

Peter G Kroth

List of Publications by Year in descending order

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111
papers

8,171
citations

66234

42
h-index

49773

87
g-index

115
all docs

115
docs citations

115
times ranked

6309
citing authors

#	ARTICLE	IF	CITATIONS
1	The Phaeodactylum genome reveals the evolutionary history of diatom genomes. <i>Nature</i> , 2008, 456, 239-244.	13.7	1,458
2	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.	1.1	394
3	Algal genomes reveal evolutionary mosaicism and the fate of nucleomorphs. <i>Nature</i> , 2012, 492, 59-65.	13.7	377
4	Evolutionary genomics of the cold-adapted diatom <i>Fragilariopsis cylindrus</i> . <i>Nature</i> , 2017, 541, 536-540.	13.7	332
5	Transformation of the diatom <i>Phaeodactylum tricornutum</i> (Bacillariophyceae) with a variety of selectable marker and reporter genes. <i>Journal of Phycology</i> , 2001, 36, 379-386.	1.0	316
6	The Regulation of Carbon and Nutrient Assimilation in Diatoms is Significantly Different from Green Algae. <i>Protist</i> , 2006, 157, 91-124.	0.6	239
7	Photoprotection capacity differs among diatoms: Possible consequences on the spatial distribution of diatoms related to fluctuations in the underwater light climate. <i>Limnology and Oceanography</i> , 2007, 52, 1188-1194.	1.6	219
8	The chloroplast genome of a chlorophylla+c-containing alga, <i>Odontella sinensis</i> . <i>Plant Molecular Biology Reporter</i> , 1995, 13, 336-342.	1.0	206
9	Protein targeting into complex diatom plastids: functional characterisation of a specific targeting motif. <i>Plant Molecular Biology</i> , 2007, 64, 519-530.	2.0	181
10	Identification and characterization of a new conserved motif within the presequence of proteins targeted into complex diatom plastids. <i>Plant Journal</i> , 2004, 41, 175-183.	2.8	180
11	Plastid proteome prediction for diatoms and other algae with secondary plastids of the red lineage. <i>Plant Journal</i> , 2015, 81, 519-528.	2.8	174
12	In vivo characterization of diatom multipartite plastid targeting signals. <i>Journal of Cell Science</i> , 2002, 115, 4061-4069.	1.2	143
13	AUREOCHROME1a-Mediated Induction of the Diatom-Specific Cyclin <i>dsCYC2</i> Controls the Onset of Cell Division in Diatoms (<i>Phaeodactylum tricornutum</i>). <i>Plant Cell</i> , 2013, 25, 215-228.	3.1	136
14	Growth and release of extracellular organic compounds by benthic diatoms depend on interactions with bacteria. <i>Environmental Microbiology</i> , 2011, 13, 1052-1063.	1.8	135
15	New Insight into <i>Phaeodactylum tricornutum</i> Fatty Acid Metabolism. Cloning and Functional Characterization of Plastidial and Microsomal Δ^12 -Fatty Acid Desaturases. <i>Plant Physiology</i> , 2003, 131, 1648-1660.	2.3	130
16	Bacteria Associated with Benthic Diatoms from Lake Constance: Phylogeny and Influences on Diatom Growth and Secretion of Extracellular Polymeric Substances. <i>Applied and Environmental Microbiology</i> , 2008, 74, 7740-7749.	1.4	128
17	High Light Acclimation in the Secondary Plastids Containing Diatom <i>Phaeodactylum tricornutum</i> is Triggered by the Redox State of the Plastoquinone Pool. <i>Plant Physiology</i> , 2013, 161, 853-865.	2.3	119
18	Protein Transport into α -Complex-Diatom Plastids Utilizes Two Different Targeting Signals. <i>Journal of Biological Chemistry</i> , 1998, 273, 30973-30978.	1.6	99

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19	Protein Targeting into the Complex Plastid of Cryptophytes. <i>Journal of Molecular Evolution</i> , 2006, 62, 674-681.	0.8	94
20	Plastid thylakoid architecture optimizes photosynthesis in diatoms. <i>Nature Communications</i> , 2017, 8, 15885.	5.8	93
21	Gene expression and activity of digestive proteases in <i>Daphnia</i> : effects of cyanobacterial protease inhibitors. <i>BMC Physiology</i> , 2010, 10, 6.	3.6	91
22	Lhcx proteins provide photoprotection via thermal dissipation of absorbed light in the diatom <i>Phaeodactylum tricornutum</i> . <i>Nature Communications</i> , 2019, 10, 4167.	5.8	84
23	Diatom Plastids Possess a Phosphoribulokinase with an Altered Regulation and No Oxidative Pentose Phosphate Pathway. <i>Plant Physiology</i> , 2005, 137, 911-920.	2.3	83
24	The role of C ₄ metabolism in the marine diatom <i>Phaeodactylum tricornutum</i> . <i>New Phytologist</i> , 2013, 197, 177-185.	3.5	83
25	Synthetic Polyester from Algae Oil. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 6800-6804.	7.2	82
26	Nucleus-to-Nucleus Gene Transfer and Protein Retargeting into a Remnant Cytoplasm of Cryptophytes and Diatoms. <i>Molecular Biology and Evolution</i> , 2006, 23, 2413-2422.	3.5	80
27	Diatom plastids depend on nucleotide import from the cytosol. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 3621-3626.	3.3	80
28	Aureochrome 1a Is Involved in the Photoacclimation of the Diatom <i>Phaeodactylum tricornutum</i> . <i>PLoS ONE</i> , 2013, 8, e74451.	1.1	77
29	The diatom <i>Phaeodactylum tricornutum</i> adjusts nonphotochemical fluorescence quenching capacity in response to dynamic light via fine-tuned Lhc and xanthophyll cycle pigment synthesis. <i>New Phytologist</i> , 2017, 214, 205-218.	3.5	71
30	Evolution and Functional Diversification of Fructose Bisphosphate Aldolase Genes in Photosynthetic Marine Diatoms. <i>Molecular Biology and Evolution</i> , 2012, 29, 367-379.	3.5	68
31	In Diatoms, the Transthylakoid Proton Gradient Regulates the Photoprotective Non-photochemical Fluorescence Quenching Beyond its Control on the Xanthophyll Cycle. <i>Plant and Cell Physiology</i> , 2006, 47, 1010-1016.	1.5	65
32	Silencing of the Violaxanthin De-Epoxidase Gene in the Diatom <i>Phaeodactylum tricornutum</i> Reduces Diatoxanthin Synthesis and Non-Photochemical Quenching. <i>PLoS ONE</i> , 2012, 7, e36806.	1.1	65
33	Mitochondrial Glycolysis in a Major Lineage of Eukaryotes. <i>Genome Biology and Evolution</i> , 2018, 10, 2310-2325.	1.1	62
34	Blue-Light-Induced Unfolding of the \pm Helix Allows for the Dimerization of Aureochrome-LOV from the Diatom <i>Phaeodactylum tricornutum</i> . <i>Biochemistry</i> , 2013, 52, 3094-3101.	1.2	60
35	A fast and reliable strategy to generate TALEN-mediated gene knockouts in the diatom <i>Phaeodactylum tricornutum</i> . <i>Algal Research</i> , 2017, 23, 186-195.	2.4	57
36	An update on aureochromes: Phylogeny – mechanism – function. <i>Journal of Plant Physiology</i> , 2017, 217, 20-26.	1.6	57

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37	Protein transport into secondary plastids and the evolution of primary and secondary plastids. <i>International Review of Cytology</i> , 2002, 221, 191-255.	6.2	55
38	Genome editing in diatoms: achievements and goals. <i>Plant Cell Reports</i> , 2018, 37, 1401-1408.	2.8	54
39	Allosteric communication between DNA-binding and light-responsive domains of diatom class I aureochromes. <i>Nucleic Acids Research</i> , 2016, 44, 5957-5970.	6.5	53
40	Production of chemicals from microalgae lipids – status and perspectives. <i>European Journal of Lipid Science and Technology</i> , 2018, 120, 1700152.	1.0	52
41	The biodiversity of carbon assimilation. <i>Journal of Plant Physiology</i> , 2015, 172, 76-81.	1.6	48
42	Genetic Transformation. , 2007, , 257-267.		47
43	Characterization of a trimeric light-harvesting complex in the diatom <i>Phaeodactylum tricorutum</i> built of FcpA and FcpE proteins. <i>Journal of Experimental Botany</i> , 2010, 61, 3079-3087.	2.4	44
44	Presequence Acquisition During Secondary Endocytobiosis and the Possible Role of Introns. <i>Journal of Molecular Evolution</i> , 2004, 58, 712-721.	0.8	43
45	Influence of nutrients and light on autotrophic, mixotrophic and heterotrophic freshwater chrysophytes. <i>Aquatic Microbial Ecology</i> , 2013, 71, 179-191.	0.9	43
46	Molecular Biology and the Biotechnological Potential of Diatoms. <i>Advances in Experimental Medicine and Biology</i> , 2007, 616, 23-33.	0.8	40
47	Reduced vacuolar Î²-1,3-glucan synthesis affects carbohydrate metabolism as well as plastid homeostasis and structure in <i>Phaeodactylum tricorutum</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 4791-4796.	3.3	39
48	The intracellular distribution of inorganic carbon fixing enzymes does not support the presence of a C4 pathway in the diatom <i>Phaeodactylum tricorutum</i> . <i>Photosynthesis Research</i> , 2018, 137, 263-280.	1.6	39
49	Organelle Studies and Proteome Analyses of Mitochondria and Plastids Fractions from the Diatom <i>Thalassiosira pseudonana</i> . <i>Plant and Cell Physiology</i> , 2019, 60, 1811-1828.	1.5	39
50	PtAUREO1a and PtAUREO1b knockout mutants of the diatom <i>Phaeodactylum tricorutum</i> are blocked in photoacclimation to blue light. <i>Journal of Plant Physiology</i> , 2017, 217, 44-48.	1.6	39
51	Intracellular metabolic pathway distribution in diatoms and tools for genome-enabled experimental diatom research. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2017, 372, 20160402.	1.8	38
52	Nucleotide sequence of two cDNAs encoding fucoxanthin chlorophyll a/c proteins in the diatom <i>Odontella sinensis</i> . <i>Plant Molecular Biology</i> , 1995, 27, 825-828.	2.0	37
53	Redox Regulation of Carbonic Anhydrases via Thioredoxin in Chloroplast of the Marine Diatom <i>Phaeodactylum tricorutum</i> . <i>Journal of Biological Chemistry</i> , 2012, 287, 20689-20700.	1.6	37
54	Intracellular distribution of the reductive and oxidative pentose phosphate pathways in two diatoms. <i>Journal of Basic Microbiology</i> , 2009, 49, 58-72.	1.8	36

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55	Bacteria may induce the secretion of mucin-like proteins by the diatom <i>Phaeodactylum tricornutum</i> . <i>Journal of Phycology</i> , 2016, 52, 463-474.	1.0	36
56	Blasticidin-S deaminase, a new selection marker for genetic transformation of the diatom <i>Phaeodactylum tricornutum</i> . <i>PeerJ</i> , 2018, 6, e5884.	0.9	36
57	The Regulatory Functions of the gamma and e Subunits from Chloroplast CF1 are Transferred to the Core Complex, alpha3beta3, from Thermophilic Bacterial F1. <i>FEBS Journal</i> , 1997, 247, 1158-1165.	0.2	33
58	Functional characterization of isolated plastids from two marine diatoms. <i>Planta</i> , 1998, 206, 79-85.	1.6	33
59	Diatom Fucoxanthin Chlorophyll a/c-binding Protein (FCP) and Land Plant Light-harvesting Proteins Use a Similar Pathway for Thylakoid Membrane Insertion. <i>Journal of Biological Chemistry</i> , 2001, 276, 7985-7991.	1.6	33
60	Characterization and Subunit Structure of the ATP Synthase of the Halophilic Archaeon <i>Haloferax volcanii</i> and Organization of the ATP Synthase Genes. <i>Journal of Biological Chemistry</i> , 1997, 272, 6261-6269.	1.6	32
61	Localization of EPS components secreted by freshwater diatoms using differential staining with fluorophore-conjugated lectins and other fluorochromes. <i>European Journal of Phycology</i> , 2007, 42, 199-208.	0.9	32
62	<i>Elstera litoralis</i> gen. nov., sp. nov., isolated from stone biofilms of Lake Constance, Germany. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2012, 62, 1750-1754.	0.8	32
63	A novel type of light-harvesting antenna protein of red algal origin in algae with secondary plastids. <i>BMC Evolutionary Biology</i> , 2013, 13, 159.	3.2	32
64	Rapid induction of GFP expression by the nitrate reductase promoter in the diatom <i>Phaeodactylum tricornutum</i> . <i>PeerJ</i> , 2016, 4, e2344.	0.9	32
65	rRNA and rDNA based assessment of sea ice protist biodiversity from the central Arctic Ocean. <i>European Journal of Phycology</i> , 2016, 51, 31-46.	0.9	31
66	PROTOCOLS FOR THE REMOVAL OF BACTERIA FROM FRESHWATER BENTHIC DIATOM CULTURES. <i>Journal of Phycology</i> , 2009, 45, 981-986.	1.0	30
67	THE COMPLEX EXTRACELLULAR POLYSACCHARIDES OF MAINLY CHAIN-FORMING FRESHWATER DIATOM SPECIES FROM EPILITHIC BIOFILMS. <i>Journal of Phycology</i> , 2008, 44, 1465-1475.	1.0	29
68	The Presence and Localization of Thioredoxins in Diatoms, Unicellular Algae of Secondary Endosymbiotic Origin. <i>Molecular Plant</i> , 2009, 2, 468-477.	3.9	29
69	Influence of bacteria on cell size development and morphology of cultivated diatoms. <i>Phycological Research</i> , 2014, 62, 269-281.	0.8	29
70	Diatom Vacuolar 1,6-Transglycosylases can Functionally Complement the Respective Yeast Mutants. <i>Journal of Eukaryotic Microbiology</i> , 2016, 63, 536-546.	0.8	29
71	N-Acyl Homoserine Lactone Derived Tetramic Acids Impair Photosynthesis in <i>Phaeodactylum tricornutum</i> . <i>ACS Chemical Biology</i> , 2019, 14, 198-203.	1.6	29
72	Diatom plastids: Secondary endocytobiosis, plastid genome and protein import. <i>Physiologia Plantarum</i> , 1999, 107, 136-141.	2.6	28

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73	Biofilm and capsule formation of the diatom <i>Achnanthes minutissima</i> are affected by a bacterium. <i>Journal of Phycology</i> , 2015, 51, 343-355.	1.0	28
74	Discovery of a kleptoplastic <i>Prasinoderma</i> dinoflagellate and the unique nuclear dynamics of converting kleptoplastids to permanent plastids. <i>Scientific Reports</i> , 2019, 9, 10474.	1.6	25
75	FIRST INDUCED PLASTID GENOME MUTATIONS IN AN ALGA WITH SECONDARY PLASTIDS: A MUTATIONS IN THE DIATOM <i>PHAEODACTYLUM TRICORNUTUM</i> (BACILLARIOPHYCEAE) REVEAL CONSEQUENCES ON THE REGULATION OF PHOTOSYNTHESIS. <i>Journal of Phycology</i> , 2009, 45, 838-846.	1.0	24
76	The Formation or the Reduction of a Disulfide Bridge on the β Subunit of Chloroplast ATP Synthase Affects the Inhibitory Effect of the μ Subunit. <i>Journal of Biological Chemistry</i> , 1998, 273, 15901-15905.	1.6	23
77	Stable nuclear transformation of the diatom. <i>Molecular Genetics and Genomics</i> , 1996, 252, 572.	2.4	23
78	Genetic transformation: a tool to study protein targeting in diatoms. <i>Methods in Molecular Biology</i> , 2007, 390, 257-67.	0.4	23
79	Photoautotrophic-heterotrophic biofilm communities: a laboratory incubator designed for growing axenic diatoms and bacteria in defined mixed-species biofilms. <i>Environmental Microbiology Reports</i> , 2012, 4, 133-140.	1.0	22
80	Valorization of Unconventional Lipids from Microalgae or Tall Oil via a Selective Dual Catalysis One-Pot Approach. <i>Journal of the American Chemical Society</i> , 2017, 139, 13487-13491.	6.6	20
81	Shuttling of (deoxy) purine nucleotides between compartments of the diatom <i>Phaeodactylum tricornutum</i> . <i>New Phytologist</i> , 2017, 213, 193-205.	3.5	20
82	Nucleotide sequence of the ATPase A- and B-subunits of the halophilic archaeobacterium <i>Haloferax volcanii</i> and characterization of the enzyme. <i>BBA - Proteins and Proteomics</i> , 1995, 1249, 137-144.	2.1	19
83	The β subunit of the chloroplast ATPase is plastid-encoded in the diatom <i>Odontella sinensis</i> . <i>FEBS Letters</i> , 1991, 280, 387-392.	1.3	18
84	Post-cryopreservation viability of the benthic freshwater diatom <i>Planorbulina frequentissima</i> depends on light levels. <i>Cryobiology</i> , 2013, 67, 23-29.	0.3	17
85	The peculiar distribution of class I and class II aldolases in diatoms and in red algae. <i>Current Genetics</i> , 2005, 48, 389-400.	0.8	16
86	The peculiar carbon metabolism in diatoms. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2017, 372, 20160405.	1.8	16
87	Carbon Fixation in Diatoms. <i>Advances in Photosynthesis and Respiration</i> , 2014, , 335-362.	1.0	15
88	The Aureochrome Photoreceptor PtAUREO1a Is a Highly Effective Blue Light Switch in Diatoms. <i>IScience</i> , 2020, 23, 101730.	1.9	14
89	Evolution of Protein Targeting into "Complex" Plastids: The "Secretory Transport Hypothesis". <i>Plant Biology</i> , 2003, 5, 350-358.	1.8	13
90	The Multifaceted Inhibitory Effects of an Alkylquinolone on the Diatom <i>Phaeodactylum tricornutum</i> . <i>ChemBioChem</i> , 2020, 21, 1206-1216.	1.3	13

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91	Identification of sequence motifs in LhcX proteins that confer qE-based photoprotection in the diatom <i>Phaeodactylum tricornutum</i> . <i>Plant Journal</i> , 2021, 108, 1721-1734.	2.8	13
92	Inverse regulation of F1-ATPase activity by a mutation at the regulatory region on the β subunit of chloroplast ATP synthase. <i>Biochemical Journal</i> , 2000, 352, 783.	1.7	12
93	Deducing Intracellular Distributions of Metabolic Pathways from Genomic Data. <i>Methods in Molecular Biology</i> , 2014, 1083, 187-211.	0.4	12
94	Capsules of the diatom <i>Achnanthes minutissimum</i> arise from fibrillar precursors and foster attachment of bacteria. <i>PeerJ</i> , 2015, 3, e858.	0.9	12
95	Isolation of Plastid Fractions from the Diatoms <i>Thalassiosira pseudonana</i> and <i>Phaeodactylum tricornutum</i> . <i>Methods in Molecular Biology</i> , 2018, 1829, 189-203.	0.4	11
96	Over-expression and localization of an unknown plastid encoded protein in the diatom <i>Odontella sinensis</i> with similarities to a subunit of ABC-transporters. <i>Plant Science</i> , 1996, 114, 171-179.	1.7	10
97	Five Non-motile Dinoflagellates of the Genus <i>Dinobryon</i> . <i>Frontiers in Plant Science</i> , 2020, 11, 591050.	1.7	9
98	A strategy to complement PtAUREO1a in TALEN knockout strains of <i>Phaeodactylum tricornutum</i> . <i>Algal Research</i> , 2019, 39, 101469.	2.4	8
99	Genetic Transformation: A Tool to Study Protein Targeting in Diatoms. , 0, , 257-268.		8
100	MOLECULAR STRUCTURE AND EVOLUTION OF THE CHLOROPLAST <i>atpB/E</i> GENE CLUSTER IN THE DIATOM <i>ODONTELLA SINENSIS</i> 1. <i>Journal of Phycology</i> , 1995, 31, 962-969.	1.0	6
101	STRUCTURAL AND FUNCTIONAL CHARACTERIZATION OF PUTATIVE REGULATORY DNA SEQUENCES OFFCPGENES IN THE CENTRIC DIATOM <i>CYCLOTELLA CRYPTICA</i> . <i>Diatom Research</i> , 2008, 23, 31-49.	0.5	6
102	Influence of the algal microbiome on biofouling during industrial cultivation of <i>Nannochloropsis</i> sp. in closed photobioreactors. <i>Algal Research</i> , 2019, 42, 101591.	2.4	6
103	Defense responses in female gametophytes of <i>Saccharina japonica</i> (Phaeophyta) induced by flg22-derived peptides. <i>Journal of Applied Phycology</i> , 2016, 28, 1793-1801.	1.5	5
104	Mitochondrial phosphoenolpyruvate carboxylase contributes to carbon fixation in the diatom <i>Phaeodactylum tricornutum</i> at low inorganic carbon concentrations. <i>New Phytologist</i> , 2022, 235, 1379-1393.	3.5	5
105	Analysing size variation during light-starvation response of nutritionally diverse chrysophytes with a Coulter counter. <i>Algological Studies (Stuttgart, Germany: 2007)</i> , 2013, 141, 37-51.	0.4	4
106	Getting a grip on genetic modification in brown algae. <i>Journal of Phycology</i> , 2013, 49, 816-818.	1.0	3
107	Comprehensive computational analysis of leucine-rich repeat (LRR) proteins encoded in the genome of the diatom <i>Phaeodactylum tricornutum</i> . <i>Marine Genomics</i> , 2015, 21, 43-51.	0.4	3
108	Impact of LhcX2 on Acclimation to Low Iron Conditions in the Diatom <i>Phaeodactylum tricornutum</i> . <i>Frontiers in Plant Science</i> , 2022, 13, 841058.	1.7	3

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109	Sensing and Signalling in Diatom Responses to Abiotic Cues. , 2022, , 607-639.		2
110	A semi-automated, KNIME-based workflow for biofilm assays. BMC Microbiology, 2016, 16, 61.	1.3	1
111	Complete genome sequence of Dyadobacter sp. 32, isolated from a culture of the freshwater diatom Cymbella microcephala. Marine Genomics, 2020, 52, 100720.	0.4	0