxylase/Oxygenase. Journal of Biological Chemistry, 2000, 275, 26241-26244.	3.4	56
40	Mg2+ and ATP or adenosine 5â€²-[Î³-thio]-triphosphate (ATPÎ³S) enhances intrinsic fluorescence and induces aggregation which increases the activity of spinach Rubisco activase. BBA - Proteins and Proteomics, 1993, 1202, 47-55.	2.1	54
41	Effect of activase level and isoform on the thermotolerance of photosynthesis in Arabidopsis. Journal of Experimental Botany, 2006, 57, 3793-3799.	4.8	53
42	Effects of Irradiance and Methyl Viologen Treatment on ATP, ADP, and Activation of Ribulose Bisphosphate Carboxylase in Spinach Leaves. Plant Physiology, 1988, 88, 850-853.	4.8	52
43	Can the cold tolerance of C4 photosynthesis in Miscanthusxgiganteus relative to Zea mays be explained by differences in activities and thermal properties of Rubisco?. Journal of Experimental Botany, 2007, 59, 1779-1787.	4.8	49
44	Two Residues of Rubisco Activase Involved in Recognition of the Rubisco Substrate. Journal of Biological Chemistry, 2005, 280, 24864-24869.	3.4	47
45	Purification of ribulose-1,5-bisphosphate carboxylase/oxygenase with high specific activity by fast protein liquid chromatography. Analytical Biochemistry, 1986, 153, 97-101.	2.4	45
46	A Novel Nucleus-Encoded Chloroplast Protein, PIFI, Is Involved in NAD(P)H Dehydrogenase Complex-Mediated Chlororespiratory Electron Transport in Arabidopsis. Plant Physiology, 2007, 144, 1742-1752.	4.8	37
47	Kinetic Analysis of the Slow Inactivation of Rubisco During Catalysis: Effects of Temperature, O2 and Mg++. Photosynthesis Research, 2006, 87, 195-204.	2.9	36
48	On the pH-dependence of the light-induced hydrogen ion gradient in spinach chloroplasts. Archives of Biochemistry and Biophysics, 1973, 156, 621-625.	3.0	35
49	Complementation of the Nuclear Antisense rbcS-Induced Photosynthesis Deficiency by Introducing an rbcS Gene into the Tobacco Plastid Genome. Plant and Cell Physiology, 2002, 43, 1302-1313.	3.1	34
50	Assay of nucleotides and other phosphate-containing compounds in isolated chloroplasts by ion exchange chromatography. Analytical Biochemistry, 1980, 101, 278-287.	2.4	32
51	Increased Sensitivity of Oxidized Large Isoform of Ribulose-1,5-bisphosphate Carboxylase/Oxygenase (Rubisco) Activase to ADP Inhibition Is Due to an Interaction between Its Carboxyl Extension and Nucleotide-binding Pocket. Journal of Biological Chemistry, 2006, 281, 25241-25249.	3.4	29
52	The discovery of Rubisco activase - yet another story of serendipity. Photosynthesis Research, 2002, 73, 257-264.	2.9	28
53	Alteration of the Adenine Nucleotide Response and Increased Rubisco Activation Activity of Arabidopsis Rubisco Activase by Site-Directed Mutagenesis1. Plant Physiology, 2000, 123, 1077-1086.	4.8	25
54	Effects of the Relative Extrachloroplastic Concentrations of Inorganic Phosphate, 3-Phosphoglycerate, and Dihydroxyacetone Phosphate on the Rate of Starch Synthesis in Isolated Spinach Chloroplasts. Plant Physiology, 1982, 70, 393-396.	4.8	23

#	Article	IF	Citations
55	Stimulation of thylakoid energization and ribulose-bisphosphate carboxylase/oxygenase activation inArabidopsisleaves by methyl viologen. FEBS Letters, 1987, 221, 215-220.	2.8	22
56	Activation of Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase (Rubisco) by Rubisco Activase. Plant Physiology, 1990, 94, 245-250.	4.8	22
57	Identification of critical arginine residues in the functioning of Rubisco activase. Archives of Biochemistry and Biophysics, 2006, 450, 176-182.	3.0	22
58	Partial reduction in ribulose 1,5-bisphosphate carboxylase/oxygenase activity by carboxypeptidase A. Archives of Biochemistry and Biophysics, 1990, 283, 397-400.	3.0	19
59	Analysis of the Role of the Phosphate Translocator and External Metabolites in Steady-State Chloroplast Photosynthesis. Plant Physiology, 1983, 71, 936-943.	4.8	17
60	A fluorometric study with 1-anilinonaphthalene-8-sulfonic acid (ANS) of the interactions of ATP and ADP with rubisco activase. BBA - Proteins and Proteomics, 1991, 1079, 263-267.	2.1	17
61	Inhibition of the Photosynthetic Activities of Isolated Spinach Chloroplasts by Phosphonate Compounds. Plant Physiology, 1987, 84, 649-653.	4.8	15
62	Exchange Properties of the Activator CO2 of Spinach Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase. Plant Physiology, 1986, 80, 707-710.	4.8	12
63	The discovery of Rubisco activase â€" yet another story of serendipity. Advances in Photosynthesis and Respiration, 2005, , 851-858.	1.0	9
64	Activity of Ribulose 1,5-Bisphosphate Carboxylase Oxygenase as a Function of Storage Conditions. Plant Physiology, 1990, 93, 1511-1513.	4.8	7
65	Two conserved tryptophan residues are responsible for intrinsic fluorescence enhancement in Rubisco activase upon ATP binding. Photosynthesis Research, 2006, 88, 185-193.	2.9	7
66	Regulation of Photosynthetic Carbon Metabolism under Photorespiratory and Non-photorespiratory Conditions: the Role of Phosphate and Triose Phosphates. , 1984, , 821-824.		2
67	Rubisco Activase; Purification, Subunit Composition and Species Distribution. , 1987, , 379-382.		1
68	Rubisco Activase. , 2004, , 1117-1119.		0
69	An Increase In Expression Of Pyruvate Pi Dikinase Corresponds To Cold-Tolerant C4 Photosynthesis Of Miscanthus X Giganteus. , 2008, , 845-849.		0
70	Characteristics of the Interaction between Rubisco and Rubisco Activase. , 1995, , 3933-3938.		0