

Benjamin Erable

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

78
papers

3,088
citations

27
h-index

55
g-index

81
ext. papers

3,627
ext. citations

8.4
avg, IF

5.7
L-index

#	Paper	IF	Citations
78	Industrially scalable surface treatments to enhance the current density output from graphite bioanodes fueled by real domestic wastewater. <i>IScience</i> , 2021 , 24, 102162	6.1	3
77	Oxygen-reducing bidirectional microbial electrodes designed in real domestic wastewater. <i>Bioresource Technology</i> , 2021 , 326, 124663	11	3
76	How Comparable are Microbial Electrochemical Systems around the Globe? An Electrochemical and Microbiological Cross-Laboratory Study. <i>ChemSusChem</i> , 2021 , 14, 2313-2330	8.3	3
75	Biological and Microbial Fuel Cells 2021 ,		
74	Oxygen-reducing bidirectional microbial electrodes: A mini-review. <i>Electrochemistry Communications</i> , 2021 , 123, 106930	5.1	2
73	Nitrate and nitrite bacterial reduction at alkaline pH and high nitrate concentrations, comparison of acetate versus dihydrogen as electron donors. <i>Journal of Environmental Management</i> , 2021 , 280, 111859	7.9	4
72	Design of 3D microbial anodes for microbial electrolysis cells (MEC) fuelled by domestic wastewater. Part I: Multiphysics modelling. <i>Journal of Environmental Chemical Engineering</i> , 2021 , 9, 105476	6.8	3
71	Biodeterioration kinetics and microbial community organization on surface of cementitious materials exposed to anaerobic digestion conditions. <i>Journal of Environmental Chemical Engineering</i> , 2021 , 9, 105334	6.8	4
70	Oxygen supply management to intensify wastewater treatment by a microbial electrochemical snorkel. <i>Electrochimica Acta</i> , 2021 , 394, 139103	6.7	
69	How bacteria use electric fields to reach surfaces. <i>Biofilm</i> , 2021 , 3, 100048	5.9	2
68	Insights into the local interaction mechanisms between fermenting broken maize and various binder materials for anaerobic digester structures. <i>Journal of Environmental Management</i> , 2021 , 300, 113735	7.9	1
67	Nitrate and nitrite reduction activity of activated sludge microcosm in a highly alkaline environment with solid cementitious material. <i>International Biodeterioration and Biodegradation</i> , 2020 , 151, 104971	4.8	5
66	Microfluidic Microbial Bioelectrochemical Systems: An Integrated Investigation Platform for a More Fundamental Understanding of Electroactive Bacterial Biofilms. <i>Microorganisms</i> , 2020 , 8,	4.9	7
65	Allochthonous and Autochthonous Halothermotolerant Bioanodes From Hypersaline Sediment and Textile Wastewater: A Promising Microbial Electrochemical Process for Energy Recovery Coupled With Real Textile Wastewater Treatment. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 609446	5.8	1
64	Evaluation of microbial proliferation on cementitious materials exposed to biogas systems. <i>Environmental Technology (United Kingdom)</i> , 2020 , 41, 2439-2449	2.6	3
63	Adaptation of neutrophilic <i>Paracoccus denitrificans</i> to denitrification at highly alkaline pH. <i>Environmental Science and Pollution Research</i> , 2020 , 27, 22112-22119	5.1	2
62	Low-Cost Electrode Modification to Upgrade the Bioelectrocatalytic Oxidation of Tannery Wastewater Using Acclimated Activated Sludge. <i>Applied Sciences (Switzerland)</i> , 2019 , 9, 2259	2.6	4

61	Microbial electrochemical snorkels (MESs): A budding technology for multiple applications. A mini review. <i>Electrochemistry Communications</i> , 2019 , 104, 106473	5.1	22
60	Understanding the cumulative effects of salinity, temperature and inoculation size for the design of optimal halothermotolerant bioanodes from hypersaline sediments. <i>Bioelectrochemistry</i> , 2019 , 129, 179-188	5.6	6
59	Effect of pore size on the current produced by 3-dimensional porous microbial anodes: A critical review. <i>Bioresource Technology</i> , 2019 , 289, 121641	11	26
58	Sustainable Approach for Tannery Wastewater Treatment: Bioelectricity Generation in Bioelectrochemical Systems. <i>Arabian Journal for Science and Engineering</i> , 2019 , 44, 10057-10066	2.5	7
57	Cementitious materials in biogas systems: Biodeterioration mechanisms and kinetics in CEM I and CAC based materials. <i>Cement and Concrete Research</i> , 2019 , 124, 105815	10.3	11
56	Influence of Hydrogen Electron Donor, Alkaline pH, and High Nitrate Concentrations on Microbial Denitrification: A Review. <i>International Journal of Molecular Sciences</i> , 2019 , 20,	6.3	33
55	Benchmarking of Industrial Synthetic Graphite Grades, Carbon Felt, and Carbon Cloth as Cost-Efficient Bioanode Materials for Domestic Wastewater Fed Microbial Electrolysis Cells. <i>Frontiers in Energy Research</i> , 2019 , 7,	3.8	8
54	Microbial anodes: What actually occurs inside pores?. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 4484-4495	6.7	9
53	Catalysis of the hydrogen evolution reaction by hydrogen carbonate to decrease the voltage of microbial electrolysis cell fed with domestic wastewater. <i>Electrochimica Acta</i> , 2018 , 275, 32-39	6.7	18
52	Iron-Nicarbazin derived platinum group metal-free electrocatalyst in scalable-size air-breathing cathodes for microbial fuel cells. <i>Electrochimica Acta</i> , 2018 , 277, 127-135	6.7	23
51	Coupled iron-microbial catalysis for CO ₂ hydrogenation with multispecies microbial communities. <i>Chemical Engineering Journal</i> , 2018 , 346, 307-316	14.7	4
50	Bacterial Biofilm Characterization and Microscopic Evaluation of the Antibacterial Properties of a Photocatalytic Coating Protecting Building Material. <i>Coatings</i> , 2018 , 8, 93	2.9	9
49	Whole Cell (Microbial) Electrocatalysis of the Oxygen Reduction Reaction (ORR) 2018 , 920-929		
48	Nitrate and nitrite reduction at high pH in a cementitious environment by a microbial microcosm. <i>International Biodeterioration and Biodegradation</i> , 2018 , 134, 93-102	4.8	7
47	Different methods used to form oxygen reducing biocathodes lead to different biomass quantities, bacterial communities, and electrochemical kinetics. <i>Bioelectrochemistry</i> , 2017 , 116, 24-32	5.6	18
46	Microbial fuel cells: From fundamentals to applications. A review. <i>Journal of Power Sources</i> , 2017 , 356, 225-244	8.9	902
45	Use of a continuous-flow bioreactor to evaluate nitrate reduction rate of <i>Halomonas desiderata</i> in cementitious environment relevant to nuclear waste deep repository. <i>Biochemical Engineering Journal</i> , 2017 , 125, 161-170	4.2	7
44	Influence of the electrode size on microbial anode performance. <i>Chemical Engineering Journal</i> , 2017 , 327, 218-227	14.7	26

43	Increasing the temperature is a relevant strategy to form microbial anodes intended to work at room temperature. <i>Electrochimica Acta</i> , 2017 , 258, 134-142	6.7	9
42	Single medium microbial fuel cell: Stainless steel and graphite electrode materials select bacterial communities resulting in opposite electrocatalytic activities. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 26059-26067	6.7	31
41	Exploring natural vs. synthetic minimal media to boost current generation with electrochemically-active marine bioanodes. <i>Journal of Environmental Chemical Engineering</i> , 2016 , 4, 2362-2369	6.8	3
40	Multiple electron transfer systems in oxygen reducing biocathodes revealed by different conditions of aeration/agitation. <i>Bioelectrochemistry</i> , 2016 , 110, 46-51	5.6	15
39	Two-dimensional carbon cloth and three-dimensional carbon felt perform similarly to form bioanode fed with food waste. <i>Electrochemistry Communications</i> , 2016 , 66, 38-41	5.1	44
38	Bilirubin oxidase based enzymatic air-breathing cathode: Operation under pristine and contaminated conditions. <i>Bioelectrochemistry</i> , 2016 , 108, 1-7	5.6	46
37	Biocathodes reducing oxygen at high potential select biofilms dominated by Ectothiorhodospiraceae populations harboring a specific association of genes. <i>Bioresource Technology</i> , 2016 , 214, 55-62	11	17
36	Mechanisms of cementitious material deterioration in biogas digester. <i>Science of the Total Environment</i> , 2016 , 571, 892-901	10.2	15
35	Oxygen-reducing biocathodes designed with pure cultures of microbial strains isolated from seawater biofilms. <i>International Biodeterioration and Biodegradation</i> , 2015 , 103, 16-22	4.8	39
34	Comparison of synthetic medium and wastewater used as dilution medium to design scalable microbial anodes: Application to food waste treatment. <i>Bioresource Technology</i> , 2015 , 185, 106-15	11	30
33	Surface and bacterial reduction of nitrate at alkaline pH: Conditions comparable to a nuclear waste repository. <i>International Biodeterioration and Biodegradation</i> , 2015 , 101, 12-22	4.8	7
32	Importance of the hydrogen route in up-scaling electrosynthesis for microbial CO ₂ reduction. <i>Energy and Environmental Science</i> , 2015 , 8, 3731-3744	35.4	132
31	The current provided by oxygen-reducing microbial cathodes is related to the composition of their bacterial community. <i>Bioelectrochemistry</i> , 2015 , 102, 42-9	5.6	35
30	Multi-system Nernst-Michaelis-Menten model applied to bioanodes formed from sewage sludge. <i>Bioresource Technology</i> , 2015 , 195, 162-9	11	16
29	<i>Halomonas desiderata</i> as a bacterial model to predict the possible biological nitrate reduction in concrete cells of nuclear waste disposals. <i>Journal of Environmental Management</i> , 2014 , 132, 32-41	7.9	15
28	Reactivity of nitrate and organic acids at the concrete/bitumen interface of a nuclear waste repository cell. <i>Nuclear Engineering and Design</i> , 2014 , 268, 51-57	1.8	16
27	Stainless steel foam increases the current produced by microbial bioanodes in bioelectrochemical systems. <i>Energy and Environmental Science</i> , 2014 , 7, 1633-1637	35.4	106
26	Electroanalysis of microbial anodes for bioelectrochemical systems: basics, progress and perspectives. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 16349-66	3.6	64

25	Protons accumulation during anodic phase turned to advantage for oxygen reduction during cathodic phase in reversible bioelectrodes. <i>Bioresource Technology</i> , 2014 , 173, 224-230	11	38
24	Marine floating microbial fuel cell involving aerobic biofilm on stainless steel cathodes. <i>Bioresource Technology</i> , 2013 , 142, 510-6	11	45
23	The open circuit potential of <i>Geobacter sulfurreducens</i> bioanodes depends on the electrochemical adaptation of the strain. <i>Electrochemistry Communications</i> , 2013 , 33, 35-38	5.1	12
22	Electrochemical reduction of CO ₂ catalysed by <i>Geobacter sulfurreducens</i> grown on polarized stainless steel cathodes. <i>Electrochemistry Communications</i> , 2013 , 28, 27-30	5.1	63
21	Forming microbial anodes under delayed polarisation modifies the electron transfer network and decreases the polarisation time required. <i>Bioresource Technology</i> , 2012 , 114, 334-41	11	25
20	Towards an engineering-oriented strategy for building microbial anodes for microbial fuel cells. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 13332-43	3.6	44
19	Ultra microelectrodes increase the current density provided by electroactive biofilms by improving their electron transport ability. <i>Energy and Environmental Science</i> , 2012 , 5, 5287-5296	35.4	50
18	Stainless steel is a promising electrode material for anodes of microbial fuel cells. <i>Energy and Environmental Science</i> , 2012 , 5, 9645	35.4	128
17	Microbial catalysis of the oxygen reduction reaction for microbial fuel cells: a review. <i>ChemSusChem</i> , 2012 , 5, 975-87	8.3	164
16	From microbial fuel cell (MFC) to microbial electrochemical snorkel (MES): maximizing chemical oxygen demand (COD) removal from wastewater. <i>Biofouling</i> , 2011 , 27, 319-26	3.3	70
15	Application of electro-active biofilms. <i>Biofouling</i> , 2010 , 26, 57-71	3.3	100
14	Marine aerobic biofilm as biocathode catalyst. <i>Bioelectrochemistry</i> , 2010 , 78, 51-6	5.6	95
13	Combining phosphate species and stainless steel cathode to enhance hydrogen evolution in microbial electrolysis cell (MEC). <i>Electrochemistry Communications</i> , 2010 , 12, 183-186	5.1	56
12	MICROBIAL FUEL CELLS - AN OPTION FOR WASTEWATER TREATMENT. <i>Environmental Engineering and Management Journal</i> , 2010 , 9, 1069-1087	0.6	20
11	Nitric acid activation of graphite granules to increase the performance of the non-catalyzed oxygen reduction reaction (ORR) for MFC applications. <i>Electrochemistry Communications</i> , 2009 , 11, 1547-1549	5.1	73
10	Non-conventional gas phase remediation of volatile halogenated compounds by dehydrated bacteria. <i>Journal of Environmental Management</i> , 2009 , 90, 2841-4	7.9	5
9	Increased power from a two-chamber microbial fuel cell with a low-pH air-cathode compartment. <i>Electrochemistry Communications</i> , 2009 , 11, 619-622	5.1	87
8	First air-tolerant effective stainless steel microbial anode obtained from a natural marine biofilm. <i>Bioresource Technology</i> , 2009 , 100, 3302-7	11	45

7	Sampling natural biofilms: a new route to build efficient microbial anodes. <i>Environmental Science & Technology</i> , 2009 , 43, 3194-9	10.3	42
6	Coupled oxidation-reduction of butanol-hexanal by resting <i>Rhodococcus erythropolis</i> NCIMB 13064 cells in liquid and gas phases. <i>Enzyme and Microbial Technology</i> , 2008 , 43, 423-430	3.8	12
5	Bioremediation of halogenated compounds: comparison of dehalogenating bacteria and improvement of catalyst stability. <i>Chemosphere</i> , 2006 , 65, 1146-52	8.4	15
4	Biotransformation of halogenated compounds by lyophilized cells of <i>Rhodococcus erythropolis</i> in a continuous solid-gas biofilter. <i>Process Biochemistry</i> , 2005 , 40, 45-51	4.8	28
3	Nonconventional hydrolytic dehalogenation of 1-chlorobutane by dehydrated bacteria in a continuous solid-gas biofilter. <i>Biotechnology and Bioengineering</i> , 2005 , 91, 304-13	4.9	14
2	Haloalkane hydrolysis by <i>Rhodococcus erythropolis</i> cells: comparison of conventional aqueous phase dehalogenation and nonconventional gas phase dehalogenation. <i>Biotechnology and Bioengineering</i> , 2004 , 86, 47-54	4.9	21
1	Biodeterioration of concrete in agricultural, agro-food and biogas plants: state of the art and challenges. <i>RILEM Technical Letters</i> , 2 , 83-89		9