

SebastiÀ Puig

List of Publications by Year in descending order

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Version: 2024-02-01

118
papers

5,395
citations

57758

44
h-index

88630

70
g-index

121
all docs

121
docs citations

121
times ranked

4210
citing authors

#	ARTICLE	IF	CITATIONS
1	Microbial electrosynthesis of butyrate from carbon dioxide. <i>Chemical Communications</i> , 2015, 51, 3235-3238.	4.1	242
2	Electro-Fermentation – Merging Electrochemistry with Fermentation in Industrial Applications. <i>Trends in Biotechnology</i> , 2016, 34, 866-878.	9.3	235
3	On the Edge of Research and Technological Application: A Critical Review of Electromethanogenesis. <i>International Journal of Molecular Sciences</i> , 2017, 18, 874.	4.1	170
4	Autotrophic Denitrification in Microbial Fuel Cells Treating Low Ionic Strength Waters. <i>Environmental Science & Technology</i> , 2012, 46, 2309-2315.	10.0	159
5	Microbial electrosynthesis of butyrate from carbon dioxide: Production and extraction. <i>Bioelectrochemistry</i> , 2017, 117, 57-64.	4.6	159
6	Microbial fuel cell application in landfill leachate treatment. <i>Journal of Hazardous Materials</i> , 2011, 185, 763-767.	12.4	139
7	Effect of pH on nutrient dynamics and electricity production using microbial fuel cells. <i>Bioresource Technology</i> , 2010, 101, 9594-9599.	9.6	133
8	Bioelectroremediation of perchlorate and nitrate contaminated water: A review. <i>Bioresource Technology</i> , 2018, 255, 331-339.	9.6	133
9	Autotrophic nitrite removal in the cathode of microbial fuel cells. <i>Bioresource Technology</i> , 2011, 102, 4462-4467.	9.6	132
10	Continuous acetate production through microbial electrosynthesis from CO_2 with microbial mixed culture. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 921-927.	3.2	128
11	Start-up and enrichment of a granular anammox SBR to treat high nitrogen load wastewaters. <i>Journal of Chemical Technology and Biotechnology</i> , 2008, 83, 233-241.	3.2	118
12	Cathode potential and anode electron donor evaluation for a suitable treatment of nitrate-contaminated groundwater in bioelectrochemical systems. <i>Chemical Engineering Journal</i> , 2015, 263, 151-159.	12.7	113
13	Microbial electrosynthesis: Towards sustainable biorefineries for production of green chemicals from CO_2 emissions. <i>Biotechnology Advances</i> , 2021, 46, 107675.	11.7	110
14	Extracellular electron transfer of biocathodes: Revealing the potentials for nitrate and nitrite reduction of denitrifying microbiomes dominated by <i>Thiobacillus</i> sp.. <i>Electrochemistry Communications</i> , 2014, 49, 93-97.	4.7	109
15	Bioremediation of nitrate-polluted groundwater in a microbial fuel cell. <i>Journal of Chemical Technology and Biotechnology</i> , 2013, 88, 1690-1696.	3.2	95
16	In situ groundwater and sediment bioremediation: barriers and perspectives at European contaminated sites. <i>New Biotechnology</i> , 2015, 32, 133-146.	4.4	95
17	Anaerobic arsenite oxidation with an electrode serving as the sole electron acceptor: A novel approach to the bioremediation of arsenic-polluted groundwater. <i>Journal of Hazardous Materials</i> , 2015, 283, 617-622.	12.4	94
18	Biocatalysed sulphate removal in a BES cathode. <i>Bioresource Technology</i> , 2013, 130, 218-223.	9.6	92

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19	Heterotrophic denitrification on granular anammox SBR treating urban landfill leachate. <i>Water Science and Technology</i> , 2008, 58, 1749-1755.	2.5	91
20	Bidirectional microbial electron transfer: Switching an acetate oxidizing biofilm to nitrate reducing conditions. <i>Biosensors and Bioelectronics</i> , 2016, 75, 352-358.	10.1	88
21	Microbial electrochemistry for bioremediation. <i>Environmental Science and Ecotechnology</i> , 2020, 1, 100013.	13.5	83
22	Microbial electricity driven anoxic ammonium removal. <i>Water Research</i> , 2018, 130, 168-175.	11.3	81
23	Fuzzy control of dissolved oxygen in a sequencing batch reactor pilot plant. <i>Chemical Engineering Journal</i> , 2005, 111, 13-19.	12.7	80
24	Assessment of biotic and abiotic graphite cathodes for hydrogen production in microbial electrolysis cells. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 1297-1305.	7.1	80
25	Selection between alcohols and volatile fatty acids as external carbon sources for EBPR. <i>Water Research</i> , 2008, 42, 557-566.	11.3	77
26	Bio-electrorecycling of carbon dioxide into bioplastics. <i>Green Chemistry</i> , 2018, 20, 4058-4066.	9.0	76
27	Deciphering the electron transfer mechanisms for biogas upgrading to biomethane within a mixed culture biocathode. <i>RSC Advances</i> , 2015, 5, 52243-52251.	3.6	75
28	Denitrifying Bacterial Communities Affect Current Production and Nitrous Oxide Accumulation in a Microbial Fuel Cell. <i>PLoS ONE</i> , 2013, 8, e63460.	2.5	74
29	Reducing start-up time and minimizing energy losses of Microbial Fuel Cells using Maximum Power Point Tracking strategy. <i>Journal of Power Sources</i> , 2014, 269, 403-411.	7.8	73
30	Coupling anammox and advanced oxidation-based technologies for mature landfill leachate treatment. <i>Journal of Hazardous Materials</i> , 2013, 258-259, 27-34.	12.4	72
31	Quantitative assessment of energy and resource recovery in wastewater treatment plants based on plant-wide simulations. <i>Water Research</i> , 2017, 118, 272-288.	11.3	70
32	Controlling struvite particles' size using the up-flow velocity. <i>Chemical Engineering Journal</i> , 2016, 302, 819-827.	12.7	63
33	Wastewater nitrogen removal in SBRs, applying a step-feed strategy: from lab-scale to pilot-plant operation. <i>Water Science and Technology</i> , 2004, 50, 89-96.	2.5	60
34	Development and Implementation of a Real-Time Control System for Nitrogen Removal Using OUR and ORP as End Points. <i>Industrial & Engineering Chemistry Research</i> , 2005, 44, 3367-3373.	3.7	60
35	Impact of influent characteristics on a partial nitrification SBR treating high nitrogen loaded wastewater. <i>Bioresource Technology</i> , 2012, 111, 62-69.	9.6	60
36	Microbiome characterization of MFCs used for the treatment of swine manure. <i>Journal of Hazardous Materials</i> , 2015, 288, 60-68.	12.4	55

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37	Influence of iron species on integrated microbial fuel cell and electro-Fenton process treating landfill leachate. <i>Chemical Engineering Journal</i> , 2017, 328, 57-65.	12.7	55
38	Biocathodic Nitrous Oxide Removal in Bioelectrochemical Systems. <i>Environmental Science & Technology</i> , 2011, 45, 10557-10566.	10.0	54
39	Advances in technological control of greenhouse gas emissions from wastewater in the context of circular economy. <i>Science of the Total Environment</i> , 2021, 792, 148479.	8.0	54
40	Data evaluation of full-scale wastewater treatment plants by mass balance. <i>Water Research</i> , 2008, 42, 4645-4655.	11.3	53
41	Opportunities for groundwater microbial electroremediation. <i>Microbial Biotechnology</i> , 2018, 11, 119-135.	4.2	53
42	Biogas upgrading, CO ₂ valorisation and economic revaluation of bioelectrochemical systems through anodic chlorine production in the framework of wastewater treatment plants. <i>Science of the Total Environment</i> , 2019, 690, 352-360.	8.0	53
43	Simultaneous domestic wastewater treatment and renewable energy production using microbial fuel cells (MFCs). <i>Water Science and Technology</i> , 2011, 64, 904-909.	2.5	50
44	Employing Microbial Electrochemical Technology-driven electro-Fenton oxidation for the removal of recalcitrant organics from sanitary landfill leachate. <i>Bioresource Technology</i> , 2017, 243, 949-956.	9.6	48
45	Long-term assessment of six-stacked scaled-up MFCs treating swine manure with different electrode materials. <i>Environmental Science: Water Research and Technology</i> , 2017, 3, 947-959.	2.4	45
46	The role of nitrate and nitrite in a granular sludge process treating low-strength wastewater. <i>Chemical Engineering Journal</i> , 2010, 164, 208-213.	12.7	42
47	Multiparametric control for enhanced biofilm selection in microbial fuel cells. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 1720-1727.	3.2	42
48	Monitoring and engineering reactor microbiomes of denitrifying bioelectrochemical systems. <i>RSC Advances</i> , 2015, 5, 68326-68333.	3.6	39
49	The effect of primary sedimentation on full-scale WWTP nutrient removal performance. <i>Water Research</i> , 2010, 44, 3375-3384.	11.3	36
50	Electro-fermentation: Sustainable bioproductions steered by electricity. <i>Biotechnology Advances</i> , 2022, 59, 107950.	11.7	36
51	Role of Operating Conditions on Energetic Pathways in a Microbial Fuel Cell. <i>Energy Procedia</i> , 2015, 74, 728-735.	1.8	35
52	Tracking bio-hydrogen-mediated production of commodity chemicals from carbon dioxide and renewable electricity. <i>Bioresource Technology</i> , 2017, 228, 201-209.	9.6	34
53	Electro-bioremediation of nitrate and arsenite polluted groundwater. <i>Water Research</i> , 2021, 190, 116748.	11.3	34
54	External Resistances Applied to MFC Affect Core Microbiome and Swine Manure Treatment Efficiencies. <i>PLoS ONE</i> , 2016, 11, e0164044.	2.5	34

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55	Cathodic biofilms – A prerequisite for microbial electrosynthesis. <i>Bioresource Technology</i> , 2022, 348, 126788.	9.6	33
56	Letâ€™s chat: Communication between electroactive microorganisms. <i>Bioresource Technology</i> , 2022, 347, 126705.	9.6	33
57	Pathway of nitrous oxide consumption in isolated <i>Pseudomonas stutzeri</i> strains under anoxic and oxic conditions. <i>Environmental Microbiology</i> , 2014, 16, 3143-3152.	3.8	32
58	Anode hydrodynamics in bioelectrochemical systems. <i>RSC Advances</i> , 2015, 5, 78994-79000.	3.6	31
59	The effect of urban landfill leachate characteristics on the coexistence of anammox bacteria and heterotrophic denitrifiers. <i>Water Science and Technology</i> , 2010, 61, 1065-1071.	2.5	30
60	Effect of hydraulic retention time and substrate availability in denitrifying bioelectrochemical systems. <i>Environmental Science: Water Research and Technology</i> , 2017, 3, 922-929.	2.4	30
61	Bacteria coated cathodes as an in-situ hydrogen evolving platform for microbial electrosynthesis. <i>Scientific Reports</i> , 2020, 10, 19852.	3.3	30
62	Unravelling the factors that influence the bio-electrorecycling of carbon dioxide towards biofuels. <i>Green Chemistry</i> , 2019, 21, 684-691.	9.0	29
63	Biological nutrient removal in a sequencing batch reactor using ethanol as carbon source. <i>Journal of Chemical Technology and Biotechnology</i> , 2007, 82, 898-904.	3.2	28
64	An on-line optimisation of a SBR cycle for carbon and nitrogen removal based on on-line pH and OUR: the role of dissolved oxygen control. <i>Water Science and Technology</i> , 2006, 53, 171-178.	2.5	27
65	Nitrogen removal from landfill leachate using the SBR technology. <i>Environmental Technology (United Kingdom)</i> , 2009, 30, 283-290.	2.2	27
66	Biological nutrient removal by applying SBR technology in small wastewater treatment plants: carbon source and C/N/P ratio effects. <i>Water Science and Technology</i> , 2007, 55, 135-141.	2.5	26
67	Microbial fuel cell technology as a downstream process of a membrane bioreactor for sludge reduction. <i>Chemical Engineering Journal</i> , 2017, 326, 222-230.	12.7	26
68	Denitrifying nirK-containing alphaproteobacteria exhibit different electrode driven nitrite reduction capacities. <i>Bioelectrochemistry</i> , 2018, 121, 74-83.	4.6	26
69	Carbon dioxide to bio-oil in a bioelectrochemical system-assisted microalgae biorefinery process. <i>Sustainable Energy and Fuels</i> , 2021, 6, 150-161.	4.9	22
70	The ManureEcoMine pilot installation: advanced integration of technologies for the management of organics and nutrients in livestock waste. <i>Water Science and Technology</i> , 2017, 75, 1281-1293.	2.5	21
71	Model-based evaluation of an on-line control strategy for SBRs based on OUR and ORP measurements. <i>Water Science and Technology</i> , 2006, 53, 161-169.	2.5	19
72	Effect of suspended solids and its role on struvite formation from digested manure. <i>Journal of Chemical Technology and Biotechnology</i> , 2018, 93, 2758-2765.	3.2	18

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73	Multivariate Principal Component Analysis and Case-Based Reasoning for monitoring, fault detection and diagnosis in a WWTP. <i>Water Science and Technology</i> , 2011, 64, 1661-1667.	2.5	17
74	Grey water treatment at a sports centre for reuse in irrigation: A case study. <i>Environmental Technology (United Kingdom)</i> , 2013, 34, 1385-1392.	2.2	16
75	Microbial Community Pathways for the Production of Volatile Fatty Acids From CO ₂ and Electricity. <i>Frontiers in Energy Research</i> , 2018, 6, .	2.3	16
76	Thermophilic bio-electro CO ₂ recycling into organic compounds. <i>Green Chemistry</i> , 2020, 22, 2947-2955.	9.0	16
77	Thermophilic bio-electro carbon dioxide recycling harnessing renewable energy surplus. <i>Bioresource Technology</i> , 2021, 321, 124423.	9.6	15
78	Bio-electro CO ₂ recycling platform based on two separated steps. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105909.	6.7	15
79	Towards a methodology for recovering K ⁺ struvite from manure. <i>Journal of Chemical Technology and Biotechnology</i> , 2018, 93, 1558-1562.	3.2	14
80	Electrifying biotrickling filters for the treatment of aquaponics wastewater. <i>Bioresource Technology</i> , 2021, 319, 124221.	9.6	14
81	Systematic model development for partial nitrification of landfill leachate in a SBR. <i>Water Science and Technology</i> , 2010, 61, 2199-2210.	2.5	13
82	Ammonium removal in landfill leachate using SBR technology: dispersed versus attached biomass. <i>Water Science and Technology</i> , 2018, 77, 27-38.	2.5	13
83	Mixed Culture Biocathodes for Production of Hydrogen, Methane, and Carboxylates. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2017, 167, 203-229.	1.1	12
84	Niches for bioelectrochemical systems on the recovery of water, carbon and nitrogen in wastewater treatment plants. <i>Biomass and Bioenergy</i> , 2019, 130, 105380.	5.7	12
85	Modelling the simultaneous production and separation of acetic acid from CO ₂ using an anion exchange membrane microbial electrosynthesis system. <i>Journal of Chemical Technology and Biotechnology</i> , 2017, 92, 1211-1217.	3.2	11
86	Microbial electrochemical technologies: maturing but not mature. <i>Microbial Biotechnology</i> , 2018, 11, 18-19.	4.2	11
87	Modified calibration protocol evaluated in a model-based testing of SBR flexibility. <i>Bioprocess and Biosystems Engineering</i> , 2011, 34, 205-214.	3.4	10
88	[NiFe]-hydrogenases are constitutively expressed in an enriched <i>Methanobacterium</i> sp. population during electromethanogenesis. <i>PLoS ONE</i> , 2019, 14, e0215029.	2.5	10
89	Editorial: Microbial Synthesis, Gas-Fermentation and Bioelectroconversion of CO ₂ and Other Gaseous Streams. <i>Frontiers in Energy Research</i> , 2019, 7, .	2.3	10
90	Electrochemical water softening as pretreatment for nitrate electro bioremediation. <i>Science of the Total Environment</i> , 2022, 806, 150433.	8.0	10

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91	Combining electro-bioremediation of nitrate in saline groundwater with concomitant chlorine production. <i>Water Research</i> , 2021, 206, 117736.	11.3	10
92	Theory of transport and recovery in microbial electrosynthesis of acetate from CO_2 . <i>Electrochimica Acta</i> , 2021, 379, 138029.	5.2	9
93	Conversion of carbon dioxide to value added products through anaerobic fermentation and electro fermentation: A comparative approach. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 15442-15455.	7.1	8
94	Effect of cycle changes on simultaneous biological nutrient removal in a sequencing batch reactor (SBR). <i>Environmental Technology (United Kingdom)</i> , 2010, 31, 285-294.	2.2	7
95	Thermodynamic approach to foresee experimental CO ₂ reduction to organic compounds. <i>Bioresource Technology</i> , 2022, 354, 127181.	9.6	7
96	Editorial: Environmental technologies for the sustainable development of the water and energy sectors. <i>Water Science and Technology</i> , 2020, 81, iii-iv.	2.5	6
97	Steering bio-electro recycling of carbon dioxide towards target compounds through novel inoculation and feeding strategies. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105549.	6.7	6
98	Integrated electrochemical-adsorption process for the removal of trace heavy metals from wastewater. <i>Case Studies in Chemical and Environmental Engineering</i> , 2021, 4, 100147.	6.1	6
99	On-line oxygen uptake rate as a new tool for monitoring and controlling the SBR process. <i>Computer Aided Chemical Engineering</i> , 2005, 20, 1291-1296.	0.5	5
100	Tubular photo-MFC reactors as wastewater polishing treatment step with simultaneous electricity production. <i>Bioresource Technology Reports</i> , 2022, 18, 101059.	2.7	5
101	Qualitative estimation of SBR biological nutrient removal performance for wastewater treatment. <i>Journal of Chemical Technology and Biotechnology</i> , 2013, 88, 1305-1313.	3.2	4
102	Unveiling microbial electricity driven anoxic ammonium removal. <i>Bioresource Technology Reports</i> , 2022, 17, 100975.	2.7	4
103	Electrochemical and Microbial Dissection of Electrified Biotrickling Filters. <i>Frontiers in Microbiology</i> , 2022, 13, .	3.5	4
104	Effect of hydraulic retention time on the electro-bioremediation of nitrate in saline groundwater. <i>Science of the Total Environment</i> , 2022, 845, 157236.	8.0	4
105	Sludge production based on organic matter and nitrogen removal performances. <i>Water Practice and Technology</i> , 2011, 6, .	2.0	3
106	Modified Carbon Electrodes: A New Approach for Bioelectrochemical Systems. <i>Journal of Bioremediation & Biodegradation</i> , 2015, 06, .	0.5	2
107	Specific detection of <i>Clostridium autoethanogenum</i> , <i>Clostridium ljungdahlii</i> and <i>Clostridium carboxidivorans</i> in complex bioreactor samples. <i>FEMS Microbiology Letters</i> , 2018, 365, .	1.8	1
108	Electrified biotrickling filters as tertiary urban wastewater treatment. <i>Case Studies in Chemical and Environmental Engineering</i> , 2021, 4, 100143.	6.1	1

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109	Editorial: Microbial Electrogenesis, Microbial Electrosynthesis, and Electro-bioremediation. <i>Frontiers in Microbiology</i> , 2021, 12, 742479.	3.5	1
110	Niches for bioelectrochemical systems in sewage treatment plants. , 2017, , 96-107.		1
111	Electroactive Biofilms in Water and Air Pollution Treatment. , 2016, , 183-204.		1
112	Wastewater nitrogen removal in Sbrs, applying a step-feed strategy: from lab-scale to pilot-plant operation. <i>Water Science and Technology</i> , 2004, 50, 89-96.	2.5	1
113	Electro-cultivation of hydrogen-oxidizing bacteria to accumulate ammonium and carbon dioxide into protein-rich biomass. <i>Bioresource Technology Reports</i> , 2022, 18, 101010.	2.7	1
114	Granularity determination of activated sludge through on-line profiles by means of case-based reasoning. <i>Water Science and Technology</i> , 2014, 69, 760-767.	2.5	0
115	Microbial electrochemical technology (MET) platform for turning carbon dioxide into a suitable substrate for a chain-elongation fermenter. <i>New Biotechnology</i> , 2018, 44, S42.	4.4	0
116	Approaching Bioelectrochemical Systems to Real Facilities Within the Framework of CO2 Valorization and Biogas Upgrading. <i>Advances in Science, Technology and Innovation</i> , 2020, , 3-5.	0.4	0
117	Niches for Bioelectrochemical Systems in Wastewater Treatment Plants. <i>Advances in Science, Technology and Innovation</i> , 2020, , 329-331.	0.4	0
118	Making Use of Thermodynamics for Optimal Co2 Reduction to Value-Added Compounds. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0