

Pierre Cardol

List of Publications by Year in descending order

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83
papers

6,403
citations

126907

33
h-index

74163

75
g-index

90
all docs

90
docs citations

90
times ranked

6454
citing authors

#	ARTICLE	IF	CITATIONS
1	The <i>Chlamydomonas</i> Genome Reveals the Evolution of Key Animal and Plant Functions. <i>Science</i> , 2007, 318, 245-250.	12.6	2,354
2	Energetic coupling between plastids and mitochondria drives CO ₂ assimilation in diatoms. <i>Nature</i> , 2015, 524, 366-369.	27.8	311
3	An atypical member of the light-harvesting complex stress-related protein family modulates diatom responses to light. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 18214-18219.	7.1	258
4	A Dual Strategy to Cope with High Light in <i>Chlamydomonas reinhardtii</i> . <i>Plant Cell</i> , 2013, 25, 545-557.	6.6	193
5	A type II NAD(P)H dehydrogenase mediates light-independent plastoquinone reduction in the chloroplast of <i>Chlamydomonas</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 20546-20551.	7.1	187
6	Electrochromism: a useful probe to study algal photosynthesis. <i>Photosynthesis Research</i> , 2010, 106, 179-189.	2.9	184
7	High-efficiency biolistic transformation of <i>Chlamydomonas</i> mitochondria can be used to insert mutations in complex I genes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 4771-4776.	7.1	159
8	Alternative photosynthetic electron flow to oxygen in marine <i>Synechococcus</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2008, 1777, 269-276.	1.0	155
9	An original adaptation of photosynthesis in the marine green alga <i>Ostreococcus</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 7881-7886.	7.1	154
10	PSII Mehler reaction is the main alternative photosynthetic electron pathway in <i>Symbiodinium</i> sp., symbiotic dinoflagellates of cnidarians. <i>New Phytologist</i> , 2014, 204, 81-91.	7.3	131
11	Regulation of electron transport in microalgae. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2011, 1807, 912-918.	1.0	129
12	Impact of Mutations Affecting ND Mitochondria-encoded Subunits on the Activity and Assembly of Complex I in <i>Chlamydomonas</i> . Implication for the Structural Organization of the Enzyme. <i>Journal of Molecular Biology</i> , 2002, 319, 1211-1221.	4.2	119
13	Photosynthesis and State Transitions in Mitochondrial Mutants of <i>Chlamydomonas reinhardtii</i> Affected in Respiration. <i>Plant Physiology</i> , 2003, 133, 2010-2020.	4.8	119
14	Structural organization of mitochondrial human complex I: role of the ND4 and ND5 mitochondria-encoded subunits and interaction with prohibitin. <i>Biochemical Journal</i> , 2004, 383, 491-499.	3.7	117
15	Impaired respiration discloses the physiological significance of state transitions in <i>Chlamydomonas</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 15979-15984.	7.1	115
16	Higher plant-like subunit composition of mitochondrial complex I from <i>Chlamydomonas reinhardtii</i> : 31 conserved components among eukaryotes. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2004, 1658, 212-224.	1.0	107
17	The mechanism of cyclic electron flow. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2019, 1860, 433-438.	1.0	90
18	The Mitochondrial Oxidative Phosphorylation Proteome of <i>Chlamydomonas reinhardtii</i> Deduced from the Genome Sequencing Project: Table I. <i>Plant Physiology</i> , 2005, 137, 447-459.	4.8	78

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19	Mitochondrial NADH:ubiquinone oxidoreductase (complex I) in eukaryotes: A highly conserved subunit composition highlighted by mining of protein databases. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2011, 1807, 1390-1397.	1.0	78
20	Lack of isocitrate lyase in <i>Chlamydomonas</i> leads to changes in carbon metabolism and in the response to oxidative stress under mixotrophic growth. <i>Plant Journal</i> , 2014, 77, 404-417.	5.7	73
21	Carbon Supply and Photoacclimation Cross Talk in the Green Alga <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , 2016, 172, 1494-1505.	4.8	65
22	The mitochondrial ATP synthase of chlorophycean algae contains eight subunits of unknown origin involved in the formation of an atypical stator-stalk and in the dimerization of the complex. <i>Journal of Bioenergetics and Biomembranes</i> , 2006, 38, 271-282.	2.3	62
23	The mitochondrial respiratory chain of the secondary green alga <i>Euglena gracilis</i> shares many additional subunits with parasitic Trypanosomatidae. <i>Mitochondrion</i> , 2014, 19, 338-349.	3.4	59
24	Induction of Photosynthetic Carbon Fixation in Anoxia Relies on Hydrogenase Activity and Proton-Gradient Regulation-Like1-Mediated Cyclic Electron Flow in <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , 2015, 168, 648-658.	4.8	59
25	Imbalance between oxygen photoreduction and antioxidant capacities in Symbiodinium cells exposed to combined heat and high light stress. <i>Coral Reefs</i> , 2015, 34, 1063-1073.	2.2	57
26	Eukaryotic complex I: functional diversity and experimental systems to unravel the assembly process. <i>Molecular Genetics and Genomics</i> , 2008, 280, 93-110.	2.1	51
27	Maximal cyclic electron flow rate is independent of PGRL1 in <i>Chlamydomonas</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2019, 1860, 425-432.	1.0	50
28	Atypical Subunit Composition of the Chlorophycean Mitochondrial F1FO-ATP Synthase and Role of Asa7 Protein in Stability and Oligomycin Resistance of the Enzyme. <i>Molecular Biology and Evolution</i> , 2010, 27, 1630-1644.	8.9	47
29	Mutants of <i>Chlamydomonas reinhardtii</i> Deficient in Mitochondrial Complex I: Characterization of Two Mutations Affecting the <i>nd1</i> Coding Sequence. <i>Genetics</i> , 2001, 158, 1051-1060.	2.9	47
30	Function of the Chloroplast Hydrogenase in the Microalga <i>Chlamydomonas</i> : The Role of Hydrogenase and State Transitions during Photosynthetic Activation in Anaerobiosis. <i>PLoS ONE</i> , 2013, 8, e64161.	2.5	47
31	ND3 and ND4L Subunits of Mitochondrial Complex I, Both Nucleus Encoded in <i>Chlamydomonas reinhardtii</i> , Are Required for Activity and Assembly of the Enzyme. <i>Eukaryotic Cell</i> , 2006, 5, 1460-1467.	3.4	44
32	Mutations inactivating mitochondrial genes in <i>Chlamydomonas reinhardtii</i> . <i>Biochemical Society Transactions</i> , 2001, 29, 442-446.	3.4	41
33	Loss of mitochondrial ATP synthase subunit beta (Atp2) alters mitochondrial and chloroplastic function and morphology in <i>Chlamydomonas</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2010, 1797, 1533-1539.	1.0	37
34	The onset of NPQ and $\dot{m}H^+$ upon illumination of tobacco plants studied through the influence of mitochondrial electron transport. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2010, 1797, 177-188.	1.0	34
35	In <i>Chlamydomonas</i> , the loss of ND5 subunit prevents the assembly of whole mitochondrial complex I and leads to the formation of a low abundant 700 kDa subcomplex. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2008, 1777, 388-396.	1.0	33
36	Respiratory-deficient mutants of the unicellular green alga <i>Chlamydomonas</i> : A review. <i>Biochimie</i> , 2014, 100, 207-218.	2.6	31

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37	Knock-down of the COX3 and COX17 gene expression of cytochrome c oxidase in the unicellular green alga <i>Chlamydomonas reinhardtii</i> . <i>Plant Molecular Biology</i> , 2010, 74, 223-233.	3.9	29
38	Proteomic and Functional Characterization of a <i>Chlamydomonas reinhardtii</i> Mutant Lacking the Mitochondrial Alternative Oxidase 1. <i>Journal of Proteome Research</i> , 2010, 9, 2825-2838.	3.7	29
39	The Involvement of Hydrogen-producing and ATP-dependent NADPH-consuming Pathways in Setting the Redox Poise in the Chloroplast of <i>Chlamydomonas reinhardtii</i> in Anoxia. <i>Journal of Biological Chemistry</i> , 2015, 290, 8666-8676.	3.4	27
40	Subunit-subunit interactions and overall topology of the dimeric mitochondrial ATP synthase of <i>Polytomella</i> sp.. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2010, 1797, 1439-1448.	1.0	26
41	Structure of the telomeric ends of mtDNA, transcriptional analysis and complex assembly in the dum24 mitochondrial mutant of <i>Chlamydomonas reinhardtii</i> . <i>Molecular Genetics and Genomics</i> , 2001, 266, 109-114.	2.1	23
42	The fully-active and structurally-stable form of the mitochondrial ATP synthase of <i>Polytomella</i> sp. is dimeric. <i>Journal of Bioenergetics and Biomembranes</i> , 2009, 41, 1-13.	2.3	23
43	Atypical composition and structure of the mitochondrial dimeric ATP synthase from <i>Euglena gracilis</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2017, 1858, 267-275.	1.0	21
44	Characterization of an internal type-II NADH dehydrogenase from <i>Chlamydomonas reinhardtii</i> mitochondria. <i>Current Genetics</i> , 2012, 58, 205-216.	1.7	19
45	Isolation and characterization of mutants corresponding to the <i>MENA</i> , <i>MENB</i> , <i>MENC</i> and <i>MENE</i> enzymatic steps of 5- <i>monohydroxyphyloquinone</i> biosynthesis in <i>Chlamydomonas reinhardtii</i> . <i>Plant Journal</i> , 2017, 89, 141-154.	5.7	19
46	Dissecting the peripheral stalk of the mitochondrial ATP synthase of chlorophycean algae. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 1183-1190.	1.0	18
47	Isolation of <i>Chlamydomonas reinhardtii</i> mutants with altered mitochondrial respiration by chlorophyll fluorescence measurement. <i>Journal of Biotechnology</i> , 2015, 215, 27-34.	3.8	17
48	Alternative Photosynthetic Electron Transfers and Bleaching Phenotypes Upon Acute Heat Stress in <i>Symbiodinium</i> and <i>Breviolum</i> spp. (<i>Symbiodiniaceae</i>) in Culture. <i>Frontiers in Marine Science</i> , 2019, 6, .	2.5	17
49	A novel screening method for hydrogenase-deficient mutants in <i>Chlamydomonas reinhardtii</i> based on <i>in vivo</i> chlorophyll fluorescence and photosystem II quantum yield. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 1826-1836.	7.1	16
50	The peculiar NPQ regulation in the stramenopile <i>Phaeomonas</i> sp. challenges the xanthophyll cycle dogma. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018, 1859, 491-500.	1.0	16
51	Interactions of subunits Asa2, Asa4 and Asa7 in the peripheral stalk of the mitochondrial ATP synthase of the chlorophycean alga <i>Polytomella</i> sp.. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2014, 1837, 1-13.	1.0	14
52	Host-pathogen biotic interactions shaped vitamin K metabolism in Archaeplastida. <i>Scientific Reports</i> , 2018, 8, 15243.	3.3	14
53	Oxidative phosphorylation supercomplexes and respirasome reconstitution of the colorless alga <i>Polytomella</i> sp.. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2018, 1859, 434-444.	1.0	13
54	Open-hardware wireless controller and 3D-printed pumps for efficient liquid manipulation. <i>HardwareX</i> , 2021, 9, e00199.	2.2	13

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55	Impact of a mutation in the mitochondrial LSU rRNA gene from <i>Chlamydomonas reinhardtii</i> on the activity and the assembly of respiratory-chain complexes. <i>Current Genetics</i> , 2004, 45, 323-330.	1.7	12
56	Oxidative Phosphorylation. , 2009, , 469-502.		12
57	Functional analysis of hydrogen photoproduction in respiratory-deficient mutants of <i>Chlamydomonas reinhardtii</i> . <i>International Journal of Hydrogen Energy</i> , 2011, 36, 9562-9570.	7.1	12
58	The atypical subunit composition of respiratory complexes I and IV is associated with original extra structural domains in <i>Euglena gracilis</i> . <i>Scientific Reports</i> , 2018, 8, 9698.	3.3	12
59	Different levels of energetic coupling between photosynthesis and respiration do not determine the occurrence of adaptive responses of Symbiodiniaceae to global warming. <i>New Phytologist</i> , 2020, 228, 855-868.	7.3	12
60	<i>In vivo</i> chlorophyll fluorescence screening allows the isolation of a <i>Chlamydomonas</i> mutant defective for <i>NDUFAB3</i> , an assembly factor involved in mitochondrial complex I assembly. <i>Plant Journal</i> , 2017, 92, 584-595.	5.7	11
61	Trophic state alters the mechanism whereby energetic coupling between photosynthesis and respiration occurs in <i>Euglena gracilis</i> . <i>New Phytologist</i> , 2021, 232, 1603-1617.	7.3	11
62	Inactivation of genes coding for mitochondrial Nd7 and Nd9 complex I subunits in <i>Chlamydomonas reinhardtii</i> . Impact of complex I loss on respiration and energetic metabolism. <i>Mitochondrion</i> , 2014, 19, 365-374.	3.4	10
63	Subunit Asa1 spans all the peripheral stalk of the mitochondrial ATP synthase of the chlorophycean alga <i>Polytomella</i> sp.. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 359-369.	1.0	10
64	In vivo assessment of mitochondrial respiratory alternative oxidase activity and cyclic electron flow around photosystem I on small coral fragments. <i>Scientific Reports</i> , 2020, 10, 17514.	3.3	9
65	De Novo Transcriptome Meta-Assembly of the Mixotrophic Freshwater Microalga <i>Euglena gracilis</i> . <i>Genes</i> , 2021, 12, 842.	2.4	9
66	Photosynthetic capacity of the endosymbiotic dinoflagellate <i>Cladocodium</i> sp. is preserved during digestion of its jellyfish host <i>Mastigias papua</i> by the anemone <i>Entacmaea medusivora</i> . <i>FEMS Microbiology Ecology</i> , 2019, 95, .	2.7	8
67	Regulation of Electron Transport in Photosynthesis. , 2014, , 437-464.		7
68	Long-term acclimation to cadmium exposure reveals extensive phenotypic plasticity in <i>Chlamydomonas</i> . <i>Plant Physiology</i> , 2021, 187, 1653-1678.	4.8	7
69	Near-neighbor interactions of the membrane-embedded subunits of the mitochondrial ATP synthase of a chlorophycean alga. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2017, 1858, 497-509.	1.0	5
70	Beyond being an energy supplier, ATP synthase is a sculptor of mitochondrial cristae. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2022, 1863, 148569.	1.0	4
71	The Mitochondrial Genome. , 2009, , 445-467.		3
72	Automated Open-Hardware Multiwell Imaging Station for Microorganisms Observation. <i>Micromachines</i> , 2022, 13, 833.	2.9	3

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73	Eukaryotic algae: where lies the diversity of oxygenic photosynthesis. <i>Photosynthesis Research</i> , 2010, 106, 1-2.	2.9	2
74	From light capture to metabolic needs, oxygenic photosynthesis is an ever-expanding field of study in plants, algae and cyanobacteria. <i>Physiologia Plantarum</i> , 2017, 161, 2-5.	5.2	2
75	Mitochondrial Bioenergetics Pathways in <i>Chlamydomonas</i> . <i>Microbiology Monographs</i> , 2017, , 59-95.	0.6	2
76	Supramolecular associations between atypical oxidative phosphorylation complexes of <i>Euglena gracilis</i> . <i>Journal of Bioenergetics and Biomembranes</i> , 2021, 53, 351-363.	2.3	2
77	Response of dimethylsulfoniopropionate (DMSP) and dimethylsulfoxide (DMSO) cell quotas to oxidative stress in three phytoplankton species. <i>Journal of Plankton Research</i> , 2021, 43, 673-690.	1.8	2
78	Abnormal gene expression and assembly of the multimeric complex I in the <i>dum24</i> deletion mitochondrial mutant of <i>Chlamydomonas reinhardtii</i> . <i>Biochemical Society Transactions</i> , 2001, 29, A52-A52.	3.4	0
79	Abnormal gene expression and assembly of the multimeric complex I in the <i>dum24</i> deletion mitochondrial mutant of <i>Chlamydomonas reinhardtii</i> . <i>Biochemical Society Transactions</i> , 2001, 29, A65-A65.	3.4	0
80	<i>Chlamydomonas reinhardtii</i> mitochondrial mutants lacking complex I activity: characterization of the mutations and assembly of the multimeric complex I. <i>Biochemical Society Transactions</i> , 2001, 29, A66-A66.	3.4	0
81	S13.45 <i>Chlamydomonas reinhardtii</i> mitoproteome adaptation in response to inactivation of the energy-dissipating alternative oxidase 1 by RNA interference. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2008, 1777, S99.	1.0	0
82	Complexes I in the Green Lineage. , 2012, , 219-244.		0
83	Near-Neighbor Relationships of the Atypical Subunits that Form the Peripheral Stalk of the Mitochondrial ATP Synthase in Chlorophycean Algae. <i>Biophysical Journal</i> , 2017, 112, 2a-3a.	0.5	0