Benjamin Erable

List of Publications by Citations

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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	Microbial fuel cells: From fundamentals to applications. A review. *Journal of Power Sources*, **2017**, 356, 225-244	8.9	902
77	Microbial catalysis of the oxygen reduction reaction for microbial fuel cells: a review. *ChemSusChem* , **2012**, 5, 975-87	8.3	164
76	Importance of the hydrogen route in up-scaling electrosynthesis for microbial CO2 reduction. *Energy and Environmental Science*, **2015**, 8, 3731-3744	35.4	132
75	Stainless steel is a promising electrode material for anodes of microbial fuel cells. *Energy and Environmental Science*, **2012**, 5, 9645	35.4	128
74	Stainless steel foam increases the current produced by microbial bioanodes in bioelectrochemical systems. *Energy and Environmental Science*, **2014**, 7, 1633-1637	35.4	106
73	Application of electro-active biofilms. *Biofouling*, **2010**, 26, 57-71	3.3	100
72	Marine aerobic biofilm as biocathode catalyst. *Bioelectrochemistry*, **2010**, 78, 51-6	5.6	95
71	Increased power from a two-chamber microbial fuel cell with a low-pH air-cathode compartment. *Electrochemistry Communications*, **2009**, 11, 619-622	5.1	87
70	Nitric acid activation of graphite granules to increase the performance of the non-catalyzed oxygen reduction reaction (ORR) for MFC applications. *Electrochemistry Communications*, **2009**, 11, 1547-1549	5.1	73
69	From microbial fuel cell (MFC) to microbial electrochemical snorkel (MES): maximizing chemical oxygen demand (COD) removal from wastewater. *Biofouling*, **2011**, 27, 319-26	3.3	70
68	Electroanalysis of microbial anodes for bioelectrochemical systems: basics, progress and perspectives. *Physical Chemistry Chemical Physics*, **2014**, 16, 16349-66	3.6	64
67	Electrochemical reduction of CO2 catalysed by Geobacter sulfurreducens grown on polarized stainless steel cathodes. *Electrochemistry Communications*, **2013**, 28, 27-30	5.1	63
66	Combining phosphate species and stainless steel cathode to enhance hydrogen evolution in microbial electrolysis cell (MEC). *Electrochemistry Communications*, **2010**, 12, 183-186	5.1	56
65	Ultra microelectrodes increase the current density provided by electroactive biofilms by improving their electron transport ability. *Energy and Environmental Science*, **2012**, 5, 5287-5296	35.4	50
64	Bilirubin oxidase based enzymatic air-breathing cathode: Operation under pristine and contaminated conditions. *Bioelectrochemistry*, **2016**, 108, 1-7	5.6	46
63	Marine floating microbial fuel cell involving aerobic biofilm on stainless steel cathodes. *Bioresource Technology*, **2013**, 142, 510-6	11	45
62	First air-tolerant effective stainless steel microbial anode obtained from a natural marine biofilm. *Bioresource Technology*, **2009**, 100, 3302-7	11	45

61	Two-dimensional carbon cloth and three-dimensional carbon felt perform similarly to form bioanode fed with food waste. *Electrochemistry Communications*, **2016**, 66, 38-41	5.1	44
60	Towards an engineering-oriented strategy for building microbial anodes for microbial fuel cells. *Physical Chemistry Chemical Physics*, **2012**, 14, 13332-43	3.6	44
59	Sampling natural biofilms: a new route to build efficient microbial anodes. *Environmental Science & Technology*, **2009**, 43, 3194-9	10.3	42
58	Oxygen-reducing biocathodes designed with pure cultures of microbial strains isolated from seawater biofilms. *International Biodeterioration and Biodegradation*, **2015**, 103, 16-22	4.8	39
57	Protons accumulation during anodic phase turned to advantage for oxygen reduction during cathodic phase in reversible bioelectrodes. *Bioresource Technology*, **2014**, 173, 224-230	11	38
56	The current provided by oxygen-reducing microbial cathodes is related to the composition of their bacterial community. *Bioelectrochemistry*, **2015**, 102, 42-9	5.6	35
55	Influence of Hydrogen Electron Donor, Alkaline pH, and High Nitrate Concentrations on Microbial Denitrification: A Review. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	33
54	Single medium microbial fuel cell: Stainless steel and graphite electrode materials select bacterial communities resulting in opposite electrocatalytic activities. *International Journal of Hydrogen Energy*, **2017**, 42, 26059-26067	6.7	31
53	Comparison of synthetic medium and wastewater used as dilution medium to design scalable microbial anodes: Application to food waste treatment. *Bioresource Technology*, **2015**, 185, 106-15	11	30
52	Biotransformation of halogenated compounds by lyophilized cells of Rhodococcus erythropolis in a continuous solid‐gas biofilter. *Process Biochemistry*, **2005**, 40, 45-51	4.8	28
51	Influence of the electrode size on microbial anode performance. *Chemical Engineering Journal*, **2017**, 327, 218-227	14.7	26
50	Effect of pore size on the current produced by 3-dimensional porous microbial anodes: A critical review. *Bioresource Technology*, **2019**, 289, 121641	11	26
49	Forming microbial anodes under delayed polarisation modifies the electron transfer network and decreases the polarisation time required. *Bioresource Technology*, **2012**, 114, 334-41	11	25
48	Iron-Nicarbazin derived platinum group metal-free electrocatalyst in scalable-size air-breathing cathodes for microbial fuel cells. *Electrochimica Acta*, **2018**, 277, 127-135	6.7	23
47	Microbial electrochemical snorkels (MESs): A budding technology for multiple applications. A mini review. *Electrochemistry Communications*, **2019**, 104, 106473	5.1	22
46	Haloalkane hydrolysis by Rhodococcus erythropolis cells: comparison of conventional aqueous phase dehalogenation and nonconventional gas phase dehalogenation. *Biotechnology and Bioengineering*, **2004**, 86, 47-54	4.9	21
45	MICROBIAL FUEL CELLS - AN OPTION FOR WASTEWATER TREATMENT. *Environmental Engineering and Management Journal*, **2010**, 9, 1069-1087	0.6	20
44	Different methods used to form oxygen reducing biocathodes lead to different biomass quantities, bacterial communities, and electrochemical kinetics. *Bioelectrochemistry*, **2017**, 116, 24-32	5.6	18

43	Catalysis of the hydrogen evolution reaction by hydrogen carbonate to decrease the voltage of microbial electrolysis cell fed with domestic wastewater. *Electrochimica Acta*, **2018**, 275, 32-39	6.7	18
42	Biocathodes reducing oxygen at high potential select biofilms dominated by Ectothiorhodospiraceae populations harboring a specific association of genes. *Bioresource Technology*, **2016**, 214, 55-62	11	17
41	Reactivity of nitrate and organic acids at the concrete–bitumen interface of a nuclear waste repository cell. *Nuclear Engineering and Design*, **2014**, 268, 51-57	1.8	16
40	Multi-system Nernst-Michaelis-Menten model applied to bioanodes formed from sewage sludge. *Bioresource Technology*, **2015**, 195, 162-9	11	16
39	Multiple electron transfer systems in oxygen reducing biocathodes revealed by different conditions of aeration/agitation. *Bioelectrochemistry*, **2016**, 110, 46-51	5.6	15
38	Halomonas desiderata as a bacterial model to predict the possible biological nitrate reduction in concrete cells of nuclear waste disposals. *Journal of Environmental Management*, **2014**, 132, 32-41	7.9	15
37	Bioremediation of halogenated compounds: comparison of dehalogenating bacteria and improvement of catalyst stability. *Chemosphere*, **2006**, 65, 1146-52	8.4	15
36	Mechanisms of cementitious material deterioration in biogas digester. *Science of the Total Environment*, **2016**, 571, 892-901	10.2	15
35	Nonconventional hydrolytic dehalogenation of 1-chlorobutane by dehydrated bacteria in a continuous solid-gas biofilter. *Biotechnology and Bioengineering*, **2005**, 91, 304-13	4.9	14
34	The open circuit potential of Geobacter sulfurreducens bioanodes depends on the electrochemical adaptation of the strain. *Electrochemistry Communications*, **2013**, 33, 35-38	5.1	12
33	Coupled oxidation–reduction of butanol–hexanal by resting Rhodococcus erythropolis NCIMB 13064 cells in liquid and gas phases. *Enzyme and Microbial Technology*, **2008**, 43, 423-430	3.8	12
32	Cementitious materials in biogas systems: Biodeterioration mechanisms and kinetics in CEM I and CAC based materials. *Cement and Concrete Research*, **2019**, 124, 105815	10.3	11
31	Increasing the temperature is a relevant strategy to form microbial anodes intended to work at room temperature. *Electrochimica Acta*, **2017**, 258, 134-142	6.7	9
30	Bacterial Biofilm Characterization and Microscopic Evaluation of the Antibacterial Properties of a Photocatalytic Coating Protecting Building Material. *Coatings*, **2018**, 8, 93	2.9	9
29	Biodeterioration of concrete in agricultural, agro-food and biogas plants: state of the art and challenges. *RILEM Technical Letters*,2, 83-89		9
28	Microbial anodes: What actually occurs inside pores?. *International Journal of Hydrogen Energy*, **2019**, 44, 4484-4495	6.7	9
27	Benchmarking of Industrial Synthetic Graphite Grades, Carbon Felt, and Carbon Cloth as Cost-Efficient Bioanode Materials for Domestic Wastewater Fed Microbial Electrolysis Cells. *Frontiers in Energy Research*, **2019**, 7,	3.8	8
26	Use of a continuous-flow bioreactor to evaluate nitrate reduction rate of Halomonas desiderata in cementitious environment relevant to nuclear waste deep repository. *Biochemical Engineering Journal*, **2017**, 125, 161-170	4.2	7

25	Surface and bacterial reduction of nitrate at alkaline pH: Conditions comparable to a nuclear waste repository. *International Biodeterioration and Biodegradation*, **2015**, 101, 12-22	4.8	7
24	Sustainable Approach for Tannery Wastewater Treatment: Bioelectricity Generation in Bioelectrochemical Systems. *Arabian Journal for Science and Engineering*, **2019**, 44, 10057-10066	2.5	7
23	Microfluidic Microbial Bioelectrochemical Systems: An Integrated Investigation Platform for a More Fundamental Understanding of Electroactive Bacterial Biofilms. *Microorganisms*, **2020**, 8,	4.9	7
22	Nitrate and nitrite reduction at high pH in a cementitious environment by a microbial microcosm. *International Biodeterioration and Biodegradation*, **2018**, 134, 93-102	4.8	7
21	Understanding the cumulative effects of salinity, temperature and inoculation size for the design of optimal halothermotolerant bioanodes from hypersaline sediments. *Bioelectrochemistry*, **2019**, 129, 179-188	5.6	6
20	Nitrate and nitrite reduction activity of activated sludge microcosm in a highly alkaline environment with solid cementitious material. *International Biodeterioration and Biodegradation*, **2020**, 151, 104971	4.8	5
19	Non-conventional gas phase remediation of volatile halogenated compounds by dehydrated bacteria. *Journal of Environmental Management*, **2009**, 90, 2841-4	7.9	5
18	Low-Cost Electrode Modification to Upgrade the Bioelectrocatalytic Oxidation of Tannery Wastewater Using Acclimated Activated Sludge. *Applied Sciences (Switzerland)*, **2019**, 9, 2259	2.6	4
17	Coupled iron-microbial catalysis for CO2 hydrogenation with multispecies microbial communities. *Chemical Engineering Journal*, **2018**, 346, 307-316	14.7	4
16	Nitrate and nitrite bacterial reduction at alkaline pH and high nitrate concentrations, comparison of acetate versus dihydrogen as electron donors. *Journal of Environmental Management*, **2021**, 280, 111859	7.9	4
15	Biodeterioration kinetics and microbial community organization on surface of cementitious materials exposed to anaerobic digestion conditions. *Journal of Environmental Chemical Engineering* , **2021**, 9, 105334	6.8	4
14	Exploring natural vs. synthetic minimal media to boost current generation with electrochemically-active marine bioanodes. *Journal of Environmental Chemical Engineering*, **2016**, 4, 2362-2369	6.8	3
13	Industrially scalable surface treatments to enhance the current density output from graphite bioanodes fueled by real domestic wastewater. *IScience*, **2021**, 24, 102162	6.1	3
12	Oxygen-reducing bidirectional microbial electrodes designed in real domestic wastewater. *Bioresource Technology*, **2021**, 326, 124663	11	3
11	How Comparable are Microbial Electrochemical Systems around the Globe? An Electrochemical and Microbiological Cross-Laboratory Study. *ChemSusChem*, **2021**, 14, 2313-2330	8.3	3
10	Evaluation of microbial proliferation on cementitious materials exposed to biogas systems. *Environmental Technology (United Kingdom)*, **2020**, 41, 2439-2449	2.6	3
9	Design of 3D microbial anodes for microbial electrolysis cells (MEC) fuelled by domestic wastewater. Part I: Multiphysics modelling. *Journal of Environmental Chemical Engineering*, **2021**, 9, 105476	6.8	3
8	Adaptation of neutrophilic Paracoccus denitrificans to denitrification at highly alkaline pH. *Environmental Science and Pollution Research*, **2020**, 27, 22112-22119	5.1	2

7	Oxygen-reducing bidirectional microbial electrodes: A mini-review. *Electrochemistry Communications*, **2021**, 123, 106930	5.1	2
6	How bacteria use electric fields to reach surfaces. *Biofilm*, **2021**, 3, 100048	5.9	2
5	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. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 609446	5.8	1
4	Insights into the local interaction mechanisms between fermenting broken maize and various binder materials for anaerobic digester structures. *Journal of Environmental Management*, **2021**, 300, 113735	7.9	1
3	Biological and Microbial Fuel Cells **2021**,		
2	Whole Cell (Microbial) Electrocatalysis of the Oxygen Reduction Reaction (ORR) **2018**, 920-929		
1	Oxygen supply management to intensify wastewater treatment by a microbial electrochemical snorkel. *Electrochimica Acta*, **2021**, 394, 139103	6.7	