

# César Iván Torres

## List of Publications by Year in descending order

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Version: 2024-02-01

79  
papers

6,146  
citations

94269

37  
h-index

82410

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. <i>FEMS Microbiology Reviews</i> , 2010, 34, 3-17.   | 3.9 | 506       |
| 2  | Proton transport inside the biofilm limits electrical current generation by anode-respiring bacteria. <i>Biotechnology and Bioengineering</i> , 2008, 100, 872-881.  | 1.7 | 471       |
| 3  | Selecting Anode-Respiring Bacteria Based on Anode Potential: Phylogenetic, Electrochemical, and Microscopic Characterization. <i>Environmental Science &amp; Technology</i> , 2009, 43, 9519-9524.                 | 4.6 | 442       |
| 4  | Conduction-based modeling of the biofilm anode of a microbial fuel cell. <i>Biotechnology and Bioengineering</i> , 2007, 98, 1171-1182.  | 1.7 | 431       |
| 5  | Evaluation of energy-conversion efficiencies in microbial fuel cells (MFCs) utilizing fermentable and non-fermentable substrates. <i>Water Research</i> , 2008, 42, 1501-1510.                                     | 5.3 | 336       |
| 6  | Kinetic Experiments for Evaluating the Nernst-Monod Model for Anode-Respiring Bacteria (ARB) in a Biofilm Anode. <i>Environmental Science &amp; Technology</i> , 2008, 42, 6593-6597.                              | 4.6 | 221       |
| 7  | Syntrophic interactions among anode respiring bacteria (ARB) and Non-ARB in a biofilm anode: electron balances. <i>Biotechnology and Bioengineering</i> , 2009, 103, 513-523.                                      | 1.7 | 208       |
| 8  | Fate of H <sub>2</sub> in an Upflow Single-Chamber Microbial Electrolysis Cell Using a Metal-Catalyst-Free Cathode. <i>Environmental Science &amp; Technology</i> , 2009, 43, 7971-7976.                           | 4.6 | 190       |
| 9  | On Electron Transport through <i>Geobacter</i> Biofilms. <i>ChemSusChem</i> , 2012, 5, 1099-1105.  | 3.6 | 184       |
| 10 | Kinetics of consumption of fermentation products by anode-respiring bacteria. <i>Applied Microbiology and Biotechnology</i> , 2007, 77, 689-697.   | 1.7 | 178       |
| 11 | Microbial community structure in a biofilm anode fed with a fermentable substrate: The significance of hydrogen scavengers. <i>Biotechnology and Bioengineering</i> , 2010, 105, 69-78.                            | 1.7 | 148       |
| 12 | Effects of Substrate Diffusion and Anode Potential on Kinetic Parameters for Anode-Respiring Bacteria. <i>Environmental Science &amp; Technology</i> , 2009, 43, 7571-7577.  | 4.6 | 144       |
| 13 | Complete nitrogen removal by simultaneous nitrification and denitrification in flat-panel air-cathode microbial fuel cells treating domestic wastewater. <i>Chemical Engineering Journal</i> , 2017, 316, 673-679. | 6.6 | 140       |
| 14 | Importance of OH <sup>-</sup> Transport from Cathodes in Microbial Fuel Cells. <i>ChemSusChem</i> , 2012, 5, 1071-1079.  | 3.6 | 133       |
| 15 | A 1/4-L-scale micromachined microbial fuel cell having high power density. <i>Lab on A Chip</i> , 2011, 11, 1110.  | 3.1 | 126       |
| 16 | Intimate coupling of photocatalysis and biodegradation in a photocatalytic circulating-bed biofilm reactor. <i>Biotechnology and Bioengineering</i> , 2008, 101, 83-92.  | 1.7 | 111       |
| 17 | Carbonate Species as OH <sup>-</sup> Carriers for Decreasing the pH Gradient between Cathode and Anode in Biological Fuel Cells. <i>Environmental Science &amp; Technology</i> , 2008, 42, 8773-8777.              | 4.6 | 108       |
| 18 | Kinetic, Electrochemical, and Microscopic Characterization of the Thermophilic, Anode-Respiring Bacterium <i>Thermincola ferriacetica</i> . <i>Environmental Science &amp; Technology</i> , 2013, 47, 4934-4940.   | 4.6 | 105       |

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|----|--|-----|-----------|
| 19 | Analysis of a microbial electrochemical cell using the proton condition in biofilm (PCBIOFILM) model. <i>Bioresource Technology</i> , 2011, 102, 253-262.  | 4.8 | 100       |
| 20 | Enrichment and Analysis of Anode-Respiring Bacteria from Diverse Anaerobic Inocula. <i>Environmental Science &amp; Technology</i> , 2012, 46, 10349-10355.   | 4.6 | 94        |
| 21 | Hydrogen consumption in microbial electrochemical systems (MXCs): The role of homo-acetogenic bacteria. <i>Bioresource Technology</i> , 2011, 102, 263-271.  | 4.8 | 91        |
| 22 | Critical transport rates that limit the performance of microbial electrochemistry technologies. <i>Bioresource Technology</i> , 2016, 215, 265-273.  | 4.8 | 91        |
| 23 | Fermentation pre-treatment of landfill leachate for enhanced electron recovery in a microbial electrolysis cell. <i>Bioresource Technology</i> , 2014, 151, 151-158.   | 4.8 | 84        |
| 24 | Generation of High Current Densities by Pure Cultures of Anode-Respiring <i>Geothalobacter</i> spp. under Alkaline and Saline Conditions in Microbial Electrochemical Cells. <i>MBio</i> , 2013, 4, e00144-13.         | 1.8 | 82        |
| 25 | Reduced overpotentials in microbial electrolysis cells through improved design, operation, and electrochemical characterization. <i>Chemical Engineering Journal</i> , 2016, 287, 181-188.                             | 6.6 | 80        |
| 26 | Intimate coupling of an N-doped TiO <sub>2</sub> photocatalyst and anode respiring bacteria for enhancing 4-chlorophenol degradation and current generation. <i>Chemical Engineering Journal</i> , 2017, 317, 882-889. | 6.6 | 77        |
| 27 | Fate of Sucralose During Wastewater Treatment. <i>Environmental Engineering Science</i> , 2011, 28, 325-331.   | 0.8 | 75        |
| 28 | Dynamic Potential-Dependent Electron Transport Pathway Shifts in Anode Biofilms of <i>Geobacter sulfurreducens</i> . <i>ChemSusChem</i> , 2014, 7, 3413-3419.  | 3.6 | 66        |
| 29 | Tailoring Microbial Electrochemical Cells for Production of Hydrogen Peroxide at High Concentrations and Efficiencies. <i>ChemSusChem</i> , 2016, 9, 3345-3352.  | 3.6 | 60        |
| 30 | Improved current and power density with a micro-scale microbial fuel cell due to a small characteristic length. <i>Biosensors and Bioelectronics</i> , 2014, 61, 587-592.  | 5.3 | 59        |
| 31 | <i>Geobacter</i> Dominates the Inner Layers of a Stratified Biofilm on a Fluidized Anode During Brewery Wastewater Treatment. <i>Frontiers in Microbiology</i> , 2018, 9, 378.   | 1.5 | 48        |
| 32 | Effects of pre-fermentation and pulsed-electric-field treatment of primary sludge in microbial electrochemical cells. <i>Bioresource Technology</i> , 2015, 195, 83-88.  | 4.8 | 46        |
| 33 | A critical evaluation of the pH split and associated effects in bioelectrochemical processes. <i>Chemical Engineering Journal</i> , 2021, 422, 130155.   | 6.6 | 45        |
| 34 | Recent progress in treatment of dyes wastewater using microbial-electro-Fenton technology. <i>RSC Advances</i> , 2022, 12, 17104-17137.  | 1.7 | 45        |
| 35 | On the importance of identifying, characterizing, and predicting fundamental phenomena towards microbial electrochemistry applications. <i>Current Opinion in Biotechnology</i> , 2014, 27, 107-114.                   | 3.3 | 44        |
| 36 | H <sub>2</sub> O <sub>2</sub> Production in Microbial Electrochemical Cells Fed with Primary Sludge. <i>Environmental Science &amp; Technology</i> , 2017, 51, 6139-6145.  | 4.6 | 44        |

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|----|---|-----|-----------|
| 37 | Characterization of Electrical Current-Generation Capabilities from Thermophilic Bacterium <i>Thermoanaerobacter pseudethanolicus</i> Using Xylose, Glucose, Cellobiose, or Acetate with Fixed Anode Potentials. <i>Environmental Science &amp; Technology</i> , 2015, 49, 14725-14731. | 4.6 | 42        |
| 38 | Evaluating the impacts of migration in the biofilm anode using the model PCBIOFILM. <i>Electrochimica Acta</i> , 2010, 55, 6964-6972.   | 2.6 | 38        |
| 39 | Anode Biofilms of <i>Geothalobacter ferrohydriticus</i> Exhibit Electrochemical Signatures of Multiple Electron Transport Pathways. <i>Langmuir</i> , 2015, 31, 12552-12559.  | 1.6 | 34        |
| 40 | The effect of pH and buffer concentration on anode biofilms of <i>Thermincola ferriacetica</i> . <i>Bioelectrochemistry</i> , 2016, 112, 47-52.   | 2.4 | 34        |
| 41 | Changes in Glucose Fermentation Pathways as a Response to the Free Ammonia Concentration in Microbial Electrolysis Cells. <i>Environmental Science &amp; Technology</i> , 2017, 51, 13461-13470.  | 4.6 | 34        |
| 42 | pH Dependency in Anode Biofilms of <i>Thermincola ferriacetica</i> Suggests a Proton-Dependent Electrochemical Response. <i>Journal of the American Chemical Society</i> , 2018, 140, 5527-5534.  | 6.6 | 34        |
| 43 | Impact of carbon monoxide partial pressures on methanogenesis and medium chain fatty acids production during ethanol fermentation. <i>Biotechnology and Bioengineering</i> , 2018, 115, 341-350.  | 1.7 | 33        |
| 44 | Buffer p <i>K<sub>a</sub></i> and Transport Govern the Concentration Overpotential in Electrochemical Oxygen Reduction at Neutral pH. <i>ChemElectroChem</i> , 2014, 1, 1909-1915.  | 1.7 | 32        |
| 45 | Combining microbial cultures for efficient production of electricity from butyrate in a microbial electrochemical cell. <i>Bioresource Technology</i> , 2014, 169, 169-174.   | 4.8 | 31        |
| 46 | Application of microbial electrolysis cells to treat spent yeast from an alcoholic fermentation. <i>Bioresource Technology</i> , 2016, 200, 342-349.  | 4.8 | 29        |
| 47 | Coupling dark metabolism to electricity generation using photosynthetic cocultures. <i>Biotechnology and Bioengineering</i> , 2014, 111, 223-231.   | 1.7 | 28        |
| 48 | Successful operation of continuous reactors at short retention times results in high-density, fast-rate <i>Dehalococcoides dechlorinating</i> cultures. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 2729-2737.  | 1.7 | 28        |
| 49 | Simultaneous fermentation of cellulose and current production with an enriched mixed culture of thermophilic bacteria in a microbial electrolysis cell. <i>Microbial Biotechnology</i> , 2018, 11, 63-73.   | 2.0 | 26        |
| 50 | Light-responsive current generation by phototrophically enriched anode biofilms dominated by green sulfur bacteria. <i>Biotechnology and Bioengineering</i> , 2013, 110, 1020-1027.   | 1.7 | 25        |
| 51 | The role of homoacetogenic bacteria as efficient hydrogen scavengers in microbial electrochemical cells (MXCs). <i>Water Science and Technology</i> , 2012, 65, 1-6.  | 1.2 | 23        |
| 52 | Relieving the fermentation inhibition enables high electron recovery from landfill leachate in a microbial electrolysis cell. <i>RSC Advances</i> , 2016, 6, 6658-6664.   | 1.7 | 23        |
| 53 | Electrochemical techniques reveal that total ammonium stress increases electron flow to anode respiration in mixed-species bacterial anode biofilms. <i>Biotechnology and Bioengineering</i> , 2017, 114, 1151-1159.  | 1.7 | 21        |
| 54 | Understanding the impact of operational conditions on performance of microbial peroxide producing cells. <i>Journal of Power Sources</i> , 2017, 356, 448-458.  | 4.0 | 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. <i>Chemosphere</i> , 2021, 265, 129088.   | 4.2 | 20        |
| 56 | Electrochemically Driven Photosynthetic Electron Transport in Cyanobacteria Lacking Photosystem II. <i>Journal of the American Chemical Society</i> , 2022, 144, 2933-2942.  | 6.6 | 20        |
| 57 | Evaluating biochemical methane production from brewerâ€™s spent yeast. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2016, 43, 1195-1204.  | 1.4 | 19        |
| 58 | Effect of Pulsed Electric Field Pretreatment on Primary Sludge for Enhanced Bioavailability and Energy Capture. <i>Environmental Engineering Science</i> , 2015, 32, 831-837.  | 0.8 | 16        |
| 59 | Shifting the balance of fermentation products between hydrogen and volatile fatty acids: microbial community structure and function. <i>FEMS Microbiology Ecology</i> , 2016, 92, fiw195.  | 1.3 | 14        |
| 60 | Maximizing Coulombic recovery and solids reduction from primary sludge by controlling retention time and pH in a flat-plate microbial electrolysis cell. <i>Environmental Science: Water Research and Technology</i> , 2017, 3, 333-339.                 | 1.2 | 13        |
| 61 | Draft Genome Sequence of the Gram-Positive Thermophilic Iron Reducer <i>Thermincola ferriacetica</i> Strain Z-0001 <sup>T</sup>. <i>Genome Announcements</i> , 2015, 3, .  | 0.8 | 12        |
| 62 | Carboxylates and alcohols production in an autotrophic hydrogenâ€based membrane biofilm reactor. <i>Biotechnology and Bioengineering</i> , 2021, 118, 2338-2347.   | 1.7 | 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. <i>Journal of Environmental Management</i> , 2022, 307, 114522.   | 3.8 | 9         |
| 65 | Molecular Biological Methods in Environmental Engineering. <i>Water Environment Research</i> , 2011, 83, 927-955.  | 1.3 | 7         |
| 66 | High-rate stabilization of primary sludge in a single-chamber microbial hydrogen peroxide producing cell. <i>Environmental Science: Water Research and Technology</i> , 2019, 5, 1124-1131.  | 1.2 | 7         |
| 67 | Genomes of <i>Geoalkalibacter ferrihydriticus</i> Z-0531 <sup>T</sup> and <i>Geoalkalibacter subterraneus</i> Red1 <sup>T</sup> , Two Haloalkaliphilic Metal-Reducing Deltaproteobacteria. <i>Genome Announcements</i> , 2015, 3, .                      | 0.8 | 6         |
| 68 | Improving microbial fuel cells. <i>Membrane Technology</i> , 2012, 2012, 8-9.  | 0.5 | 5         |
| 69 | Coupled electrokinetic and biological remediation method leads to improved treatment of chlorinated solvents at high sulfate, transport limited sites. <i>Environmental Science: Water Research and Technology</i> , 2020, 6, 2926-2937.                 | 1.2 | 5         |
| 70 | Enhanced antifouling and flux performances of a composite membrane via incorporating <sc>TiO<sub>2</sub></sc> functionalized with hydrophilic groups of Lâ€cysteine for nanofiltration. <i>Polymers for Advanced Technologies</i> , 2022, 33, 1544-1560. | 1.6 | 5         |
| 71 | Advancements in Molecular Techniques and Applications in Environmental Engineering. <i>Water Environment Research</i> , 2012, 84, 814-844.   | 1.3 | 3         |
| 72 | The influence of electrokinetic bioremediation on subsurface microbial communities at a perchloroethylene contaminated site. <i>Applied Microbiology and Biotechnology</i> , 2021, 105, 6489-6497.   | 1.7 | 3         |

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|----|--|-----|-----------|
| 73 | Organic carbon metabolism is a main determinant of hydrogen demand and dynamics in anaerobic soils. <i>Chemosphere</i> , 2022, 303, 134877.  | 4.2 | 3         |
| 74 | Microbial Electrochemical Cells as a Research Tool to Probe Microbial and Biofilm Kinetics. <i>Proceedings of the Water Environment Federation</i> , 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. <i>Proceedings of the Water Environment Federation</i> , 2015, 2015, 1-12.         | 0.0 | 0         |
| 77 | Continuous hydrogen peroxide production in microbial electrochemical cells. <i>Proceedings of the Water Environment Federation</i> , 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. <i>Proceedings of the Water Environment Federation</i> , 2018, 2018, 757-765. | 0.0 | 0         |
| 79 | Improved characterization of anaerobic digestion kinetics of mixed sludges with and without thermally pretreated WAS.. <i>Proceedings of the Water Environment Federation</i> , 2018, 2018, 775-781.                     | 0.0 | 0         |