## Gilles Peltier

## List of Publications by Citations

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#	Paper	IF	Citations
115	Oil accumulation in the model green alga Chlamydomonas reinhardtii: characterization, variability between common laboratory strains and relationship with starch reserves. <i>BMC Biotechnology</i> , <b>2011</b> , 11, 7	3.5	535
114	Chlororespiration. Annual Review of Plant Biology, 2002, 53, 523-50	30.7	338
113	Chlororespiration and cyclic electron flow around PSI during photosynthesis and plant stress response. <i>Plant, Cell and Environment</i> , <b>2007</b> , 30, 1041-51	8.4	310
112	A nucleus-encoded factor, CRR2, is essential for the expression of chloroplast ndhB in Arabidopsis. <i>Plant Journal</i> , <b>2003</b> , 36, 541-9	6.9	264
111	An economic, sustainability, and energetic model of biodiesel production from microalgae. <i>Bioresource Technology</i> , <b>2012</b> , 111, 191-200	11	244
110	"Solvent-free" ultrasound-assisted extraction of lipids from fresh microalgae cells: a green, clean and scalable process. <i>Bioresource Technology</i> , <b>2012</b> , 114, 457-65	11	228
109	Sustained photoevolution of molecular hydrogen in a mutant of Synechocystis sp. strain PCC 6803 deficient in the type I NADPH-dehydrogenase complex. <i>Journal of Bacteriology</i> , <b>2004</b> , 186, 1737-46	3.5	205
108	PredAlgo: a new subcellular localization prediction tool dedicated to green algae. <i>Molecular Biology and Evolution</i> , <b>2012</b> , 29, 3625-39	8.3	195
107	An algal photoenzyme converts fatty acids to hydrocarbons. <i>Science</i> , <b>2017</b> , 357, 903-907	33.3	192
106	Targeted inactivation of the plastid ndhB gene in tobacco results in an enhanced sensitivity of photosynthesis to moderate stomatal closure. <i>Plant Physiology</i> , <b>2000</b> , 123, 1337-50	6.6	191
105	Proteomic profiling of oil bodies isolated from the unicellular green microalga Chlamydomonas reinhardtii: with focus on proteins involved in lipid metabolism. <i>Proteomics</i> , <b>2011</b> , 11, 4266-73	4.8	178
104	A type II NAD(P)H dehydrogenase mediates light-independent plastoquinone reduction in the chloroplast of Chlamydomonas. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 20546-51	11.5	171
103	Hydrogen production by Chlamydomonas reinhardtii: an elaborate interplay of electron sources and sinks. <i>Planta</i> , <b>2008</b> , 227, 397-407	4.7	164
102	Generation of fertile transplastomic soybean. <i>Plant Molecular Biology</i> , <b>2004</b> , 55, 479-89	4.6	159
101	New subunits NDH-M, -N, and -O, encoded by nuclear genes, are essential for plastid Ndh complex functioning in higher plants. <i>Plant Cell</i> , <b>2005</b> , 17, 219-32	11.6	157
100	Autotrophic and mixotrophic hydrogen photoproduction in sulfur-deprived chlamydomonas cells. <i>Applied and Environmental Microbiology</i> , <b>2005</b> , 71, 6199-205	4.8	154
99	Potential for hydrogen production with inducible chloroplast gene expression in Chlamydomonas. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 17548-53	11.5	153

98	Control of hydrogen photoproduction by the proton gradient generated by cyclic electron flow in Chlamydomonas reinhardtii. <i>Plant Cell</i> , <b>2011</b> , 23, 2619-30	11.6	149
97	NDH-1 and NDH-2 Plastoquinone Reductases in Oxygenic Photosynthesis. <i>Annual Review of Plant Biology</i> , <b>2016</b> , 67, 55-80	30.7	145
96	Chlororespiration: an adaptation to nitrogen deficiency in Chlamydomonas reinhardtii. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1991</b> , 88, 4791-5	11.5	137
95	Hydrogen production in Chlamydomonas: photosystem II-dependent and -independent pathways differ in their requirement for starch metabolism. <i>Plant Physiology</i> , <b>2009</b> , 151, 631-40	6.6	134
94	Electron flow between photosystem II and oxygen in chloroplasts of photosystem I-deficient algae is mediated by a quinol oxidase involved in chlororespiration. <i>Journal of Biological Chemistry</i> , <b>2000</b> , 275, 17256-62	5.4	132
93	Auxiliary electron transport pathways in chloroplasts of microalgae. <i>Photosynthesis Research</i> , <b>2010</b> , 106, 19-31	3.7	130
92	Involvement of a plastid terminal oxidase in plastoquinone oxidation as evidenced by expression of the Arabidopsis thaliana enzyme in tobacco. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 31623-30	5.4	125
91	Enhanced toxic metal accumulation in engineered bacterial cells expressing Arabidopsis thaliana phytochelatin synthase. <i>Applied and Environmental Microbiology</i> , <b>2003</b> , 69, 490-4	4.8	123
90	Characterization of Nda2, a plastoquinone-reducing type II NAD(P)H dehydrogenase in chlamydomonas chloroplasts. <i>Journal of Biological Chemistry</i> , <b>2009</b> , 284, 4148-57	5.4	116
89	Over-expression of a pepper plastid lipid-associated protein in tobacco leads to changes in plastid ultrastructure and plant development upon stress. <i>Plant Journal</i> , <b>2000</b> , 21, 483-94	6.9	114
88	Increased sensitivity of photosynthesis to antimycin A induced by inactivation of the chloroplast ndhB gene. Evidence for a participation of the NADH-dehydrogenase complex to cyclic electron flow around photosystem I. <i>Plant Physiology</i> , <b>2001</b> , 125, 1919-29	6.6	112
87	Generation and analysis of soybean plastid transformants expressing Bacillus thuringiensis Cry1Ab protoxin. <i>Plant Molecular Biology</i> , <b>2005</b> , 58, 659-68	4.6	108
86	O(2) uptake in the light in chlamydomonas: evidence for persistent mitochondrial respiration. <i>Plant Physiology</i> , <b>1985</b> , 79, 225-30	6.6	108
85	Inhibitor studies on non-photochemical plastoquinone reduction and H(2) photoproduction in Chlamydomonas reinhardtii. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>2005</b> , 1708, 322-32	4.6	105
84	Effect of PGR5 impairment on photosynthesis and growth in Arabidopsis thaliana. <i>Plant and Cell Physiology</i> , <b>2008</b> , 49, 1688-98	4.9	92
83	Combined increases in mitochondrial cooperation and oxygen photoreduction compensate for deficiency in cyclic electron flow in Chlamydomonas reinhardtii. <i>Plant Cell</i> , <b>2014</b> , 26, 3036-50	11.6	91
82	Evidence for an association of ndh B, ndh J gene products and ferredoxin-NADP-reductase as components of a chloroplastic NAD(P)H dehydrogenase complex. <i>FEBS Letters</i> , <b>1996</b> , 378, 277-80	3.8	91
81	A novel thioredoxin-like protein located in the chloroplast is induced by water deficit in Solanum tuberosum L. plants. <i>Plant Journal</i> , <b>1998</b> , 13, 97-107	6.9	90

Flavodiiron Proteins Promote Fast and Transient O Photoreduction in. *Plant Physiology*, **2017**, 174, 1825-**6.6**36 88 80 Nfu2: a scaffold protein required for [4Fe-4S] and ferredoxin iron-sulphur cluster assembly in

79	Arabidopsis chloroplasts. <i>Plant Journal</i> , <b>2004</b> , 40, 101-11	6.9	87
78	The cyclic electron pathways around photosystem I in Chlamydomonas reinhardtii as determined in vivo by photoacoustic measurements of energy storage. <i>Planta</i> , <b>1994</b> , 193, 251	4.7	86
77	Investigation of fatty acids accumulation in Nannochloropsis oculata for biodiesel application. <i>Bioresource Technology</i> , <b>2012</b> , 124, 421-32	11	85
76	Microalgal lipid droplets: composition, diversity, biogenesis and functions. <i>Plant Cell Reports</i> , <b>2015</b> , 34, 545-55	5.1	83
75	Lipidomic and transcriptomic analyses of Chlamydomonas reinhardtii under heat stress unveil a direct route for the conversion of membrane lipids into storage lipids. <i>Plant, Cell and Environment</i> , <b>2016</b> , 39, 834-47	8.4	83
74	In vivo interactions between photosynthesis, mitorespiration, and chlororespiration in Chlamydomonas reinhardtii. <i>Plant Physiology</i> , <b>2002</b> , 129, 1921-8	6.6	83
73	Reduction of the plastoquinone pool by exogenous NADH and NADPH in higher plant chloroplasts. Characterization of a NAD(P)H-plastoquinone oxidoreductase activity. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>1998</b> , 1363, 59-69	4.6	81
72	Comparison of various microalgae liquid biofuel production pathways based on energetic, economic and environmental criteria. <i>Bioresource Technology</i> , <b>2013</b> , 136, 205-12	11	79
71	Molecular characterization of CDSP 34, a chloroplastic protein induced by water deficit in Solanum tuberosum L. plants, and regulation of CDSP 34 expression by ABA and high illumination. <i>Plant Journal</i> , <b>1998</b> , 16, 257-62	6.9	78
70	Specific function of a plastid sigma factor for ndhF gene transcription. <i>Nucleic Acids Research</i> , <b>2005</b> , 33, 5991-9	20.1	77
69	Microalgae Synthesize Hydrocarbons from Long-Chain Fatty Acids via a Light-Dependent Pathway. <i>Plant Physiology</i> , <b>2016</b> , 171, 2393-405	6.6	75
68	The green microalga Chlamydomonas reinhardtii has a single B fatty acid desaturase that localizes to the chloroplast and impacts both plastidic and extraplastidic membrane lipids. <i>Plant Physiology</i> , <b>2013</b> , 163, 914-28	6.6	75
67	Inhibition of a respiratory activity by short saturating flashes in Chlamydomonas: Evidence for a chlororespiration. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>1987</b> , 893, 83-90	4.6	75
66	Flocculent activity of a recombinant protein from Moringa oleifera Lam. seeds. <i>Applied Microbiology and Biotechnology</i> , <b>2002</b> , 60, 114-9	5.7	74
65	Chlamydomonas reinhardtii PsbS Protein Is Functional and Accumulates Rapidly and Transiently under High Light. <i>Plant Physiology</i> , <b>2016</b> , 171, 2717-30	6.6	69
64	Hunting the main player enabling Chlamydomonas reinhardtii growth under fluctuating light. <i>Plant Journal</i> , <b>2018</b> , 94, 822-835	6.9	67
63	Involvement of CDSP 32, a drought-induced thioredoxin, in the response to oxidative stress in potato plants. <i>FEBS Letters</i> , <b>2000</b> , 467, 245-8	3.8	67

62	Effect of water deficit on photosynthetic oxygen exchange measured using 18O2 and mass spectrometry in Solanum tuberosum L. leaf discs. <i>Planta</i> , <b>1995</b> , 195, 570	4.7	66
61	Flexibility in photosynthetic electron transport: a newly identified chloroplast oxidase involved in chlororespiration. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2000</b> , 355, 1447-5	5 <b>4</b> :8	57
60	Chloroplast targeting of phytochelatin synthase in Arabidopsis: effects on heavy metal tolerance and accumulation. <i>Biochimie</i> , <b>2006</b> , 88, 1743-50	4.6	55
59	Chlamydomonas carries out fatty acid Ebxidation in ancestral peroxisomes using a bona fide acyl-CoA oxidase. <i>Plant Journal</i> , <b>2017</b> , 90, 358-371	6.9	54
58	Photosystem I is indispensable for photoautotrophic growth, CO2 fixation, and H2 photoproduction in Chlamydomonas reinhardtii. <i>Journal of Biological Chemistry</i> , <b>1999</b> , 274, 10466-73	5.4	53
57	Deletion of Proton Gradient Regulation 5 (PGR5) and PGR5-Like 1 (PGRL1) proteins promote sustainable light-driven hydrogen production in Chlamydomonas reinhardtii due to increased PSII activity under sulfur deprivation. <i>Frontiers in Plant Science</i> , <b>2015</b> , 6, 892	6.2	49
56	A security network in PSI photoprotection: regulation of photosynthetic control, NPQ and O2 photoreduction by cyclic electron flow. <i>Frontiers in Plant Science</i> , <b>2015</b> , 6, 875	6.2	48
55	Development of a forward genetic screen to isolate oil mutants in the green microalga Chlamydomonas reinhardtii. <i>Biotechnology for Biofuels</i> , <b>2013</b> , 6, 178	7.8	46
54	Development and validation of a screening procedure of microalgae for biodiesel production: application to the genus of marine microalgae Nannochloropsis. <i>Bioresource Technology</i> , <b>2015</b> , 177, 224	-32	43
53	Heterocyst-specific flavodiiron protein Flv3B enables oxic diazotrophic growth of the filamentous cyanobacterium Anabaena sp. PCC 7120. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 11205-10	11.5	43
52	Saturating Light Induces Sustained Accumulation of Oil in Plastidal Lipid Droplets in Chlamydomonas reinhardtii. <i>Plant Physiology</i> , <b>2016</b> , 171, 2406-17	6.6	41
51	Hyper-accumulation of starch and oil in a Chlamydomonas mutant affected in a plant-specific DYRK kinase. <i>Biotechnology for Biofuels</i> , <b>2016</b> , 9, 55	7.8	39
50	Plastidial Expression of Type II NAD(P)H Dehydrogenase Increases the Reducing State of Plastoquinones and Hydrogen Photoproduction Rate by the Indirect Pathway in Chlamydomonas reinhardtii1. <i>Plant Physiology</i> , <b>2014</b> , 165, 1344-1352	6.6	39
49	Distinguishing the Roles of Thylakoid Respiratory Terminal Oxidases in the Cyanobacterium Synechocystis sp. PCC 6803. <i>Plant Physiology</i> , <b>2016</b> , 171, 1307-19	6.6	38
48	Relationships between PSII-independent hydrogen bioproduction and starch metabolism as evidenced from isolation of starch catabolism mutants in the green alga Chlamydomonas reinhardtii. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 10731-10740	6.7	35
47	A stromal region of cytochrome subunit IV is involved in the activation of the Stt7 kinase in.  Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12063-12068	3 <sup>11.5</sup>	34
46	Light-Dependent Oxygen Uptake, Glycolate, and Ammonia Release in l-Methionine Sulfoximine-Treated Chlamydomonas. <i>Plant Physiology</i> , <b>1985</b> , 77, 281-4	6.6	30
45	Interorganelle Communication: Peroxisomal MALATE DEHYDROGENASE2 Connects Lipid Catabolism to Photosynthesis through Redox Coupling in Chlamydomonas. <i>Plant Cell</i> , <b>2018</b> , 30, 1824-18	34 <del>7</del> .6	29

44	Flavodiiron-Mediated O Photoreduction Links H Production with CO Fixation during the Anaerobic Induction of Photosynthesis. <i>Plant Physiology</i> , <b>2018</b> , 177, 1639-1649	6.6	29
43	Elevated expression of PGR5 and NDH-H in bundle sheath chloroplasts in C4 flaveria species. <i>Plant and Cell Physiology</i> , <b>2010</b> , 51, 664-8	4.9	29
42	Mechanism and dynamics of fatty acid photodecarboxylase. <i>Science</i> , <b>2021</b> , 372,	33.3	28
41	Using coagulation <b>fl</b> occulation to harvest Chlamydomonas reinhardtii: Coagulant and flocculant efficiencies, and reuse of the liquid phase as growth medium. <i>Algal Research</i> , <b>2015</b> , 9, 283-290	5	24
40	Cytochrome b 6 f function and localization, phosphorylation state of thylakoid membrane proteins and consequences on cyclic electron flow. <i>Photosynthesis Research</i> , <b>2016</b> , 129, 307-20	3.7	24
39	A forward genetic approach in Chlamydomonas reinhardtii as a strategy for exploring starch catabolism. <i>PLoS ONE</i> , <b>2013</b> , 8, e74763	3.7	22
38	Limited photosynthetic electron flow but no CO2 fixation in Chlamydomonas mutants lacking photosystem I. <i>FEBS Letters</i> , <b>1997</b> , 416, 65-8	3.8	22
37	Algal photosynthesis converts nitric oxide into nitrous oxide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 2704-2709	11.5	20
36	Third-generation biofuels: current and future research on microalgal lipid biotechnology. <i>OCL - Oilseeds and Fats, Crops and Lipids</i> , <b>2013</b> , 20, D606	1.5	20
35	Inhibition of chlororespiration by myxothiazol and antimycin A in Chlamydomonas reinhardtii. <i>Photosynthesis Research</i> , <b>1991</b> , 28, 141-8	3.7	19
34	Oxygen-exchange studies in Chlamydomonas mutants deficient in photosynthetic electron transport: Evidence for a Photosystem II-dependent oxygen uptake in vivo. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>1988</b> , 936, 319-324	4.6	19
33	Increased zinc content in transplastomic tobacco plants expressing a polyhistidine-tagged Rubisco large subunit. <i>Plant Biotechnology Journal</i> , <b>2004</b> , 2, 389-99	11.6	18
32	Continuous photoproduction of hydrocarbon drop-in fuel by microbial cell factories. <i>Scientific Reports</i> , <b>2019</b> , 9, 13713	4.9	17
31	PGRL1 and LHCSR3 Compensate for Each Other in Controlling Photosynthesis and Avoiding Photosystem I Photoinhibition during High Light Acclimation of Chlamydomonas Cells. <i>Molecular Plant</i> , <b>2017</b> , 10, 216-218	14.4	17
30	Hydrogen independent expression of hupSL genes in Thiocapsa roseopersicina BBS. <i>FEBS Journal</i> , <b>2005</b> , 272, 4807-16	5.7	17
29	Modification of substrate specificity in single point mutants of Agrobacterium tumefaciens type II NADH dehydrogenase. <i>FEBS Letters</i> , <b>2007</b> , 581, 4017-22	3.8	15
28	The Kok effect and the light-inhibition of chlororespiration in Chlamydomonas reinhardtii. <i>FEBS Letters</i> , <b>1988</b> , 228, 259-262	3.8	15
27	Branched-Chain Amino Acid Catabolism Impacts Triacylglycerol Homeostasis in. <i>Plant Physiology</i> , <b>2019</b> , 179, 1502-1514	6.6	14

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26	The gene encoding the NdhH subunit of type 1 NAD(P)H dehydrogenase is essential to survival of synechocystis PCC6803. <i>FEBS Letters</i> , <b>2000</b> , 487, 272-6	3.8	14	
25	Improved oxygen tolerance of the Synechocystis sp. PCC 6803 bidirectional hydrogenase by site-directed mutagenesis of putative residues of the gas diffusion channel. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 16872-16884	6.7	13	
24	Atrazine and diuron resistant plants from photoautotrophic protoplast-derived cultures of Nicotiana plumbaginifolia. <i>Plant Cell Reports</i> , <b>1990</b> , 9, 241-4	5.1	12	
23	Non-Photochemical Reduction of Intersystem Electron Carriers in Chloroplasts of Higher Plants and Algae <b>1998</b> , 1877-1882		12	
22	Subcellular Energetics and Carbon Storage in. <i>Cells</i> , <b>2019</b> , 8,	7.9	11	
21	Agrobacterium tumefaciens type II NADH dehydrogenase. Characterization and interactions with bacterial and thylakoid membranes. <i>FEBS Journal</i> , <b>2006</b> , 273, 3625-37	5.7	11	
20	Stimulation of the chlororespiratory electron flow by Photosystem II activity in Chlamydomonas reinhardtii. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>1992</b> , 1101, 57-63	4.6	10	
19	[76] Mass spectrometric measurement of photosynthetic and respiratory oxygen exchange. <i>Methods in Enzymology</i> , <b>1988</b> , 167, 686-691	1.7	10	
18	Metal binding and antioxidant properties of chimeric tri- and tetra-domained metallothioneins. <i>Biochimie</i> , <b>2008</b> , 90, 705-16	4.6	8	
17	Transport of antimony salts by Arabidopsis thaliana protoplasts over-expressing the human multidrug resistance-associated protein 1 (MRP1/ABCC1). <i>FEBS Letters</i> , <b>2006</b> , 580, 6891-7	3.8	8	
16	Establishment and characterization of photoautotrophic protoplast-derived cultures of Nicotiana plumbaginifolia. <i>Plant Cell Reports</i> , <b>1989</b> , 8, 234-7	5.1	8	
15	Structure-Function Analysis of Chloroplast Proteins via Random Mutagenesis Using Error-Prone PCR. <i>Plant Physiology</i> , <b>2018</b> , 177, 465-475	6.6	6	
14	Evidence for 18O labeling of photorespiratory CO2 in photoautotrophic cell cultures of higher plants illuminated in the presence of 18O2. <i>Planta</i> , <b>1993</b> , 190, 407	4.7	6	
13	Alternative photosynthesis pathways drive the algal CO-concentrating mechanism <i>Nature</i> , <b>2022</b> ,	50.4	6	
12	Fatty acid photodecarboxylase is an ancient photoenzyme that forms hydrocarbons in the thylakoids of algae. <i>Plant Physiology</i> , <b>2021</b> , 186, 1455-1472	6.6	5	
11	Role of an ancient light-harvesting protein of PSI in light absorption and photoprotection. <i>Nature Communications</i> , <b>2021</b> , 12, 679	17.4	5	
10	Membrane Inlet Mass Spectrometry: A Powerful Tool for Algal Research. <i>Frontiers in Plant Science</i> , <b>2020</b> , 11, 1302	6.2	4	
9	Oxygen photoreduction and variable fluorescence during a dark-to-light transition in Chlorella pyrenoidosa. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , <b>1987</b> , 894, 543-551	4.6	3	

8	Fatty acid photodecarboxylase is an ancient photoenzyme responsible for hydrocarbon formation in the thylakoid membranes of algae		3
7	An oomycete effector impairs autophagy in evolutionary distant organisms and favors host infection		2
6	Membrane Inlet Mass Spectrometry at the Crossroads of Photosynthesis, Biofuel, and Climate Research. <i>Plant Physiology</i> , <b>2020</b> , 183, 451-454	6.6	1
5	Carbonic anhydrase activity in leaves as measured in vivo by 180 exchange between carbon dioxide and water. <i>Planta</i> , <b>1995</b> , 196, 732	4.7	1
4	Physiological functions of malate shuttles in plants and algae. Trends in Plant Science, 2021,	13.1	1
3	Chlororespiration in Unicellular Green Algae <b>1995</b> , 1865-1868		1
2	Developments In Plastid Transformation. Developments in Plant Genetics and Breeding, 2000, 59-66		
1	Hydrogen and Biofuel Production in the Chloroplast <b>2014</b> , 559-585		