SebastiÃ Puig

List of Publications by Year
in descending order

118 papers	5,395 citations	66250 44 h-index	100535 70 g-index
121 all docs	121 docs citations	121 times ranked	4695 citing authors

#	ARTICLE	IF	CITATIONS
1	Electrochemical water softening as pretreatment for nitrate electro bioremediation. Science of the Total Environment, 2022, 806, 150433.	3.9	10
2	Cathodic biofilms â€“ A prerequisite for microbial electrosynthesis. Bioresource Technology, 2022, 348, 126788.	4.8	33
3	Conversion of carbon dioxide to value added products through anaerobic fermentation and electro fermentation: A comparative approach. International Journal of Hydrogen Energy, 2022, 47, 15442-15455.	3.8	8
4	Letâ€™s chat: Communication between electroactive microorganisms. Bioresource Technology, 2022, 347, 126705.	4.8	33
5	Unveiling microbial electricity driven anoxic ammonium removal. Bioresource Technology Reports, 2022, 17, 100975.	1.5	4
6	Electro-fermentation: Sustainable bioproductions steered by electricity. Biotechnology Advances, 2022, 59, 107950.	6.0	36
7	Electro-cultivation of hydrogen-oxidizing bacteria to accumulate ammonium and carbon dioxide into protein-rich biomass. Bioresource Technology Reports, 2022, 18, 101010.	1.5	1
8	Thermodynamic approach to foresee experimental CO2 reduction to organic compounds. Bioresource Technology, 2022, 354, 127181.	4.8	7
9	Tubular photo-MFC reactors as wastewater polishing treatment step with simultaneous electricity production. Bioresource Technology Reports, 2022, 18, 101059.	1.5	5
10	Electrochemical and Microbial Dissection of Electrified Biotrickling Filters. Frontiers in Microbiology, 2022, 13, .	1.5	4
11	Effect of hydraulic retention time on the electro-bioremediation of nitrate in saline groundwater. Science of the Total Environment, 2022, 845, 157236.	3.9	4
12	Electrifying biotrickling filters for the treatment of aquaponics wastewater. Bioresource Technology, 2021, 319, 124221.	4.8	14
13	Thermophilic bio-electro carbon dioxide recycling harnessing renewable energy surplus. Bioresource Technology, 2021, 321, 124423.	4.8	15
14	Microbial electrosynthesis: Towards sustainable biorefineries for production of green chemicals from CO2 emissions. Biotechnology Advances, 2021, 46, 107675.	6.0	110
15	Electro-bioremediation of nitrate and arsenite polluted groundwater. Water Research, 2021, 190, 116748.	5.3	34
16	Theory of transport and recovery in microbial electrosynthesis of acetate from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si10.svg"><mml:msub><mml:mrow><mml:mi mathvariant="normal">CO</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>. Electrochimica Acta, 2021, 379, 138029.	2.6	9
17	Steering bio-electro recycling of carbon dioxide towards target compounds through novel inoculation and feeding strategies. Journal of Environmental Chemical Engineering, 2021, 9, 105549.	3.3	6
18	Electrified biotrickling filters as tertiary urban wastewater treatment. Case Studies in Chemical and Environmental Engineering, 2021, 4, 100143.	2.9	1

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19	Editorial: Microbial Electrogenesis, Microbial Electrosynthesis, and Electro-bioremediation. Frontiers in Microbiology, 2021, 12, 742479.	1.5	1
20	Bio-electro CO2 recycling platform based on two separated steps. Journal of Environmental Chemical Engineering, 2021, 9, 105909.	3.3	15
21	Advances in technological control of greenhouse gas emissions from wastewater in the context of circular economy. Science of the Total Environment, 2021, 792, 148479.	3.9	54
22	Combining electro-bioremediation of nitrate in saline groundwater with concomitant chlorine production. Water Research, 2021, 206, 117736.	5.3	10
23	Integrated electrochemical-adsorption process for the removal of trace heavy metals from wastewater. Case Studies in Chemical and Environmental Engineering, 2021, 4, 100147.	2.9	6
24	Carbon dioxide to bio-oil in a bioelectrochemical system-assisted microalgae biorefinery process. Sustainable Energy and Fuels, 2021, 6, 150-161.	2.5	22
25	Editorial: Environmental technologies for the sustainable development of the water and energy sectors. Water Science and Technology, 2020, 81, iii-iv.	1.2	6
26	Bacteria coated cathodes as an in-situ hydrogen evolving platform for microbial electrosynthesis. Scientific Reports, 2020, 10, 19852.	1.6	30
27	Microbial electrochemistry for bioremediation. Environmental Science and Ecotechnology, 2020, 1, 100013.	6.7	83
28	Thermophilic bio-electro CO₂ recycling into organic compounds. Green Chemistry, 2020, 22, 2947-2955.	4.6	16
29	Approaching Bioelectrochemical Systems to Real Facilities Within the Framework of CO2 Valorization and Biogas Upgrading. Advances in Science, Technology and Innovation, 2020, , 3-5.	0.2	0
30	Niches for Bioelectrochemical Systems in Wastewater Treatment Plants. Advances in Science, Technology and Innovation, 2020, , 329-331.	0.2	0
31	Biogas upgrading, CO2 valorisation and economic revaluation of bioelectrochemical systems through anodic chlorine production in the framework of wastewater treatment plants. Science of the Total Environment, 2019, 690, 352-360.	3.9	53
32	Niches for bioelectrochemical systems on the recovery of water, carbon and nitrogen in wastewater treatment plants. Biomass and Bioenergy, 2019, 130, 105380.	2.9	12
33	Unravelling the factors that influence the bio-electrorecycling of carbon dioxide towards biofuels. Green Chemistry, 2019, 21, 684-691.	4.6	29
34	[NiFe]-hydrogenases are constitutively expressed in an enriched Methanobacterium sp. population during electromethanogenesis. PLoS ONE, 2019, 14, e0215029.	1.1	10
35	Editorial: Microbial Synthesis, Gas-Fermentation and Bioelectroconversion of CO2 and Other Gaseous Streams. Frontiers in Energy Research, 2019, 7, .	1.2	10
36	Effect of suspended solids and its role on struvite formation from digested manure. Journal of Chemical Technology and Biotechnology, 2018, 93, 2758-2765.	1.6	18

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37	Bioelectroremediation of perchlorate and nitrate contaminated water: A review. Bioresource Technology, 2018, 255, 331-339.	4.8	133
38	Denitrifying nirK-containing alphaproteobacteria exhibit different electrode driven nitrite reduction capacities. Bioelectrochemistry, 2018, 121, 74-83.	2.4	26
39	Microbial electrochemical technologies: maturing but not mature. Microbial Biotechnology, 2018, 11, 18-19.	2.0	11
40	Towards a methodology for recovering Kâ€struvite from manure. Journal of Chemical Technology and Biotechnology, 2018, 93, 1558-1562.	1.6	14
41	Opportunities for groundwater microbial electroâ€remediation. Microbial Biotechnology, 2018, 11, 119-135.	2.0	53
42	Ammonium removal in landfill leachate using SBR technology: dispersed versus attached biomass. Water Science and Technology, 2018, 77, 27-38.	1.2	13
43	Microbial electricity driven anoxic ammonium removal. Water Research, 2018, 130, 168-175.	5.3	81
44	Microbial electrochemical technology (MET) platform for turning carbon dioxide into a suitable substrate for a chain-elongation fermenter. New Biotechnology, 2018, 44, S42.	2.4	0
45	Specific detection of â€œClostridium autoethanogenumâ€, Clostridium ljungdahlii and Clostridium carboxidivorans in complex bioreactor samples. FEMS Microbiology Letters, 2018, 365, .	0.7	1
46	Bio-electrorecycling of carbon dioxide into bioplastics. Green Chemistry, 2018, 20, 4058-4066.	4.6	76
47	Microbial Community Pathways for the Production of Volatile Fatty Acids From CO2 and Electricity. Frontiers in Energy Research, 2018, 6, .	1.2	16
48	Quantitative assessment of energy and resource recovery in wastewater treatment plants based on plant-wide simulations. Water Research, 2017, 118, 272-288.	5.3	70
49	Microbial electrosynthesis of butyrate from carbon dioxide: Production and extraction. Bioelectrochemistry, 2017, 117, 57-64.	2.4	159
50	Microbial fuel cell technology as a downstream process of a membrane bioreactor for sludge reduction. Chemical Engineering Journal, 2017, 326, 222-230.	6.6	26
51	Tracking bio-hydrogen-mediated production of commodity chemicals from carbon dioxide and renewable electricity. Bioresource Technology, 2017, 228, 201-209.	4.8	34
52	The ManureEcoMine pilot installation: advanced integration of technologies for the management of organics and nutrients in livestock waste. Water Science and Technology, 2017, 75, 1281-1293.	1.2	21
53	Mixed Culture Biocathodes for Production of Hydrogen, Methane, and Carboxylates. Advances in Biochemical Engineering/Biotechnology, 2017, 167, 203-229.	0.6	12
54	Long-term assessment of six-stacked scaled-up MFCs treating swine manure with different electrode materials. Environmental Science: Water Research and Technology, 2017, 3, 947-959.	1.2	45

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55	Employing Microbial Electrochemical Technology-driven electro-Fenton oxidation for the removal of recalcitrant organics from sanitary landfill leachate. Bioresource Technology, 2017, 243, 949-956.	4.8	48
56	Influence of iron species on integrated microbial fuel cell and electro-Fenton process treating landfill leachate. Chemical Engineering Journal, 2017, 328, 57-65.	6.6	55
57	Effect of hydraulic retention time and substrate availability in denitrifying bioelectrochemical systems. Environmental Science: Water Research and Technology, 2017, 3, 922-929.	1.2	30
58	Modelling the simultaneous production and separation of acetic acid from CO₂ using an anion exchange membrane microbial electrosynthesis system. Journal of Chemical Technology and Biotechnology, 2017, 92, 1211-1217.	1.6	11
59	On the Edge of Research and Technological Application: A Critical Review of Electromethanogenesis. International Journal of Molecular Sciences, 2017, 18, 874.	1.8	170
60	Niches for bioelectrochemical systems in sewage treatment plants. , 2017, , 96-107.		1
61	Multiparametric control for enhanced biofilm selection in microbial fuel cells. Journal of Chemical Technology and Biotechnology, 2016, 91, 1720-1727.	1.6	42
62	Electro-Fermentation â€“ Merging Electrochemistry with Fermentation in Industrial Applications. Trends in Biotechnology, 2016, 34, 866-878.	4.9	235
63	Controlling struvite particlesâ€™ size using the up-flow velocity. Chemical Engineering Journal, 2016, 302, 819-827.	6.6	63
64	Continuous acetate production through microbial electrosynthesis from <scp>CO₂</scp> with microbial mixed culture. Journal of Chemical Technology and Biotechnology, 2016, 91, 921-927.	1.6	128
65	Bidirectional microbial electron transfer: Switching an acetate oxidizing biofilm to nitrate reducing conditions. Biosensors and Bioelectronics, 2016, 75, 352-358.	5.3	88
66	External Resistances Applied to MFC Affect Core Microbiome and Swine Manure Treatment Efficiencies. PLoS ONE, 2016, 11, e0164044.	1.1	34
67	Electroactive Biofilms in Water and Air Pollution Treatment. , 2016, , 183-204.		1
68	Modified Carbon Electrodes: A New Approach for Bioelectrochemical Systems. Journal of Bioremediation & Biodegradation, 2015, 06, .	0.5	2
69	Role of Operating Conditions on Energetic Pathways in a Microbial Fuel Cell. Energy Procedia, 2015, 74, 728-735.	1.8	35
70	Microbiome characterization of MFCs used for the treatment of swine manure. Journal of Hazardous Materials, 2015, 288, 60-68.	6.5	55
71	Microbial electrosynthesis of butyrate from carbon dioxide. Chemical Communications, 2015, 51, 3235-3238.	2.2	242
72	Deciphering the electron transfer mechanisms for biogas upgrading to biomethane within a mixed culture biocathode. RSC Advances, 2015, 5, 52243-52251.	1.7	75

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73	Monitoring and engineering reactor microbiomes of denitrifying bioelectrochemical systems. RSC Advances, 2015, 5, 68326-68333.	1.7	39
74	Anode hydrodynamics in bioelectrochemical systems. RSC Advances, 2015, 5, 78994-79000.	1.7	31
75	Cathode potential and anode electron donor evaluation for a suitable treatment of nitrate-contaminated groundwater in bioelectrochemical systems. Chemical Engineering Journal, 2015, 263, 151-159.	6.6	113
76	In situ groundwater and sediment bioremediation: barriers and perspectives at European contaminated sites. New Biotechnology, 2015, 32, 133-146.	2.4	95
77	Anaerobic arsenite oxidation with an electrode serving as the sole electron acceptor: A novel approach to the bioremediation of arsenic-polluted groundwater. Journal of Hazardous Materials, 2015, 283, 617-622.	6.5	94
78	Granularity determination of activated sludge through on-line profiles by means of case-based reasoning. Water Science and Technology, 2014, 69, 760-767.	1.2	0
79	Pathway of nitrous oxide consumption in isolated <scp>P</scp>seudomonas stutzeri strains under anoxic and oxic conditions. Environmental Microbiology, 2014, 16, 3143-3152.	1.8	32
80	Extracellular electron transfer of biocathodes: Revealing the potentials for nitrate and nitrite reduction of denitrifying microbiomes dominated by Thiobacillus sp.. Electrochemistry Communications, 2014, 49, 93-97.	2.3	109
81	Reducing start-up time and minimizing energy losses of Microbial Fuel Cells using Maximum Power Point Tracking strategy. Journal of Power Sources, 2014, 269, 403-411.	4.0	73
82	Assessment of biotic and abiotic graphite cathodes for hydrogen production in microbial electrolysis cells. International Journal of Hydrogen Energy, 2014, 39, 1297-1305.	3.8	80
83	Coupling anammox and advanced oxidation-based technologies for mature landfill leachate treatment. Journal of Hazardous Materials, 2013, 258-259, 27-34.	6.5	72
84	Grey water treatment at a sports centre for reuse in irrigation: A case study. Environmental Technology (United Kingdom), 2013, 34, 1385-1392.	1.2	16
85	Biocatalysed sulphate removal in a BES cathode. Bioresource Technology, 2013, 130, 218-223.	4.8	92
86	Bioremediation of nitrateâ€polluted groundwater in a microbial fuel cell. Journal of Chemical Technology and Biotechnology, 2013, 88, 1690-1696.	1.6	95
87	Qualitative estimation of <scp>SBR</scp> biological nutrient removal performance for wastewater treatment. Journal of Chemical Technology and Biotechnology, 2013, 88, 1305-1313.	1.6	4
88	Denitrifying Bacterial Communities Affect Current Production and Nitrous Oxide Accumulation in a Microbial Fuel Cell. PLoS ONE, 2013, 8, e63460.	1.1	74
89	Autotrophic Denitrification in Microbial Fuel Cells Treating Low Ionic Strength Waters. Environmental Science & Technology, 2012, 46, 2309-2315.	4.6	159
90	Impact of influent characteristics on a partial nitritation SBR treating high nitrogen loaded wastewater. Bioresource Technology, 2012, 111, 62-69.	4.8	60

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91	Biocathodic Nitrous Oxide Removal in Bioelectrochemical Systems. Environmental Science & Technology, 2011, 45, 10557-10566.	4.6	54
92	Sludge production based on organic matter and nitrogen removal performances. Water Practice and Technology, 2011, 6, .	1.0	3
93	Modified calibration protocol evaluated in a model-based testing of SBR flexibility. Bioprocess and Biosystems Engineering, 2011, 34, 205-214.	1.7	10
94	Autotrophic nitrite removal in the cathode of microbial fuel cells. Bioresource Technology, 2011, 102, 4462-4467.	4.8	132
95	Microbial fuel cell application in landfill leachate treatment. Journal of Hazardous Materials, 2011, 185, 763-767.	6.5	139
96	Multivariate Principal Component Analysis and Case-Based Reasoning for monitoring, fault detection and diagnosis in a WWTP. Water Science and Technology, 2011, 64, 1661-1667.	1.2	17
97	Simultaneous domestic wastewater treatment and renewable energy production using microbial fuel cells (MFCs). Water Science and Technology, 2011, 64, 904-909.	1.2	50
98	Effect of pH on nutrient dynamics and electricity production using microbial fuel cells. Bioresource Technology, 2010, 101, 9594-9599.	4.8	133
99	The role of nitrate and nitrite in a granular sludge process treating low-strength wastewater. Chemical Engineering Journal, 2010, 164, 208-213.	6.6	42
100	Effect of cycle changes on simultaneous biological nutrient removal in a sequencing batch reactor (SBR). Environmental Technology (United Kingdom), 2010, 31, 285-294.	1.2	7
101	Systematic model development for partial nitrification of landfill leachate in a SBR. Water Science and Technology, 2010, 61, 2199-2210.	1.2	13
102	The effect of urban landfill leachate characteristics on the coexistence of anammox bacteria and heterotrophic denitrifiers. Water Science and Technology, 2010, 61, 1065-1071.	1.2	30
103	The effect of primary sedimentation on full-scale WWTP nutrient removal performance. Water Research, 2010, 44, 3375-3384.	5.3	36
104	Nitrogen removal from landfill leachate using the SBR technology. Environmental Technology (United Kingdom), 2009, 30, 283-290.	1.2	27
105	Startâ€up and enrichment of a granular anammox SBR to treat high nitrogen load wastewaters. Journal of Chemical Technology and Biotechnology, 2008, 83, 233-241.	1.6	118
106	Heterotrophic denitrification on granular anammox SBR treating urban landfill leachate. Water Science and Technology, 2008, 58, 1749-1755.	1.2	91
107	Selection between alcohols and volatile fatty acids as external carbon sources for EBPR. Water Research, 2008, 42, 557-566.	5.3	77
108	Data evaluation of full-scale wastewater treatment plants by mass balance. Water Research, 2008, 42, 4645-4655.	5.3	53

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109	Biological nutrient removal by applying SBR technology in small wastewater treatment plants: carbon source and C/N/P ratio effects. Water Science and Technology, 2007, 55, 135-141.	1.2	26
110	Biological nutrient removal in a sequencing batch reactor using ethanol as carbon source. Journal of Chemical Technology and Biotechnology, 2007, 82, 898-904.	1.6	28
111	Model-based evaluation of an on-line control strategy for SBRs based on OUR and ORP measurements. Water Science and Technology, 2006, 53, 161-169.	1.2	19
112	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. Water Science and Technology, 2006, 53, 171-178.	1.2	27
113	Fuzzy control of dissolved oxygen in a sequencing batch reactor pilot plant. Chemical Engineering Journal, 2005, 111, 13-19.	6.6	80
114	On-line oxygen uptake rate as a new tool for monitoring and controlling the SBR process. Computer Aided Chemical Engineering, 2005, 20, 1291-1296.	0.3	5
115	Development and Implementation of a Real-Time Control System for Nitrogen Removal Using OUR and ORP as End Points. Industrial & Engineering Chemistry Research, 2005, 44, 3367-3373.	1.8	60
116	Wastewater nitrogen removal in SBRs, applying a step-feed strategy: from lab-scale to pilot-plant operation. Water Science and Technology, 2004, 50, 89-96.	1.2	60
117	Wastewater nitrogen removal in Sbrs, applying a step-feed strategy: from lab-scale to pilot-plant operation. Water Science and Technology, 2004, 50, 89-96.	1.2	1
118	Making Use of Thermodynamics for Optimal Co2 Reduction to Value-Added Compounds. SSRN Electronic Journal, 0, , .	0.4	0