JosÃ© M FernÃ¡ndez Sevilla

List of Publications by Year
in descending order

117 papers	10,099 citations	34105 52 h-index	37204 96 g-index
120 all docs	120 docs citations	120 times ranked	7141 citing authors

#	Article	IF	Citations
1	Production cost of a real microalgae production plant and strategies to reduce it. Biotechnology Advances, 2012, 30, 1344-1353.	11.7	529
2	Tubular photobioreactor design for algal cultures. Journal of Biotechnology, 2001, 92, 113-131.	3.8	491
3	Protein measurements of microalgal and cyanobacterial biomass. Bioresource Technology, 2010, 101, 7587-7591.	9.6	465
4	Characterization of a flat plate photobioreactor for the production of microalgae. Chemical Engineering Journal, 2008, 138, 136-147.	12.7	360
5	Biotechnological production of lutein and its applications. Applied Microbiology and Biotechnology, 2010, 86, 27-40.	3.6	323
6	Airlift-driven external-loop tubular photobioreactors for outdoor production of microalgae: assessment of design and performance. Chemical Engineering Science, 2001, 56, 2721-2732.	3.8	247
7	Wastewater treatment using microalgae: how realistic a contribution might it be to significant urban wastewater treatment?. Applied Microbiology and Biotechnology, 2016, 100, 9013-9022.	3.6	223
8	Shear rate in stirred tank and bubble column bioreactors. Chemical Engineering Journal, 2006, 124, 1-5.	12.7	221
9	A mathematical model of microalgal growth in light-limited chemostat culture. Journal of Chemical Technology and Biotechnology, 1994, 61, 167-173.	3.2	220
10	A mechanistic model of photosynthesis in microalgae. Biotechnology and Bioengineering, 2003, 81, 459-473.	3.3	214
11	Evaluation of flocculants for the recovery of freshwater microalgae. Bioresource Technology, 2012, 118, 102-110.	9.6	211
12	Photobioreactors for the production of microalgae. Reviews in Environmental Science and Biotechnology, 2013, 12, 131-151.	8.1	211
13	Biomass and lutein productivity of Scenedesmus almeriensis: influence of irradiance, dilution rate and temperature. Applied Microbiology and Biotechnology, 2008, 79, 719-729.	3.6	204
14	Influence of culture conditions on the productivity and lutein content of the new strain Scenedesmus almeriensis. Process Biochemistry, 2008, 43, 398-405.	3.7	203
15	A model for light distribution and average solar irradiance inside outdoor tubular photobioreactors for the microalgal mass culture. , 1997, 55, 701-714.		202
16	Modeling of biomass productivity in tubular photobioreactors for microalgal cultures: Effects of dilution rate, tube diameter, and solar irradiance. , 1998, 58, 605-616.		188
17	Spirulina for the food and functional food industries. Food Research International, 2020, 137, 109356.	6.2	173
18	Production of lovastatin by Aspergillus terreus: effects of the C:N ratio and the principal nutrients on growth and metabolite production. Enzyme and Microbial Technology, 2003, 33, 270-277.	3.2	171

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19	Conversion of CO2 into biomass by microalgae: how realistic a contribution may it be to significant CO2 removal?. Applied Microbiology and Biotechnology, 2012, 96, 577-586.	3.6	168
20	A study on simultaneous photolimitation and photoinhibition in dense microalgal cultures taking into account incident and averaged irradiances. Journal of Biotechnology, 1996, 45, 59-69.	3.8	164
21	Acyl lipid composition variation related to culture age and nitrogen concentration in continuous culture of the microalga Phaeodactylum tricornutum. Phytochemistry, 2000, 54, 461-471.	2.9	163
22	Mixotrophic growth of the microalga Phaeodactylum tricornutum. Process Biochemistry, 2005, 40, 297-305.	3.7	153
23	Pellet morphology, culture rheology and lovastatin production in cultures of Aspergillus terreus. Journal of Biotechnology, 2005, 116, 61-77.	3.8	147
24	Utilization of the cyanobacteria Anabaena sp. ATCC 33047 in CO2 removal processes. Bioresource Technology, 2009, 100, 5904-5910.	9.6	140
25	Recovery of Lutein from Microalgae Biomass: Development of a Process for Scenedesmus almeriensis Biomass. Journal of Agricultural and Food Chemistry, 2008, 56, 11761-11766.	5.2	133
26	Supercritical fluid extraction of carotenoids from Scenedesmus almeriensis. Food Chemistry, 2010, 123, 928-935.	8.2	130
27	Recovery of Nutrients From Wastewaters Using Microalgae. Frontiers in Sustainable Food Systems, 2018, 2, .	3.9	129
28	Comprehensive model of microalgae photosynthesis rate as a function of culture conditions in photobioreactors. Applied Microbiology and Biotechnology, 2013, 97, 7627-7637.	3.6	126
29	Comparative analysis of the outdoor culture of Haematococcus pluvialis in tubular and bubble column photobioreactors. Journal of Biotechnology, 2006, 123, 329-342.	3.8	124
30	Production of microalgae using centrate from anaerobic digestion as the nutrient source. Algal Research, 2015, 9, 297-305.	4.6	120
31	Antioxidant activity of Haematococcus pluvialis cells grown in continuous culture as a function of their carotenoid and fatty acid content. Applied Microbiology and Biotechnology, 2007, 74, 1112-1119.	3.6	112
32	Development of a process for the production of l-amino-acids concentrates from microalgae by enzymatic hydrolysis. Bioresource Technology, 2012, 112, 164-170.	9.6	111
33	Outdoor production of Scenedesmus sp. in thin-layer and raceway reactors using centrate from anaerobic digestion as the sole nutrient source. Algal Research, 2015, 12, 99-108.	4.6	111
34	Production of astaxanthin by Haematococcus pluvialis: Taking the oneâ€step system outdoors. Biotechnology and Bioengineering, 2009, 102, 651-657.	3.3	101
35	Preparative purification of B-phycoerythrin from the microalga Porphyridium cruentum by expanded-bed adsorption chromatography. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2003, 790, 317-325.	2.3	100
36	Evaluation of photosynthetic efficiency in microalgal cultures using averaged irradiance. Enzyme and Microbial Technology, 1997, 21, 375-381.	3.2	99

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37	Use of concentric-tube airlift photobioreactors for microalgal outdoor mass cultures. Enzyme and Microbial Technology, 1999, 24, 164-172.	3.2	90
38	Effects of pellet morphology on broth rheology in fermentations of Aspergillus terreus. Biochemical Engineering Journal, 2005, 26, 139-144.	3.6	90
39	Outdoor continuous culture of Porphyridium cruentum in a tubular photobioreactor: quantitative analysis of the daily cyclic variation of culture parameters. Journal of Biotechnology, 1999, 70, 271-288.	3.8	83
40	Influence of power supply in the feasibility ofPhaeodactylum tricornutumcultures. Biotechnology and Bioengineering, 2004, 87, 723-733.	3.3	81
41	In vitro bioaccesibility of lutein and zeaxanthin from the microalgae Scenedesmus almeriensis. Food Chemistry, 2009, 114, 747-752.	8.2	80
42	A whole biodiesel conversion process combining isolation, cultivation and in situ supercritical methanol transesterification of native microalgae. Bioresource Technology, 2015, 190, 281-288.	9.6	77
43	Direct supercritical methanolysis of wet and dry unwashed marine microalgae (Nannochloropsis) Tj ETQq1 1 0.784314 rgBT /Overloc	10.1	75
44	Experimental characterization and optimization of multi-channel spiral wound air gap membrane distillation modules for seawater desalination. Separation and Purification Technology, 2018, 205, 212-222.	7.9	75
45	A quantitative study of eicosapentaenoic acid (EPA) production by Nannochloropsis gaditana for aquaculture as a function of dilution rate, temperature and average irradiance. Applied Microbiology and Biotechnology, 2014, 98, 2429-2440.	3.6	68
46	Effect of growth rate on the eicosapentaenoic acid and docosahexaenoic acid content of Isochrysis galbana in chemostat culture. Applied Microbiology and Biotechnology, 1994, 41, 23-27.	3.6	67
47	Analysis of photobioreactors for culturing high-value microalgae and cyanobacteria via an advanced diagnostic technique: CARPT. Chemical Engineering Science, 2003, 58, 2519-2527.	3.8	67
48	Dynamic model of microalgal production in tubular photobioreactors. Bioresource Technology, 2012, 126, 172-181.	9.6	66
49	Long-term preservation of Tetraselmis suecica: influence of storage on viability and fatty acid profile. Aquaculture, 1995, 134, 81-90.	3.5	65
50	Medium recycling for Nannochloropsis gaditana cultures for aquaculture. Bioresource Technology, 2013, 129, 430-438.	9.6	63
51	Continuous production of green cells of Haematococcus pluvialis: Modeling of the irradiance effect. Enzyme and Microbial Technology, 2006, 38, 981-989.	3.2	61
52	Modeling and optimization of a commercial permeate gap spiral wound membrane distillation module for seawater desalination. Desalination, 2017, 419, 160-168.	8.2	61
53	Modelling of growth and accumulation of carotenoids in Haematococcus pluvialis as a function of irradiance and nutrients supply. Biochemical Engineering Journal, 2005, 26, 107-114.	3.6	60
54	Mixotrophic growth of Phaeodactylum tricornutum on fructose and glycerol in fed-batch and semi-continuous modes. Bioresource Technology, 2013, 147, 569-576.	9.6	58

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55	Development of a process for efficient use of CO₂ from flue gases in the production of photosynthetic microorganisms. Biotechnology and Bioengineering, 2012, 109, 1637-1650.	3.3	54
56	Analysis of light regime in continuous light distributions in photobioreactors. Bioresource Technology, 2011, 102, 3138-3148.	9.6	51
57	Utilization of secondary-treated wastewater for the production of freshwater microalgae. Applied Microbiology and Biotechnology, 2015, 99, 6931-6944.	3.6	51
58	A low-cost culture medium for the production of Nannochloropsis gaditana biomass optimized for aquaculture. Bioresource Technology, 2013, 144, 57-66.	9.6	50
59	Effect of pretreatments on biogas production from microalgae biomass grown in pig manure treatment plants. Bioresource Technology, 2018, 257, 30-38.	9.6	50
60	Pilot-Plant-Scale Outdoor Mixotrophic Cultures of Phaeodactylum tricornutum Using Glycerol in Vertical Bubble Column and Airlift Photobioreactors: Studies in Fed-Batch Mode. Biotechnology Progress, 2004, 20, 728-736.	2.6	49
61	Development of a process for large-scale purification of C-phycocyanin from Synechocystis aquatilis using expanded bed adsorption chromatography. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2011, 879, 511-519.	2.3	49
62	Fermentation optimization for the production of lovastatin byAspergillus terreus: use of response surface methodology. Journal of Chemical Technology and Biotechnology, 2004, 79, 1119-1126.	3.2	46
63	Modeling of photosynthesis and respiration rate for Isochrysis galbana (T-Iso) and its influence on the production of this strain. Bioresource Technology, 2016, 203, 71-79.	9.6	46
64	Evaluation of photosynthetic light integration by microalgae in a pilot-scale raceway reactor. Bioresource Technology, 2019, 280, 404-411.	9.6	45
65	Minimization of carbon losses in pilot-scale outdoor photobioreactors by model-based predictive control. Biotechnology and Bioengineering, 2003, 84, 533-543.	3.3	43
66	Biomass and icosapentaenoic acid productivities from an outdoor batch culture of Phaeodactylum tricornutum UTEX 640 in an airlift tubular photobioreactor. Applied Microbiology and Biotechnology, 1995, 42, 658-663.	3.6	41
67	Selection of native Tunisian microalgae for simultaneous wastewater treatment and biofuel production. Bioresource Technology, 2015, 198, 424-430.	9.6	39
68	Improvement of stability and carotenoids fraction of virgin olive oils by addition of microalgae Scenedesmus almeriensis extracts. Food Chemistry, 2015, 175, 203-211.	8.2	39
69	Photolimitation and photoinhibition as factors determining optimal dilution rate to produce eicosapentaenoic acid from cultures of the microalga Isochrysis galbana. Applied Microbiology and Biotechnology, 1998, 50, 199-205.	3.6	38
70	Simultaneous Determination of Oxygen Consumption Rate and Volumetric Oxygen Transfer Coefficient in Pneumatically Agitated Bioreactors. Industrial & Engineering Chemistry Research, 2006, 45, 1167-1171.	3.7	38
71	Effect of temperature and photon absorption on the kinetics of micropollutant removal by solar photo-Fenton in raceway pond reactors. Chemical Engineering Journal, 2017, 310, 464-472.	12.7	38
72	Economics of microalgae production. , 2017, , 485-503.		38

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73	The oxygen evolution methodology affects photosynthetic rate measurements of microalgae in wellâ€defined light regimes. Biotechnology and Bioengineering, 2010, 106, 228-237.	3.3	37
74	ABACO: A New Model of Microalgae-Bacteria Consortia for Biological Treatment of Wastewaters. Applied Sciences (Switzerland), 2021, 11, 998.	2.5	37
75	Light regime optimization in photobioreactors using a dynamic photosynthesis model. Algal Research, 2016, 16, 399-408.	4.6	36
76	Use of secondary-treated wastewater for the production of Muriellopsis sp.. Applied Microbiology and Biotechnology, 2013, 97, 2239-2249.	3.6	35
77	Costs analysis of microalgae production. , 2019, , 551-566.		35
78	Aspergillus terreus Broth Rheology, Oxygen Transfer, and Lovastatin Production in a Gas-Agitated Slurry Reactor. Industrial & Engineering Chemistry Research, 2006, 45, 4837-4843.	3.7	32
79	Modeling of photosynthesis and respiration rate for microalgaeâ€“bacteria consortia. Biotechnology and Bioengineering, 2021, 118, 952-962.	3.3	31
80	Rapid screening of Aspergillus terreus mutants for overproduction of lovastatin. World Journal of Microbiology and Biotechnology, 2005, 21, 123-125.	3.6	30
81	Cost-effective production of 13C, 15N stable isotope-labelled biomass from phototrophic microalgae for various biotechnological applications. New Biotechnology, 2005, 22, 193-200.	2.7	30
82	Flashing light does not improve photosynthetic performance and growth of green microalgae. Bioresource Technology Reports, 2020, 9, 100367.	2.7	30
83	The influence of culture conditions on biomass and high value product generation by Nannochloropsis gaditana in aquaculture. Algal Research, 2015, 11, 63-73.	4.6	29
84	Genetic algorithm for the medium optimization of the microalga Nannochloropsis gaditana cultured to aquaculture. Bioresource Technology, 2015, 177, 102-109.	9.6	28
85	Effect of dilution rate on eicosapentaenoic acid productivity ofPhaeodactylum tricornutum utex 640 in outdoor chemostat culture. Biotechnology Letters, 1994, 16, 1035-1040.	2.2	27
86	Lovastatin inhibits its own synthesis in Aspergillus terreus. Journal of Industrial Microbiology and Biotechnology, 2004, 31, 48-50.	3.0	26
87	Largeâ€scale isolation and purification of Câ€phycocyanin from the cyanobacteria Anabaena marina using expanded bed adsorption chromatography. Journal of Chemical Technology and Biotechnology, 2010, 85, 783-792.	3.2	26
88	A novel photo-respirometry method to characterize consortia in microalgae-related wastewater treatment processes. Algal Research, 2020, 47, 101858.	4.6	25
89	Long-term preservation of concentrated Nannochloropsis gaditana cultures for use in aquaculture. Journal of Applied Phycology, 2016, 28, 299-312.	2.8	24
90	Outdoor production of Tisochrysis lutea in pilot-scale tubular photobioreactors. Journal of Applied Phycology, 2016, 28, 3159-3166.	2.8	22

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91	Wastewater treatment using Scenedesmus almeriensis: effect of operational conditions on the composition of the microalgae-bacteria consortia. Journal of Applied Phycology, 2021, 33, 3885-3897.	2.8	22
92	Stability of Carotenoids in Scenedesmus almeriensis Biomass and Extracts under Various Storage Conditions. Journal of Agricultural and Food Chemistry, 2010, 58, 6944-6950.	5.2	20
93	A simple equation to quantify the effect of frequency of light/dark cycles on the photosynthetic response of microalgae under intermittent light. Algal Research, 2018, 35, 479-487.	4.6	18
94	Role of Microalgae in the Recovery of Nutrients from Pig Manure. Processes, 2021, 9, 203.	2.8	18
95	Optimisation of Scenedesmus almeriensis production using pig slurry as the sole nutrient source. Algal Research, 2022, 61, 102580.	4.6	17
96	Utilization of Anabaena sp. in CO2 removal processes. Applied Microbiology and Biotechnology, 2012, 94, 613-624.	3.6	16
97	Variation of fatty acid profile with solar cycle in outdoor chemostat culture ofIsochrysis galbana ALII-4. Journal of Applied Phycology, 1995, 7, 129-134.	2.8	15
98	Assessment of the production of 13C labeled compounds from phototrophic microalgae at laboratory scale. New Biotechnology, 2003, 20, 149-162.	2.7	15
99	Filtered Smith Predictor to control pH during enzymatic hydrolysis of microalgae to produce l-aminoacids concentrates. Chemical Engineering Science, 2012, 82, 121-131.	3.8	15
100	Evaluation of native microalgae from Tunisia using the pulse-amplitude-modulation measurement of chlorophyll fluorescence and a performance study in semi-continuous mode for biofuel production. Biotechnology for Biofuels, 2019, 12, 119.	6.2	15
101	Improvement of real-scale raceway bioreactors for microalgae production using Computational Fluid Dynamics (CFD). Algal Research, 2021, 54, 102207.	4.6	15
102	Pilot-scale annual production of Scenedesmus almeriensis using diluted pig slurry as the nutrient source: Reduction of water losses in thin-layer cascade reactors. Journal of Cleaner Production, 2022, 359, 132076.	9.3	10
103	Obtaining Lutein-Rich Extract from Microalgal Biomass at Preparative Scale. Methods in Molecular Biology, 2012, 892, 307-314.	0.9	9
104	Microalgae: The Basis of Mankind Sustainability. , 0, , .		7
105	Analysis of productivity in raceway photobioreactor using computational fluid dynamics particle tracking coupled to a dynamic photosynthesis model. Bioresource Technology, 2021, 334, 125226.	9.6	7
106	Photobioreactors Design for Hydrogen Production. Advances in Photosynthesis and Respiration, 2014, , 291-320.	1.0	7
107	Comparative characterization of three commercial spiral-wound membrane distillation modules. , 0, 61, 152-159.		7
108	Respirometric assessment of bacterial kinetics in algae-bacteria and activated sludge processes. Bioresource Technology, 2022, 352, 127116.	9.6	6

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109	Preparative Recovery of Carotenoids from Microalgal Biomass. Methods in Molecular Biology, 2018, 1852, 107-115.	0.9	5
110	Production of13C polyunsaturated fatty acids from the microalga Phaeodactylum tricornutum. Journal of Applied Phycology, 2003, 15, 229-237.	2.8	4
111	Modeling of biomass productivity in dense microalgal culture using computational fluid dynamics. Acta Horticulturae, 2017, , 111-118.	0.2	4
112	Advanced Computational Fluid Dynamics Study of the Dissolved Oxygen Concentration within a Thin-Layer Cascade Reactor for Microalgae Cultivation. Energies, 2021, 14, 7284.	3.1	4
113	Microalgae production systems. , 2020, , 127-163.		3
114	Productivity analysis in tubular photobioreactors using a dynamic photosynthesis model coupled to computational fluid dynamics particle tracking. Bioresource Technology, 2022, 344, 126277.	9.6	3
115	CHAPTER 16. Development of Photobioreactors for H2 Production from Algae. Comprehensive Series in Photochemical and Photobiological Sciences, 2018, , 385-418.	0.3	1
116	Virtual labs for the study of enzymatic stirred tank bioreactors. Computer Applications in Engineering Education, 0, , .	3.4	1
117	Exploring the potential of microalgae for the bioremediation of agro-industrial wastewaters. , 2020, , 641-658.		0