Julian Eaton-Rye

List of Publications by Year
in descending order

115	3,729	147801	144013
papers	citations	31 h-index	57 g-index

118	118	118	3251
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Manganese Compounds as Water-Oxidizing Catalysts: From the Natural Water-Oxidizing Complex to Nanosized Manganese Oxide Structures. Chemical Reviews, 2016, 116, 2886-2936.	47.7	549
2	The extrinsic proteins of Photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 121-142.	1.0	260
3	Anaerobic digestion of microalgae residues resulting from the biodiesel production process. Applied Energy, 2011, 88, 3454-3463.	10.1	215
4	Photosystem II and the unique role of bicarbonate: A historical perspective. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1134-1151.	1.0	141
5	Oligonucleotide-directed mutagenesis of psbB, the gene encoding CP47, employing a deletion mutant strain of the cyanobacterium Synechocystis sp. PCC 6803. Plant Molecular Biology, 1991, 17, 1165-1177.	3.9	92
6	Functionally important domains of the large hydrophilic loop of CP47 as probed by oligonucleotide-directed mutagenesis in Synechocystis sp. PCC 6803. Biochemistry, 1993, 32, 4444-4454.	2.5	88
7	Characterization of a two-component signal transduction system involved in the induction of alkaline phosphatase under phosphate-limiting conditions in Synechocystis sp. PCC 6803. Plant Molecular Biology, 2001, 45, 133-144.	3.9	85
8	Electron transfer through the quinone acceptor complex of Photosystem II in bicarbonate-depleted spinach thylakoid membranes as a function of actinic flash number and frequency. Biochimica Et Biophysica Acta - Bioenergetics, 1988, 935, 237-247.	1.0	75
9	Construction of Gene Interruptions and Gene Deletions in the Cyanobacterium Synechocystis sp. Strain PCC 6803. Methods in Molecular Biology, 2011, 684, 295-312.	0.9	74
10	Electron transfer through the quinone acceptor complex of Photosystem II after one or two actinic flashes in bicarbonate-depleted spinach thylakoid membranes. Biochimica Et Biophysica Acta - Bioenergetics, 1988, 935, 248-257.	1.0	70
11	Functional Characterization of Mutant Strains of the Cyanobacterium Synechocystis sp. PCC 6803 Lacking Short Domains within the Large, Lumen-Exposed Loop of the Chlorophyll Protein CP47 in Photosystem II. Biochemistry, 1994, 33, 12063-12071.	2.5	68
12	PsbQ (Sll1638) in Synechocystis sp. PCC 6803 Is Required for Photosystem II Activity in Specific Mutants and in Nutrient-Limiting Conditions. Biochemistry, 2005, 44, 805-815.	2.5	68
13	Effects of Inactivating psbM and psbT on Photodamage and Assembly of Photosystem II in Synechocystis sp. PCC 6803. Biochemistry, 2008, 47, 11637-11646.	2.5	62
14	Evidence that the amino-terminus of the 33 kDa extrinsic protein is required for binding to the Photosystem II complex. Biochimica Et Biophysica Acta - Bioenergetics, 1989, 977, 219-226.	1.0	61
15	Involvement of the CP47 Protein in Stabilization and Photoactivation of a Functional Water-Oxidizing Complex in the Cyanobacterium Synechocystis sp. PCC 6803. Biochemistry, 1995, 34, 6847-6856.	2.5	58
16	Structure and function of the hydrophilic Photosystem II assembly proteins: Psb27, Psb28 and Ycf48. Plant Physiology and Biochemistry, 2014, 81, 96-107.	5.8	58
17	Damage Management in Water-Oxidizing Catalysts: From Photosystem II to Nanosized Metal Oxides. ACS Catalysis, 2015, 5, 1499-1512.	11.2	55
18	Whole genome re-sequencing of two â€˜wild-typeâ€™ strains of the model cyanobacteriumSynechocystissp. PCC 6803. New Zealand Journal of Botany, 2014, 52, 36-47.	1.1	50

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19	Mutation of histidine residues in CP47 leads to destabilization of the photosystem II complex and to impairment of light energy transfer. Biochemistry, 1993, 32, 5109-5115.	2.5	49
20	The lipoproteins of cyanobacterial photosystem II. Journal of Photochemistry and Photobiology B: Biology, 2011, 104, 191-203.	3.8	49
21	The Effects of Bicarbonate Depletion and Formate Incubation on the Kinetics of Oxidation-Reduction Reactions of the Photosystem II Quinone Acceptor Complex. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 1984, 39, 382-385.	1.4	46
22	Biological water-oxidizing complex: a nano-sized manganeseâ€“calcium oxide in a protein environment. Photosynthesis Research, 2012, 114, 1-13.	2.9	46
23	Specific Requirements for Cytochromec-550 and the Manganese-Stabilizing Protein in Photoautotrophic Strains ofSynechocystissp. PCC 6803 with Mutations in the Domain Gly-351 to Thr-436 of the Chlorophyll-Binding Protein CP47â€. Biochemistry, 1998, 37, 14437-14449.	2.5	43
24	Protection of the Oxygen-Evolving Machinery by the Extrinsic Proteins of Photosystem II is Essential for Development of Cellular Thermotolerance in Synechocystis sp. PCC 6803. Plant and Cell Physiology, 2002, 43, 932-938.	3.1	42
25	The PsbU Subunit of Photosystem II Stabilizes Energy Transfer and Primary Photochemistry in the Phycobilisomeâ^'Photosystem II Assembly of Synechocystis sp. PCC 6803. Biochemistry, 2005, 44, 16939-16948.	2.5	42
26	Electron transfer through photosystem II acceptors: Interaction with anions. Photosynthesis Research, 1986, 10, 365-379.	2.9	41
27	Current strategies and future perspectives in biological hydrogen production: A review. Renewable and Sustainable Energy Reviews, 2022, 168, 112773.	16.4	41
28	Solution Structure of Psb27 from Cyanobacterial Photosystem II,. Biochemistry, 2009, 48, 8771-8773.	2.5	40
29	The Construction of Gene Knockouts in the Cyanobacterium <I>Synechocystis </I>sp. PCC 6803. , 2004, 274, 309-324.		39
30	Phosphate sensing in Synechocystis sp. PCC 6803: SphU and the SphSâ€“SphR two-component regulatory system. Archives of Microbiology, 2007, 188, 389-402.	2.2	39
31	Investigation of a requirement for the PsbP-like protein in Synechocystis sp. PCC 6803. Photosynthesis Research, 2005, 84, 263-268.	2.9	37
32	Functional Role of PilA in Iron Acquisition in the Cyanobacterium Synechocystis sp. PCC 6803. PLoS ONE, 2014, 9, e105761.	2.5	36
33	Species of cyanolichens from Pseudocyphellaria with indistinguishable ITS sequences have different photobionts. New Phytologist, 2002, 155, 121-129.	7.3	33
34	Mutation of Phe-363 in the Photosystem II Protein CP47 Impairs Photoautotrophic Growth, Alters the Chloride Requirement, and Prevents Photosynthesis in the Absence of either PSII-O or PSII-V in Synechocystis sp. PCC 6803. Biochemistry, 1999, 38, 2707-2715.	2.5	32
35	An LED-based fluorometer for chlorophyll quantification in the laboratory and in the field. Photosynthesis Research, 2012, 114, 59-68.	2.9	31
36	Ultrafast Ligand Dynamics in the Heme-Based GAF Sensor Domains of the Histidine Kinases DosS and DosT from Mycobacterium tuberculosis. Biochemistry, 2012, 51, 159-166.	2.5	31

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37	Dynamics of Photosynthesis in a Glycogen-Deficient glgC Mutant of Synechococcus sp. Strain PCC 7002. Applied and Environmental Microbiology, 2015, 81, 6210-6222.	3.1	29
38	Stabilization of Photosystem II by the PsbT protein impacts photodamage, repair and biogenesis. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148234.	1.0	29
39	Removal of both Ycf48 and Psb27 in Synechocystis sp. PCC 6803 disrupts Photosystem II assembly and alters Q_A^â oxidation in the mature complex. FEBS Letters, 2014, 588, 3751-3760.	2.8	28
40	Photobiological hydrogen production and artificial photosynthesis for clean energy: from bio to nanotechnologies. Photosynthesis Research, 2015, 126, 237-247.	2.9	28
41	pH-dependent photoautotrophic growth of specific photosystem II mutants lacking lumenal extrinsic polypeptides in Synechocystis PCC 6803. FEBS Letters, 2003, 543, 148-153.	2.8	27
42	Gold or silver deposited on layered manganese oxide: a functional model for the water-oxidizing complex in photosystem II. Photosynthesis Research, 2013, 117, 423-429.	2.9	27
43	Crystal Structure of PsbQ from Synechocystis sp. PCC 6803 at 1.8 Ã...: Implications for Binding and Function in Cyanobacterial Photosystem II. Biochemistry, 2010, 49, 2765-2767.	2.5	26
44	Na+-stimulated phosphate uptake system in Synechocystis sp. PCC 6803 with Pst1 as a main transporter. BMC Microbiology, 2011, 11, 225.	3.3	24
45	Decreased Hill reaction rates and slow turnover of transitory starch in the obligate shade plant Panax quinquefolius L. (American ginseng). Planta, 2002, 215, 969-979.	3.2	22
46	The diversity and distribution of D1 proteins in cyanobacteria. Photosynthesis Research, 2020, 145, 111-128.	2.9	21
47	Snapshots of the Govindjee lab from the late 1960s to the late 1990s, and beyondâ€¦. Photosynthesis Research, 2007, 94, 153-178.	2.9	19
48	Solution structure of CyanoP from Synechocystis sp. PCC 6803: New insights on the structural basis for functional specialization amongst PsbP family proteins. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1331-1338.	1.0	19
49	Phosphorus removal in a closed recirculating aquaculture system using the cyanobacterium Synechocystis sp. PCC 6803 strain lacking the SphU regulator of the Pho regulon. Biochemical Engineering Journal, 2013, 74, 69-75.	3.6	19
50	Pseudocyphellaria crocata , P. neglecta and P. perpetua from the Northern and Southern Hemispheres are a phylogenetic species and share cyanobionts. New Phytologist, 2006, 170, 597-607.	7.3	18
51	Govindjee at 80: more than 50 years of free energy for photosynthesis. Photosynthesis Research, 2013, 116, 111-144.	2.9	18
52	Amino acid deletions in loop C of the chlorophyll a-binding protein CP47 alter the chloride requirement and/or prevent the assembly of photosystem II. Plant Molecular Biology, 2000, 44, 591-601.	3.9	17
53	Directed mutagenesis of the transmembrane domain of the PsbL subunit of photosystem II in Synechocystis sp. PCC 6803. Photosynthesis Research, 2008, 98, 337-347.	2.9	17
54	The redox state of the plastoquinone pool directly modulates minimum chlorophyll fluorescence yield in Chlamydomonas reinhardtii. FEBS Letters, 2010, 584, 1021-1026.	2.8	17

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55	A synthetic DNA and fusion PCR approach to the ectopic expression of high levels of the D1 protein of photosystem II in Synechocystis sp. PCC 6803. Journal of Photochemistry and Photobiology B: Biology, 2011, 104, 212-219.	3.8	17
56	Evidence for a Post-Translational Modification, Aspartyl Aldehyde, in a Photosynthetic Membrane Protein. Journal of the American Chemical Society, 2004, 126, 8399-8405.	13.7	16
57	D1:Glu244 and D1:Tyr246 of the bicarbonate-binding environment of Photosystem II moderate high light susceptibility and electron transfer through the quinone-Fe-acceptor complex. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 148054.	1.0	16
58	Environmental pH Affects Photoautotrophic Growth of Synechocystis sp. PCC 6803 Strains Carrying Mutations in the Lumenal Proteins of PSII. Plant and Cell Physiology, 2013, 54, 859-874.	3.1	15
59	Water exchange in manganese-based water-oxidizing catalysts in photosynthetic systems: From the water-oxidizing complex in photosystem II to nano-sized manganese oxides. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1395-1410.	1.0	15
60	The CP47 and CP43 Core Antenna Components. , 2005, , 45-70.		15
61	The Interaction between PsbT and the DE Loop of D1 in Photosystem II Stabilizes the Quinoneâ€“Iron Electron Acceptor Complex. Biochemistry, 2021, 60, 53-63.	2.5	15
62	The importance of the hydrophilic region of PsbL for the plastoquinone electron acceptor complex of Photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1435-1446.	1.0	14
63	Editorial: Assembly of the Photosystem II Membrane-Protein Complex of Oxygenic Photosynthesis. Frontiers in Plant Science, 2017, 8, 884.	3.6	14
64	Action of Bicarbonate on Photosynthetic Electron Transport in the Presence or Absence of Inhibitory Anions. , 1986, , 263-278.		14
65	A 64-kDa protein is a substrate for phosphorylation by a distinct thylakoid protein kinase. Photosynthesis Research, 1995, 43, 231-239.	2.9	13
66	In Situ Effects of Mutations of the Extrinsic Cytochromec550of Photosystem II inSynechocystissp. PCC6803â€. Biochemistry, 2004, 43, 14161-14170.	2.5	13
67	Global gene expression of a Î”PsbO:Î”PsbU mutant and a spontaneous revertant in the cyanobacterium Synechocystis sp. strain PCC 6803. Photosynthesis Research, 2007, 94, 265-274.	2.9	13
68	Phenotypic variation in wild-type substrains of the model cyanobacteriumSynechocystissp. PCC 6803. New Zealand Journal of Botany, 2017, 55, 25-35.	1.1	13
69	PsbY is required for prevention of photodamage to photosystem II in a PsbM-lacking mutant of Synechocystis sp. PCC 6803. Photosynthetica, 2018, 56, 200-209.	1.7	13
70	An improved system for the targeted mutagenesis of thepsbA2gene inSynechocystissp. PCC 6803: mutation of D1-Glu244 to His impairs electron transfer between Q_Aand Q_Bof Photosystem II. New Zealand Journal of Botany, 2019, 57, 125-136.	1.1	13
71	The D1:Ser268 residue of Photosystem II contributes to an alternative pathway for Q_B protonation in the absence of bound bicarbonate. FEBS Letters, 2020, 594, 2953-2964.	2.8	13
72	Celebrating Govindjeeâ€™s 50 years in photosynthesis research and his 75th birthday. Photosynthesis Research, 2007, 93, 1-5.	2.9	12

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73	The extended N-terminal region of SphS is required for detection of external phosphate levels in Synechocystis sp. PCC 6803. Biochemical and Biophysical Research Communications, 2009, 378, 383-388.	2.1	12
74	A Cost-Effective Solution for the Reliable Determination of Cell Numbers of Microorganisms in Liquid Culture. Current Microbiology, 2013, 67, 123-129.	2.2	12
75	Characterization of a Synechocystis sp. PCC 6803 double mutant lacking the CyanoP and Ycf48 proteins of Photosystem II. Photosynthesis Research, 2015, 124, 217-229.	2.9	12
76	Two-component Signal Transduction in Synechocystis sp. PCC 6803 under Phosphate Limitation: Role of Acetyl Phosphate. BMB Reports, 2007, 40, 708-714.	2.4	12
77	Requirements for different combinations of the extrinsic proteins in specific cyanobacterial Photosystem II mutants. Photosynthesis Research, 2005, 84, 275-281.	2.9	11
78	Regulation of Photosystem II Electron Transport by Bicarbonate. Advances in Photosynthesis and Respiration, 2012, , 475-500.	1.0	10
79	Comparison of D1Â´â€•and D1â€containing PS II reaction centre complexes under different environmental conditions in Synechocystis sp. PCC 6803. Plant, Cell and Environment, 2016, 39, 1715-1726.	5.7	10
80	Mutation of Gly195 of the ChlH Subunit of Mg-chelatase Reduces Chlorophyll and Further Disrupts PS II Assembly in a Ycf48-Deficient Strain of Synechocystis sp. PCC 6803. Frontiers in Plant Science, 2016, 7, 1060.	3.6	9
81	The PsbT protein modifies the bicarbonate-binding environment of Photosystem II. New Zealand Journal of Botany, 2020, 58, 406-421.	1.1	9
82	Nano-sized manganese-calcium cluster in photosystem II. Biochemistry (Moscow), 2014, 79, 324-336.	1.5	8
83	Imidazolium or guanidinium/layered manganese (III, IV) oxide hybrid as a promising structural model for the water-oxidizing complex of Photosystem II for artificial photosynthetic systems. Photosynthesis Research, 2013, 117, 413-421.	2.9	7
84	Govindjee: a lifetime in photosynthesis. Photosynthesis Research, 2019, 139, 9-14.	2.9	7
85	The PsbJ protein is required for photosystem II activity in centers lacking the PsbO and PsbV lumenal subunits. Photosynthesis Research, 2022, 151, 103-111.	2.9	7
86	Plasmid Construction by SLIC or Sequence and Ligation-Independent Cloning. Methods in Molecular Biology, 2014, 1116, 25-36.	0.9	7
87	Contributions of Govindjee, 1970â€“1999. Advances in Photosynthesis and Respiration, 2012, , 815-833.	1.0	7
88	Environmental pH and the Requirement for the Extrinsic Proteins of Photosystem II in the Function of Cyanobacterial Photosynthesis. Frontiers in Plant Science, 2016, 7, 1135.	3.6	6
89	An updated system for the targeted mutagenesis of the psbDI:psbC operon in Synechocystis sp. PCC 6803: mutations targeting Asp460 in CP43 of Photosystem II reduce oxygen-evolving activity and perturb electron transfer in the quinone-Fe-acceptor complex. New Zealand Journal of Botany, 2020, 58, 389-405.	1.1	6
90	Duplication and divergence of the Psb27 subunit of Photosystem II in the green algal lineage. New Zealand Journal of Botany, 2014, 52, 74-83.	1.1	5

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91	Algal and cyanobacterial bioenergy and diversity. New Zealand Journal of Botany, 2014, 52, 1-5.	1.1	5
92	The Effect of Removing Photosystem II Extrinsic Proteins on Dimer Formation and Recovery from Photodamage in Synechocystis sp. PCC 6803. , 2008, , 715-717.		5
93	Identification of the Start Codon for sphS Encoding the Phosphate-Sensing Histidine Kinase in Synechocystis sp. PCC 6803. Current Microbiology, 2007, 55, 142-146.	2.2	4
94	Mutational analysis of the stability of Psb27 from Synechocystis sp. PCC 6803: implications for models of Psb27 structure and binding to CP43. European Biophysics Journal, 2013, 42, 787-793.	2.2	4
95	Introduction: proceedings of the 2015 New Zealand symposium on algae and photosynthetic prokaryotes. New Zealand Journal of Botany, 2017, 55, 1-4.	1.1	4
96	PsbX maintains efficient electron transport in Photosystem II and reduces susceptibility to high light in Synechocystis sp. PCC 6803. Biochimica Et Biophysica Acta - Bioenergetics, 2022, 1863, 148519.	1.0	4
97	Amino acid deletions in the cytosolic domains of the chlorophyll a-binding protein CP47 slow Q(A)-oxidation and/or prevent the assembly of photosystem II. Plant Molecular Biology, 2002, 50, 563-572.	3.9	3
98	Modular growth vessels for the cultivation of the cyanobacteriumSynechococcussp. PCC 7002. New Zealand Journal of Botany, 2017, 55, 14-24.	1.1	3
99	The 10th international conference on â€œPhotosynthesis and Hydrogen Energy Research for sustainabilityâ€: A pictorial report in honor of Tingyun Kuang, Anthony Larkum, Cesare Marchetti and Kimiyuki Satoh. International Journal of Hydrogen Energy, 2019, 44, 30927-30934.	7.1	3
100	The hydrophobicity of mutations targeting D1:Val219 modifies formate and diuron binding in the quinoneâ€Feâ€acceptor complex of Photosystem II. Physiologia Plantarum, 2021, 172, 2217-2225.	5.2	3
101	Tyr244 of the D2 Protein Is Required for Correct Assembly and Operation of the Quinone-Iron-Bicarbonate Acceptor Complex of Photosystem II. Biochemistry, 2022, 61, 1298-1312.	2.5	3
102	Hyper-resistance to arsenate in the cyanobacterium Synechocystis sp. PCC 6803 is influenced by the differential kinetics of its pst-ABC transporters and external phosphate concentration exposure. Algal Research, 2019, 38, 101410.	4.6	2
103	Celebrating the contributions of Govindjee after his retirement: 1999â€“2020. New Zealand Journal of Botany, 2020, 58, 422-460.	1.1	2
104	Removal of the PsbT Subunit of Photosystem II in Synechocystis sp. PCC 6803 Causes QA â^' Oxidation to be Blocked by Dimethyl-p-Benzoquinone. Advanced Topics in Science and Technology in China, 2013, , 79-82.	0.1	2
105	Removal of PSII-U in a Strain of Synechocystsis sp. PCC 6803 Lacking the PSII-O Protein Prevents Photosynthesis. , 1998, , 1455-1458.		2
106	Characterization of the Double Mutant FF362,363RR in Loop E of the Photosystem II Chlorophyll-Binding Protein CP47. , 1998, , 1459-1462.		2
107	Biology and biotechnological applications of microalgae and photosynthetic prokaryotes: part 2. New Zealand Journal of Botany, 2020, 58, 275-333.	1.1	2
108	Biology and biotechnological applications of microalgae and photosynthetic prokaryotes: Part 1. New Zealand Journal of Botany, 2019, 57, 65-69.	1.1	1

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109	Environmental <scp>pH</scp> and a Glu364 to Gln mutation in the chlorophyllâ€binding <scp>CP</scp>47 protein affect redoxâ€active TyrD and charge recombination in Photosystem II. FEBS Letters, 2019, 593, 163-174.	2.8	1
110	Mutations in CP47 That Target Putative Hydrogen Bonds with Sulfoquinovosyl-Diacylglycerol at the Monomer-Monomer Interface of Photosystem II. , 2008, , 733-735.		0
111	Characterization of a pH-Sensitive Photosystem II Mutant in the Cyanobacterium Synechocystis sp. PCC 6803. Advanced Topics in Science and Technology in China, 2013, , 348-352.	0.1	0
112	Solution Structure and Physiological Requirements for Psb27 in Synechocystis sp. PCC 6803. Advanced Topics in Science and Technology in China, 2013, , 432-435.	0.1	0
113	Structure-Function Studies of the Photosystem II Extrinsic Subunits PsbQ and PsbP from the Cyanobacterium Synechocystis sp. PCC 6803. Advanced Topics in Science and Technology in China, 2013, , 86-90.	0.1	0
114	Electron Transfer through Photosystem II Acceptors: Interaction with Anions. , 1987, , 219-233.		0
115	Oligonucleotide-Directed Complementation of a Lethal Deletion within the Large Hydrophilic Domain of CP47. , 1995, , 2409-2412.		0