

Stefano Freguia

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

10,523
citations

117625

34
h-index

62596

80
g-index

85
all docs

85
docs citations

85
times ranked

6854
citing authors

#	ARTICLE	IF	CITATIONS
1	Wastewater fertigation in agriculture: Issues and opportunities for improved water management and circular economy. <i>Environmental Pollution</i> , 2022, 296, 118755.	7.5	58
2	Fate of pharmaceuticals and PFASs during the electrochemical generation of a nitrogen-rich nutrient product from real reject water. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107284.	6.7	3
3	A review of microscopic cell imaging and neural network recognition for synergistic cyanobacteria identification and enumeration. <i>Analytical Sciences</i> , 2022, 38, 261-279.	1.6	5
4	Electro-fermentation: Sustainable bioproductions steered by electricity. <i>Biotechnology Advances</i> , 2022, 59, 107950.	11.7	36
5	Electrochemical oxidation processes for PFAS removal from contaminated water and wastewater: fundamentals, gaps and opportunities towards practical implementation. <i>Journal of Hazardous Materials</i> , 2022, 434, 128886.	12.4	28
6	Impact of source-separation of urine on treatment capacity, process design, and capital expenditure of a decentralised wastewater treatment plant. <i>Chemosphere</i> , 2022, 300, 134489.	8.2	9
7	Electrochemical biofilm control by reconstructing microbial community in agricultural water distribution systems. <i>Journal of Hazardous Materials</i> , 2021, 403, 123616.	12.4	20
8	Extracellular electron transfer by <i>Microcystis aeruginosa</i> is solely driven by high pH. <i>Bioelectrochemistry</i> , 2021, 137, 107637.	4.6	3
9	<i>Synechococcus</i> and Other Bloom-Forming Cyanobacteria Exhibit Unique Redox Signatures. <i>ChemElectroChem</i> , 2021, 8, 360-364.	3.4	1
10	Electrochemical system for selective oxidation of organics over ammonia in urine. <i>Environmental Science: Water Research and Technology</i> , 2021, 7, 942-955.	2.4	3
11	Selective Extraction of Medium-Chain Carboxylic Acids by Electrodialysis and Phase Separation. <i>ACS Omega</i> , 2021, 6, 7841-7850.	3.5	8
12	Implementation of a Sulfide-Air Fuel Cell Coupled to a Sulfate-Reducing Biocathode for Elemental Sulfur Recovery. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 5571.	2.6	7
13	Optimising nitrogen recovery from reject water in a 3-chamber bioelectroconcentration cell. <i>Separation and Purification Technology</i> , 2021, 264, 118428.	7.9	22
14	Impact of source-separation of urine on effluent quality, energy consumption and greenhouse gas emissions of a decentralized wastewater treatment plant. <i>Chemical Engineering Research and Design</i> , 2021, 150, 298-304.	5.6	31
15	Efficient nitrogen removal and recovery from real digested sewage sludge reject water through electroconcentration. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106286.	6.7	19
16	Electro-concentration of urine designed for separation of sodium from nitrogen. <i>Separation and Purification Technology</i> , 2021, 276, 119275.	7.9	2
17	Optimised operational parameters for improved nutrient recovery from hydrolysed urine by bio-electroconcentration. <i>Separation and Purification Technology</i> , 2021, 279, 119793.	7.9	8
18	Fertiliser recovery from source-separated urine via membrane bioreactor and heat localized solar evaporation. <i>Water Research</i> , 2021, 207, 117810.	11.3	16

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19	Staged electrochemical treatment guided by modelling allows for targeted recovery of metals and rare earth elements from acid mine drainage. <i>Journal of Environmental Management</i> , 2020, 275, 111266.	7.8	19
20	Urine Treatment on the International Space Station: Current Practice and Novel Approaches. <i>Membranes</i> , 2020, 10, 327.	3.0	33
21	Energy recovery through reverse electrodialysis: Harnessing the salinity gradient from the flushing of human urine. <i>Water Research</i> , 2020, 186, 116320.	11.3	17
22	Self-Powered Bioelectrochemical Nutrient Recovery for Fertilizer Generation from Human Urine. <i>Sustainability</i> , 2019, 11, 5490.	3.2	36
23	Nutrient Recovery by Bio-Electroconcentration is Limited by Wastewater Conductivity. <i>ACS Omega</i> , 2019, 4, 2152-2159.	3.5	29
24	Biomimetic Peptide Nanowires Designed for Conductivity. <i>ACS Omega</i> , 2019, 4, 1748-1756.	3.5	19
25	Recovery of elemental sulfur with a novel integrated bioelectrochemical system with an electrochemical cell. <i>Science of the Total Environment</i> , 2019, 677, 175-183.	8.0	20
26	Microbial electrosynthesis system with dual biocathode arrangement for simultaneous acetogenesis, solventogenesis and carbon chain elongation. <i>Chemical Communications</i> , 2019, 55, 4351-4354.	4.1	60
27	Bioelectrochemical Denitrification for the Treatment of Saltwater Recirculating Aquaculture Streams. <i>ACS Omega</i> , 2018, 3, 4252-4261.	3.5	12
28	Electro-concentration for chemical-free nitrogen capture as solid ammonium bicarbonate. <i>Separation and Purification Technology</i> , 2018, 203, 48-55.	7.9	24
29	Microbial nanowires – Electron transport and the role of synthetic analogues. <i>Acta Biomaterialia</i> , 2018, 69, 1-30.	8.3	51
30	Electroactive haloalkaliphiles exhibit exceptional tolerance to free ammonia. <i>FEMS Microbiology Letters</i> , 2018, 365, .	1.8	4
31	Electroactive microorganisms and microbial consortia. <i>Bioelectrochemistry</i> , 2018, 120, 110-111.	4.6	5
32	A modelling approach to assess the long-term stability of a novel microbial/electrochemical system for the treatment of acid mine drainage. <i>RSC Advances</i> , 2018, 8, 18682-18689.	3.6	6
33	Microbial Electrosynthesis of Isobutyric, Butyric, Caproic Acids, and Corresponding Alcohols from Carbon Dioxide. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 8485-8493.	6.7	174
34	Webcasts promote in-class active participation and learning in an engineering elective course. <i>European Journal of Engineering Education</i> , 2017, 42, 482-492.	2.3	5
35	Recovering Nitrogen as a Solid without Chemical Dosing: Bio-Electroconcentration for Recovery of Nutrients from Urine. <i>Environmental Science and Technology Letters</i> , 2017, 4, 119-124.	8.7	96
36	Redox-Polymers Enable Uninterrupted Day/Night Photo-Driven Electricity Generation in Biophotovoltaic Devices. <i>Journal of the Electrochemical Society</i> , 2017, 164, H3037-H3040.	2.9	13

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37	A novel bioelectrochemical system for chemical-free permanent treatment of acid mine drainage. <i>Water Research</i> , 2017, 126, 411-420.	11.3	60
38	Selective cathodic microbial biofilm retention allows a high current-to-sulfide efficiency in sulfate-reducing microbial electrolysis cells. <i>Bioelectrochemistry</i> , 2017, 118, 62-69.	4.6	22
39	Modelling recovery of ammonium from urine by electro-concentration in a 3-chamber cell. <i>Water Research</i> , 2017, 124, 210-218.	11.3	28
40	Fundamentals of Microbial Electrochemical Systems. , 2017, , 51-75.		0
41	Biologically Induced Hydrogen Production Drives High Rate/High Efficiency Microbial Electrosynthesis of Acetate from Carbon Dioxide. <i>ChemElectroChem</i> , 2016, 3, 581-591.	3.4	122
42	Nitrite addition to acidified sludge significantly improves digestibility, toxic metal removal, dewaterability and pathogen reduction. <i>Scientific Reports</i> , 2016, 6, 39795.	3.3	5
43	Cathodic biofilm activates electrode surface and achieves efficient autotrophic sulfate reduction. <i>Electrochimica Acta</i> , 2016, 213, 66-74.	5.2	27
44	Bringing High-Rate, CO ₂ -Based Microbial Electrosynthesis Closer to Practical Implementation through Improved Electrode Design and Operating Conditions. <i>Environmental Science & Technology</i> , 2016, 50, 1982-1989.	10.0	141
45	Marine phototrophic consortia transfer electrons to electrodes in response to reductive stress. <i>Photosynthesis Research</i> , 2016, 127, 347-354.	2.9	15
46	Oxidised stainless steel: a very effective electrode material for microbial fuel cell bioanodes but at high risk of corrosion. <i>Electrochimica Acta</i> , 2015, 158, 356-360.	5.2	47
47	Enhancing Toxic Metal Removal from Acidified Sludge with Nitrite Addition. <i>Environmental Science & Technology</i> , 2015, 49, 6257-6263.	10.0	35
48	Source-separated urine opens golden opportunities for microbial electrochemical technologies. <i>Trends in Biotechnology</i> , 2015, 33, 214-220.	9.3	156
49	Development of bioelectrocatalytic activity stimulates mixed-culture reduction of glycerol in a bioelectrochemical system. <i>Microbial Biotechnology</i> , 2015, 8, 483-489.	4.2	34
50	High Acetic Acid Production Rate Obtained by Microbial Electrosynthesis from Carbon Dioxide. <i>Environmental Science & Technology</i> , 2015, 49, 13566-13574.	10.0	241
51	<i>Methanobacterium</i> enables high rate electricity-driven autotrophic sulfate reduction. <i>RSC Advances</i> , 2015, 5, 89368-89374.	3.6	35
52	Dissimilatory nitrate reduction to ammonium as an electron sink during cathodic denitrification. <i>RSC Advances</i> , 2015, 5, 86572-86577.	3.6	25
53	Fully reversible current driven by a dual marine photosynthetic microbial community. <i>Bioresource Technology</i> , 2015, 195, 248-253.	9.6	12
54	Autotrophic hydrogen-producing biofilm growth sustained by a cathode as the sole electron and energy source. <i>Bioelectrochemistry</i> , 2015, 102, 56-63.	4.6	71

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55	Electrochemical Abatement of Hydrogen Sulfide from Waste Streams. <i>Critical Reviews in Environmental Science and Technology</i> , 2015, 45, 1555-1578.	12.8	75
56	Oxygen Suppresses Light-Driven Anodic Current Generation by a Mixed Phototrophic Culture. <i>Environmental Science & Technology</i> , 2014, 48, 14000-14006.	10.0	17
57	A novel carbon nanotube modified scaffold as an efficient biocathode material for improved microbial electrosynthesis. <i>Journal of Materials Chemistry A</i> , 2014, 2, 13093-13102.	10.3	236
58	Flame Oxidation of Stainless Steel Felt Enhances Anodic Biofilm Formation and Current Output in Bioelectrochemical Systems. <i>Environmental Science & Technology</i> , 2014, 48, 7151-7156.	10.0	131
59	Surfactant treatment of carbon felt enhances anodic microbial electrocatalysis in bioelectrochemical systems. <i>Electrochemistry Communications</i> , 2014, 39, 1-4.	4.7	46
60	Wastewater Treatment (Microbial Bioelectrochemical) and Production of Value-Added By-Products. , 2014, , 2111-2117.		1
61	Anodic Reactivity of Ferrous Sulfide Precipitates Changing over Time due to Particulate Speciation. <i>Environmental Science & Technology</i> , 2013, 47, 12366-12373.	10.0	9
62	Spontaneous modification of carbon surface with neutral red from its diazonium salts for bioelectrochemical systems. <i>Biosensors and Bioelectronics</i> , 2013, 47, 184-189.	10.1	37
63	Effects of Surface Charge and Hydrophobicity on Anodic Biofilm Formation, Community Composition, and Current Generation in Bioelectrochemical Systems. <i>Environmental Science & Technology</i> , 2013, 47, 7563-7570.	10.0	294
64	Carbon and Electron Fluxes during the Electricity Driven 1,3-Propanediol Biosynthesis from Glycerol. <i>Environmental Science & Technology</i> , 2013, 47, 11199-11205.	10.0	86
65	Dynamically Adaptive Control System for Bioanodes in Serially Stacked Bioelectrochemical Systems. <i>Environmental Science & Technology</i> , 2013, 47, 5488-5494.	10.0	31
66	Bioelectrochemical systems: Microbial versus enzymatic catalysis. <i>Electrochimica Acta</i> , 2012, 82, 165-174.	5.2	57
67	A Basic Tutorial on Cyclic Voltammetry for the Investigation of Electroactive Microbial Biofilms. <i>Chemistry - an Asian Journal</i> , 2012, 7, 466-475.	3.3	189
68	Electron transfer pathways in microbial oxygen biocathodes. <i>Electrochimica Acta</i> , 2010, 55, 813-818.	5.2	151
69	Effects of oxygen on <i>Shewanella decolorationis</i> NT0U1 electron transfer to carbon-felt electrodes. <i>Biosensors and Bioelectronics</i> , 2010, 25, 2651-2656.	10.1	33
70	Flavins contained in yeast extract are exploited for anodic electron transfer by <i>Lactococcus lactis</i> . <i>Bioelectrochemistry</i> , 2010, 78, 173-175.	4.6	87
71	Microbial fuel cells operating on mixed fatty acids. <i>Bioresource Technology</i> , 2010, 101, 1233-1238.	9.6	188
72	<i>Lactococcus lactis</i> catalyses electricity generation at microbial fuel cell anodes via excretion of a soluble quinone. <i>Bioelectrochemistry</i> , 2009, 76, 14-18.	4.6	144

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73	The anode potential regulates bacterial activity in microbial fuel cells. <i>Applied Microbiology and Biotechnology</i> , 2008, 78, 409-418.	3.6	350
74	Cathodic oxygen reduction catalyzed by bacteria in microbial fuel cells. <i>ISME Journal</i> , 2008, 2, 519-527.	9.8	268
75	Sequential anode-cathode configuration improves cathodic oxygen reduction and effluent quality of microbial fuel cells. <i>Water Research</i> , 2008, 42, 1387-1396.	11.3	181
76	Syntrophic Processes Drive the Conversion of Glucose in Microbial Fuel Cell Anodes. <i>Environmental Science & Technology</i> , 2008, 42, 7937-7943.	10.0	186
77	Electron and Carbon Balances in Microbial Fuel Cells Reveal Temporary Bacterial Storage Behavior During Electricity Generation. <i>Environmental Science & Technology</i> , 2007, 41, 2915-2921.	10.0	231
78	Non-catalyzed cathodic oxygen reduction at graphite granules in microbial fuel cells. <i>Electrochimica Acta</i> , 2007, 53, 598-603.	5.2	250
79	Microbial Fuel Cells: A Methodology and Technology. <i>Environmental Science & Technology</i> , 2006, 40, 5181-5192.	10.0	4,962
80	Modeling of CO ₂ capture by aqueous monoethanolamine. <i>AIChE Journal</i> , 2003, 49, 1676-1686.	3.6	302
81	Coke-oven wastewater treatment in a dual-chamber microbial fuel cell with thiocyanate-degrading biofilm enriched at the air cathode. <i>Water Science and Technology</i> , 0, , .	2.5	1