Maria J Barbosa

List of Publications by Year
in descending order

96 papers	7,652 citations	109137 35 h-index	51492 86 g-index
97 all docs	97 docs citations	97 times ranked	6531 citing authors

#	Article	IF	Citations
1	An Outlook on Microalgal Biofuels. Science, 2010, 329, 796-799.	6.0	1,585
2	Microalgal production â€" A close look at the economics. Biotechnology Advances, 2011, 29, 24-27.	6.0	678
3	Towards industrial products from microalgae. Energy and Environmental Science, 2016, 9, 3036-3043.	15.6	468
4	Microalgae for the production of bulk chemicals and biofuels. Biofuels, Bioproducts and Biorefining, 2010, 4, 287-295.	1.9	424
5	Biorefinery of microalgae for food and fuel. Bioresource Technology, 2013, 135, 142-149.	4.8	402
6	Food commodities from microalgae. Current Opinion in Biotechnology, 2013, 24, 169-177.	3.3	333
7	Acetate as a carbon source for hydrogen production by photosynthetic bacteria. Journal of Biotechnology, 2001, 85, 25-33.	1.9	306
8	Food and feed products from micro-algae: Market opportunities and challenges for the EU. Trends in Food Science and Technology, 2015, 42, 81-92.	7.8	253
9	Comparison of four outdoor pilot-scale photobioreactors. Biotechnology for Biofuels, 2015, 8, 215.	6.2	152
10	Mild disintegration of the green microalgae Chlorella vulgaris using bead milling. Bioresource Technology, 2015, 184, 297-304.	4.8	148
11	Microalgae cultivation in air-lift reactors: Modeling biomass yield and growth rate as a function of mixing frequency. Biotechnology and Bioengineering, 2003, 82, 170-179.	1.7	145
12	Selective extraction of intracellular components from the microalga Chlorella vulgaris by combined pulsed electric fieldâ€"temperature treatment. Bioresource Technology, 2016, 203, 80-88.	4.8	139
13	The role of microalgae in the bioeconomy. New Biotechnology, 2021, 61, 99-107.	2.4	136
14	Overcoming shear stress of microalgae cultures in sparged photobioreactors. Biotechnology and Bioengineering, 2004, 85, 78-85.	1.7	123
15	Energy efficient bead milling of microalgae: Effect of bead size on disintegration and release of proteins and carbohydrates. Bioresource Technology, 2017, 224, 670-679.	4.8	120
16	Hydrodynamic stress and lethal events in sparged microalgae cultures. Biotechnology and Bioengineering, 2003, 83, 112-120.	1.7	111
17	Pulsed Electric Field for protein release of the microalgae Chlorella vulgaris and Neochloris oleoabundans. Algal Research, 2017, 24, 181-187.	2.4	99
18	Optimization of biomass, vitamins, and carotenoid yield on light energy in a flat-panel reactor using the A-stat technique. Biotechnology and Bioengineering, 2005, 89, 233-242.	1.7	83

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19	Selecting microalgae with high lipid productivity and photosynthetic activity under nitrogen starvation. Journal of Applied Phycology, 2015, 27, 1425-1431.	1.5	81
20	Comparative life cycle assessment of real pilot reactors for microalgae cultivation in different seasons. Applied Energy, 2017, 205, 1151-1164.	5.1	79
21	Effect of carotenoid source and dietary lipid content on blood astaxanthin concentration in rainbow trout (Oncorhynchus mykiss). Aquaculture, 1999, 176, 331-341.	1.7	72
22	CRISPRâ€“Cas ribonucleoprotein mediated homology-directed repair for efficient targeted genome editing in microalgae Nannochloropsis oceanica IMET1. Biotechnology for Biofuels, 2019, 12, 66.	6.2	66
23	The synchronized cell cycle of Neochloris oleoabundans and its influence on biomass composition under constant light conditions. Algal Research, 2013, 2, 313-320.	2.4	62
24	Optimisation of cultivation parameters in photobioreactors for microalgae cultivation using the A-stat technique. New Biotechnology, 2003, 20, 115-123.	2.7	55
25	Realizing the promises of marine biotechnology. New Biotechnology, 2003, 20, 429-439.	2.7	54
26	Can We Approach Theoretical Lipid Yields in Microalgae?. Trends in Biotechnology, 2018, 36, 265-276.	4.9	54
27	Cationic polymers for successful flocculation of marine microalgae. Bioresource Technology, 2014, 169, 804-807.	4.8	52
28	Genetic engineering of microalgae for enhanced lipid production. Biotechnology Advances, 2021, 52, 107836.	6.0	52
29	Design and construction of the microalgal pilot facility AlgaePARC. Algal Research, 2014, 6, 160-169.	2.4	51
30	Microalgae based production of single-cell protein. Current Opinion in Biotechnology, 2022, 75, 102705.	3.3	51
31	Botryococcus braunii strains compared for biomass productivity, hydrocarbon and carbohydrate content. Journal of Biotechnology, 2017, 248, 77-86.	1.9	50
32	Batch and semi-continuous microalgal TAG production in lab-scale and outdoor photobioreactors. Journal of Applied Phycology, 2016, 28, 3167-3177.	1.5	44
33	Process optimization of fucoxanthin production with Tisochrysis lutea. Bioresource Technology, 2020, 315, 123894.	4.8	44
34	Synthetic Biology Approaches To Enhance Microalgal Productivity. Trends in Biotechnology, 2021, 39, 1019-1036.	4.9	41
35	Progress of CRISPRâ€Cas Based Genome Editing in Photosynthetic Microbes. Biotechnology Journal, 2018, 13, e1700591.	1.8	38
36	From Current Algae Products to Future Biorefinery Practices: A Review. Advances in Biochemical Engineering/Biotechnology, 2017, 166, 99-123.	0.6	37

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37	Bioprospecting and characterization of temperature tolerant microalgae from Bonaire. Algal Research, 2020, 50, 102008.	2.4	37
38	High-throughput insertional mutagenesis reveals novel targets for enhancing lipid accumulation in Nannochloropsis oceanica. Metabolic Engineering, 2021, 66, 239-258.	3.6	37
39	Sorting cells of the microalga Chlorococcum littorale with increased triacylglycerol productivity. Biotechnology for Biofuels, 2016, 9, 183.	6.2	34
40	Techno-economics of algae production in the Arabian Peninsula. Bioresource Technology, 2021, 331, 125043.	4.8	34
41	Techno-economic assessment of microalgae production, harvesting and drying for food, feed, cosmetics, and agriculture. Science of the Total Environment, 2022, 837, 155742.	3.9	34
42	Microalgal TAG production strategies: why batch beats repeated-batch. Biotechnology for Biofuels, 2016, 9, 64.	6.2	33
43	Comprehensive Genome Engineering Toolbox for Microalgae Nannochloropsis oceanica Based on CRISPR-Cas Systems. ACS Synthetic Biology, 2021, 10, 3369-3378.	1.9	29
44	Potential of novel desert microalgae and cyanobacteria for commercial applications and CO2 sequestration. Journal of Applied Phycology, 2019, 31, 2231-2243.	1.5	28
45	Circadian rhythms in the cell cycle and biomass composition of Neochloris oleoabundans under nitrogen limitation. Journal of Biotechnology, 2014, 187, 25-33.	1.9	27
46	Turbidostat operation of outdoor pilot-scale photobioreactors. Algal Research, 2016, 18, 198-208.	2.4	27
47	Production of exopolysaccharide by Botryococcus braunii CCALA 778 under laboratory simulated Mediterranean climate conditions. Algal Research, 2018, 29, 330-336.	2.4	27
48	Lipid Production in Nannochloropsis gaditana during Nitrogen Starvation. Biology, 2019, 8, 5.	1.3	27
49	Translocation and de novo synthesis of eicosapentaenoic acid (EPA) during nitrogen starvation in Nannochloropsis gaditana. Algal Research, 2019, 37, 138-144.	2.4	26
50	Production and monitoring of biomass and fucoxanthin with brown microalgae under outdoor conditions. Biotechnology and Bioengineering, 2021, 118, 1355-1365.	1.7	26
51	Effect of nitrogen addition on lipid productivity of nitrogen starved Nannochloropsis gaditana. Algal Research, 2018, 33, 125-132.	2.4	25
52	Mixotrophic cultivation of Galdieria sulphuraria for C-phycocyanin and protein production. Algal Research, 2022, 61, 102603.	2.4	25
53	Microalgal triacylglycerides production in outdoor batch-operated tubular PBRs. Biotechnology for Biofuels, 2015, 8, 100.	6.2	24
54	The influence of day/night cycles on biomass yield and composition of Neochloris oleoabundans. Biotechnology for Biofuels, 2017, 10, 104.	6.2	24

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55	Production and high throughput quantification of fucoxanthin and lipids in Tisochrysis lutea using single-cell fluorescence. Bioresource Technology, 2020, 318, 124104.	4.8	24
56	Towards industrial production of microalgae without temperature control: The effect of diel temperature fluctuations on microalgal physiology. Journal of Biotechnology, 2021, 336, 56-63.	1.9	24
57	Rapid method to screen and sort lipid accumulating microalgae. Bioresource Technology, 2015, 184, 47-52.	4.8	23
58	Production of phycocyanin by Leptolyngbya sp. in desert environments. Algal Research, 2020, 47, 101875.	2.4	23
59	Monitoring of eicosapentaenoic acid (EPA) production in the microalgae Nannochloropsis oceanica. Algal Research, 2020, 45, 101766.	2.4	21
60	Effect of initial biomass-specific photon supply rate on fatty acid accumulation in nitrogen depleted Nannochloropsis gaditana under simulated outdoor light conditions. Algal Research, 2018, 35, 595-601.	2.4	20
61	Improved fucoxanthin and docosahexaenoic acid productivities of a sorted self-settling Tisochrysis lutea phenotype at pilot scale. Bioresource Technology, 2021, 325, 124725.	4.8	18
62	The influence of day length on circadian rhythms of Neochloris oleoabundans. Algal Research, 2017, 22, 31-38.	2.4	17
63	Towards microalgal triglycerides in the commodity markets. Biotechnology for Biofuels, 2017, 10, 188.	6.2	16
64	Time-dependent transcriptome profile of genes involved in triacylglycerol (TAG) and polyunsaturated fatty acid synthesis in Nannochloropsis gaditana during nitrogen starvation. Journal of Applied Phycology, 2020, 32, 1153-1164.	1.5	16
65	Selenium enrichment in the marine microalga Nannochloropsis oceanica. Algal Research, 2021, 59, 102427.	2.4	16
66	Repeated nitrogen starvation doesnâ€™t affect lipid productivity of Chlorococcum littorale. Bioresource Technology, 2016, 219, 576-582.	4.8	15
67	Starch Production in Chlamydomonas reinhardtii through Supraoptimal Temperature in a Pilot-Scale Photobioreactor. Cells, 2021, 10, 1084.	1.8	15
68	Expanding the upperâ€temperature boundary for the microalga Picochlorum sp. (BPE23) by adaptive laboratory evolution. Biotechnology Journal, 2022, 17, e2100659.	1.8	13
69	Milking exopolysaccharides from Botryococcus braunii CCALA778 by membrane filtration. Algal Research, 2018, 34, 175-181.	2.4	12
70	Outdoor scaleâ€up of Leptolyngbya sp.: Effect of light intensity and inoculum volume on photoinhibition and â€oxidation. Biotechnology and Bioengineering, 2021, 118, 2368-2379.	1.7	12
71	Fluorescence spectroscopy and chemometrics for simultaneous monitoring of cell concentration, chlorophyll and fatty acids in Nannochloropsis oceanica. Scientific Reports, 2020, 10, 7688.	1.6	10
72	The nucleolus as a genomic safe harbor for strong gene expression in Nannochloropsis oceanica. Molecular Plant, 2022, 15, 340-353.	3.9	10

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73	Use of methylene blue uptake for assessing cell viability of colony-forming microalgae. Algal Research, 2015, 8, 174-180.	2.4	9
74	Effect of removal of bacteria on the biomass and extracellular carbohydrate productivity of Botryococcus braunii. Journal of Applied Phycology, 2019, 31, 3453-3463.	1.5	9
75	Light spectra as triggers for sorting improved strains of Tisochrysis lutea. Bioresource Technology, 2021, 321, 124434.	4.8	9
76	Starch Rich Chlorella vulgaris: High-Throughput Screening and Up-Scale for Tailored Biomass Production. Applied Sciences (Switzerland), 2021, 11, 9025.	1.3	9
77	Fucoxanthin and docosahexaenoic acid production by cold-adapted Tisochrysis lutea. New Biotechnology, 2022, 66, 16-24.	2.4	9
78	Short-term physiologic response of the green microalga Picochlorum sp. (BPE23) to supra-optimal temperature. Scientific Reports, 2022, 12, 3290.	1.6	9
79	Techno-economic analysis of microalgae production for aquafeed in Norway. Algal Research, 2022, 64, 102679.	2.4	9
80	Outdoor performance of Chlorococcum littorale at different locations. Algal Research, 2017, 27, 55-64.	2.4	7
81	Associated bacteria of Botryococcus braunii (Chlorophyta). PeerJ, 2019, 7, e6610.	0.9	7
82	Growth parameter estimation and model simulation for three industrially relevant microalgae: Picochlorum, Nannochloropsis, and Neochloris. Biotechnology and Bioengineering, 2022, 119, 1416-1425.	1.7	7
83	Perspectives of fluorescence spectroscopy for online monitoring in microalgae industry. Microbial Biotechnology, 2022, 15, 1824-1838.	2.0	6
84	Cell diameter doesn't affect lipid productivity of Chlorococcum littorale. Algal Research, 2016, 19, 333-341.	2.4	5
85	Prospects for viruses infecting eukaryotic microalgae in biotechnology. Biotechnology Advances, 2022, 54, 107790.	6.0	5
86	Bacterial diversity in different outdoor pilot plant photobioreactor types during production of the microalga Nannochloropsis sp. CCAP211/78. Applied Microbiology and Biotechnology, 2022, 106, 2235-2248.	1.7	5
87	Neochloris oleoabundans oil production in an outdoor tubular photobioreactor at pilot scale. Journal of Applied Phycology, 2021, 33, 1327-1339.	1.5	4
88	Developing microalgal oil production for an outdoor photobioreactor. Journal of Applied Phycology, 2021, 33, 1315-1325.	1.5	3
89	Predicting biomass and hydrocarbon productivities and colony size in continuous cultures of Botryococcus braunii showa. Bioresource Technology, 2021, 340, 125653.	4.8	3
90	Accumulation of medium chain fatty acids in Nannochloropsis oceanica by heterologous expression of Cuphea palustris thioesterase FatB1. Algal Research, 2022, 64, 102665.	2.4	3

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91	A novel V-shaped photobioreactor design for microalgae cultivation at low latitudes: Modelling biomass productivities of Chlorella sorokiniana on Bonaire. Chemical Engineering Journal, 2022, 449, 137793.	6.6	3
92	11 Biorefining of microalgae: Production of highvalue products, bulk chemicals and biofuels. , 0, , .		2
93	Cultivation of Dunaliella for High Value Compounds. , 2009, , 91-110.		0
94	Integrated Biorefineries for Algal Biomolecules. Grand Challenges in Biology and Biotechnology, 2019, , 293-317.	2.4	0
95	Cultivation of Dunaliella for High-Value Compounds. , 2019, , 91-110.		0
96	Mild acoustic processing of Tisochrysis lutea for multiproduct biorefineries. Bioresource Technology, 2022, 360, 127582.	4.8	0