

# Benoit Schoefs

## List of Publications by Year in descending order

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124  
papers

4,960  
citations

76196

40  
h-index

106150

65  
g-index

131  
all docs

131  
docs citations

131  
times ranked

5558  
citing authors

#	ARTICLE	IF	CITATIONS
1	Photosynthesis under artificial light: the shift in primary and secondary metabolism. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130243.	1.8	327
2	Secondary ketocarotenoid astaxanthin biosynthesis in algae: a multifunctional response to stress. <i>Photosynthesis Research</i> , 2010, 106, 155-177.	1.6	310
3	The Potential of Microalgae for the Production of Bioactive Molecules of Pharmaceutical Interest. <i>Current Pharmaceutical Biotechnology</i> , 2012, 13, 2733-2750.	0.9	201
4	Etioplast and etio-chloroplast formation under natural conditions: the dark side of chlorophyll biosynthesis in angiosperms. <i>Photosynthesis Research</i> , 2010, 105, 143-166.	1.6	165
5	Chlorophyll and carotenoid analysis in food products. Properties of the pigments and methods of analysis. <i>Trends in Food Science and Technology</i> , 2002, 13, 361-371.	7.8	160
6	High performance of vegetables, flowers, and medicinal plants in a red-blue LED incubator for indoor plant production. <i>Agronomy for Sustainable Development</i> , 2014, 34, 879-886.	2.2	149
7	The tannosome is an organelle forming condensed tannins in the chlorophyllous organs of Tracheophyta. <i>Annals of Botany</i> , 2013, 112, 1003-1014.	1.4	128
8	Protochlorophyllide Reduction: Mechanisms and Evolution. <i>Photochemistry and Photobiology</i> , 2003, 78, 543.	1.3	111
9	Diatom Milking: A Review and New Approaches. <i>Marine Drugs</i> , 2015, 13, 2629-2665.	2.2	106
10	The Arabidopsis PsbO2 protein regulates dephosphorylation and turnover of the photosystem II reaction centre D1 protein. <i>Plant Journal</i> , 2007, 49, 528-539.	2.8	101
11	Modulation of lipid biosynthesis by stress in diatoms. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2017, 372, 20160407.	1.8	97
12	Arbuscular mycorrhizal symbiosis elicits shoot proteome changes that are modified during cadmium stress alleviation in <i>Medicago truncatula</i> . <i>BMC Plant Biology</i> , 2011, 11, 75.	1.6	92
13	Astaxanthin accumulation in <i>Haematococcus</i> requires a cytochrome P450 hydroxylase and an active synthesis of fatty acids. <i>FEBS Letters</i> , 2001, 500, 125-128.	1.3	90
14	Plastids of Marine Phytoplankton Produce Bioactive Pigments and Lipids. <i>Marine Drugs</i> , 2013, 11, 3425-3471.	2.2	86
15	Enhanced Secondary- and Hormone Metabolism in Leaves of Arbuscular Mycorrhizal <i>Medicago truncatula</i> . <i>Plant Physiology</i> , 2017, 175, 392-411.	2.3	81
16	Life with and without AtTIP1;1, an Arabidopsis aquaporin preferentially localized in the apposing tonoplasts of adjacent vacuoles. <i>Plant Molecular Biology</i> , 2009, 70, 193-209.	2.0	79
17	Reticulon-like proteins in <i>Arabidopsis thaliana</i> : Structural organization and ER localization. <i>FEBS Letters</i> , 2007, 581, 3356-3362.	1.3	75
18	Identification, Expression, and Functional Analyses of a Thylakoid ATP/ADP Carrier from Arabidopsis. <i>Journal of Biological Chemistry</i> , 2007, 282, 8848-8859.	1.6	72

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19	Optimization of protein electroextraction from microalgae by a flow process. <i>Bioelectrochemistry</i> , 2015, 103, 74-81.	2.4	70
20	Determination of pigments in vegetables. <i>Journal of Chromatography A</i> , 2004, 1054, 217-226.	1.8	66
21	Cadmium, Copper, Sodium and Zinc Effects on Diatoms: from Heaven to Hell – a Review. <i>Cryptogamie, Algologie</i> , 2013, 34, 185-225.	0.3	63
22	Carotenoids of Microalgae Used in Food Industry and Medicine. <i>Mini-Reviews in Medicinal Chemistry</i> , 2017, 17, 1140-1172.	1.1	62
23	Ion and metabolite transport in the chloroplast of algae: lessons from land plants. <i>Cellular and Molecular Life Sciences</i> , 2018, 75, 2153-2176.	2.4	61
24	Photoreduction of Protochlorophyllide to Chlorophyllide in 2-d-old Dark-Grown Bean ( <i>Phaseolus</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 5 <i>Experimental Botany</i> , 1993, 44, 1053-1057.	2.4	57
25	The protochlorophyllide-chlorophyllide cycle. <i>Photosynthesis Research</i> , 2001, 70, 257-271.	1.6	57
26	Cadmium inhibits epoxidation of diatoxanthin to diadinoxanthin in the xanthophyll cycle of the marine diatom <i>Phaeodactylum tricornutum</i> . <i>FEBS Letters</i> , 2001, 508, 153-156.	1.3	56
27	Isolation and characterization of photoactive complexes of NADPH:protochlorophyllide oxidoreductase from wheat. <i>Planta</i> , 1998, 206, 673-680.	1.6	55
28	Zinc Affects Differently Growth, Photosynthesis, Antioxidant Enzyme Activities and Phytochelatin Synthase Expression of Four Marine Diatoms. <i>Scientific World Journal</i> , The, 2012, 2012, 1-15.	0.8	54
29	Fatty acids profile and temperature in the cultured marine diatom <i>Odontella aurita</i> . <i>Journal of Applied Phycology</i> , 2014, 26, 2265-2271.	1.5	54
30	Response of CO <sub>2</sub> -starved diatom <i>Phaeodactylum tricornutum</i> to light intensity transition. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2017, 372, 20160396.	1.8	53
31	Transcription factors in microalgae: genome-wide prediction and comparative analysis. <i>BMC Genomics</i> , 2016, 17, 282.	1.2	52
32	Calcium signatures and signaling in cytosol and organelles of tobacco cells induced by plant defense elicitors. <i>Cell Calcium</i> , 2012, 51, 434-444.	1.1	51
33	Function and evolution of channels and transporters in photosynthetic membranes. <i>Cellular and Molecular Life Sciences</i> , 2014, 71, 979-998.	2.4	51
34	Spectroscopic Properties of Protochlorophyllide Analyzed In Situ in the Course of Etiolation and in Illuminated Leaves. <i>Photochemistry and Photobiology</i> , 2000, 72, 85.	1.3	45
35	Proteomic analysis of <i>Medicago truncatula</i> root plastids. <i>Proteomics</i> , 2010, 10, 2123-2137.	1.3	44
36	Impact of light on microalgal photosynthetic microbial fuel cells and removal of pollutants by nanoadsorbent biopolymers: Updates, challenges and innovations. <i>Chemosphere</i> , 2022, 288, 132589.	4.2	44

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37	Role of Thylakoid ATP/ADP Carrier in Photoinhibition and Photoprotection of Photosystem II in Arabidopsis. <i>Plant Physiology</i> , 2010, 153, 666-677.	2.3	42
38	The Light-Dependent and Light-Independent Reduction of Protochlorophyllide a to Chlorophyllide a. <i>Photosynthetica</i> , 1999, 36, 481-496.	0.9	41
39	Relaxation of the non-photochemical chlorophyll fluorescence quenching in diatoms: kinetics, components and mechanisms. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130241.	1.8	41
40	Metabolic engineering of TiO <sub>2</sub> nanoparticles in <i>Nitzschia palea</i> to form diatom nanotubes: an ingredient for solar cells to produce electricity and biofuel. <i>RSC Advances</i> , 2016, 6, 97276-97284.	1.7	41
41	Betaine lipid and neutral lipid production under nitrogen or phosphorus limitation in the marine microalga <i>Tisochrysis lutea</i> (Haptophyta). <i>Algal Research</i> , 2019, 40, 101506.	2.4	40
42	Separation of photosynthetic pigments and their precursors by reversed-phase high-performance liquid chromatography using a photodiode-array detector. <i>Journal of Chromatography A</i> , 1995, 692, 239-245.	1.8	39
43	Functions of reticulons in plants: What we can learn from animals and yeasts. <i>Cellular and Molecular Life Sciences</i> , 2009, 66, 584-595.	2.4	39
44	Diatom microalgae as smart nanocontainers for biosensing wastewater pollutants: recent trends and innovations. <i>Bioengineered</i> , 2021, 12, 9531-9549.	1.4	38
45	Food colour additives of natural origin. , 2015, , 3-34.		36
46	Chlorophyll and carotenoid analysis in food products. A practical case-by-case view. <i>TrAC - Trends in Analytical Chemistry</i> , 2003, 22, 335-339.	5.8	35
47	Insights into diatom microalgal farming for treatment of wastewater and pretreatment of algal cells by ultrasonication for value creation. <i>Environmental Research</i> , 2021, 201, 111550.	3.7	35
48	Protochlorophyllide reduction - what is new in 2005?. <i>Photosynthetica</i> , 2005, 43, 329-343.	0.9	34
49	Solute transporters in plant thylakoid membranes. <i>Communicative and Integrative Biology</i> , 2010, 3, 122-129.	0.6	34
50	Assessment of the requirement for aquaporins in the thylakoid membrane of plant chloroplasts to sustain photosynthetic water oxidation. <i>FEBS Letters</i> , 2013, 587, 2083-2089.	1.3	34
51	The photoenzymatic cycle of NADPH: protochlorophyllide oxidoreductase in primary bean leaves ( <i>Phaseolus vulgaris</i> ) during the first days of photoperiodic growth. <i>Photosynthesis Research</i> , 2008, 96, 15-26.	1.6	33
52	Light modulates transcriptomic dynamics upregulating astaxanthin accumulation in <i>Haematococcus</i> : A review. <i>Bioresource Technology</i> , 2021, 340, 125707.	4.8	32
53	Comparison of the photoreduction of protochlorophyllide to chlorophyllide in leaves and cotyledons from dark-grown bean as a function of age. <i>Photosynthesis Research</i> , 1994, 41, 405-417.	1.6	31
54	Sustainable treatment of dye wastewater by recycling microalgal and diatom biogenic materials: Biorefinery perspectives. <i>Chemosphere</i> , 2022, 305, 135371.	4.2	31

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55	Metal determination and quantification in biological material using particle-induced X-ray emission. <i>TrAC - Trends in Analytical Chemistry</i> , 2003, 22, 254-262.	5.8	29
56	ENVIRONMENTAL FACTORS AFFECTING GROWTH AND OMEGA 3 FATTY ACID COMPOSITION IN SKELETONEMA COSTATUM. THE INFLUENCES OF IRRADIANCE AND CARBON SOURCE. <i>Diatom Research</i> , 2008, 23, 93-103.	0.5	29
57	Title is missing!. <i>Photosynthesis Research</i> , 1998, 57, 203-213.	1.6	28
58	Changing the light environment: chloroplast signalling and response mechanisms. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130220.	1.8	28
59	Mycorrhiza Symbiosis Increases the Surface for Sunlight Capture in <i>Medicago truncatula</i> for Better Photosynthetic Production. <i>PLoS ONE</i> , 2015, 10, e0115314.	1.1	28
60	Application of pulsed electric fields for the biocompatible extraction of proteins from the microalga <i>Haematococcus pluvialis</i> . <i>Bioelectrochemistry</i> , 2021, 137, 107588.	2.4	28
61	Photosystem II Function and Dynamics in Three Widely Used <i>Arabidopsis thaliana</i> Accessions. <i>PLoS ONE</i> , 2012, 7, e46206.	1.1	28
62	Latest trends and developments in microalgae as potential source for biofuels: The case of diatoms. <i>Fuel</i> , 2022, 314, 122738.	3.4	28
63	The formation of chlorophyll from chlorophyllide in leaves containing proplastids is a four-step process. <i>FEBS Letters</i> , 2000, 486, 243-246.	1.3	27
64	Improved liquid chromatographic method for the analysis of photosynthetic pigments of higher plants. <i>Journal of Chromatography A</i> , 2000, 876, 111-116.	1.8	26
65	Plant Pigments: Properties, Analysis, Degradation. <i>Advances in Food and Nutrition Research</i> , 2005, 49, 41-91.	1.5	26
66	High biological variability of plastids, photosynthetic pigments and pigment forms of leaf primordia in buds. <i>Planta</i> , 2012, 235, 1035-1049.	1.6	25
67	Preventive Effects of the Marine Microalga <i>Phaeodactylum tricornutum</i> , Used as a Food Supplement, on Risk Factors Associated with Metabolic Syndrome in Wistar Rats. <i>Nutrients</i> , 2019, 11, 1069.	1.7	25
68	Carbon Orientation in the Diatom <i>Phaeodactylum tricornutum</i> : The Effects of Carbon Limitation and Photon Flux Density. <i>Frontiers in Plant Science</i> , 2019, 10, 471.	1.7	25
69	Title is missing!. <i>Photosynthesis Research</i> , 1999, 62, 107-116.	1.6	24
70	Photoactive Protochlorophyllide Regeneration in Cotyledons and Leaves from Higher Plants. <i>Photochemistry and Photobiology</i> , 2000, 72, 660.	1.3	24
71	Changes in the LHCI aggregation state during iron depletion in the unicellular red alga <i>Rhodella violacea</i> . <i>FEBS Letters</i> , 2003, 533, 59-62.	1.3	23
72	Fish Oil and Microalga Omega-3 as Dietary Supplements: A Comparative Study on Cardiovascular Risk Factors in High-Fat Fed Rats. <i>Lipids</i> , 2016, 51, 1037-1049.	0.7	23

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73	Photosynthetic Pigments, Photosynthesis and Plastid Ultrastructure in RbcS Antisense DNA Mutants 2001, 56, 1067-1074.	0.6	20
74	Assembly of the photosynthetic apparatus in embryos from <i>Fucus serratus</i> L. <i>Photosynthesis Research</i> , 2003, 77, 45-52.	1.6	20
75	Functional investigations in diatoms need more than a transcriptomic approach. <i>Diatom Research</i> , 2014, 29, 75-89.	0.5	19
76	Identification of transcription factors involved in the phenotype of a domesticated oleaginous microalgae strain of <i>Tisochrysis lutea</i> . <i>Algal Research</i> , 2018, 30, 59-72.	2.4	19
77	Protochlorophyllide Reduction: Mechanisms and Evolution. <i>Photochemistry and Photobiology</i> , 2003, 78, 543-557.	1.3	16
78	The peculiar carbon metabolism in diatoms. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2017, 372, 20160405.	1.8	16
79	Stability of vacuolar betaxanthin pigments in juices from Moroccan yellow <i>Opuntia ficus indica</i> fruits. <i>International Journal of Food Science and Technology</i> , 2008, 43, 351-356.	1.3	15
80	The Marine Microalga, <i>Tisochrysis lutea</i> , Protects against Metabolic Disorders Associated with Metabolic Syndrome and Obesity. <i>Nutrients</i> , 2021, 13, 430.	1.7	15
81	A techno-economic approach for eliminating dye pollutants from industrial effluent employing microalgae through microbial fuel cells: Barriers and perspectives. <i>Environmental Research</i> , 2022, 212, 113454.	3.7	15
82	Graphene oxide decorated TiO <sub>2</sub> and BiVO <sub>4</sub> nanocatalysts for enhanced visible-light-driven photocatalytic bacterial inactivation. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2021, 418, 113374.	2.0	13
83	Metabolite Quantification by Fourier Transform Infrared Spectroscopy in Diatoms: Proof of Concept on <i>Phaeodactylum tricornutum</i> . <i>Frontiers in Plant Science</i> , 2021, 12, 756421.	1.7	13
84	Hydrogen economy and storage by nanoporous microalgae diatom: Special emphasis on designing photobioreactors. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 42099-42121.	3.8	13
85	Astaxanthin bioaccumulation in microalgae under environmental stress simulated in industrial effluents highlighting prospects of <i>Haematococcus pluvialis</i> : knowledge gaps and prospective approaches. <i>Phytochemistry Reviews</i> , 2023, 22, 1041-1066.	3.1	12
86	The Transition Toward Nitrogen Deprivation in Diatoms Requires Chloroplast Stand-By and Deep Metabolic Reshuffling. <i>Frontiers in Plant Science</i> , 2021, 12, 760516.	1.7	11
87	Communication and Signaling in the Plant-Fungus Symbiosis: The Mycorrhiza. <i>Signaling and Communication in Plants</i> , 2009, , 45-71.	0.5	10
88	Phylogenetic Analysis of the Thylakoid ATP/ADP Carrier Reveals New Insights into Its Function Restricted to Green Plants. <i>Frontiers in Plant Science</i> , 2012, 2, 110.	1.7	10
89	CHAPTER 3. Nanoengineering of Diatom Surfaces for Emerging Applications. <i>RSC Nanoscience and Nanotechnology</i> , 0, , 55-78.	0.2	10
90	Carotenoids and Stress in Higher Plants and Algae. <i>Books in Soils, Plants, and the Environment</i> , 1999, , 465-482.	0.1	10

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91	Nanotechnological approaches to disrupt the rigid cell walled microalgae grown in wastewater for value-added biocompounds: commercial applications, challenges, and breakthrough. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 13309-13334.	2.9	10
92	Contribution of n-3 Long-Chain Polyunsaturated Fatty Acids to the Prevention of Breast Cancer Risk Factors. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 7936.	1.2	10
93	Changes in plastid proteome and structure in arbuscular mycorrhizal roots display a nutrient starvation signature. <i>Physiologia Plantarum</i> , 2017, 159, 13-29.	2.6	9
94	QUANTITATIVE MEASUREMENT OF METAL ION CONCENTRATION OF PROTEINS SEPARATED BY ELECTROPHORESIS. <i>International Journal of PIXE</i> , 1996, 06, 215-225.	0.4	8
95	Quantification by PIXE of metallic sites in proteins separated by electrophoresis. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1998, 136-138, 932-935.	0.6	8
96	Protective Action of <i>Ostreococcus Tauri</i> and <i>Phaeodactylum Tricornutum</i> Extracts towards Benzo[a]Pyrene-Induced Cytotoxicity in Endothelial Cells. <i>Marine Drugs</i> , 2020, 18, 3.	2.2	8
97	The Potential of the Marine Microalga <i>Diacronema lutheri</i> in the Prevention of Obesity and Metabolic Syndrome in High-Fat-Fed Wistar Rats. <i>Molecules</i> , 2022, 27, 4246.	1.7	8
98	Perovskite-based solar cells fabricated from TiO <sub>2</sub> nanoparticles hybridized with biomaterials from mollusc and diatoms. <i>Chemosphere</i> , 2022, 291, 132692.	4.2	7
99	Introduction : From diatom species identification to ecological and biotechnological applications. <i>Botany Letters</i> , 2020, 167, 2-6.	0.7	6
100	Photosynthetic Pigment Metabolism in Plants During Stress. <i>Books in Soils, Plants, and the Environment</i> , 1999, , 527-543.	0.1	6
101	Fabrication of resonating microfluidic chamber for biofuel production in diatoms (Resonating device) Tj ETQq1 1 0.784314 rgBT /Overdo		
102	Pulsed Electric Field-Assisted Cell Permeabilization of Microalgae ( <i>Haematococcus pluvialis</i> ) for Milking of Value-Added Compounds. <i>Bioenergy Research</i> , 2023, 16, 311-324.	2.2	5
103	Plant cell compartments. <i>Botany Letters</i> , 2019, 166, 269-273.	0.7	4
104	Chloroplast Ion and Metabolite Transport in Algae. <i>Advances in Photosynthesis and Respiration</i> , 2020, , 107-139.	1.0	4
105	Pigment composition and location in honey locust ( <i>Gleditsia triacanthos</i> ) seeds before and after desiccation. <i>Tree Physiology</i> , 2002, 22, 285-290.	1.4	3
106	Progress in diatom research: from taxonomy to physiology. <i>Diatom Research</i> , 2014, 29, 3-4.	0.5	3
107	Advances in diatom biodiversity and ecology. <i>Botany Letters</i> , 2016, 163, 69-70.	0.7	3
108	Carotenoid Overproduction in Microalgae: Biochemical and Genetic Engineering. , 2020, , 81-126.		3

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109	Chlorophylls, Chlorophyll-Related Molecules, and Open-Chain Tetrapyrroles. , 2012, , 665-686.		3
110	Spectroscopic Properties of Protochlorophyllide Analyzed In Situ in the Course of Etiolation and in Illuminated Leaves. <i>Photochemistry and Photobiology</i> , 2007, 72, 85-93.	1.3	2
111	Spectral Heterogeneity of the Photoinactive Protochlorophyllide in Dark-Grown Bean Leaves and Pine Cotyledons. , 1995, , 2949-2952.		2
112	Modifications of the Carotenoid Metabolism in Plastids. <i>Books in Soils, Plants, and the Environment</i> , 2010, , 407-433.	0.1	2
113	Role of Nadph:Protochlorophyllide Reductase in Photoprotection of Newly Formed Chlorophyllide. , 1995, , 2953-2956.		1
114	Kinetics of the Photoreduction of Protochlorophyllide (Pchlde) to Chlorophyllide (Chlide) in Leaves of <i>Phaseolus Vulgaris</i> CV Commodore. , 1993, , 303-304.		1
115	Development of the Photosynthetic Apparatus in <i>Fucus Serratus</i> Embryos. , 1998, , 3245-3248.		1
116	Light-Minus-Dark Absorbance Spectra During Photoactive Pchlde Photoreduction. , 1997, , 133-134.		1
117	Protochlorophyllide Photoreduction—A Review. <i>Books in Soils, Plants, and the Environment</i> , 2005, , .	0.1	1
118	Selection of Culture Conditions and Cell Morphology for Biocompatible Extraction of $\beta$ -Carotene from <i>Dunaliella salina</i> . <i>Marine Drugs</i> , 2021, 19, 648.	2.2	1
119	Photoactive Protochlorophyllide Regeneration in Cotyledons and Leaves from Higher Plants. <i>Photochemistry and Photobiology</i> , 2007, 72, 660-668.	1.3	0
120	Review of the volume 143 "Diatom research over time and space" of <i>Nova Hedwigia Beiheft</i> 143. <i>Botany Letters</i> , 2017, 164, 103-103.	0.7	0
121	Focus editorial: new contributions in diatom research. <i>Botany Letters</i> , 2019, 166, 115-116.	0.7	0
122	Chlorophyll Biosynthesis During Plant Greening. , 2001, , .		0
123	Screening for Solute Transporters in Plant Photosynthetic Membranes. , 2008, , 1067-1069.		0
124	Editorial: Metabolic Regulation of Diatoms and Other Chromalveolates. <i>Frontiers in Plant Science</i> , 2022, 13, 897639.	1.7	0