Arthur Grossman

List of Publications by Year
in descending order

131 papers	13,879 citations	30070 54 h-index	22166 113 g-index
142 all docs	142 docs citations	142 times ranked	11264 citing authors

#	Article	IF	Citations
1	Deep imaging flow cytometry. Lab on A Chip, 2022, 22, 876-889.	6.0	22
2	The chromatin organization of a chlorarachniophyte nucleomorph genome. Genome Biology, 2022, 23, 65.	8.8	4
3	Systematic characterization of gene function in the photosynthetic alga Chlamydomonas reinhardtii. Nature Genetics, 2022, 54, 705-714.	21.4	42
4	Differential Phototactic Behavior of Closely Related Cyanobacterial Isolates from Yellowstone Hot Spring Biofilms. Applied and Environmental Microbiology, 2022, 88, e0019622.	3.1	2
5	Cnidarian-Symbiodiniaceae symbiosis establishment is independent of photosynthesis. Current Biology, 2022, 32, 2402-2415.e4.	3.9	23
6	Symbiosis with Dinoflagellates Alters Cnidarian Cell-Cycle Gene Expression. Cellular Microbiology, 2022, 2022, 1-20.	2.1	4
7	Transcriptional regulation of photoprotection in dark-to-light transitionâ€"More than just a matter of excess light energy. Science Advances, 2022, 8, .	10.3	17
8	Retrotransposition facilitated the establishment of a primary plastid in the thecate amoeba Paulinella. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	5
9	Intelligent imageâ€activated sorting of Chlamydomonas reinhardtii by mitochondrial localization. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2022, 101, 1027-1034.	1.5	4
10	Immunolocalization of Metabolite Transporter Proteins in a Model Cnidarian-Dinoflagellate Symbiosis. Applied and Environmental Microbiology, 2022, 88, .	3.1	3
11	Impact of Menthol on Growth and Photosynthetic Function of Breviolum Minutum (Dinoflagellata, Dinophyceae, Symbiodiniaceae) and Interactions with its Aiptasia Host. Journal of Phycology, 2021, 57, 245-257.	2.3	7
12	moving toward more model algae. Journal of Phycology, 2021, 57, 51-53.	2.3	4
13	Interplay of four auxiliary factors is required for the assembly of photosystem I reaction center subcomplex. Plant Journal, 2021, 106, 1075-1086.	5.7	15
14	Transcription-dependent domain-scale three-dimensional genome organization in the dinoflagellate Breviolum minutum. Nature Genetics, 2021, 53, 613-617.	21.4	38
15	Why is primary endosymbiosis so rare?. New Phytologist, 2021, 231, 1693-1699.	7.3	17
16	Photo-movement in the sea anemone Aiptasia influenced by light quality and symbiotic association. Coral Reefs, 2020, 39, 47-54.	2.2	16
17	Metabolic control of acclimation to nutrient deprivation dependent on polyphosphate synthesis. Science Advances, 2020, 6, .	10.3	22
18	Polyphosphate: A Multifunctional Metabolite in Cyanobacteria and Algae. Frontiers in Plant Science, 2020, 11, 938.	3.6	94

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19	Phylogenetic analysis of cell-cycle regulatory proteins within the Symbiodiniaceae. Scientific Reports, 2020, 10, 20473.	3.3	1
20	A phytophotonic approach to enhanced photosynthesis. Energy and Environmental Science, 2020, 13, 4794-4807.	30.8	5
21	Subâ€cellular imaging shows reduced photosynthetic carbon and increased nitrogen assimilation by the nonâ€native endosymbiont Durusdinium trenchii in the model cnidarian Aiptasia. Environmental Microbiology, 2020, 22, 3741-3753.	3.8	22
22	Symbiont population control by host-symbiont metabolic interaction in Symbiodiniaceae-cnidarian associations. Nature Communications, 2020, 11, 108.	12.8	87
23	Paulinella, a model for understanding plastid primary endosymbiosis. Journal of Phycology, 2020, 56, 837-843.	2.3	35
24	Transcriptome Reprogramming of Symbiodiniaceae Breviolum minutum in Response to Casein Amino Acids Supplementation. Frontiers in Physiology, 2020, 11, 574654.	2.8	5
25	Proteomics quantifies protein expression changes in a model cnidarian colonised by a thermally tolerant but suboptimal symbiont. ISME Journal, 2019, 13, 2334-2345.	9.8	44
26	Alternative outlets for sustaining photosynthetic electron transport during dark-to-light transitions. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11518-11527.	7.1	42
27	A genome-wide algal mutant library and functional screen identifies genes required for eukaryotic photosynthesis. Nature Genetics, 2019, 51, 627-635.	21.4	234
28	Towards sustainable microalgal biomass processing: anaerobic induction of autolytic cell-wall self-ingestion in lipid-rich Nannochloropsis slurries. Green Chemistry, 2019, 21, 2967-2982.	9.0	34
29	The mitochondrial alternative oxidase from Chlamydomonas reinhardtii enables survival in high light. Journal of Biological Chemistry, 2019, 294, 1380-1395.	3.4	38
30	Building the GreenCut2 suite of proteins to unmask photosynthetic function and regulation. Microbiology (United Kingdom), 2019, 165, 697-718.	1.8	13
31	GreenCut protein <scp>CPLD</scp>49 of Chlamydomonas reinhardtii associates with thylakoid membranes and is required for cytochrome b₆f complex accumulation. Plant Journal, 2018, 94, 1023-1037.	5.7	10
32	Glucose-Induced Trophic Shift in an Endosymbiont Dinoflagellate with Physiological and Molecular Consequences. Plant Physiology, 2018, 176, 1793-1807.	4.8	32
33	Prolonged and highly efficient intracellular extraction of photosynthetic electrons from single algal cells by optimized nanoelectrode insertion. Nano Research, 2018, 11, 397-409.	10.4	17
34	Phylogenetic characterization of transporter proteins in the cnidarian-dinoflagellate symbiosis. Molecular Phylogenetics and Evolution, 2018, 120, 307-320.	2.7	30
35	Partner switching and metabolic flux in a model cnidarianâ€“dinoflagellate symbiosis. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, .	2.6	72
36	Impact of light intensity and quality on chromatophore and nuclear gene expression in Paulinella chromatophora, an amoeba with nascent photosynthetic organelles. Plant Journal, 2017, 90, 221-234.	5.7	29

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37	A robust protocol for efficient generation, and genomic characterization of insertional mutants of Chlamydomonas reinhardtii. Plant Methods, 2017, 13, 22.	4.3	18
38	Thermal Shock Induces Host Proteostasis Disruption and Endoplasmic Reticulum Stress in the Model Symbiotic Cnidarian Aiptasia. Journal of Proteome Research, 2017, 16, 2121-2134.	3.7	56
39	A Plant Cryptochrome Controls Key Features of the Chlamydomonas Circadian Clock and Its Life Cycle. Plant Physiology, 2017, 174, 185-201.	4.8	50
40	Bilin-Dependent Photoacclimation in Chlamydomonas reinhardtii. Plant Cell, 2017, 29, 2711-2726.	6.6	36
41	Biotic interactions as drivers of algal origin and evolution. New Phytologist, 2017, 216, 670-681.	7.3	25
42	Optimal nutrient exchange and immune responses operate in partner specificity in the cnidarian-dinoflagellate symbiosis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13194-13199.	7.1	181
43	Nutrient scavenging and energy management: acclimation responses in nitrogen and sulfur deprived Chlamydomonas. Current Opinion in Plant Biology, 2017, 39, 114-122.	7.1	42
44	Flocculation of Chlamydomonas reinhardtii with Different Phenotypic Traits by Metal Cations and High pH. Frontiers in Plant Science, 2017, 8, 1997.	3.6	28
45	Pyrenoid loss in Chlamydomonas reinhardtii causes limitations in CO2 supply, but not thylakoid operating efficiency. Journal of Experimental Botany, 2017, 68, 3903-3913.	4.8	33
46	Nutrient Acquisition: The Generation of Bioactive Vitamin B 12 by Microalgae. Current Biology, 2016, 26, R319-R321.	3.9	48
47	Gene transfers from diverse bacteria compensate for reductive genome evolution in the chromatophore of Paulinella chromatophora. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12214-12219.	7.1	127
48	Patterned Nanowire Electrode Array for Direct Extraction of Photosynthetic Electrons from Multiple Living Algal Cells. Advanced Functional Materials, 2016, 26, 7679-7689.	14.9	23
49	Development of a toolbox to dissect host-endosymbiont interactions and protein trafficking in the trypanosomatid Angomonas deanei. BMC Evolutionary Biology, 2016, 16, 247.	3.2	26
50	The Type II NADPH Dehydrogenase Facilitates Cyclic Electron Flow, Energy-Dependent Quenching, and Chlororespiratory Metabolism during Acclimation of Chlamydomonas reinhardtii to Nitrogen Deprivation. Plant Physiology, 2016, 170, 1975-1988.	4.8	51
51	An Indexed, Mapped Mutant Library Enables Reverse Genetics Studies of Biological Processes in Chlamydomonas reinhardtii. Plant Cell, 2016, 28, 367-387.	6.6	336
52	Tetratricopeptide repeat protein protects photosystem I from oxidative disruption during assembly. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2774-2779.	7.1	34
53	Genome Analysis of Planctomycetes Inhabiting Blades of the Red Alga Porphyra umbilicalis. PLoS ONE, 2016, 11, e0151883.	2.5	39
54	Relative Contributions of Various Cellular Mechanisms to Loss of Algae during Cnidarian Bleaching. PLoS ONE, 2016, 11, e0152693.	2.5	86

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55	Algae after dark: mechanisms to cope with anoxic/hypoxic conditions. Plant Journal, 2015, 82, 481-503.	5.7	46
56	Menthol-induced bleaching rapidly and effectively provides experimental aposymbiotic sea anemones (Aiptasiasp.) for symbiosis investigations. Journal of Experimental Biology, 2015, 219, 306-10.	1.7	70
57	Symbiodinium transcriptome and global responses of cells to immediate changes in light intensity when grown under autotrophic or mixotrophic conditions. Plant Journal, 2015, 82, 67-80.	5.7	74
58	The Use of Contact Mode Atomic Force Microscopy in Aqueous Medium for Structural Analysis of Spinach Photosynthetic Complexes. Plant Physiology, 2015, 169, 1318-1332.	4.8	26
59	Critical role ofChlamydomonas reinhardtiiferredoxin-5 in maintaining membrane structure and dark metabolism. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14978-14983.	7.1	58
60	Critical Function of a Chlamydomonas reinhardtii Putative Polyphosphate Polymerase Subunit during Nutrient Deprivation Â. Plant Cell, 2014, 26, 4214-4229.	6.6	72
61	Alternative Acetate Production Pathways inChlamydomonas reinhardtiiduring Dark Anoxia and the Dominant Role of Chloroplasts in Fermentative Acetate Production. Plant Cell, 2014, 26, 4499-4518.	6.6	44
62	The Chlamydomonas genome project: a decade on. Trends in Plant Science, 2014, 19, 672-680.	8.8	145
63	Nitrogen-Sparing Mechanisms in Chlamydomonas Affect the Transcriptome, the Proteome, and Photosynthetic Metabolism. Plant Cell, 2014, 26, 1410-1435.	6.6	314
64	The GreenCut: re-evaluation of physiological role of previously studied proteins and potential novel protein functions. Photosynthesis Research, 2013, 116, 427-436.	2.9	35
65	Coral Bleaching Independent of Photosynthetic Activity. Current Biology, 2013, 23, 1782-1786.	3.9	103
66	Isolation of clonal axenic strains of the symbiotic dinoflagellate Symbiodinium and their growth and host specificity¹. Journal of Phycology, 2013, 49, 447-458.	2.3	131
67	Tiered Regulation of Sulfur Deprivation Responses in Chlamydomonas reinhardtii and Identification of an Associated Regulatory Factor Â Â. Plant Physiology, 2013, 162, 195-211.	4.8	34
68	Novel Thylakoid Membrane GreenCut Protein CPLD38 Impacts Accumulation of the Cytochrome b6f Complex and Associated Regulatory Processes. Journal of Biological Chemistry, 2013, 288, 7024-7036.	3.4	22
69	Retrograde bilin signaling enables Chlamydomonas greening and phototrophic survival. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3621-3626.	7.1	107
70	Porphyra (Bangiophyceae) Transcriptomes Provide Insights Into Red Algal Development And Metabolism. Journal of Phycology, 2012, 48, 1328-1342.	2.3	56
71	Trafficking of protein into the recently established photosynthetic organelles of Paulinella chromatophora. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5340-5345.	7.1	154
72	A Flavin Binding Cryptochrome Photoreceptor Responds to Both Blue and Red Light in Chlamydomonas reinhardtii. Plant Cell, 2012, 24, 2992-3008.	6.6	151

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73	Multiple facets of anoxic metabolism and hydrogen production in the unicellular green alga Chlamydomonas reinhardtii. New Phytologist, 2011, 190, 279-288.	7.3	94
74	In situ dynamics of O2, pH and cyanobacterial transcripts associated with CCM, photosynthesis and detoxification of ROS. ISME Journal, 2011, 5, 317-328.	9.8	58
75	Reverse genetics in Chlamydomonas: a platform for isolating insertional mutants. Plant Methods, 2011, 7, 24.	4.3	87
76	Community ecology of hot spring cyanobacterial mats: predominant populations and their functional potential. ISME Journal, 2011, 5, 1262-1278.	9.8	206
77	Endosymbiotic Gene Transfer and Transcriptional Regulation of Transferred Genes in Paulinella chromatophora. Molecular Biology and Evolution, 2011, 28, 407-422.	8.9	110
78	The GreenCut2 Resource, a Phylogenomically Derived Inventory of Proteins Specific to the Plant Lineage. Journal of Biological Chemistry, 2011, 286, 21427-21439.	3.4	113
79	Phylogenomic analysis of the Chlamydomonas genome unmasks proteins potentially involved in photosynthetic function and regulation. Photosynthesis Research, 2010, 106, 3-17.	2.9	51
80	A PERSPECTIVE ON PHOTOSYNTHESIS IN THE OLIGOTROPHIC OCEANS: HYPOTHESES CONCERNING ALTERNATE ROUTES OF ELECTRON FLOW1. Journal of Phycology, 2010, 46, 629-634.	2.3	31
81	Identification and Regulation of Plasma Membrane Sulfate Transporters in Chlamydomonas Â Â. Plant Physiology, 2010, 153, 1653-1668.	4.8	90
82	RNA-Seq Analysis of Sulfur-Deprived Chlamydomonas Cells Reveals Aspects of Acclimation Critical for Cell Survival. Plant Cell, 2010, 22, 2058-2084.	6.6	253
83	Genetic Interactions Between Regulators of Chlamydomonas Phosphorus and Sulfur Deprivation Responses. Genetics, 2009, 181, 889-905.	2.9	53
84	Picophytoplankton responses to changing nutrient and light regimes during a bloom. Marine Biology, 2009, 156, 1531-1546.	1.5	52
85	UNDERSTANDING NITROGEN LIMITATION IN AUREOCOCCUS ANOPHAGEFFERENS (PELAGOPHYCEAE) THROUGH cDNA AND qRTâ€PCR ANALYSIS¹. Journal of Phycology, 2008, 44, 1235-1249.	2.3	56
86	The Central Role of a SNRK2 Kinase in Sulfur Deprivation Responses Â Â. Plant Physiology, 2008, 147, 216-227.	4.8	70
87	A photosynthetic strategy for coping in a highâ€light, lowâ€nutrient environment. Limnology and Oceanography, 2008, 53, 900-913.	3.1	90
88	Responses of a Thermophilic Synechococcus Isolate from the Microbial Mat of Octopus Spring to Light. Applied and Environmental Microbiology, 2007, 73, 4268-4278.	3.1	40
89	Corrigendum to â€œA novel analytical method for in vivo phosphate trackingâ€•[FEBS Lett. 580 (2006) 5885-5893]. FEBS Letters, 2007, 581, 579-579.	2.8	2
90	Population level functional diversity in a microbial community revealed by comparative genomic and metagenomic analyses. ISME Journal, 2007, 1, 703-713.	9.8	216

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91	The Chlamydomonas Genome Reveals the Evolution of Key Animal and Plant Functions. Science, 2007, 318, 245-250.	12.6	2,354
92	REGENERATION OF A CELL FROM PROTOPLASM. Journal of Phycology, 2006, 42, 1-5.	2.3	1
93	EXAMINATION OF DIEL CHANGES IN GLOBAL TRANSCRIPT ACCUMULATION IN SYNECHOCYSTIS (CYANOBACTERIA)1. Journal of Phycology, 2006, 42, 622-636.	2.3	18
94	Phototropin involvement in the expression of genes encoding chlorophyll and carotenoid biosynthesis enzymes and LHC apoproteins inChlamydomonas reinhardtii. Plant Journal, 2006, 48, 1-16.	5.7	115
95	In situanalysis of nitrogen fixation and metabolic switching in unicellular thermophilic cyanobacteria inhabiting hot spring microbial mats. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2398-2403.	7.1	239
96	Insights into the acclimation of Chlamydomonas reinhardtii to sulfur deprivation. Photosynthesis Research, 2005, 86, 475-489.	2.9	63
97	Effects of high light on transcripts of stress-associated genes for the cyanobacteria Synechocystis sp. PCC 6803 and Prochlorococcus MED4 and MIT9313. Microbiology (United Kingdom), 2004, 150, 1271-1281.	1.8	37
98	Chlamydomonas reinhardtiiin the Landscape of Pigments. Annual Review of Genetics, 2004, 38, 119-173.	7.6	115
99	A molecular understanding of complementary chromatic adaptation. Photosynthesis Research, 2003, 76, 207-215.	2.9	69
100	Chlamydomonas reinhardtii at the Crossroads of Genomics. Eukaryotic Cell, 2003, 2, 1137-1150.	3.4	143
101	Multiple Light Inputs Control Phototaxis in Synechocystis sp. Strain PCC6803. Journal of Bacteriology, 2003, 185, 1599-1607.	2.2	96
102	Analysis of thehligene family in marine and freshwater cyanobacteria. FEMS Microbiology Letters, 2002, 215, 209-219.	1.8	76
103	Analysis of the hli gene family in marine and freshwater cyanobacteria. FEMS Microbiology Letters, 2002, 215, 209-219.	1.8	2
104	Transformation of the diatom Phaeodactylum tricornutum (Bacillariophyceae) with a variety of selectable marker and reporter genes. Journal of Phycology, 2001, 36, 379-386.	2.3	316
105	THE gamma SUBUNITS OF PHYCOERYTHRIN FROM A RED ALGA: POSITION IN PHYCOBILISOMES AND SEQUENCE CHARACTERIZATION. Journal of Phycology, 2001, 37, 64-70.	2.3	20
106	Introduction. Photosynthesis Research, 2001, 67, 1-3.	2.9	1
107	Sulfur Economy and Cell Wall Biosynthesis during Sulfur Limitation of Chlamydomonas reinhardtii. Plant Physiology, 2001, 127, 665-673.	4.8	68
108	The High Light-inducible Polypeptides in Synechocystis PCC6803. Journal of Biological Chemistry, 2001, 276, 306-314.	3.4	214

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109	Novel Motility Mutants of Synechocystis Strain PCC 6803 Generated by In Vitro Transposon Mutagenesis. Journal of Bacteriology, 2001, 183, 6140-6143.	2.2	63
110	Light regulation of type IV pilus-dependent motility by chemosensor-like elements in Synechocystis PCC6803. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 7540-7545.	7.1	173
111	CHARACTERIZATION OF A GENE ENCODING THE LIGHT-HARVESTING VIOLAXANTHIN-CHLOROPHYLL PROTEIN OF NANNOCHLOROPSIS SP. (EUSTIGMATOPHYCEAE). Journal of Phycology, 2000, 36, 563-570.	2.3	22
112	Type IV pilus biogenesis and motility in the cyanobacterium Synechocystis sp. PCC6803. Molecular Microbiology, 2000, 37, 941-951.	2.5	226
113	A pigment-binding protein essential for regulation of photosynthetic light harvesting. Nature, 2000, 403, 391-395.	27.8	1,354
114	A Gene of Synechocystis sp. Strain PCC 6803 Encoding a Novel Iron Transporter. Journal of Bacteriology, 2000, 182, 6523-6524.	2.2	30
115	Sac3, an Snf1-like Serine/Threonine Kinase That Positively and Negatively Regulates the Responses of Chlamydomonas to Sulfur Limitation. Plant Cell, 1999, 11, 1179-1190.	6.6	117
116	Title is missing!. Plant Molecular Biology Reporter, 1999, 17, 221-224.	1.8	14
117	THE USE OF CHLAMYDOMONAS (CHLOROPHYTA: VOLVOCALES) AS A MODEL ALGAL SYSTEM FOR GENOME STUDIES AND THE ELUCIDATION OF PHOTOSYNTHETIC PROCESSES. Journal of Phycology, 1998, 34, 907-917.	2.3	29
118	Arabidopsis Mutants Define a Central Role for the Xanthophyll Cycle in the Regulation of Photosynthetic Energy Conversion. Plant Cell, 1998, 10, 1121-1134.	6.6	882
119	High-Efficiency Transformation of Chlamydomonas reinhardtii by Electroporation. Genetics, 1998, 148, 1821-1828.	2.9	400
120	DIFFERENCES IN THE PROTEIN PROFILES OF CULTURED AND ENDOSYMBIOTIC SYMBIODINIUM SP. (PYRROPHYTA) FROM THE ANEMONE AIPTASIA PALLIDA (ANTHOZOA)1. Journal of Phycology, 1997, 33, 44-53.	2.3	39
121	Phosphorelay control of phycobilisome biogenesis during complementary chromatic adaptation. Photosynthesis Research, 1997, 53, 95-108.	2.9	20
122	Title is missing!. Photosynthesis Research, 1997, 53, 173-184.	2.9	12
123	THE STRUCTURE OF PHYCOBILISOMES IN MUTANTS OF Synechococcus sp. STRAIN PCC 7942 DEVOID OF SPECIFIC LINKER POLYPEPTIDES. Photochemistry and Photobiology, 1995, 61, 298-302.	2.5	4
124	The gene family encoding the fucoxanthin chlorophyll proteins from the brown alga Macrocystis pyrifera. Molecular Genetics and Genomics, 1995, 246, 455-464.	2.4	129
125	Characterization of genes encoding the light-harvesting proteins in diatoms: biogenesis of the fucoxanthin chlorophylla/c protein complex. Journal of Applied Phycology, 1994, 6, 225-230.	2.8	23
126	Sequences Controlling Transcription of the Chlamydomonas reinhardtii Î²₂-Tubulin Gene after Deflagellation and during the Cell Cycle. Molecular and Cellular Biology, 1994, 14, 5165-5174.	2.3	47

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127	THE PHYCOBILISOME Î²18SUBUNIT GENE OF ALLOPHYCOCYANIN IS LOCATED ON THE PLASTID GENOME INAGLAOTHAMNION NEGLECTUM(RHODOPHYTA) AND CO TRANSCRIBED WITH AN UNIDENTIFIED OPEN READING FRAME1. Journal of Phycology, 1993, 29, 716-718.	2.3	11
128	Environmental effects on the light-harvesting complex of cyanobacteria. Journal of Bacteriology, 1993, 175, 575-582.	2.2	75
129	The phycobilisome, a light-harvesting complex responsive to environmental conditions. Microbiological Reviews, 1993, 57, 725-749.	10.1	475
130	Chromatic adaptation and the events involved in phycobilisome biosynthesis. Plant, Cell and Environment, 1990, 13, 651-666.	5.7	48
131	Optimization of protein synthesis in isolated higher plant chloroplasts. Identification of paused translation intermediates. FEBS Journal, 1986, 155, 331-338.	0.2	74