

Thomas Mock

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

85
papers

6,453
citations

36
h-index

80
g-index

93
ext. papers

7,967
ext. citations

10
avg, IF

5.37
L-index

#	Paper	IF	Citations
85	The Phaeodactylum genome reveals the evolutionary history of diatom genomes. <i>Nature</i> , 2008 , 456, 239-44	50.4	1200
84	The Marine Microbial Eukaryote Transcriptome Sequencing Project (MMETSP): illuminating the functional diversity of eukaryotic life in the oceans through transcriptome sequencing. <i>PLoS Biology</i> , 2014 , 12, e1001889	9.7	617
83	Green evolution and dynamic adaptations revealed by genomes of the marine picoeukaryotes <i>Micromonas</i> . <i>Science</i> , 2009 , 324, 268-72	33.3	503
82	A model for carbohydrate metabolism in the diatom <i>Phaeodactylum tricornutum</i> deduced from comparative whole genome analysis. <i>PLoS ONE</i> , 2008 , 3, e1426	3.7	312
81	Algal genomes reveal evolutionary mosaicism and the fate of nucleomorphs. <i>Nature</i> , 2012 , 492, 59-65	50.4	304
80	The response of diatom central carbon metabolism to nitrogen starvation is different from that of green algae and higher plants. <i>Plant Physiology</i> , 2012 , 158, 299-312	6.6	250
79	The impact of temperature on marine phytoplankton resource allocation and metabolism. <i>Nature Climate Change</i> , 2013 , 3, 979-984	21.4	244
78	Evolutionary genomics of the cold-adapted diatom <i>Fragilariopsis cylindrus</i> . <i>Nature</i> , 2017 , 541, 536-540	50.4	226
77	Whole-genome expression profiling of the marine diatom <i>Thalassiosira pseudonana</i> identifies genes involved in silicon bioprocesses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 1579-84	11.5	206
76	ICE-BINDING PROTEINS FROM SEA ICE DIATOMS (BACILLARIOPHYCEAE)1. <i>Journal of Phycology</i> , 2006 , 42, 410-416	3	157
75	Genomic insights into marine microalgae. <i>Annual Review of Genetics</i> , 2008 , 42, 619-45	14.5	124
74	Chitin in diatoms and its association with the cell wall. <i>Eukaryotic Cell</i> , 2009 , 8, 1038-50		122
73	A genomic catalog of Earth's microbiomes. <i>Nature Biotechnology</i> , 2021 , 39, 499-509	44.5	120
72	Recent advances in sea-ice microbiology. <i>Environmental Microbiology</i> , 2005 , 7, 605-19	5.2	114
71	Plastid proteome prediction for diatoms and other algae with secondary plastids of the red lineage. <i>Plant Journal</i> , 2015 , 81, 519-28	6.9	106
70	Photosynthetic energy conversion under extreme conditions—I: important role of lipids as structural modulators and energy sink under N-limited growth in Antarctic sea ice diatoms. <i>Phytochemistry</i> , 2002 , 61, 41-51	4	104
69	Editing of the urease gene by CRISPR-Cas in the diatom. <i>Plant Methods</i> , 2016 , 12, 49	5.8	98

68	PHOTOSYNTHESIS AND COLD ACCLIMATION: MOLECULAR EVIDENCE FROM A POLAR DIATOM1. <i>Journal of Phycology</i> , 2004 , 40, 732-741	3	92
67	Photosynthetic energy conversion under extreme conditions–II: the significance of lipids under light limited growth in Antarctic sea ice diatoms. <i>Phytochemistry</i> , 2002 , 61, 53-60	4	86
66	Finding a partner in the ocean: molecular and evolutionary bases of the response to sexual cues in a planktonic diatom. <i>New Phytologist</i> , 2017 , 215, 140-156	9.8	79
65	Digital expression profiling of novel diatom transcripts provides insight into their biological functions. <i>Genome Biology</i> , 2010 , 11, R85	18.3	77
64	Long-term temperature acclimation of photosynthesis in steady-state cultures of the polar diatom <i>Fragilariopsis cylindrus</i> . <i>Photosynthesis Research</i> , 2005 , 85, 307-17	3.7	77
63	Determination of Arctic ice algal production with a new in situ incubation technique. <i>Marine Ecology - Progress Series</i> , 1999 , 177, 15-26	2.6	73
62	Polar Microalgae: New Approaches towards Understanding Adaptations to an Extreme and Changing Environment. <i>Biology</i> , 2014 , 3, 56-80	4.9	67
61	Evolutionary genomics can improve prediction of species Responses to climate change. <i>Evolution Letters</i> , 2020 , 4, 4-18	5.3	62
60	Antifreeze proteins in polar sea ice diatoms: diversity and gene expression in the genus <i>Fragilariopsis</i> . <i>Environmental Microbiology</i> , 2010 , 12, 1041-52	5.2	62
59	Update of the Diatom EST Database: a new tool for digital transcriptomics. <i>Nucleic Acids Research</i> , 2009 , 37, D1001-5	20.1	56
58	The Algal Revolution. <i>Trends in Plant Science</i> , 2017 , 22, 726-738	13.1	48
57	Alternatives to vitamin B1 uptake revealed with discovery of riboswitches in multiple marine eukaryotic lineages. <i>ISME Journal</i> , 2014 , 8, 2517-29	11.9	48
56	Diatom Molecular Research Comes of Age: Model Species for Studying Phytoplankton Biology and Diversity. <i>Plant Cell</i> , 2020 , 32, 547-572	11.6	45
55	Bridging the gap between omics and earth system science to better understand how environmental change impacts marine microbes. <i>Global Change Biology</i> , 2016 , 22, 61-75	11.4	44
54	ANALYSIS OF EXPRESSED SEQUENCE TAGS (ESTS) FROM THE POLAR DIATOM FRAGILARIOPSIS CYLINDRUS1. <i>Journal of Phycology</i> , 2006 , 42, 78-85	3	43
53	Genetic tool development in marine protists: emerging model organisms for experimental cell biology. <i>Nature Methods</i> , 2020 , 17, 481-494	21.6	39
52	A new class of ice-binding proteins discovered in a salt-stress-induced cDNA library of the psychrophilic diatom <i>Fragilariopsis cylindrus</i> (Bacillariophyceae). <i>European Journal of Phycology</i> , 2008 , 43, 423-433	2.2	38
51	A mesocosm study of physical-biological interactions in artificial sea ice: effects of brine channel surface evolution and brine movement on algal biomass. <i>Polar Biology</i> , 2001 , 24, 356-364	2	38

50	A Model of Genome Size Evolution for Prokaryotes in Stable and Fluctuating Environments. <i>Genome Biology and Evolution</i> , 2015 , 7, 2344-51	3.9	36
49	Micro-optodes in sea ice: a new approach to investigate oxygen dynamics during sea ice formation. <i>Aquatic Microbial Ecology</i> , 2002 , 29, 297-306	1.1	35
48	Frustule-related gene transcription and the influence of diatom community composition on silica precipitation in an iron-limited environment. <i>Limnology and Oceanography</i> , 2012 , 57, 1619-1633	4.8	33
47	Primary Producers and Sea Ice		31
46	Identifying metabolic pathways for production of extracellular polymeric substances by the diatom <i>Fragilariopsis cylindrus</i> inhabiting sea ice. <i>ISME Journal</i> , 2018 , 12, 1237-1251	11.9	30
45	Phycoremediation of municipal wastewater by microalgae to produce biofuel. <i>International Journal of Phytoremediation</i> , 2017 , 19, 805-812	3.9	28
44	Changes in photosynthetic carbon allocation in algal assemblages of Arctic sea ice with decreasing nutrient concentrations and irradiance. <i>Marine Ecology - Progress Series</i> , 2000 , 202, 1-11	2.6	28
43	In situ primary production in young Antarctic sea ice. <i>Hydrobiologia</i> , 2002 , 470, 127-132	2.4	26
42	Bacteria in sea ice and underlying brackish water at 54°26'N (Baltic Sea, Kiel Bight). <i>Marine Ecology - Progress Series</i> , 1997 , 158, 23-40	2.6	24
41	The <i>Seminais robusta</i> genome provides insights into the evolutionary adaptations of benthic diatoms. <i>Nature Communications</i> , 2020 , 11, 3320	17.4	23
40	Biotic interactions as drivers of algal origin and evolution. <i>New Phytologist</i> , 2017 , 216, 670-681	9.8	18
39	Global discovery and characterization of small non-coding RNAs in marine microalgae. <i>BMC Genomics</i> , 2014 , 15, 697	4.5	17
38	A new microcosm to investigate oxygen dynamics at the sea ice water interface. <i>Aquatic Microbial Ecology</i> , 2003 , 30, 197-205	1.1	17
37	Ocean acidification increases iodine accumulation in kelp-based coastal food webs. <i>Global Change Biology</i> , 2019 , 25, 629-639	11.4	16
36	In situ expression of eukaryotic ice-binding proteins in microbial communities of Arctic and Antarctic sea ice. <i>ISME Journal</i> , 2015 , 9, 2537-40	11.9	15
35	Single-base methylome profiling of the giant kelp <i>Saccharina japonica</i> reveals significant differences in DNA methylation to microalgae and plants. <i>New Phytologist</i> , 2020 , 225, 234-249	9.8	14
34	Identification of Genes under Positive Selection Reveals Differences in Evolutionary Adaptation between Brown-Algal Species. <i>Frontiers in Plant Science</i> , 2017 , 8, 1429	6.2	12
33	The effect of extrinsic mortality on genome size evolution in prokaryotes. <i>ISME Journal</i> , 2017 , 11, 1011-1018	10.8	11

32	Genomics and Genetics of Diatoms. <i>Advances in Botanical Research</i> , 2012 , 64, 245-284	2.2	11
31	Adaptive divergence across Southern Ocean gradients in the pelagic diatom <i>Fragilariopsis kerguelensis</i> . <i>Molecular Ecology</i> , 2020 , 29, 4913-4924	5.7	11
30	A role for the cell-wall protein silacidin in cell size of the diatom <i>Thalassiosira pseudonana</i> . <i>ISME Journal</i> , 2017 , 11, 2452-2464	11.9	10
29	The first evidence for genotypic stability in a cryopreserved transgenic diatom. <i>Journal of Applied Phycology</i> , 2014 , 26, 65-71	3.2	10
28	What can we learn from genomics approaches in marine ecology? From sequences to eco-systems biology!. <i>Marine Ecology</i> , 2012 , 33, 131-148	1.4	9
27	Characterization of the Small RNA Transcriptome of the Marine Coccolithophorid, <i>Emiliana huxleyi</i> . <i>PLoS ONE</i> , 2016 , 11, e0154279	3.7	9
26	Building a locally diploid genome and transcriptome of the diatom <i>Fragilariopsis cylindrus</i> . <i>Scientific Data</i> , 2017 , 4, 170149	8.2	8
25	A novel cost effective and high-throughput isolation and identification method for marine microalgae. <i>Plant Methods</i> , 2014 , 10, 26	5.8	8
24	Evolution of Microalgae and Their Adaptations in Different Marine Ecosystems 2015 , 1-9		8
23	Microalgae in Polar Regions: Linking Functional Genomics and Physiology with Environmental Conditions 2008 , 285-312		8
22	Psychrophilic Diatoms. <i>Cellular Origin and Life in Extreme Habitats</i> , 2007 , 343-364		8
21	Metatranscriptomes from diverse microbial communities: assessment of data reduction techniques for rigorous annotation. <i>BMC Genomics</i> , 2014 , 15, 901	4.5	7
20	Efficient CRISPR/Cas-mediated homologous recombination in the model diatom <i>Thalassiosira pseudonana</i>		7
19	Mitotic recombination between homologous chromosomes drives genomic diversity in diatoms. <i>Current Biology</i> , 2021 , 31, 3221-3232.e9	6.3	7
18	Metagenome-assembled genomes of phytoplankton communities across the Arctic Circle		6
17	A redox-regulated type III metacaspase controls cell death in a marine diatom		5
16	Genome Editing in Diatoms Using CRISPR-Cas to Induce Precise Bi-allelic Deletions. <i>Bio-protocol</i> , 2017 , 7, e2625	0.9	4
15	The biogeographic differentiation of algal microbiomes in the upper ocean from pole to pole. <i>Nature Communications</i> , 2021 , 12, 5483	17.4	3

14	Polar Microalgae: Functional Genomics, Physiology, and the Environment 2017 , 305-344		2
13	Healthy herds in the phytoplankton: the benefit of selective parasitism. <i>ISME Journal</i> , 2021 , 15, 2163-2166.9		2
12	Metagenome-assembled genomes of phytoplankton microbiomes from the Arctic and Atlantic Oceans.. <i>Microbiome</i> , 2022 , 10, 67	16.6	2
11	Genome evolution of a nonparasitic secondary heterotroph, the diatom .. <i>Science Advances</i> , 2022 , 8, eabi5075	14.75	2
10	The <i>Seminavis robusta</i> genome provides insights into the evolutionary adaptations of benthic diatoms		1
9	Genetic tool development in marine protists: Emerging model organisms for experimental cell biology		1
8	A novel tri-unsaturated highly branched isoprenoid (HBI) alkene from the marine diatom <i>Navicula salinicola</i> . <i>Organic Geochemistry</i> , 2020 , 146, 104050	3.1	1
7	Editing of the urease gene by CRISPR-Cas in the diatom <i>Thalassiosira pseudonana</i>		1
6	Silicon drives the evolution of complex crystal morphology in calcifying algae. <i>New Phytologist</i> , 2021 , 231, 1663-1666	9.8	1
5	Integrative analysis of chloroplast DNA methylation in a marine alga- <i>Saccharina japonica</i> . <i>Plant Molecular Biology</i> , 2021 , 105, 611-623	4.6	1
4	Diversity, prevalence, and expression of cyanase genes (<i>cynS</i>) in planktonic marine microorganisms. <i>ISME Journal</i> , 2021 ,	11.9	1
3	Biochemical Characterization of a Novel Redox-Regulated Metacaspase in a Marine Diatom. <i>Frontiers in Microbiology</i> , 2021 , 12, 688199	5.7	1
2	Diatoms and Their Microbiomes in Complex and Changing Polar Oceans.. <i>Frontiers in Microbiology</i> , 2022 , 13, 786764	5.7	0
1	Structure and Evolution of Diatom Nuclear Genes and Genomes 2022 , 111-145		