# Claudia BÃ¼chel

List of Publications by Year
in descending order



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|---|---|---|---|
| 94 papers | 4,235 citations | 117625 34 h-index | 118850 62 g-index |
| 96 all docs | 96 docs citations | 96 times ranked | 4091 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The C-terminus of a diatom plant-like cryptochrome influences the FAD redox state and binding of interaction partners. Journal of Experimental Botany, 2022, 73, 1934-1948. | 4.8 | 3 |
| 2 | A kaleidoscope of photosynthetic antenna proteins and their emerging roles. Plant Physiology, 2022, 189, 1204-1219. | 4.8 | 14 |
| 3 | Photosynthetic Light Reactions in Diatoms. II. The Dynamic Regulation of the Various Light Reactions. , 2022, , 423-464. | | 9 |
| 4 | Photosynthetic Light Reactions in Diatoms. I. The Lipids and Light-Harvesting Complexes of the Thylakoid Membrane. , 2022, , 397-422. | | 4 |
| 5 | Heterologous expression of HUP1 glucose transporter enables low-light mediated growth on glucose in Phaeodactylum tricornutum. Algal Research, 2022, 64, 102719. | 4.6 | 5 |
| 6 | Structure-based model of fucoxanthinâ€“chlorophyll protein complex: Calculations of chlorophyll electronic couplings. Journal of Chemical Physics, 2022, 156, . | 3.0 | 7 |
| 7 | Photoacclimation impacts the molecular features of photosystem supercomplexes in the centric diatom Thalassiosira pseudonana. Biochimica Et Biophysica Acta - Bioenergetics, 2022, 1863, 148589. | 1.0 | 5 |
| 8 | A distinctive pathway for triplet-triplet energy transfer photoprotection in fucoxanthin chlorophyll-binding proteins from Cyclotella meneghiniana. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148310. | 1.0 | 8 |
| 9 | Confronting FCP structure with ultrafast spectroscopy data: evidence for structural variations. Physical Chemistry Chemical Physics, 2021, 23, 806-821. | 2.8 | 13 |
| 10 | Revealing the architecture of the photosynthetic apparatus in the diatom <i>Thalassiosira pseudonana</i>. Plant Physiology, 2021, 186, 2124-2136. | 4.8 | 17 |
| 11 | Light harvesting complexes in chlorophyll c-containing algae. Biochimica Et Biophysica Acta - Bioenergetics, 2020, 1861, 148027. | 1.0 | 56 |
| 12 | Revealing vibronic coupling in chlorophyll c1 by polarization-controlled 2D electronic spectroscopy. Chemical Physics, 2020, 530, 110643. | 1.9 | 19 |
| 13 | Single cell-inductively coupled plasma-time of flight-mass spectrometry approach for ecotoxicological testing. Algal Research, 2020, 49, 101964. | 4.6 | 26 |
| 14 | Specific Lhc Proteins Are Bound to PSI or PSII Supercomplexes in the Diatom <i>Thalassiosira pseudonana</i>. Plant Physiology, 2020, 183, 67-79. | 4.8 | 18 |
| 15 | Light-Harvesting Complexes of Diatoms: Fucoxanthin-Chlorophyll Proteins. Advances in Photosynthesis and Respiration, 2020, , 441-457. | 1.0 | 5 |
| 16 | Comment on â€œAcidic pH-Induced Modification of Energy Transfer in Diatom Fucoxanthin Chlorophyll <i>a</i>/<i>c</i>-Binding Proteinsâ€. Journal of Physical Chemistry B, 2020, 124, 10585-10587. | 2.6 | 0 |
| 17 | How diatoms harvest light. Science, 2019, 365, 447-448. | 12.6 | 11 |
| 18 | Multi-endpoint toxicological assessment of polystyrene nano- and microparticles in different biological models in vitro. Toxicology in Vitro, 2019, 61, 104610. | 2.4 | 172 |

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|---|---|---|---|
| 19 | Development of an automated on-line purification HPLC single cell-ICP-MS approach for fast diatom analysis. Analytica Chimica Acta, 2019, 1077, 87-94. | 5.4 | 19 |
| 20 | Evolution and function of light-harvesting antenna in oxygenic photosynthesis. Advances in Botanical Research, 2019, , 247-293. | 1.1 | 10 |
| 21 | Fucoxanthin-Chlorophyll Protein Complexes of the Centric Diatom <i>Cyclotella Meneghiniana</i> Differ in Lhcx1 and Lhcx6_1 Content. Plant Physiology, 2019, 179, 1779-1795. | 4.8 | 24 |
| 22 | Knock-Down of a <i>ligIV</i> Homologue Enables DNA Integration <i>via</i> Homologous Recombination in the Marine Diatom <i>Phaeodactylum tricornutum</i>. ACS Synthetic Biology, 2019, 8, 57-69. | 3.8 | 13 |
| 23 | Cation-dependent changes in the thylakoid membrane appression of the diatom Thalassiosira pseudonana. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 41-51. | 1.0 | 9 |
| 24 | The structure of FCPb, a light-harvesting complex in the diatom Cyclotella meneghiniana. Photosynthesis Research, 2018, 135, 203-211. | 2.9 | 22 |
| 25 | Energy dissipation mechanisms in the FCPb light-harvesting complex of the diatom Cyclotella meneghiniana. Biochimica Et Biophysica Acta - Bioenergetics, 2018, 1859, 1151-1160. | 1.0 | 16 |
| 26 | Drought-Responsive Gene Expression in Sun and Shade Plants of Haberlea rhodopensis Under Controlled Environment. Plant Molecular Biology Reporter, 2017, 35, 313-322. | 1.8 | 7 |
| 27 | Structure and Biosynthesis of Isatropolones, Bioactive Amineâ€Scavenging Fluorescent Natural Products from <i>Streptomyces</i>â€…GÃ¶66. Angewandte Chemie - International Edition, 2017, 56, 4945-4949. | 13.8 | 22 |
| 28 | The Influence of a Cryptochrome on the Gene Expression Profile in the Diatom Phaeodactylum tricornutum under Blue Light and in Darkness. Plant and Cell Physiology, 2017, 58, 1914-1923. | 3.1 | 14 |
| 29 | The cryptochromeâ€"photolyase protein family in diatoms. Journal of Plant Physiology, 2017, 217, 15-19. | 3.5 | 26 |
| 30 | How reduced excitonic coupling enhances light harvesting in the main photosynthetic antennae of diatoms. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E11063-E11071. | 7.1 | 26 |
| 31 | Functional proteomics of light-harvesting complex proteins under varying light-conditions in diatoms. Journal of Plant Physiology, 2017, 217, 38-43. | 3.5 | 9 |
| 32 | Involvement of the Lhcx protein Fcp6 of the diatom Cyclotella meneghiniana in the macro-organisation and structural flexibility of thylakoid membranes. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 1373-1379. | 1.0 | 28 |
| 33 | â€œSuper-quenchingâ€• state protects Symbiodinium from thermal stress â€" Implications for coral bleaching. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 840-847. | 1.0 | 63 |
| 34 | Identification of genes coding for functional zeaxanthin epoxidases in the diatom Phaeodactylum tricornutum. Journal of Plant Physiology, 2016, 192, 64-70. | 3.5 | 36 |
| 35 | Identification of a triacylglycerol lipase in the diatom Phaeodactylum tricornutum. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2016, 1861, 239-248. | 2.4 | 60 |
| 36 | Limitations in the biosynthesis of fucoxanthin as targets for genetic engineering in Phaeodactylum tricornutum. Journal of Applied Phycology, 2016, 28, 123-129. | 2.8 | 84 |

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|---|---|---|---|
| 37 | Isolation of Plant Photosystem II Complexes by Fractional Solubilization. Frontiers in Plant Science, 2015, 6, 1100. | 3.6 | 14 |
| 38 | Production of ketocarotenoids in tobacco alters the photosynthetic efficiency by reducing photosystem II supercomplex and LHCII trimer stability. Photosynthesis Research, 2015, 123, 157-165. | 2.9 | 12 |
| 39 | Coherence and population dynamics of chlorophyll excitations in FCP complex: Two-dimensional spectroscopy study. Journal of Chemical Physics, 2015, 142, 212414. | 3.0 | 30 |
| 40 | Mapping energy transfer channels in fucoxanthinâ€“chlorophyll protein complex. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 241-247. | 1.0 | 59 |
| 41 | Evolution and function of light harvesting proteins. Journal of Plant Physiology, 2015, 172, 62-75. | 3.5 | 126 |
| 42 | Fucoxanthin-Chlorophyll-Proteins and Non-Photochemical Fluorescence Quenching of Diatoms. Advances in Photosynthesis and Respiration, 2014, , 259-275. | 1.0 | 13 |
| 43 | Limits to physiological plasticity of the coral Pocillopora verrucosa from the central Red Sea. Coral Reefs, 2014, 33, 1115-1129. | 2.2 | 56 |
| 44 | Structure and Functional Heterogeneity of Fucoxanthin-Chlorophyll Proteins in Diatoms. Advances in Photosynthesis and Respiration, 2014, , 21-37. | 1.0 | 24 |
| 45 | Stark fluorescence spectroscopy reveals two emitting sites in the dissipative state of FCP antennas. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 193-200. | 1.0 | 26 |
| 46 | Probing the carotenoid content of intact Cyclotella cells by resonance Raman spectroscopy. Photosynthesis Research, 2014, 119, 273-281. | 2.9 | 35 |
| 47 | A novel cryptochrome in the diatom <i><scp>P</scp>haeodactylumÂtricornutum</i> influences the regulation of lightâ€harvesting protein levels. FEBS Journal, 2014, 281, 2299-2311. | 4.7 | 52 |
| 48 | Exploring the mechanism(s) of energy dissipation in the light harvesting complex of the photosynthetic algae Cyclotella meneghiniana. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 1507-1513. | 1.0 | 17 |
| 49 | Disentangling two non-photochemical quenching processes in Cyclotella meneghiniana by spectrally-resolved picosecond fluorescence at 77K. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 899-907. | 1.0 | 41 |
| 50 | Pigment Organization Effects on Energy Transfer and <i>Chl a</i> Emission Imaged in the Diatoms <i>C. meneghiniana</i> and <i>P. tricornutum</i> In Vivo: A Confocal Laser Scanning Fluorescence (CLSF) Microscopy and Spectroscopy Study. Journal of Physical Chemistry B, 2013, 117, 11272-11281. | 2.6 | 8 |
| 51 | Tripletâ€“triplet energy transfer in fucoxanthin-chlorophyll protein from diatom Cyclotella meneghiniana: Insights into the structure of the complex. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 1226-1234. | 1.0 | 28 |
| 52 | Isolation of monomeric photosystem II that retains the subunit PsbS. Photosynthesis Research, 2013, 118, 199-207. | 2.9 | 19 |
| 53 | Identification of several sub-populations in the pool of light harvesting proteins in the pennate diatom Phaeodactylum tricornutum. Biochimica Et Biophysica Acta - Bioenergetics, 2013, 1827, 303-310. | 1.0 | 76 |
| 54 | Ultrafast Energy Transfer from Chlorophyll <i>c</i><sub>2</sub> to Chlorophyll <i>a</i> in Fucoxanthinâ€“Chlorophyll Protein Complex. Journal of Physical Chemistry Letters, 2013, 4, 3590-3595. | 4.6 | 33 |

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| 55 | Biosynthesis of fucoxanthin and diadinoxanthin and function of initial pathway genes in Phaeodactylum tricornutum. Journal of Experimental Botany, 2012, 63, 5607-5612. | 4.8 | 101 |
| 56 | Properties of photosystem I antenna protein complexes of the diatom Cyclotella meneghiniana. Journal of Experimental Botany, 2012, 63, 3673-3681. | 4.8 | 33 |
| 57 | Chlorophyll triplet quenching by fucoxanthin in the fucoxanthinâ€“chlorophyll protein from the diatom Cyclotella meneghiniana. Biochemical and Biophysical Research Communications, 2012, 427, 637-641. | 2.1 | 32 |
| 58 | Factors determining the fluorescence yield of fucoxanthin-chlorophyll complexes (FCP) involved in non-photochemical quenching in diatoms. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1044-1052. | 1.0 | 68 |
| 59 | INFLUENCE OF DIFFERENT LIGHT INTENSITIES AND DIFFERENT IRON NUTRITION ON THE PHOTOSYNTHETIC APPARATUS IN THE DIATOM <i>CYCLOTELLA MENEGHINIANA</i> (BACILLARIOPHYCEAE)<sup>1</sup>. Journal of Phycology, 2011, 47, 1266-1273. | 2.3 | 32 |
| 60 | Desiccation of the resurrection plant Haberlea rhodopensis at high temperature. Photosynthesis Research, 2011, 108, 5-13. | 2.9 | 30 |
| 61 | Effect of gold nanoparticles on adipogenic differentiation of human mesenchymal stem cells. Journal of Nanoparticle Research, 2011, 13, 6789-6803. | 1.9 | 22 |
| 62 | Temperature and salinity tolerances of geographically separated Phaeodactylum tricornutum BÃ¶hlin strains: maximum quantum yield of primary photochemistry, pigmentation, proline content and growth. Botanica Marina, 2011, 54, . | 1.2 | 20 |
| 63 | Oligomerization and pigmentation dependent excitation energy transfer in fucoxanthinâ€“chlorophyll proteins. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 543-549. | 1.0 | 68 |
| 64 | Pigment organization in fucoxanthin chlorophyll a/c2 proteins (FCP) based on resonance Raman spectroscopy and sequence analysis. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 1647-1656. | 1.0 | 86 |
| 65 | The excitation energy transfer in the trimeric fucoxanthinâ€“chlorophyll protein from Cyclotella meneghiniana analyzed by polarized transient absorption spectroscopy. Chemical Physics, 2010, 373, 104-109. | 1.9 | 40 |
| 66 | Characterization of a trimeric light-harvesting complex in the diatom Phaeodactylum tricornutum built of FcpA and FcpE proteins. Journal of Experimental Botany, 2010, 61, 3079-3087. | 4.8 | 44 |
| 67 | Human serum albumin nanoparticles modified with apolipoprotein A-I cross the blood-brain barrier and enter the rodent brain. Journal of Drug Targeting, 2010, 18, 842-848. | 4.4 | 105 |
| 68 | Coherent effects in the carbonyl containing carotenoid fucoxanthin. , 2010, , . |  | 0 |
| 69 | Albumin nanoparticles targeted with Apo E enter the CNS by transcytosis and are delivered to neurones. Journal of Controlled Release, 2009, 137, 78-86. | 9.9 | 377 |
| 70 | Identification of a specific fucoxanthin-chlorophyll protein in the light harvesting complex of photosystem I in the diatom Cyclotella meneghiniana. Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 905-912. | 1.0 | 86 |
| 71 | Carotenoid Structures and Environments in Trimeric and Oligomeric Fucoxanthin Chlorophyll a/c<sub>2</sub>Proteins from Resonance Raman Spectroscopy. Journal of Physical Chemistry B, 2009, 113, 12565-12574. | 2.6 | 89 |
| 72 | Changes in some thylakoid membrane proteins and pigments upon desiccation of the resurrection plant Haberlea rhodopensis. Journal of Plant Physiology, 2009, 166, 1520-1528. | 3.5 | 46 |

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|---|---|---|---|
| 73 | Light Harvesting, Energy Transfer and Photoprotection in the Fucoxanthin-Chlorophyll Proteins of Cyclotella meneghiniana. Springer Series in Chemical Physics, 2009, , 577-579. | 0.2 | 1 |
| 74 | The fluorescence yield of the trimeric fucoxanthinâ€"chlorophyllâ€"protein FCPa in the diatom Cyclotella meneghiniana is dependent on the amount of bound diatoxanthin. Photosynthesis Research, 2008, 95, 229-235. | 2.9 | 83 |
| 75 | Probing the Organization of Photosystem II in Photosynthetic Membranes by Atomic Force Microscopy. Biochemistry, 2008, 47, 431-440. | 2.5 | 71 |
| 76 | Isolation of highly active photosystem II core complexes with a His-tagged Cyt b559 subunit from transplastomic tobacco plants. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, 1501-1509. | 1.0 | 23 |
| 77 | The Charge-Transfer Properties of the S<sub>2</sub> State of Fucoxanthin in Solution and in Fucoxanthin Chlorophyll-a/c<sub>2</sub> Protein (FCP) Based on Stark Spectroscopy and Molecular-Orbital Theory. Journal of Physical Chemistry B, 2008, 112, 11838-11853. | 2.6 | 70 |
| 78 | Electron Crystallography in Photosynthesis Research. Advances in Photosynthesis and Respiration, 2008, , 125-150. | 1.0 | 3 |
| 79 | Investigating The Organization Of Photosystem Ii In Spinach Photosynthetic Membranes By Atomic Force Microscopy. , 2008, , 779-782. | | 0 |
| 80 | The monomeric photosystem I-complex of the diatom Phaeodactylum tricornutum binds specific fucoxanthin chlorophyll proteins (FCPs) as light-harvesting complexes. Biochimica Et Biophysica Acta - Bioenergetics, 2007, 1767, 1428-1435. | 1.0 | 81 |
| 81 | Subunit Composition and Pigmentation of Fucoxanthinâ^'Chlorophyll Proteins in Diatoms:Â Evidence for a Subunit Involved in Diadinoxanthin and Diatoxanthin Bindingâ€. Biochemistry, 2006, 45, 13046-13053. | 2.5 | 131 |
| 82 | The Regulation of Carbon and Nutrient Assimilation in Diatoms is Significantly Different from Green Algae. Protist, 2006, 157, 91-124. | 1.5 | 239 |
| 83 | Structural differences in the inner part of Photosystem II between higher plants and cyanobacteria. Photosynthesis Research, 2005, 85, 3-13. | 2.9 | 20 |
| 84 | Spectroscopic Characterization of the Excitation Energy Transfer in the Fucoxanthinâ€"Chlorophyll Protein of Diatoms. Photosynthesis Research, 2005, 86, 241-250. | 2.9 | 151 |
| 85 | Transversal and Lateral Exciton Energy Transfer in Grana Thylakoids of Spinach. Biochemistry, 2004, 43, 14508-14516. | 2.5 | 48 |
| 86 | Fucoxanthin-Chlorophyll Proteins in Diatoms:Â 18 and 19 kDa Subunits Assemble into Different Oligomeric Statesâ€. Biochemistry, 2003, 42, 13027-13034. | 2.5 | 159 |
| 87 | Localisation of the PsbH subunit in photosystem II: a new approach using labelling of his-tags with a Ni2+-NTA gold cluster and single particle analysis. Journal of Molecular Biology, 2001, 312, 371-379. | 4.2 | 66 |
| 88 | Three-dimensional Structure of Chlamydomonas reinhardtii and Synechococcus elongatus Photosystem II Complexes Allows for Comparison of Their Oxygen-evolving Complex Organization. Journal of Biological Chemistry, 2000, 275, 27940-27946. | 3.4 | 109 |
| 89 | Crystallisation of CP43, a Chlorophyll Binding Protein of Photosystem II: An Electron Microscopy Analysis of Molecular Packing. Journal of Structural Biology, 2000, 131, 181-186. | 2.8 | 7 |
| 90 | Organization of the pigment molecules in the thylakoids and the chlorophyll a/c light-harvesting complex of a xanthophyte alga, Pleurochloris meiringensis. A linear dichroism study. Journal of Photochemistry and Photobiology B: Biology, 1998, 44, 199-204. | 3.8 | 3 |

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| 91 | Isolation and characterization of a photosystem I-associated antenna (LHC I) and a photosystem Iâ€”core complex from the chlorophyll c-containing alga Pleurochloris meiringensis (Xanthophyceae). Journal of Photochemistry and Photobiology B: Biology, 1993, 20, 87-93. | 3.8 | 31 |
| 92 | Changes in yield ofin-vivo fluorescence of chlorophyll a as a tool for selective herbicide monitoring. Journal of Applied Phycology, 1993, 5, 505-516. | 2.8 | 75 |
| 93 | A new fluorometric device to measure thein vivochlorophyllafluorescence yield in microalgae and its use as a herbicide monitor. European Journal of Phycology, 1993, 28, 247-252. | 2.0 | 22 |
| 94 | The molecular organization of chlorophyll-protein complexes in the Xanthophycean alga Pleurochloris meiringensis. Biochimica Et Biophysica Acta - Bioenergetics, 1988, 934, 220-226. | 1.0 | 12 |