

# Saul Purton

## List of Publications by Year in descending order

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102  
papers

7,270  
citations

66343

42  
h-index

56724

83  
g-index

106  
all docs

106  
docs citations

106  
times ranked

7604  
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	Mutations in Radial Spoke Head Protein Genes RSPH9 and RSPH4A Cause Primary Ciliary Dyskinesia with Central-Microtubular-Pair Abnormalities. <i>American Journal of Human Genetics</i> , 2009, 84, 197-209.	6.2	303
3	Efficient foreign gene expression in <i>Chlamydomonas reinhardtii</i> mediated by an endogenous intron. <i>Plant Journal</i> , 1998, 14, 441-447.	5.7	300
4	Microalgae as bioreactors. <i>Plant Cell Reports</i> , 2005, 24, 629-641.	5.6	243
5	Why are plastid genomes retained in non-photosynthetic organisms?. <i>Trends in Plant Science</i> , 2006, 11, 101-108.	8.8	185
6	Chitosan flocculation to aid the harvesting of the microalga <i>Chlorella sorokiniana</i> . <i>Bioresource Technology</i> , 2013, 129, 296-301.	9.6	162
7	Domestication of the green alga <i>Chlorella sorokiniana</i> : reduction of antenna size improves light-use efficiency in a photobioreactor. <i>Biotechnology for Biofuels</i> , 2014, 7, 157.	6.2	147
8	Circadian Clock Regulation of Starch Metabolism Establishes GBSSI as a Major Contributor to Amylopectin Synthesis in <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , 2006, 142, 305-317.	4.8	133
9	ALGAL TRANSGENICS IN THE GENOMIC ERA1. <i>Journal of Phycology</i> , 2005, 41, 1077-1093.	2.3	128
10	Biotechnological exploitation of microalgae. <i>Journal of Experimental Botany</i> , 2015, 66, 6975-6990.	4.8	116
11	The algal chloroplast as a synthetic biology platform for production of therapeutic proteins. <i>Microbiology (United Kingdom)</i> , 2018, 164, 113-121.	1.8	110
12	Tools for chloroplast transformation in <i>Chlamydomonas</i> : expression vectors and a new dominant selectable marker. <i>Molecular Genetics and Genomics</i> , 2000, 263, 404-410.	2.4	101
13	Bidirectional Electron Transfer in Photosystem I: Determination of Two Distances between P700+ and A1- in Spin-Correlated Radical Pairs. <i>Biochemistry</i> , 2005, 44, 2119-2128.	2.5	90
14	New tools for chloroplast genetic engineering allow the synthesis of human growth hormone in the green alga <i>Chlamydomonas reinhardtii</i> . <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 5467-5477.	3.6	87
15	Studies on homologous recombination in the green alga <i>Chlamydomonas reinhardtii</i> . <i>Current Genetics</i> , 1994, 26, 438-442.	1.7	83
16	Complementation of a <i>Chlamydomonas reinhardtii</i> mutant using a genomic cosmid library. <i>Plant Molecular Biology</i> , 1994, 24, 533-537.	3.9	81
17	Unraveling Vitamin B <sub>12</sub> -Responsive Gene Regulation in Algae. <i>Plant Physiology</i> , 2014, 165, 388-397.	4.8	76
18	How mutualisms arise in phytoplankton communities: building eco-evolutionary principles for aquatic microbes. <i>Ecology Letters</i> , 2016, 19, 810-822.	6.4	75

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19	Bidirectional electron transfer in photosystem I: electron transfer on the PsaA side is not essential for phototrophic growth in <i>Chlamydomonas</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2003, 1606, 43-55.	1.0	73
20	Cyanobacteria as Chassis for Industrial Biotechnology: Progress and Prospects. <i>Life</i> , 2016, 6, 42.	2.4	72
21	Applications of Microalgal Biotechnology for Disease Control in Aquaculture. <i>Biology</i> , 2018, 7, 24.	2.8	71
22	Tools and Techniques for Chloroplast Transformation of <i>Chlamydomonas</i> . <i>Advances in Experimental Medicine and Biology</i> , 2007, 616, 34-45.	1.6	65
23	Genetic engineering of algal chloroplasts: Progress and prospects. <i>Russian Journal of Plant Physiology</i> , 2013, 60, 491-499.	1.1	65
24	Fundamental shift in vitamin B12 eco-physiology of a model alga demonstrated by experimental evolution. <i>ISME Journal</i> , 2015, 9, 1446-1455.	9.8	65
25	Evidence from time resolved studies of the P700 <sup>+</sup> /A1 <sup>•+</sup> radical pair for photosynthetic electron transfer on both the PsaA and PsaB branches of the photosystem I reaction centre. <i>FEBS Letters</i> , 2001, 503, 56-60.	2.8	64
26	Molecular Identification and Function of <i>cis</i> - and <i>trans</i> -Acting Determinants for <i>petA</i> Transcript Stability in <i>Chlamydomonas reinhardtii</i> Chloroplasts. <i>Molecular and Cellular Biology</i> , 2008, 28, 5529-5542.	2.3	64
27	Site-Directed Mutagenesis of PsaA Residue W693 Affects Phylloquinone Binding and Function in the Photosystem I Reaction Center of <i>Chlamydomonas reinhardtii</i> . <i>Biochemistry</i> , 2001, 40, 2167-2175.	2.5	63
28	The sites of interaction of triphenyltetrazolium chloride with mitochondrial respiratory chains. <i>FEMS Microbiology Letters</i> , 2001, 202, 181-187.	1.8	61
29	Nuclear mutants of <i>Chlamydomonas reinhardtii</i> defective in the biogenesis of the cytochrome b6f complex. <i>Plant Molecular Biology</i> , 1995, 29, 921-932.	3.9	60
30	Green biologics: The algal chloroplast as a platform for making biopharmaceuticals. <i>Bioengineered</i> , 2018, 9, 48-54.	3.2	60
31	A Simple, Low-Cost Method for Chloroplast Transformation of the Green Alga <i>Chlamydomonas reinhardtii</i> . <i>Methods in Molecular Biology</i> , 2014, 1132, 401-411.	0.9	59
32	The plastid <i>rpoA</i> gene encoding a protein homologous to the bacterial RNA polymerase alpha subunit is expressed in pea chloroplasts. <i>Molecular Genetics and Genomics</i> , 1989, 217, 77-84.	2.4	55
33	Playing tag with <i>Chlamydomonas</i> . <i>Trends in Cell Biology</i> , 1994, 4, 299-301.	7.9	55
34	GENETIC ENGINEERING OF EUKARYOTIC ALGAE: PROGRESS AND PROSPECTS. <i>Journal of Phycology</i> , 1997, 33, 713-722.	2.3	55
35	DNA transfer from chloroplast to nucleus is much rarer in <i>Chlamydomonas</i> than in tobacco. <i>Gene</i> , 2003, 316, 33-38.	2.2	51
36	Characterisation of the <i>ARG7</i> gene of <i>Chlamydomonas reinhardtii</i> and its application to nuclear transformation. <i>European Journal of Phycology</i> , 1995, 30, 141-148.	2.0	50

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37	Combustion and emissions characterization of terpenes with a view to their biological production in cyanobacteria. <i>Fuel</i> , 2013, 111, 670-688.	6.4	48
38	Cyanobacterial metabolites as a source of sunscreens and moisturizers: a comparison with current synthetic compounds. <i>European Journal of Phycology</i> , 2017, 52, 43-56.	2.0	47
39	The 9-kDa phosphoprotein of photosystem. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1998, 1364, 63-72.	1.0	44
40	The novel cytochrome c6 of chloroplasts: a case of evolutionary bricolage?. <i>Journal of Experimental Botany</i> , 2006, 57, 13-22.	4.8	44
41	Expression and membrane-targeting of an active plant cytochrome P450 in the chloroplast of the green alga <i>Chlamydomonas reinhardtii</i> . <i>Phytochemistry</i> , 2015, 110, 22-28.	2.9	44
42	Characterization of <i>Chlorella sorokiniana</i> , UTEX 1230. <i>Biology</i> , 2018, 7, 25.	2.8	44
43	Analysis of the proposed Fe-SX binding region of Photosystem 1 by site directed mutation of PsaA in <i>Chlamydomonas reinhardtii</i> . <i>Photosynthesis Research</i> , 1995, 46, 257-264.	2.9	43
44	Directionality of Electron-Transfer Reactions in Photosystem I of Prokaryotes: Universality of the Bidirectional Electron-Transfer Model. <i>Journal of Physical Chemistry B</i> , 2010, 114, 15158-15171.	2.6	43
45	The Requirement for Carotenoids in the Assembly and Function of the Photosynthetic Complexes in <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , 2012, 161, 535-546.	4.8	42
46	Synthesis of bacteriophage lytic proteins against <i>Streptococcus pneumoniae</i> in the chloroplast of <i>Chlamydomonas reinhardtii</i> . <i>Plant Biotechnology Journal</i> , 2017, 15, 1130-1140.	8.3	38
47	Studies on the maintenance and expression of cloned DNA fragments in the nuclear genome of the green alga <i>Chlamydomonas Reinhardtii</i> . <i>Physiologia Plantarum</i> , 1990, 78, 254-260.	5.2	37
48	Codon reassignment to facilitate genetic engineering and biocontainment in the chloroplast of <i>Chlamydomonas reinhardtii</i> . <i>Plant Biotechnology Journal</i> , 2016, 14, 1251-1260.	8.3	37
49	Selectable Markers and Reporter Genes for Engineering the Chloroplast of <i>Chlamydomonas reinhardtii</i> . <i>Biology</i> , 2018, 7, 46.	2.8	36
50	Structure, circadian regulation and bioinformatic analysis of the unique sigma factor gene in <i>Chlamydomonas reinhardtii</i> . <i>Photosynthesis Research</i> , 2004, 82, 339-349.	2.9	35
51	An oral delivery system for controlling white spot syndrome virus infection in shrimp using transgenic microalgae. <i>Aquaculture</i> , 2020, 521, 735022.	3.5	35
52	Evaluation of novel starch-deficient mutants of <i>Chlorella sorokiniana</i> for hyper-accumulation of lipids. <i>Algal Research</i> , 2015, 12, 109-118.	4.6	34
53	Cytosine deaminase as a negative selectable marker for the microalgal chloroplast: a strategy for the isolation of nuclear mutations that affect chloroplast gene expression. <i>Plant Journal</i> , 2014, 80, 915-925.	5.7	33
54	The phosphite oxidoreductase gene, ptxD as a bio-contained chloroplast marker and crop-protection tool for algal biotechnology using <i>Chlamydomonas</i> . <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 675-686.	3.6	33

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55	The Little Genome of Apicomplexan Plastids: its raison d'être and a Possible Explanation for the "Delayed Death" Phenomenon. <i>Protist</i> , 2007, 158, 121-133.	1.5	32
56	Cyanobacteria and microalgae in supporting human habitation on Mars. <i>Biotechnology Advances</i> , 2022, 59, 107946.	11.7	32
57	<i>Chlamydomonas</i> nuclear mutants that fail to assemble respiratory or photosynthetic electron transfer complexes. <i>Biochemical Society Transactions</i> , 2001, 29, 452-455.	3.4	31
58	Bidirectional electron transfer in photosystem I: Replacement of the symmetry-breaking tryptophan close to the PsaB-bound phylloquinone (A1B) with a glycine residue alters the redox properties of A1B and blocks forward electron transfer at cryogenic temperatures. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2006, 1757, 1623-1633.	1.0	30
59	Studies on the maintenance and expression of cloned DNA fragments in the nuclear genome of the green alga <i>Chlamydomonas reinhardtii</i> . <i>Physiologia Plantarum</i> , 1990, 78, 254-260.	5.2	29
60	Algal biomass and diesel emulsions: An alternative approach for utilizing the energy content of microalgal biomass in diesel engines. <i>Applied Energy</i> , 2016, 172, 80-95.	10.1	29
61	Cycloheximide resistance conferred by novel mutations in ribosomal protein L41 of <i>Chlamydomonas reinhardtii</i> . <i>Molecular Genetics and Genomics</i> , 2001, 264, 790-795.	2.1	28
62	Algae, biochar and bacteria for acid mine drainage (AMD) remediation: A review. <i>Chemosphere</i> , 2022, 304, 135284.	8.2	28
63	The transcriptional apparatus of algal plastids. <i>European Journal of Phycology</i> , 2002, 37, 301-311.	2.0	27
64	Photoaccumulation of the PsaB phyllosemiquinone in Photosystem I of <i>Chlamydomonas reinhardtii</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2002, 1556, 13-20.	1.0	24
65	Stable expression of a bifunctional diterpene synthase in the chloroplast of <i>Chlamydomonas reinhardtii</i> . <i>Journal of Applied Phycology</i> , 2015, 27, 2271-2277.	2.8	24
66	Improving recombinant protein production in the <i>Chlamydomonas reinhardtii</i> chloroplast using vivid Verde Fluorescent Protein as a reporter. <i>Biotechnology Journal</i> , 2015, 10, 1289-1297.	3.5	23
67	Droplet-based microfluidic screening and sorting of microalgal populations for strain engineering applications. <i>Algal Research</i> , 2021, 56, 102293.	4.6	23
68	Recent Advances in <i>Chlamydomonas</i> Transgenics. <i>Protist</i> , 1998, 149, 23-27.	1.5	22
69	Multigenic engineering of the chloroplast genome in the green alga <i>Chlamydomonas reinhardtii</i> . <i>Microbiology (United Kingdom)</i> , 2020, 166, 510-515.	1.8	22
70	Genetic transformation of the dinoflagellate chloroplast. <i>ELife</i> , 2019, 8, .	6.0	22
71	Two forms of cytochrome c6 in a single eukaryote. <i>Trends in Plant Science</i> , 2004, 9, 474-476.	8.8	17
72	Title is missing!. <i>Photosynthesis Research</i> , 1999, 61, 33-42.	2.9	16

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73	Cytochrome c6A is a funnel for thiol oxidation in the thylakoid lumen. <i>FEBS Letters</i> , 2006, 580, 2166-2169.	2.8	16
74	A highly active histidine-tagged <i>Chlamydomonas reinhardtii</i> Photosystem II preparation for structural and biophysical analysis. <i>Photochemical and Photobiological Sciences</i> , 2007, 6, 1177-1183.	2.9	16
75	CITRIC: cold-inducible translational readthrough in the chloroplast of <i>Chlamydomonas reinhardtii</i> using a novel temperature-sensitive transfer RNA. <i>Microbial Cell Factories</i> , 2018, 17, 186.	4.0	16
76	The Algal Chloroplast as a Testbed for Synthetic Biology Designs Aimed at Radically Rewiring Plant Metabolism. <i>Frontiers in Plant Science</i> , 2021, 12, 708370.	3.6	15
77	The bacterial phleomycin resistance gene. <i>Molecular Genetics and Genomics</i> , 1996, 251, 23.	2.4	13
78	Nucleotide sequence of the gene for ribosomal protein S11 in pea chloroplast DNA. <i>Nucleic Acids Research</i> , 1987, 15, 1873-1873.	14.5	11
79	Molecular Structure of Photosynthetic Microbial Biofuels for Improved Engine Combustion and Emissions Characteristics. <i>Frontiers in Bioengineering and Biotechnology</i> , 2015, 3, 49.	4.1	11
80	Characterisation of a simple "hanging bag"™ photobioreactor for low-cost cultivation of microalgae. <i>Journal of Chemical Technology and Biotechnology</i> , 2022, 97, 608-619.	3.2	11
81	Isolation and Characterisation of Chemotactic Mutants of <i>Chlamydomonas reinhardtii</i> obtained by Insertional Mutagenesis. <i>Protist</i> , 2000, 151, 127-137.	1.5	10
82	Molecular analysis of the <i>Chlamydomonas</i> nuclear gene encoding PsbW and demonstration that PsbW is a subunit of photosystem II, but not photosystem I. <i>Plant Molecular Biology</i> , 2003, 52, 285-289.	3.9	10
83	The PsbZ subunit of Photosystem II in <i>Synechocystis</i> sp. PCC 6803 modulates electron flow through the photosynthetic electron transfer chain. <i>Photosynthesis Research</i> , 2007, 93, 139-147.	2.9	10
84	Downstream Processing of <i>Chlamydomonas reinhardtii</i> TN72 for Recombinant Protein Recovery. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 383.	4.1	9
85	Oxygenic Photosynthesis in Algae and Cyanobacteria: Electron Transfer in Photosystems I and II. <i>Advances in Photosynthesis and Respiration</i> , 2003, , 133-156.	1.0	8
86	A Simple Technology for Generating Marker-Free Chloroplast Transformants of the Green Alga <i>Chlamydomonas reinhardtii</i> . <i>Methods in Molecular Biology</i> , 2021, 2317, 293-304.	0.9	8
87	CpPosNeg: A positive-negative selection strategy allowing multiple cycles of marker-free engineering of the <i>Chlamydomonas</i> plastome. <i>Biotechnology Journal</i> , 2022, 17, e2200088.	3.5	6
88	Nucleotide sequence of the gene for ribosomal protein L36 in pea chloroplast DNA. <i>Nucleic Acids Research</i> , 1987, 15, 9080-9080.	14.5	5
89	Synthesis of Recombinant Products in the Chloroplast. , 2014, , 517-557.		5
90	Detection and Enhancement of Ketocarotenoid Accumulation in the Newly Isolated Sarcinoid Green Microalga <i>Chlorosarcinopsis</i> PY02. <i>Biology</i> , 2018, 7, 17.	2.8	5

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91	The Chloroplast of <i>Chlamydomonas reinhardtii</i> as a Testbed for Engineering Nitrogen Fixation into Plants. <i>International Journal of Molecular Sciences</i> , 2021, 22, 8806.	4.1	4
92	The complete sequence of the chloroplast genome of the green microalga <i>Lobosphaera</i> ( <i>Parietochloris</i> ) <i>incisa</i> . <i>Mitochondrial DNA</i> , 2016, 27, 1-3.	0.6	3
93	Editorial: Exploring the Growing Role of Cyanobacteria in Industrial Biotechnology and Sustainability. <i>Frontiers in Microbiology</i> , 2021, 12, 725128.	3.5	3
94	Current challenges for modern vaccines and perspectives for novel treatment alternatives. <i>Journal of Drug Delivery Science and Technology</i> , 2022, 70, 103222.	3.0	3
95	Over-expression of a cyanobacterial gene for 1-deoxy-d-xylulose-5-phosphate synthase in the chloroplast of <i>Chlamydomonas reinhardtii</i> perturbs chlorophyll: carotenoid ratios. <i>Journal of King Saud University - Science</i> , 2022, 34, 102141.	3.5	3
96	An improved procedure for the isolation of chloroplast DNA from <i>Chlamydomonas reinhardtii</i> . <i>Plant Molecular Biology Reporter</i> , 1993, 11, 207-211.	1.8	2
97	Evaluating new isolates of microalgae from Kazakhstan for biodiesel production. <i>Russian Journal of Plant Physiology</i> , 2013, 60, 549-554.	1.1	2
98	The sites of interaction of triphenyltetrazolium chloride with mitochondrial respiratory chains. <i>FEMS Microbiology Letters</i> , 2001, 202, 181-187.	1.8	2
99	Genetic Engineering of Microalgae: Current Status and Future Prospects. , 2016, , 139-163.		1
100	ADA: an open-source software platform for plotting and analysis of data from laboratory photobioreactors. <i>Applied Phycology</i> , 2022, 3, 16-26.	1.3	1
101	13 Finding the bottleneck: A research strategy for improved biomass production. , 0, , .		0
102	The Physiological Relevance of Bidirectional Electron Transfer in Photosystem I of Eukaryotes. , 2008, , 183-186.		0