Matthew C Posewitz

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/11740341/publications.pdf

Version: 2024-02-01

88 papers	10,475 citations	66343 42 h-index	56724 83 g-index
88 all docs	88 docs citations	88 times ranked	9610 citing authors

#	Article	IF	Citations
1	Adaptive Laboratory Evolution for algal strain improvement: methodologies and applications. Algal Research, 2021, 53, 102122.	4.6	27
2	Picochlorum celeri as a model system for robust outdoor algal growth in seawater. Scientific Reports, 2021, 11, 11649.	3.3	30
3	The Genome of the Haptophyte Diacronema lutheri (Pavlova lutheri, Pavlovales): A Model for Lipid Biosynthesis in Eukaryotic Algae. Genome Biology and Evolution, 2021, 13, .	2.5	7
4	CRISPR/Cas9 disruption of glucan synthase in Nannochloropsis gaditana attenuates accumulation of Î²-1,3-glucose oligomers. Algal Research, 2021, 58, 102385.	4.6	5
5	Pigment modulation in response to irradiance intensity in the fast-growing alga Picochlorum celeri. Algal Research, 2021, 58, 102370.	4.6	12
6	The complete mitogenome and plastome of the haptophyte Pavlova lutheri NIVA-4/92. Mitochondrial DNA Part B: Resources, 2020, 5, 2748-2749.	0.4	7
7	Genome editing using Cas9-RNA ribonucleoprotein complexes in the high-productivity marine alga Picochlorum celeri. Algal Research, 2020, 49, 101944.	4.6	24
8	Phased Diploid Genome Sequence for the Fast-Growing Microalga Picochlorum celeri. Microbiology Resource Announcements, 2020, 9, .	0.6	10
9	Development of a high-productivity, halophilic, thermotolerant microalga Picochlorum renovo. Communications Biology, 2019, 2, 388.	4.4	58
10	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
11	Down-Selection and Outdoor Evaluation of Novel, Halotolerant Algal Strains for Winter Cultivation. Frontiers in Plant Science, 2018, 9, 1513.	3.6	19
12	High-light selection produces a fast-growing Picochlorum celeri. Algal Research, 2018, 36, 17-28.	4.6	36
13	Characterization of the Nannochloropsis gaditana storage carbohydrate: A 1,3-beta glucan with limited 1,6-branching. Algal Research, 2018, 36, 152-158.	4.6	21
14	Expression of a clostridial [FeFe]-hydrogenase in Chlamydomonas reinhardtii prolongs photo-production of hydrogen from water splitting. Algal Research, 2017, 22, 116-121.	4.6	28
15	Algal oil productivity gets a fat bonus. Nature Biotechnology, 2017, 35, 636-638.	17.5	9
16	Modulation of Medium-Chain Fatty Acid Synthesis in Synechococcus sp. PCC 7002 by Replacing FabH with a Chaetoceros Ketoacyl-ACP Synthase. Frontiers in Plant Science, 2016, 7, 690.	3.6	11
17	Effectiveness of cationically modified cellulose polymers for dewatering algae. Separation Science and Technology, 2016, 51, 892-898.	2.5	8
18	Unlocking the Constraints of Cyanobacterial Productivity: Acclimations Enabling Ultrafast Growth. MBio, 2016, 7, .	4.1	38

#	Article	IF	Citations
19	Algae after dark: mechanisms to cope with anoxic/hypoxic conditions. Plant Journal, 2015, 82, 481-503.	5.7	46
20	Lauric Acid Production in a Glycogen-Less Strain of Synechococcus sp. PCC 7002. Frontiers in Bioengineering and Biotechnology, 2015, 3, 48.	4.1	25
21	Biochemical and Structural Characterization of Enolase from Chloroflexus aurantiacus: Evidence for a Thermophilic Origin. Frontiers in Bioengineering and Biotechnology, 2015, 3, 74.	4.1	9
22	Biochemical and Structural Properties of a Thermostable Mercuric Ion Reductase from Metallosphaera sedula. Frontiers in Bioengineering and Biotechnology, 2015, 3, 97.	4.1	14
23	Metabolic and photosynthetic consequences of blocking starch biosynthesis in the green alga <scp>C</scp>hlamydomonas reinhardtii sta6 mutant. Plant Journal, 2015, 81, 947-960.	5.7	49
24	Nitrogen recycling from fuel-extracted algal biomass: Residuals as the sole nitrogen source for culturing Scenedesmus acutus. Bioresource Technology, 2015, 184, 153-160.	9.6	26
25	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
26	7 Hydrogenase evolution and function in eukaryotic algae. , 2015, , 145-172.		0
27	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
28	Toward a photosynthetic microbial platform for terpenoid engineering. Photosynthesis Research, 2015, 123, 265-284.	2.9	78
29	Evolutionary and Biotechnological Implications of Robust Hydrogenase Activity in Halophilic Strains of Tetraselmis. PLoS ONE, 2014, 9, e85812.	2.5	21
30	Engineering pathways to biofuels in photoautotrophic microorganisms. Biofuels, 2014, 5, 67-78.	2.4	5
31	[FeFe]-Hydrogenase Abundance and Diversity along a Vertical Redox Gradient in Great Salt Lake, USA. International Journal of Molecular Sciences, 2014, 15, 21947-21966.	4.1	17
32	The Marine Microbial Eukaryote Transcriptome Sequencing Project (MMETSP): Illuminating the Functional Diversity of Eukaryotic Life in the Oceans through Transcriptome Sequencing. PLoS Biology, 2014, 12, e1001889.	5.6	885
33	Growth of Chlamydomonas reinhardtii in acetate-free medium when co-cultured with alginate-encapsulated, acetate-producing strains of Synechococcus sp. PCC 7002. Biotechnology for Biofuels, 2014, 7, 154.	6.2	28
34	Engineering Limonene and Bisabolene Production in Wild Type and a Glycogen-Deficient Mutant of Synechococcus sp. PCC 7002. Frontiers in Bioengineering and Biotechnology, 2014, 2, 21.	4.1	230
35	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
36	Profiling Chlamydomonas Metabolism under Dark, Anoxic H₂-Producing Conditions Using a Combined Proteomic, Transcriptomic, and Metabolomic Approach. Journal of Proteome Research, 2014, 13, 5431-5451.	3.7	18

#	Article	IF	Citations
37	Ultrastructure and Composition of the Nannochloropsis gaditana Cell Wall. Eukaryotic Cell, 2014, 13, 1450-1464.	3.4	322
38	Insights into Algal Fermentation. Plant Cell Monographs, 2014, , 135-163.	0.4	2
39	Contrasting Patterns of Community Assembly in the Stratified Water Column of Great Salt Lake, Utah. Microbial Ecology, 2013, 66, 268-280.	2.8	64
40	Hydrogenases, Nitrogenases, Anoxia, and H2 Production in Water-Oxidizing Phototrophs. , 2013, , 37-75.		7
41	Biocommodities from photosynthetic microorganisms. Environmental Progress and Sustainable Energy, 2013, 32, 989-1001.	2.3	20
42	Fermentation metabolism and its evolution in algae. Frontiers in Plant Science, 2013, 4, 150.	3.6	101
43	Genomic insights from the oleaginous model alga Nannochloropsis gaditana. Bioengineered, 2013, 4, 37-43.	3.2	84
44	A Mutant in the ADH1 Gene of Chlamydomonas reinhardtii Elicits Metabolic Restructuring during Anaerobiosis Â. Plant Physiology, 2012, 158, 1293-1305.	4.8	60
45	Microbial hydrocarbons: back to the future. Biofuels, 2012, 3, 103-105.	2.4	1
46	Cyanophora paradoxa Genome Elucidates Origin of Photosynthesis in Algae and Plants. Science, 2012, 335, 843-847.	12.6	371
47	Improving photosynthesis and metabolic networks for the competitive production of phototroph-derived biofuels. Current Opinion in Biotechnology, 2012, 23, 290-297.	6.6	78
48	Establishment of a bioenergy-focused microalgal culture collection. Algal Research, 2012, 1, 102-113.	4.6	40
49	Novel FixL homologues in Chlamydomonas reinhardtii bind heme and O₂. FEBS Letters, 2012, 586, 4282-4288.	2.8	11
50	Draft genome sequence and genetic transformation of the oleaginous alga Nannochloropsis gaditana. Nature Communications, 2012, 3, 686.	12.8	438
51	Altered Fermentative Metabolism in Chlamydomonas reinhardtii Mutants Lacking Pyruvate Formate Lyase and Both Pyruvate Formate Lyase and Alcohol Dehydrogenase. Plant Cell, 2012, 24, 692-707.	6.6	58
52	Genetic disruption of both Chlamydomonas reinhardtii [FeFe]-hydrogenases: Insight into the role of HYDA2 in H2 production. Biochemical and Biophysical Research Communications, 2012, 417, 704-709.	2.1	97
53	Improving biofuel production in phototrophic microorganisms with systems biology. Biofuels, 2011, 2, 125-144.	2.4	20
54	The production of the sesquiterpene Î²-caryophyllene in a transgenic strain of the cyanobacterium Synechocystis. Journal of Plant Physiology, 2011, 168, 848-852.	3.5	89

#	Article	IF	Citations
55	Multiple facets of anoxic metabolism and hydrogen production in the unicellular green alga Chlamydomonas reinhardtii. New Phytologist, 2011, 190, 279-288.	7.3	94
56	Insights into [FeFe]-Hydrogenase Structure, Mechanism, and Maturation. Structure, 2011, 19, 1038-1052.	3.3	220
57	Design of a new biosensor for algal H2 production based on the H2-sensing system of Rhodobacter capsulatus. International Journal of Hydrogen Energy, 2011, 36, 11229-11237.	7.1	34
58	Evolutionary significance of an algal gene encoding an [FeFe]-hydrogenase with F-domain homology and hydrogenase activity in Chlorella variabilis NC64A. Planta, 2011, 234, 829-843.	3.2	50
59	Genetic engineering of fatty acid chain length in Phaeodactylum tricornutum. Metabolic Engineering, 2011, 13, 89-95.	7.0	233
60	Crystal Structure of HydF Scaffold Protein Provides Insights into [FeFe]-Hydrogenase Maturation. Journal of Biological Chemistry, 2011, 286, 43944-43950.	3.4	32
61	Increased Lipid Accumulation in the Chlamydomonas reinhardtii sta7-10 Starchless Isoamylase Mutant and Increased Carbohydrate Synthesis in Complemented Strains. Eukaryotic Cell, 2010, 9, 1251-1261.	3.4	317
62	Genetic Engineering of Algae for Enhanced Biofuel Production. Eukaryotic Cell, 2010, 9, 486-501.	3.4	969
63	Hydrogenases, Hydrogen Production, and Anoxia. , 2009, , 217-255.		17
64	Flexibility in Anaerobic Metabolism as Revealed in a Mutant of Chlamydomonas reinhardtii Lacking Hydrogenase Activity. Journal of Biological Chemistry, 2009, 284, 7201-7213.	3.4	96
65	Phenotypic diversity of hydrogen production in chlorophycean algae reflects distinct anaerobic metabolisms. Journal of Biotechnology, 2009, 142, 21-30.	3.8	70
66	Engineering algae for biohydrogen and biofuel production. Current Opinion in Biotechnology, 2009, 20, 264-271.	6.6	391
67	Aquatic phototrophs: efficient alternatives to land-based crops for biofuels. Current Opinion in Biotechnology, 2008, 19, 235-240.	6.6	620
68	HydF as a scaffold protein in [FeFe] hydrogenase Hâ€cluster biosynthesis. FEBS Letters, 2008, 582, 2183-2187.	2.8	122
69	X-ray Structure of the [FeFe]-Hydrogenase Maturase HydE from Thermotoga maritima. Journal of Biological Chemistry, 2008, 283, 18861-18872.	3.4	119
70	New Frontiers in Hydrogenase Structure and Biosynthesis. Current Chemical Biology, 2008, 2, 178-199.	0.5	6
71	Hydrogenases and Hydrogen Photoproduction in Oxygenic Photosynthetic Organisms. Annual Review of Plant Biology, 2007, 58, 71-91.	18.7	330
72	Anaerobic Acclimation in Chlamydomonas reinhardtii. Journal of Biological Chemistry, 2007, 282, 25475-25486.	3.4	270

#	Article	IF	Citations
73	Novel metabolism in Chlamydomonas through the lens of genomics. Current Opinion in Plant Biology, 2007, 10, 190-198.	7.1	149
74	Application of gene-shuffling for the rapid generation of novel [FeFe]-hydrogenase libraries. Biotechnology Letters, 2007, 29, 421-430.	2.2	38
75	In vitro activation of [FeFe] hydrogenase: new insights into hydrogenase maturation. Journal of Biological Inorganic Chemistry, 2007, 12, 443-447.	2.6	109
76	Maturation of Hydrogenases. Advances in Microbial Physiology, 2006, 51, 1-225.	2.4	307
77	Functional Studies of [FeFe] Hydrogenase Maturation in an Escherichia coli Biosynthetic System. Journal of Bacteriology, 2006, 188, 2163-2172.	2.2	300
78	Hydrogen Photoproduction Is Attenuated by Disruption of an Isoamylase Gene in Chlamydomonas reinhardtii. Plant Cell, 2004, 16, 2151-2163.	6.6	155
79	Discovery of Two Novel Radical S-Adenosylmethionine Proteins Required for the Assembly of an Active [Fe] Hydrogenase. Journal of Biological Chemistry, 2004, 279, 25711-25720.	3.4	368
80	Immobilized Gallium(III) Affinity Chromatography of Phosphopeptides. Analytical Chemistry, 1999, 71, 2883-2892.	6.5	958
81	Interaction of metallothionein with the carcinogenic metals Ni(II), Cr(VI) and As(III). , 1999, , 585-594.		2
82	Solution structure of a zinc domain conserved in yeast copper-regulated transcription factors. Nature Structural Biology, 1998, 5, 551-555.	9.7	39
83	Mapping of the DNA Binding Domain of the Copper-responsive Transcription Factor Mac1 from Saccharomyces cerevisiae. Journal of Biological Chemistry, 1998, 273, 23805-23811.	3.4	50
84	Sensors that mediate copper-specific activation and repression of gene expression. Journal of Biological Inorganic Chemistry, 1997, 2, 2-10.	2.6	13
85	Presence of a Copper(I)â^'Thiolate Regulatory Domain in the Copper-Activated Transcription Factor Amt1â€. Biochemistry, 1996, 35, 14583-14589.	2.5	53
86	Role of the conserved histidines in the Zn module of the copper-activated transcription factors in yeast. Journal of Biological Inorganic Chemistry, 1996, 1, 560-566.	2.6	5
87	Properties of the Sp1 Zinc Finger 3 Peptide: Coordination Chemistry, Redox Reactions, and Metal Binding Competition with Metallothionein. Chemical Research in Toxicology, 1995, 8, 1020-1028.	3.3	87
88	Photosynthetic Water-Splitting for Hydrogen Production. , 0, , 273-291.		15