CÃ©sar IvÃ¡n Torres

List of Publications by Year
in descending order

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79 papers	6,146 citations	94433 37 h-index	82547 72 g-index
81 all docs	81 docs citations	81 times ranked	3907 citing authors

#	Article	IF	Citations
1	A kinetic perspective on extracellular electron transfer by anode-respiring bacteria. FEMS Microbiology Reviews, 2010, 34, 3-17.	8.6	506
2	Proton transport inside the biofilm limits electrical current generation by anodeâ€respiring bacteria. Biotechnology and Bioengineering, 2008, 100, 872-881.	3.3	471
3	Selecting Anode-Respiring Bacteria Based on Anode Potential: Phylogenetic, Electrochemical, and Microscopic Characterization. Environmental Science & Technology, 2009, 43, 9519-9524.	10.0	442
4	Conduction-based modeling of the biofilm anode of a microbial fuel cell. Biotechnology and Bioengineering, 2007, 98, 1171-1182.	3.3	431
5	Evaluation of energy-conversion efficiencies in microbial fuel cells (MFCs) utilizing fermentable and non-fermentable substrates. Water Research, 2008, 42, 1501-1510.	11.3	336
6	Kinetic Experiments for Evaluating the Nernstâ€'Monod Model for Anode-Respiring Bacteria (ARB) in a Biofilm Anode. Environmental Science & Technology, 2008, 42, 6593-6597.	10.0	221
7	Syntrophic interactions among anode respiring bacteria (ARB) and Nonâ€ARB in a biofilm anode: electron balances. Biotechnology and Bioengineering, 2009, 103, 513-523.	3.3	208
8	Fate of H₂ in an Upflow Single-Chamber Microbial Electrolysis Cell Using a Metal-Catalyst-Free Cathode. Environmental Science & Technology, 2009, 43, 7971-7976.	10.0	190
9	On Electron Transport through Geobacter Biofilms. ChemSusChem, 2012, 5, 1099-1105.	6.8	184
10	Kinetics of consumption of fermentation products by anode-respiring bacteria. Applied Microbiology and Biotechnology, 2007, 77, 689-697.	3.6	178
11	Microbial community structure in a biofilm anode fed with a fermentable substrate: The significance of hydrogen scavengers. Biotechnology and Bioengineering, 2010, 105, 69-78.	3.3	148
12	Effects of Substrate Diffusion and Anode Potential on Kinetic Parameters for Anode-Respiring Bacteria. Environmental Science & Technology, 2009, 43, 7571-7577.	10.0	144
13	Complete nitrogen removal by simultaneous nitrification and denitrification in flat-panel air-cathode microbial fuel cells treating domestic wastewater. Chemical Engineering Journal, 2017, 316, 673-679.	12.7	140
14	Importance of OH^{â€'} Transport from Cathodes in Microbial Fuel Cells. ChemSusChem, 2012, 5, 1071-1079.	6.8	133
15	A Î¼L-scale micromachined microbial fuel cell having high power density. Lab on A Chip, 2011, 11, 1110.	6.0	126
16	Intimate coupling of photocatalysis and biodegradation in a photocatalytic circulatingâ€bed biofilm reactor. Biotechnology and Bioengineering, 2008, 101, 83-92.	3.3	111
17	Carbonate Species as OH^{â€'} Carriers for Decreasing the pH Gradient between Cathode and Anode in Biological Fuel Cells. Environmental Science & Technology, 2008, 42, 8773-8777.	10.0	108
18	Kinetic, Electrochemical, and Microscopic Characterization of the Thermophilic, Anode-Respiring Bacterium Thermincola ferriacetica. Environmental Science & Technology, 2013, 47, 4934-4940.	10.0	105

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19	Analysis of a microbial electrochemical cell using the proton condition in biofilm (PCBIOFILM) model. Bioresource Technology, 2011, 102, 253-262.	9.6	100
20	Enrichment and Analysis of Anode-Respiring Bacteria from Diverse Anaerobic Inocula. Environmental Science & Technology, 2012, 46, 10349-10355.	10.0	94
21	Hydrogen consumption in microbial electrochemical systems (MXCs): The role of homo-acetogenic bacteria. Bioresource Technology, 2011, 102, 263-271.	9.6	91
22	Critical transport rates that limit the performance of microbial electrochemistry technologies. Bioresource Technology, 2016, 215, 265-273.	9.6	91
23	Fermentation pre-treatment of landfill leachate for enhanced electron recovery in a microbial electrolysis cell. Bioresource Technology, 2014, 151, 151-158.	9.6	84
24	Generation of High Current Densities by Pure Cultures of Anode-Respiring Geoalkalibacter spp. under Alkaline and Saline Conditions in Microbial Electrochemical Cells. MBio, 2013, 4, e00144-13.	4.1	82
25	Reduced overpotentials in microbial electrolysis cells through improved design, operation, and electrochemical characterization. Chemical Engineering Journal, 2016, 287, 181-188.	12.7	80
26	Intimate coupling of an N-doped TiO2 photocatalyst and anode respiring bacteria for enhancing 4-chlorophenol degradation and current generation. Chemical Engineering Journal, 2017, 317, 882-889.	12.7	77
27	Fate of Sucralose During Wastewater Treatment. Environmental Engineering Science, 2011, 28, 325-331.	1.6	75
28	Dynamic Potentialâ€Dependent Electron Transport Pathway Shifts in Anode Biofilms of Geobacter sulfurreducens. ChemSusChem, 2014, 7, 3413-3419.	6.8	66
29	Tailoring Microbial Electrochemical Cells for Production of Hydrogen Peroxide at High Concentrations and Efficiencies. ChemSusChem, 2016, 9, 3345-3352.	6.8	60
30	Improved current and power density with a micro-scale microbial fuel cell due to a small characteristic length. Biosensors and Bioelectronics, 2014, 61, 587-592.	10.1	59
31	Geobacter Dominates the Inner Layers of a Stratified Biofilm on a Fluidized Anode During Brewery Wastewater Treatment. Frontiers in Microbiology, 2018, 9, 378.	3.5	48
32	Effects of pre-fermentation and pulsed-electric-field treatment of primary sludge in microbial electrochemical cells. Bioresource Technology, 2015, 195, 83-88.	9.6	46
33	A critical evaluation of the pH split and associated effects in bioelectrochemical processes. Chemical Engineering Journal, 2021, 422, 130155.	12.7	45
34	Recent progress in treatment of dyes wastewater using microbial-electro-Fenton technology. RSC Advances, 2022, 12, 17104-17137.	3.6	45
35	On the importance of identifying, characterizing, and predicting fundamental phenomena towards microbial electrochemistry applications. Current Opinion in Biotechnology, 2014, 27, 107-114.	6.6	44
36	H₂O₂ Production in Microbial Electrochemical Cells Fed with Primary Sludge. Environmental Science & Technology, 2017, 51, 6139-6145.	10.0	44

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37	Characterization of Electrical Current-Generation Capabilities from Thermophilic Bacterium Thermoanaerobacter pseudethanolicus Using Xylose, Glucose, Cellobiose, or Acetate with Fixed Anode Potentials. Environmental Science & Technology, 2015, 49, 14725-14731.	10.0	42
38	Evaluating the impacts of migration in the biofilm anode using the model PCBIOFILM. Electrochimica Acta, 2010, 55, 6964-6972.	5.2	38
39	Anode Biofilms of Geoalkalibacter ferrihydriticus Exhibit Electrochemical Signatures of Multiple Electron Transport Pathways. Langmuir, 2015, 31, 12552-12559.	3.5	34
40	The effect of pH and buffer concentration on anode biofilms of Thermincola ferriacetica. Bioelectrochemistry, 2016, 112, 47-52.	4.6	34
41	Changes in Glucose Fermentation Pathways as a Response to the Free Ammonia Concentration in Microbial Electrolysis Cells. Environmental Science & Technology, 2017, 51, 13461-13470.	10.0	34
42	pH Dependency in Anode Biofilms of Thermincola ferriacetica Suggests a Proton-Dependent Electrochemical Response. Journal of the American Chemical Society, 2018, 140, 5527-5534.	13.7	34
43	Impact of carbon monoxide partial pressures on methanogenesis and medium chain fatty acids production during ethanol fermentation. Biotechnology and Bioengineering, 2018, 115, 341-350.	3.3	33
44	Buffer pK_a and Transport Govern the Concentration Overpotential in Electrochemical Oxygen Reduction at Neutral pH. ChemElectroChem, 2014, 1, 1909-1915.	3.4	32
45	Combining microbial cultures for efficient production of electricity from butyrate in a microbial electrochemical cell. Bioresource Technology, 2014, 169, 169-174.	9.6	31
46	Application of microbial electrolysis cells to treat spent yeast from an alcoholic fermentation. Bioresource Technology, 2016, 200, 342-349.	9.6	29
47	Coupling dark metabolism to electricity generation using photosynthetic cocultures. Biotechnology and Bioengineering, 2014, 111, 223-231.	3.3	28
48	Successful operation of continuous reactors at short retention times results in high-density, fast-rate Dehalococcoides dechlorinating cultures. Applied Microbiology and Biotechnology, 2014, 98, 2729-2737.	3.6	28
49	Simultaneous fermentation of cellulose and current production with an enriched mixed culture of thermophilic bacteria in a microbial electrolysis cell. Microbial Biotechnology, 2018, 11, 63-73.	4.2	26
50	Lightâ€responsive current generation by phototrophically enriched anode biofilms dominated by green sulfur bacteria. Biotechnology and Bioengineering, 2013, 110, 1020-1027.	3.3	25
51	The role of homoacetogenic bacteria as efficient hydrogen scavengers in microbial electrochemical cells (MXCs). Water Science and Technology, 2012, 65, 1-6.	2.5	23
52	Relieving the fermentation inhibition enables high electron recovery from landfill leachate in a microbial electrolysis cell. RSC Advances, 2016, 6, 6658-6664.	3.6	23
53	Electrochemical techniques reveal that total ammonium stress increases electron flow to anode respiration in mixedâ€species bacterial anode biofilms. Biotechnology and Bioengineering, 2017, 114, 1151-1159.	3.3	21
54	Understanding the impact of operational conditions on performance of microbial peroxide producing cells. Journal of Power Sources, 2017, 356, 448-458.	7.8	21

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55	Effect of pH on bacterial distributions within cathodic biofilm of the microbial fuel cell with maltodextrin as the substrate. Chemosphere, 2021, 265, 129088.	8.2	20
56	Electrochemically Driven Photosynthetic Electron Transport in Cyanobacteria Lacking Photosystem II. Journal of the American Chemical Society, 2022, 144, 2933-2942.	13.7	20
57	Evaluating biochemical methane production from brewerâ€™s spent yeast. Journal of Industrial Microbiology and Biotechnology, 2016, 43, 1195-1204.	3.0	19
58	Effect of Pulsed Electric Field Pretreatment on Primary Sludge for Enhanced Bioavailability and Energy Capture. Environmental Engineering Science, 2015, 32, 831-837.	1.6	16
59	Shifting the balance of fermentation products between hydrogen and volatile fatty acids: microbial community structure and function. FEMS Microbiology Ecology, 2016, 92, fiw195.	2.7	14
60	Maximizing Coulombic recovery and solids reduction from primary sludge by controlling retention time and pH in a flat-plate microbial electrolysis cell. Environmental Science: Water Research and Technology, 2017, 3, 333-339.	2.4	13
61	Draft Genome Sequence of the Gram-Positive Thermophilic Iron Reducer Thermincola ferriacetica Strain Z-0001 ^T. Genome Announcements, 2015, 3, .	0.8	12
62	Carboxylates and alcohols production in an autotrophic hydrogenâ€based membrane biofilm reactor. Biotechnology and Bioengineering, 2021, 118, 2338-2347.	3.3	11
63	Understanding the Distinguishing Features of a Microbial Fuel Cell as a Biomass-Based Renewable Energy Technology. , 2008, , 1-28.		11
64	Determining global trends in syngas fermentation research through a bibliometric analysis. Journal of Environmental Management, 2022, 307, 114522.	7.8	9
65	Molecular Biological Methods in Environmental Engineering. Water Environment Research, 2011, 83, 927-955.	2.7	7
66	High-rate stabilization of primary sludge in a single-chamber microbial hydrogen peroxide producing cell. Environmental Science: Water Research and Technology, 2019, 5, 1124-1131.	2.4	7
67	Genomes of Geoalkalibacter ferrihydriticus Z-0531 ^T and Geoalkalibacter subterraneus Red1 ^T , Two Haloalkaliphilic Metal-Reducing Deltaproteobacteria. Genome Announcements, 2015, 3, .	0.8	6
68	Improving microbial fuel cells. Membrane Technology, 2012, 2012, 8-9.	0.1	5
69	Coupled electrokinetic and biological remediation method leads to improved treatment of chlorinated solvents at high sulfate, transport limited sites. Environmental Science: Water Research and Technology, 2020, 6, 2926-2937.	2.4	5
70	Enhanced antifouling and flux performances of a composite membrane via incorporating <scp>TiO₂</scp> functionalized with hydrophilic groups of Lâ€cysteine for nanofiltration. Polymers for Advanced Technologies, 2022, 33, 1544-1560.	3.2	5
71	Advancements in Molecular Techniques and Applications in Environmental Engineering. Water Environment Research, 2012, 84, 814-844.	2.7	3
72	The influence of electrokinetic bioremediation on subsurface microbial communities at a perchloroethylene contaminated site. Applied Microbiology and Biotechnology, 2021, 105, 6489-6497.	3.6	3

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73	Organic carbon metabolism is a main determinant of hydrogen demand and dynamics in anaerobic soils. Chemosphere, 2022, 303, 134877.	8.2	3
74	Microbial Electrochemical Cells as a Research Tool to Probe Microbial and Biofilm Kinetics. Proceedings of the Water Environment Federation, 2010, 2010, 52-60.	0.0	0
75	A biologically-inspired electro-chemical reference electrode. , 2017, , .		0
76	Application of Microbial Electrochemical Cells (MXCs) as Real- Time Sensors of Bioavailability from Sludge Pretreatment Technologies. Proceedings of the Water Environment Federation, 2015, 2015, 1-12.	0.0	0
77	Continuous hydrogen peroxide production in microbial electrochemical cells. Proceedings of the Water Environment Federation, 2015, 2015, 1-5.	0.0	0
78	Microbial electrochemical cells as an alternative to biochemical methane potential tests for analyzing batch anaerobic digestion kinetics. Proceedings of the Water Environment Federation, 2018, 2018, 757-765.	0.0	0
79	Improved characterization of anaerobic digestion kinetics of mixed sludges with and without thermally pretreated WAS.. Proceedings of the Water Environment Federation, 2018, 2018, 775-781.	0.0	0