Julian Eaton-Rye

List of Publications by Year
in descending order

115 papers	3,729 citations	147786 31 h-index	144002 57 g-index
118 all docs	118 docs citations	118 times ranked	3251 citing authors

#	Article	IF	Citations
1	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
2	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
3	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
4	Current strategies and future perspectives in biological hydrogen production: A review. Renewable and Sustainable Energy Reviews, 2022, 168, 112773.	16.4	41
5	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
6	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
7	The PsbT protein modifies the bicarbonate-binding environment of Photosystem II. New Zealand Journal of Botany, 2020, 58, 406-421.	1.1	9
8	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
9	Celebrating the contributions of Govindjee after his retirement: 1999â€"2020. New Zealand Journal of Botany, 2020, 58, 422-460.	1.1	2
10	Stabilization of Photosystem II by the PsbT protein impacts photodamage, repair and biogenesis. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148234.	1.0	29
11	An updated system for the targeted mutagenesis of the <i>psbDI:psbC</i> operon in <i>Synechocystis</i> 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
12	The diversity and distribution of D1 proteins in cyanobacteria. Photosynthesis Research, 2020, 145, 111-128.	2.9	21
13	Biology and biotechnological applications of microalgae and photosynthetic prokaryotes: part 2. New Zealand Journal of Botany, 2020, 58, 275-333.	1.1	2
14	An improved system for the targeted mutagenesis of the<i>psbA2</i>gene in<i>Synechocystis</i>sp. 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
15	Biology and biotechnological applications of microalgae and photosynthetic prokaryotes: Part 1. New Zealand Journal of Botany, 2019, 57, 65-69.	1.1	1
16	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
17	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
18	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

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19	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
20	Govindjee: a lifetime in photosynthesis. Photosynthesis Research, 2019, 139, 9-14.	2.9	7
21	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
22	Modular growth vessels for the cultivation of the cyanobacterium<i>Synechococcus</i>sp. PCC 7002. New Zealand Journal of Botany, 2017, 55, 14-24.	1.1	3
23	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
24	Phenotypic variation in wild-type substrains of the model cyanobacterium<i>Synechocystis</i>sp. PCC 6803. New Zealand Journal of Botany, 2017, 55, 25-35.	1.1	13
25	Editorial: Assembly of the Photosystem II Membrane-Protein Complex of Oxygenic Photosynthesis. Frontiers in Plant Science, 2017, 8, 884.	3.6	14
26	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
27	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
28	Comparison of D1Â´â€•and D1â€containing PS II reaction centre complexes under different environmental conditions in <i>Synechocystis</i> sp. PCC 6803. Plant, Cell and Environment, 2016, 39, 1715-1726.	5.7	10
29	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
30	Photobiological hydrogen production and artificial photosynthesis for clean energy: from bio to nanotechnologies. Photosynthesis Research, 2015, 126, 237-247.	2.9	28
31	Damage Management in Water-Oxidizing Catalysts: From Photosystem II to Nanosized Metal Oxides. ACS Catalysis, 2015, 5, 1499-1512.	11.2	55
32	Dynamics of Photosynthesis in a Glycogen-Deficient <i>glgC</i> Mutant of Synechococcus sp. Strain PCC 7002. Applied and Environmental Microbiology, 2015, 81, 6210-6222.	3.1	29
33	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
34	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
35	Algal and cyanobacterial bioenergy and diversity. New Zealand Journal of Botany, 2014, 52, 1-5.	1.1	5
36	Whole genome re-sequencing of two â€˜wild-typeâ€™ strains of the model cyanobacterium<i>Synechocystis</i>sp. PCC 6803. New Zealand Journal of Botany, 2014, 52, 36-47.	1.1	50

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37	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
38	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
39	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
40	Nano-sized manganese-calcium cluster in photosystem II. Biochemistry (Moscow), 2014, 79, 324-336.	1.5	8
41	Removal of both Ycf48 and Psb27 in <i>Synechocystis</i> sp. PCC 6803 disrupts Photosystem II assembly and alters Q_A^{âˆ’} oxidation in the mature complex. FEBS Letters, 2014, 588, 3751-3760.	2.8	28
42	Plasmid Construction by SLIC or Sequence and Ligation-Independent Cloning. Methods in Molecular Biology, 2014, 1116, 25-36.	0.9	7
43	Functional Role of PilA in Iron Acquisition in the Cyanobacterium Synechocystis sp. PCC 6803. PLoS ONE, 2014, 9, e105761.	2.5	36
44	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
45	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
46	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
47	Govindjee at 80: more than 50 years of free energy for photosynthesis. Photosynthesis Research, 2013, 116, 111-144.	2.9	18
48	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
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	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
51	Removal of the PsbT Subunit of Photosystem II in Synechocystis sp. PCC 6803 Causes QA âˆ’ Oxidation to be Blocked by Dimethyl-p-Benzoquinone. Advanced Topics in Science and Technology in China, 2013, , 79-82.	0.1	2
52	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
53	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
54	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

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55	An LED-based fluorometer for chlorophyll quantification in the laboratory and in the field. Photosynthesis Research, 2012, 114, 59-68.	2.9	31
56	Biological water-oxidizing complex: a nano-sized manganeseâ€“calcium oxide in a protein environment. Photosynthesis Research, 2012, 114, 1-13.	2.9	46
57	Ultrafast Ligand Dynamics in the Heme-Based GAF Sensor Domains of the Histidine Kinases DosS and DosT from <i>Mycobacterium tuberculosis</i>. Biochemistry, 2012, 51, 159-166.	2.5	31
58	Regulation of Photosystem II Electron Transport by Bicarbonate. Advances in Photosynthesis and Respiration, 2012, , 475-500.	1.0	10
59	The extrinsic proteins of Photosystem II. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 121-142.	1.0	260
60	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
61	Photosystem II and the unique role of bicarbonate: A historical perspective. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1134-1151.	1.0	141
62	Contributions of Govindjee, 1970â€“1999. Advances in Photosynthesis and Respiration, 2012, , 815-833.	1.0	7
63	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
64	Na+-stimulated phosphate uptake system in Synechocystis sp. PCC 6803 with Pst1 as a main transporter. BMC Microbiology, 2011, 11, 225.	3.3	24
65	Anaerobic digestion of microalgae residues resulting from the biodiesel production process. Applied Energy, 2011, 88, 3454-3463.	10.1	215
66	The lipoproteins of cyanobacterial photosystem II. Journal of Photochemistry and Photobiology B: Biology, 2011, 104, 191-203.	3.8	49
67	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
68	The redox state of the plastoquinone pool directly modulates minimum chlorophyll fluorescence yield in <i>Chlamydomonas reinhardtii</i>. FEBS Letters, 2010, 584, 1021-1026.	2.8	17
69	Crystal Structure of PsbQ from <i>Synechocystis</i> sp. PCC 6803 at 1.8 Ã…: Implications for Binding and Function in Cyanobacterial Photosystem II. Biochemistry, 2010, 49, 2765-2767.	2.5	26
70	Solution Structure of Psb27 from Cyanobacterial Photosystem II,. Biochemistry, 2009, 48, 8771-8773.	2.5	40
71	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
72	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

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73	Effects of Inactivating <i>psbM</i> and <i>psbT</i> on Photodamage and Assembly of Photosystem II in <i>Synechocystis</i> sp. PCC 6803. Biochemistry, 2008, 47, 11637-11646.	2.5	62
74	The Effect of Removing Photosystem II Extrinsic Proteins on Dimer Formation and Recovery from Photodamage in Synechocystis sp. PCC 6803. , 2008, , 715-717.		5
75	Mutations in CP47 That Target Putative Hydrogen Bonds with Sulfoquinovosyl-Diacylglycerol at the Monomer-Monomer Interface of Photosystem II. , 2008, , 733-735.		0
76	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
77	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
78	Celebrating Govindjeeâ€™s 50 years in photosynthesis research and his 75th birthday. Photosynthesis Research, 2007, 93, 1-5.	2.9	12
79	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
80	Snapshots of the Govindjee lab from the late 1960s to the late 1990s, and beyondâ€¦. Photosynthesis Research, 2007, 94, 153-178.	2.9	19
81	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
82	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
83	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
84	Investigation of a requirement for the PsbP-like protein in Synechocystis sp. PCC 6803. Photosynthesis Research, 2005, 84, 263-268.	2.9	37
85	Requirements for different combinations of the extrinsic proteins in specific cyanobacterial Photosystem II mutants. Photosynthesis Research, 2005, 84, 275-281.	2.9	11
86	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
87	The CP47 and CP43 Core Antenna Components. , 2005, , 45-70.		15
88	In Situ Effects of Mutations of the Extrinsic Cytochromec550of Photosystem II inSynechocystissp. PCC6803â€. Biochemistry, 2004, 43, 14161-14170.	2.5	13
89	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
90	The Construction of Gene Knockouts in the Cyanobacterium <I>Synechocystis </I>sp. PCC 6803. , 2004, 274, 309-324.		39

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91	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
92	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
93	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
94	Species of cyanolichens from Pseudocyphellaria with indistinguishable ITS sequences have different photobionts. New Phytologist, 2002, 155, 121-129.	7.3	33
95	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
96	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
97	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
98	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
99	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
100	Removal of PSII-U in a Strain of Synechocystsis sp. PCC 6803 Lacking the PSII-O Protein Prevents Photosynthesis. , 1998, , 1455-1458.		2
101	Characterization of the Double Mutant FF362,363RR in Loop E of the Photosystem II Chlorophyll-Binding Protein CP47. , 1998, , 1459-1462.		2
102	A 64-kDa protein is a substrate for phosphorylation by a distinct thylakoid protein kinase. Photosynthesis Research, 1995, 43, 231-239.	2.9	13
103	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
104	Oligonucleotide-Directed Complementation of a Lethal Deletion within the Large Hydrophilic Domain of CP47. , 1995, , 2409-2412.		0
105	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
106	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
107	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
108	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

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109	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
110	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
111	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
112	Electron Transfer through Photosystem II Acceptors: Interaction with Anions. , 1987, , 219-233.		0
113	Electron transfer through photosystem II acceptors: Interaction with anions. Photosynthesis Research, 1986, 10, 365-379.	2.9	41
114	Action of Bicarbonate on Photosynthetic Electron Transport in the Presence or Absence of Inhibitory Anions. , 1986, , 263-278.		14
115	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