

# Anthony W D Larkum

## List of Publications by Year in descending order

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109  
papers

5,234  
citations

76294

40  
h-index

98753

67  
g-index

113  
all docs

113  
docs citations

113  
times ranked

5097  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluorescent pigments in corals are photoprotective. <i>Nature</i> , 2000, 408, 850-853.	13.7	579
2	Selection, breeding and engineering of microalgae for bioenergy and biofuel production. <i>Trends in Biotechnology</i> , 2012, 30, 198-205.	4.9	266
3	The Biasing Effect of Compositional Heterogeneity on Phylogenetic Estimates May be Underestimated. <i>Systematic Biology</i> , 2004, 53, 638-643.	2.7	234
4	A niche for cyanobacteria containing chlorophyll d. <i>Nature</i> , 2005, 433, 820-820.	13.7	185
5	Shopping for plastids. <i>Trends in Plant Science</i> , 2007, 12, 189-195.	4.3	152
6	Light gradients and optical microniches in coral tissues. <i>Frontiers in Microbiology</i> , 2012, 3, 316.	1.5	147
7	Calcification in the Green Alga <i>Halimeda</i> . <i>Journal of Experimental Botany</i> , 1976, 27, 879-893.	2.4	136
8	An in situ study of photosynthetic oxygen exchange and electron transport rate in the marine macroalga <i>Ulva lactuca</i> (Chlorophyta). <i>Photosynthesis Research</i> , 2002, 74, 281-293.	1.6	135
9	Chlorophyll d: the puzzle resolved. <i>Trends in Plant Science</i> , 2005, 10, 355-357.	4.3	114
10	Endolithic chlorophyll d-containing phototrophs. <i>ISME Journal</i> , 2011, 5, 1072-1076.	4.4	95
11	Early Archean origin of Photosystem II. <i>Geobiology</i> , 2019, 17, 127-150.	1.1	95
12	CORAL PHOTOBIOLOGY STUDIED WITH A NEW IMAGING PULSE AMPLITUDE MODULATED FLUOROMETER1. <i>Journal of Phycology</i> , 2005, 41, 335-342.	1.0	89
13	Lateral light transfer ensures efficient resource distribution in symbiont-bearing corals. <i>Journal of Experimental Biology</i> , 2014, 217, 489-498.	0.8	88
14	The Genome of a Southern Hemisphere Seagrass Species ( <i>Zostera muelleri</i> ). <i>Plant Physiology</i> , 2016, 172, 272-283.	2.3	88
15	The nature of the photosystem II reaction centre in the chlorophyll d-containing prokaryote, <i>Acaryochloris marina</i> . <i>Photochemical and Photobiological Sciences</i> , 2005, 4, 1060.	1.6	85
16	Microbial diversity of biofilm communities in microniches associated with the didemnid ascidian <i>Lissoclinum patella</i> . <i>ISME Journal</i> , 2012, 6, 1222-1237.	4.4	82
17	The major light-harvesting pigment protein of <i>Acaryochloris marina</i> . <i>FEBS Letters</i> , 2002, 514, 149-152.	1.3	79
18	The "other" coral symbiont: <i>Ostreobium</i> diversity and distribution. <i>ISME Journal</i> , 2017, 11, 296-299.	4.4	72

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19	The in situ light microenvironment of corals. <i>Limnology and Oceanography</i> , 2014, 59, 917-926.	1.6	70
20	Unique Origin and Lateral Transfer of Prokaryotic Chlorophyll-b and Chlorophyll-d Light-Harvesting Systems. <i>Molecular Biology and Evolution</i> , 2005, 22, 21-28.	3.5	67
21	Controversy on chloroplast origins. <i>FEBS Letters</i> , 1992, 301, 127-131.	1.3	64
22	In vivo Microscale Measurements of Light and Photosynthesis during Coral Bleaching: Evidence for the Optical Feedback Loop?. <i>Frontiers in Microbiology</i> , 2017, 8, 59.	1.5	64
23	“Super-quenching” state protects Symbiodinium from thermal stress” Implications for coral bleaching. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 840-847.	0.5	63
24	CALCIFICATION IN THE GREEN ALGA HALIMEDA. I. AN ULTRASTRUCTURE STUDY OF THALLUS DEVELOPMENT1. <i>Journal of Phycology</i> , 1977, 13, 6-16.	1.0	63
25	Structure of a large photosystem II supercomplex from <i>Acaryochloris marina</i> . <i>FEBS Letters</i> , 2005, 579, 1306-1310.	1.3	61
26	Water-oxidizing complex in Photosystem II: Its structure and relation to manganese-oxide based catalysts. <i>Coordination Chemistry Reviews</i> , 2020, 409, 213183.	9.5	61
27	Photoinhibition, UV-B and Algal Photosynthesis. <i>Advances in Photosynthesis and Respiration</i> , 2003, , 351-384.	1.0	56
28	Chlorophyll <i>f</i> -driven photosynthesis in a cavernous cyanobacterium. <i>ISME Journal</i> , 2015, 9, 2108-2111.	4.4	56
29	Chromatic photoacclimation extends utilisable photosynthetically active radiation in the chlorophyll <i>d</i> -containing cyanobacterium, <i>Acaryochloris marina</i> . <i>Photosynthesis Research</i> , 2009, 101, 69-75.	1.6	55
30	Photosynthesis in Algae. <i>Advances in Photosynthesis and Respiration</i> , 2003, , .	1.0	53
31	IMAGING OF OXYGEN DYNAMICS WITHIN THE ENDOLITHIC ALGAL COMMUNITY OF THE MASSIVE CORAL <i>PORITES LOBATA</i> . <i>Journal of Phycology</i> , 2008, 44, 541-550.	1.0	53
32	Chromatic photoacclimation, photosynthetic electron transport and oxygen evolution in the Chlorophyll <i>d</i> -containing oxyphotobacterium <i>Acaryochloris marina</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2007, 1767, 127-135.	0.5	52
33	Photosynthetic inorganic carbon acquisition of <i>Posidonia australis</i> . <i>Aquatic Botany</i> , 1996, 55, 149-157.	0.8	51
34	Excitation energy transfer from phycobiliprotein to chlorophyll <i>d</i> in intact cells of <i>Acaryochloris marina</i> studied by time- and wavelength-resolved fluorescence spectroscopy. <i>Photochemical and Photobiological Sciences</i> , 2005, 4, 1016.	1.6	48
35	Carbon-concentrating mechanisms in seagrasses. <i>Journal of Experimental Botany</i> , 2017, 68, 3773-3784.	2.4	48
36	Iron deficiency induces a chlorophyll <i>d</i> -binding Pcb antenna system around Photosystem I in <i>Acaryochloris marina</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2005, 1708, 367-374.	0.5	46

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37	Genome-wide survey of the seagrass <i>Zostera muelleri</i> suggests modification of the ethylene signalling network. <i>Journal of Experimental Botany</i> , 2015, 66, 1489-1498.	2.4	46
38	The biological water-oxidizing complex at the nano-bio interface. <i>Trends in Plant Science</i> , 2015, 20, 559-568.	4.3	46
39	Time-resolved comparative molecular evolution of oxygenic photosynthesis. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2021, 1862, 148400.	0.5	44
40	Light-Harvesting Systems in Algae. <i>Advances in Photosynthesis and Respiration</i> , 2003, , 277-304.	1.0	43
41	Photosynthetic Acclimation of Symbiodinium in hospite Depends on Vertical Position in the Tissue of the Scleractinian Coral <i>Montastrea curta</i> . <i>Frontiers in Microbiology</i> , 2016, 7, 230.	1.5	43
42	Calcification in the Green Alga <i>Halimeda</i> . <i>Journal of Experimental Botany</i> , 1976, 27, 894-907.	2.4	42
43	Inhibition of photosynthetic CO <sub>2</sub> fixation in the coral <i>Pocillopora damicornis</i> and its relationship to thermal bleaching. <i>Journal of Experimental Biology</i> , 2014, 217, 2150-62.	0.8	42
44	The emergence of molecular profiling and omics techniques in seagrass biology; furthering our understanding of seagrasses. <i>Functional and Integrative Genomics</i> , 2016, 16, 465-480.	1.4	41
45	Global distribution of a chlorophyll cyanobacterial marker. <i>ISME Journal</i> , 2020, 14, 2275-2287.	4.4	41
46	Proposed mechanisms for water oxidation by Photosystem II and nanosized manganese oxides. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2017, 1858, 156-174.	0.5	40
47	Effective light absorption and absolute electron transport rates in the coral <i>Pocillopora damicornis</i> . <i>Plant Physiology and Biochemistry</i> , 2014, 83, 159-167.	2.8	37
48	<i>Symbiodinium</i> sp. cells produce light-induced intra- and extracellular singlet oxygen, which mediates photodamage of the photosynthetic apparatus and has the potential to interact with the animal host in coral symbiosis. <i>New Phytologist</i> , 2016, 212, 472-484.	3.5	37
49	Microenvironmental Ecology of the Chlorophyll b-Containing Symbiotic Cyanobacterium <i>Prochloron</i> in the Didemnid Ascidian <i>Lissoclinum patella</i> . <i>Frontiers in Microbiology</i> , 2012, 3, 402.	1.5	36
50	The Effect of Diel Temperature and Light Cycles on the Growth of <i>Nannochloropsis oculata</i> in a Photobioreactor Matrix. <i>PLoS ONE</i> , 2014, 9, e86047.	1.1	36
51	A Novel Epiphytic Chlorophyll d-containing Cyanobacterium Isolated from a Mangrove-associated Red Alga. <i>Journal of Phycology</i> , 2012, 48, 1320-1327.	1.0	32
52	Raman properties of chlorophyll d, the major pigment of <i>Acaryochloris marina</i> : studies using both Raman spectroscopy and density functional theory. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2004, 60, 527-534.	2.0	31
53	Formyl group modification of chlorophyll a: a major evolutionary mechanism in oxygenic photosynthesis. <i>Plant, Cell and Environment</i> , 2013, 36, 521-527.	2.8	31
54	Low oxygen affects photophysiology and the level of expression of two-carbon metabolism genes in the seagrass <i>Zostera muelleri</i> . <i>Photosynthesis Research</i> , 2018, 136, 147-160.	1.6	31

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55	Light Respiratory Processes and Gross Photosynthesis in Two Scleractinian Corals. <i>PLoS ONE</i> , 2014, 9, e110814.	1.1	31
56	Algal Plastids: Their Fine Structure and Properties. <i>Advances in Photosynthesis and Respiration</i> , 2003, , 11-28.	1.0	30
57	The Evolution of Chlorophylls and Photosynthesis. , 2006, , 261-282.		30
58	Action spectra of oxygen production and chlorophyll a fluorescence in the green microalga <i>Nannochloropsis oculata</i> . <i>Bioresource Technology</i> , 2014, 169, 320-327.	4.8	29
59	Raman spectroscopy of chlorophyll d from <i>Acaryochloris marina</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2002, 1556, 89-91.	0.5	28
60	Photosynthetic acclimation of <i>Nannochloropsis oculata</i> investigated by multi-wavelength chlorophyll fluorescence analysis. <i>Bioresource Technology</i> , 2014, 167, 521-529.	4.8	28
61	Leaf growth in early development is key to biomass heterosis in <i>Arabidopsis</i> . <i>Journal of Experimental Botany</i> , 2020, 71, 2439-2450.	2.4	27
62	Examination of the Photophysical Processes of Chlorophyll d Leading to a Clarification of Proposed Uphill Energy Transfer Processes in Cells of <i>Acaryochloris marina</i> . <i>Photochemistry and Photobiology</i> , 2003, 77, 628.	1.3	26
63	Plastid origins. <i>Trends in Ecology and Evolution</i> , 1992, 7, 378-383.	4.2	25
64	In situ thermal dynamics of shallow water corals is affected by tidal patterns and irradiance. <i>Marine Biology</i> , 2012, 159, 1773-1782.	0.7	25
65	Genomic and proteomic characterization of two novel siphovirus infecting the sedentary facultative epibiont cyanobacterium <i>Acaryochloris marina</i> . <i>Environmental Microbiology</i> , 2015, 17, 4239-4252.	1.8	25
66	Biofilm Growth and Near-Infrared Radiation-Driven Photosynthesis of the Chlorophyll d-Containing Cyanobacterium <i>Acaryochloris marina</i> . <i>Applied and Environmental Microbiology</i> , 2012, 78, 3896-3904.	1.4	24
67	Optical Properties of Corals Distort Variable Chlorophyll Fluorescence Measurements. <i>Plant Physiology</i> , 2019, 179, 1608-1619.	2.3	24
68	Chlorophyll d as the major photopigment in <i>Acaryochloris marina</i> . <i>Journal of Porphyrins and Phthalocyanines</i> , 2002, 06, 763-773.	0.4	22
69	Diversity of cyanobacterial biomarker genes from the stromatolites of Shark Bay, Western Australia. <i>Environmental Microbiology</i> , 2013, 15, 1464-1475.	1.8	21
70	Discovery of Cyanophage Genomes Which Contain Mitochondrial DNA Polymerase. <i>Molecular Biology and Evolution</i> , 2011, 28, 2269-2274.	3.5	20
71	Evolution of the Inner Light-Harvesting Antenna Protein Family of Cyanobacteria, Algae, and Plants. <i>Journal of Molecular Evolution</i> , 2007, 64, 321-331.	0.8	19
72	Non-intrusive Assessment of Photosystem II and Photosystem I in Whole Coral Tissues. <i>Frontiers in Marine Science</i> , 2017, 4, .	1.2	19

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73	Correlation of bio-optical properties with photosynthetic pigment and microorganism distribution in microbial mats from Hamelin Pool, Australia. <i>FEMS Microbiology Ecology</i> , 2019, 95, .	1.3	18
74	Multiple strategies for a high light existence in a tropical marine macroalga. <i>Photosynthesis Research</i> , 1997, 53, 149-159.	1.6	17
75	Gas Transfer Controls Carbon Limitation During Biomass Production by Marine Microalgae. <i>ChemSusChem</i> , 2015, 8, 2727-2736.	3.6	17
76	Photosynthesis and Light Harvesting in Algae. , 2016, , 67-87.		16
77	Gene duplication and the evolution of photosynthetic reaction center proteins. <i>FEBS Letters</i> , 1996, 385, 193-196.	1.3	15
78	The molecular structure of the IsiA-Photosystem I supercomplex, modelled from high-resolution, crystal structures of Photosystem I and the CP43 protein. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2010, 1797, 457-465.	0.5	14
79	Thermal effects of tissue optics in symbiont-bearing reef-building corals. <i>Limnology and Oceanography</i> , 2012, 57, 1816-1825.	1.6	14
80	Excitation Dynamics in the Core Antenna in the Photosystem I Reaction Center of the Chlorophyll-D-Containing Photosynthetic Prokaryote <i>Acaryochloris marina</i> . <i>Journal of Physical Chemistry B</i> , 2003, 107, 1452-1457.	1.2	13
81	Lack of Methylated Hopanoids Renders the Cyanobacterium <i>Nostoc punctiforme</i> Sensitive to Osmotic and pH Stress. <i>Applied and Environmental Microbiology</i> , 2017, 83, .	1.4	13
82	Photosynthesis and Metabolism of Seagrasses. , 2018, , 315-342.		13
83	Rapid Mass Movement of Chloroplasts during Segment Formation of the Calcifying Siphonolean Green Alga, <i>Halimeda macroloba</i> . <i>PLoS ONE</i> , 2011, 6, e20841.	1.1	13
84	SeagrassDB: An open-source transcriptomics landscape for phylogenetically profiled seagrasses and aquatic plants. <i>Scientific Reports</i> , 2018, 8, 2749.	1.6	12
85	Light transmission of the marine diatom <i>Coscinodiscus wailesii</i> . , 2012, , .		11
86	Biology of the Chlorophyll D-Containing Cyanobacterium <i>Acaryochloris Marina</i> . <i>Cellular Origin and Life in Extreme Habitats</i> , 2007, , 101-123.	0.3	11
87	Reactive oxygen production induced by near-infrared radiation in three strains of the Chl d-containing cyanobacterium <i>Acaryochloris marina</i> . <i>F1000Research</i> , 2013, 2, 44.	0.8	10
88	Genome-resolved metagenomics provides insights into the functional complexity of microbial mats in Blue Holes, Shark Bay. <i>FEMS Microbiology Ecology</i> , 2022, 98, .	1.3	10
89	Rapid TaqMan-Based Quantification of Chlorophyll <i>d</i> -Containing Cyanobacteria in the Genus <i>Acaryochloris</i> . <i>Applied and Environmental Microbiology</i> , 2014, 80, 3244-3249.	1.4	9
90	Photosynthesis and Metabolism in Seagrasses at the Cellular Level. , 0, , 323-345.		9

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91	The Algae and their General Characteristics. <i>Advances in Photosynthesis and Respiration</i> , 2003, , 1-10.	1.0	7
92	An electron paramagnetic resonance investigation of the electron transfer reactions in the chlorophyll d-containing photosystem I of <i>Acaryochloris marina</i> . <i>FEBS Letters</i> , 2007, 581, 1567-1571.	1.3	7
93	Ecological roles of zoosporic parasites in blue carbon ecosystems. <i>Fungal Ecology</i> , 2013, 6, 319-327.	0.7	7
94	Under high light stress two Indo-Pacific coral species display differential photodamage and photorepair dynamics. <i>Marine Biology</i> , 2016, 163, 1.	0.7	7
95	<i>In situ</i> metabolomic- and transcriptomic-profiling of the host-associated cyanobacteria <i>Prochloron</i> and <i>Acaryochloris marina</i> . <i>ISME Journal</i> , 2018, 12, 556-567.	4.4	7
96	Microenvironment and phylogenetic diversity of <i>Prochloron</i> inhabiting the surface of crustose didemnid ascidians. <i>Environmental Microbiology</i> , 2015, 17, 4121-4132.	1.8	5
97	Reactive oxygen production induced by near-infrared radiation in three strains of the Chl d-containing cyanobacterium <i>Acaryochloris marina</i> . <i>F1000Research</i> , 2013, 2, 44.	0.8	5
98	Contributions of Henrik Lundegårdh. , 2005, , 139-144.		5
99	Estimating Internal Phosphorus Pools in Macroalgae Using Radioactive Phosphorus and Trichloroacetic Acid Extracts. <i>Analytical Biochemistry</i> , 2001, 297, 191-192.	1.1	4
100	Photosynthesis and Metabolism in Seagrasses at the Cellular Level. , 2007, , 323-345.		4
101	Chapter 22. The Evolution of Photosynthesis. <i>Comprehensive Series in Photochemical and Photobiological Sciences</i> , 2007, , 491-521.	0.3	4
102	Light-Harvesting in Cyanobacteria and Eukaryotic Algae: An Overview. <i>Advances in Photosynthesis and Respiration</i> , 2020, , 207-260.	1.0	4
103	Effect of reduced irradiance on <sup>13</sup> C uptake, gene expression and protein activity of the seagrass <i>Zostera muelleri</i> . <i>Marine Environmental Research</i> , 2019, 149, 80-89.	1.1	2
104	Editorial: Optics and Ecophysiology of Coral Reef Organisms. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	2
105	Recent Advances in the Photosynthesis of Cyanobacteria and Eukaryotic Algae. <i>Advances in Photosynthesis and Respiration</i> , 2020, , 3-9.	1.0	1
106	The Function of MgDVP in a Chlorophyll d-Containing Organism. , 2008, , 1125-1128.		1
107	A Cyanobacteria Enriched Layer of Shark Bay Stromatolites Reveals a New <i>Acaryochloris</i> Strain Living in Near Infrared Light. <i>Microorganisms</i> , 2022, 10, 1035.	1.6	1
108	Electrogenic plasma membrane H <sup>+</sup> -ATPase activity using voltage sensitive dyes. <i>Journal of Bioenergetics and Biomembranes</i> , 2010, 42, 387-393.	1.0	0

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109	The Golden Apples of the Sun: the History of Photosynthesis’so Far. Advanced Topics in Science and Technology in China, 2013, , 834-839.	0.0	0