

Jia Liu

List of Publications by Year in descending order

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109
papers

4,319
citations

87843

38
h-index

123376

61
g-index

110
all docs

110
docs citations

110
times ranked

3783
citing authors

#	ARTICLE	IF	CITATIONS
1	A 90-liter stackable baffled microbial fuel cell for brewery wastewater treatment based on energy self-sufficient mode. <i>Bioresource Technology</i> , 2015, 195, 66-72.	4.8	264
2	A horizontal plug flow and stackable pilot microbial fuel cell for municipal wastewater treatment. <i>Bioresource Technology</i> , 2014, 156, 132-138.	4.8	237
3	Sequestration of CO ₂ discharged from anode by algal cathode in microbial carbon capture cells (MCCs). <i>Biosensors and Bioelectronics</i> , 2010, 25, 2639-2643.	5.3	214
4	A thermally regenerative ammonia-based battery for efficient harvesting of low-grade thermal energy as electrical power. <i>Energy and Environmental Science</i> , 2015, 8, 343-349.	15.6	165
5	Simultaneous water desalination and electricity generation in a microbial desalination cell with electrolyte recirculation for pH control. <i>Bioresource Technology</i> , 2012, 106, 89-94.	4.8	159
6	Long-Term Performance of Chemically and Physically Modified Activated Carbons in Air Cathodes of Microbial Fuel Cells. <i>ChemElectroChem</i> , 2014, 1, 1859-1866.	1.7	143
7	Surface properties of activated sludge-derived biochar determine the facilitating effects on <i>Geobacter</i> co-cultures. <i>Water Research</i> , 2018, 142, 441-451.	5.3	104
8	Enhanced electricity generation and extracellular electron transfer by polydopamine-reduced graphene oxide (PDA-rGO) modification for high-performance anode in microbial fuel cell. <i>Chemical Engineering Journal</i> , 2020, 387, 123408.	6.6	97
9	Enhanced electron transfer and methane production from low-strength wastewater using a new granular activated carbon modified with nano-Fe ₃ O ₄ . <i>Chemical Engineering Journal</i> , 2019, 374, 1344-1352.	6.6	94
10	Electricity Generation and Pollutant Degradation Using a Novel Biocathode Coupled Photoelectrochemical Cell. <i>Environmental Science & Technology</i> , 2014, 48, 7634-7641.	4.6	90
11	Enhanced electricity generation for microbial fuel cell by using electrochemical oxidation to modify carbon cloth anode. <i>Journal of Power Sources</i> , 2014, 265, 391-396.	4.0	87
12	Enhancing Low-Grade Thermal Energy Recovery in a Thermally Regenerative Ammonia Battery Using Elevated Temperatures. <i>ChemSusChem</i> , 2015, 8, 1043-1048.	3.6	84
13	Nanomaterials for facilitating microbial extracellular electron transfer: Recent progress and challenges. <i>Bioelectrochemistry</i> , 2018, 123, 190-200.	2.4	83
14	Field tests of cubic-meter scale microbial electrochemical system in a municipal wastewater treatment plant. <i>Water Research</i> , 2019, 155, 372-380.	5.3	83
15	Application of nitrogen-doped carbon powders as low-cost and durable cathodic catalyst to air-cathode microbial fuel cells. <i>Bioresource Technology</i> , 2012, 108, 89-93.	4.8	81
16	Methane Production in Microbial Reverse-Electrodialysis Methanogenesis Cells (MRMCs) Using Thermolytic Solutions. <i>Environmental Science & Technology</i> , 2014, 48, 8911-8918.	4.6	76
17	MOF-Derived Cu ₂ O/Cu Nanospheres Anchored in Nitrogen-Doped Hollow Porous Carbon Framework for Increasing the Selectivity and Activity of Electrochemical CO ₂ -to-Formate Conversion. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 7030-7037.	4.0	69
18	Salt removal using multiple microbial desalination cells under continuous flow conditions. <i>Desalination</i> , 2013, 317, 17-22.	4.0	67

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19	Enhanced performance of microbial fuel cell with a bacteria/multi-walled carbon nanotube hybrid biofilm. <i>Journal of Power Sources</i> , 2017, 361, 318-325.	4.0	63
20	Intermittent contact of fluidized anode particles containing exoelectrogenic biofilms for continuous power generation in microbial fuel cells. <i>Journal of Power Sources</i> , 2014, 261, 278-284.	4.0	62
21	Reference and counter electrode positions affect electrochemical characterization of bioanodes in different bioelectrochemical systems. <i>Biotechnology and Bioengineering</i> , 2014, 111, 1931-1939.	1.7	61
22	Using ammonium bicarbonate as pore former in activated carbon catalyst layer to enhance performance of air cathode microbial fuel cell. <i>Journal of Power Sources</i> , 2014, 272, 909-914.	4.0	60
23	Patterned ion exchange membranes for improved power production in microbial reverse-electrodialysis cells. <i>Journal of Power Sources</i> , 2014, 271, 437-443.	4.0	58
24	Tuning the pore structure of porous tin foam electrodes for enhanced electrochemical reduction of carbon dioxide to formate. <i>Chemical Engineering Journal</i> , 2019, 375, 122024.	6.6	56
25	Enhanced <i>Shewanella oneidensis</i> MR-1 anode performance by adding fumarate in microbial fuel cell. <i>Chemical Engineering Journal</i> , 2017, 328, 697-702.	6.6	54
26	Efficient photocatalytic CO ₂ reduction by P=O linked g-C ₃ N ₄ /TiO ₂ -nanotubes Z-scheme composites. <i>Energy</i> , 2019, 178, 168-175.	4.5	52
27	A combined system of microbial fuel cell and intermittently aerated biological filter for energy self-sufficient wastewater treatment. <i>Scientific Reports</i> , 2015, 5, 18070.	1.6	49
28	Microbial fuel cells with an integrated spacer and separate anode and cathode modules. <i>Environmental Science: Water Research and Technology</i> , 2016, 2, 186-195.	1.2	49
29	Onsite bio-detoxification of steam-exploded corn stover for cellulosic ethanol production. <i>Bioresource Technology</i> , 2011, 102, 5123-5128.	4.8	47
30	Effects of sulfide on microbial fuel cells with platinum and nitrogen-doped carbon powder cathodes. <i>Biosensors and Bioelectronics</i> , 2012, 35, 413-415.	5.3	45
31	Power generation using adjustable Nafion/PTFE mixed binders in air-cathode microbial fuel cells. <i>Biosensors and Bioelectronics</i> , 2010, 26, 946-948.	5.3	42
32	A microbial fluidized electrode electrolysis cell (MFEEC) for enhanced hydrogen production. <i>Journal of Power Sources</i> , 2014, 271, 530-533.	4.0	42
33	Combined effects of carbon, phosphorus and nitrogen on lipid accumulation of <i>Chlorella vulgaris</i> in mixotrophic culture. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 680-684.	1.6	42
34	The effect of water proofing on the performance of nickel foam cathode in microbial fuel cells. <i>Journal of Power Sources</i> , 2012, 198, 100-104.	4.0	40
35	Coupling interaction of cathodic reduction and microbial metabolism in aerobic biocathode of microbial fuel cell. <i>RSC Advances</i> , 2014, 4, 34350-34355.	1.7	40
36	Preparation of Al=O-Linked Porous-g-C ₃ N ₄ /TiO ₂ -Nanotube Z-Scheme Composites for Efficient Photocatalytic CO ₂ Conversion and 2,4-Dichlorophenol Decomposition and Mechanism. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 15289-15296.	3.2	40

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37	The use of double-sided cloth without diffusion layers as air-cathode in microbial fuel cells. <i>Journal of Power Sources</i> , 2011, 196, 8409-8412.	4.0	39
38	The electrochemical behavior of three air cathodes for microbial electrochemical system (MES) under meter scale water pressure. <i>Journal of Power Sources</i> , 2014, 267, 219-226.	4.0	39
39	Diffusion layer characteristics for increasing the performance of activated carbon air cathodes in microbial fuel cells. <i>Environmental Science: Water Research and Technology</i> , 2016, 2, 266-273.	1.2	38
40	Enhanced electricity generation and effective water filtration using graphene-based membrane air-cathodes in microbial fuel cells. <i>Journal of Power Sources</i> , 2018, 395, 221-227.	4.0	36
41	Enhanced nutrients enrichment and removal from eutrophic water using a self-sustaining in situ photomicrobial nutrients recovery cell (PNRC). <i>Water Research</i> , 2019, 167, 115097.	5.3	33
42	Efficient CO ₂ conversion to formic acid in a novel microbial photoelectrochemical cell using a visible-light responsive Co ₃ O ₄ nanorod-arrayed photocathode. <i>Applied Catalysis B: Environmental</i> , 2020, 276, 119102.	10.8	33
43	Poly(vinylidene fluoride-co-hexafluoropropylene) phase inversion coating as a diffusion layer to enhance the cathode performance in microbial fuel cells. <i>Journal of Power Sources</i> , 2014, 269, 379-384.	4.0	29
44	Cascade degradation of organic matters in brewery wastewater using a continuous stirred microbial electrochemical reactor and analysis of microbial communities. <i>Scientific Reports</i> , 2016, 6, 27023.	1.6	29
45	Synergistic effect between poly(diallyldimethylammonium chloride) and reduced graphene oxide for high electrochemically active biofilm in microbial fuel cell. <i>Electrochimica Acta</i> , 2020, 359, 136949.	2.6	29
46	Electrosynthesis of H ₂ O ₂ through a two-electron oxygen reduction reaction by carbon based catalysts: From mechanism, catalyst design to electrode fabrication. <i>Environmental Science and Ecotechnology</i> , 2022, 11, 100170.	6.7	29
47	A Pilot-scale Benthic Microbial Electrochemical System (BMES) for Enhanced Organic Removal in Sediment Restoration. <i>Scientific Reports</i> , 2017, 7, 39802.	1.6	27
48	Fabrication of Bi/Sn bimetallic electrode for high-performance electrochemical reduction of carbon dioxide to formate. <i>Chemical Engineering Journal</i> , 2022, 428, 130901.	6.6	27
49	Tailoring spatial structure of electroactive biofilm for enhanced activity and direct electron transfer on iron phthalocyanine modified anode in microbial fuel cells. <i>Biosensors and Bioelectronics</i> , 2021, 191, 113410.	5.3	26
50	Enhanced catalytic activity and inhibited biofouling of cathode in microbial fuel cells through controlling hydrophilic property. <i>Journal of Power Sources</i> , 2016, 332, 454-460.	4.0	25
51	Operation strategy of cubic-meter scale microbial electrochemistry system in a municipal wastewater treatment plant. <i>Journal of Power Sources</i> , 2019, 441, 227124.	4.0	25
52	Tailoring Surface Properties of Electrodes for Synchronous Enhanced Extracellular Electron Transfer and Enriched Exoelectrogens in Microbial Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 58508-58521.	4.0	25
53	In-situ Cu(II) enrichment and recovery from low-strength copper-laden wastewater using a novel electrically enhanced microbial copper recovery cell (MCRC). <i>Chemical Engineering Journal</i> , 2020, 382, 122788.	6.6	24
54	Analysis of the effect of biofouling distribution on electricity output in microbial fuel cells. <i>RSC Advances</i> , 2016, 6, 27494-27500.	1.7	23

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55	Enhanced electricity generation and water pressure tolerance using carbon black-based sintered filtration air-cathodes in microbial fuel cells. <i>Chemical Engineering Journal</i> , 2019, 369, 652-659.	6.6	23
56	Pressurized air cathodes for enhanced stability and power generation by microbial fuel cells. <i>Journal of Power Sources</i> , 2016, 332, 447-453.	4.0	22
57	Enhanced Oxygen and Hydroxide Transport in a Cathode Interface by Efficient Antibacterial Property of a Silver Nanoparticle-Modified, Activated Carbon Cathode in Microbial Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 20814-20821.	4.0	22
58	Electroreduction of CO ₂ to formate with excellent selectivity and stability on nano-dendrite Bi film electrode. <i>Journal of CO₂ Utilization</i> , 2021, 43, 101360.	3.3	22
59	Electricity generation using eight amino acids by air-cathode microbial fuel cells. <i>Fuel</i> , 2012, 102, 478-482.	3.4	21
60	Electrochemical reduction of carbon dioxide to formate via nano-prism assembled CuO microspheres. <i>Chemosphere</i> , 2019, 237, 124527.	4.2	21
61	Electrochemical regulation on the metabolism of anode biofilms under persistent exogenous bacteria interference. <i>Electrochimica Acta</i> , 2020, 340, 135922.	2.6	20
62	Effects of ammonia on electrochemical active biofilm in microbial electrolysis cells for synthetic swine wastewater treatment. <i>Water Research</i> , 2022, 219, 118570.	5.3	20
63	Effects of high ammonia loading and in-situ short-cut nitrification in low carbon-nitrogen ratio wastewater treatment by biocathode microbial electrochemical system. <i>Science of the Total Environment</i> , 2021, 755, 142641.	3.9	19
64	A novel boost circuit design and in situ electricity application for elemental sulfur recovery. <i>Journal of Power Sources</i> , 2014, 248, 317-322.	4.0	18
65	Microwave-assisted synthesis of nitrogen-doped activated carbon as an oxygen reduction catalyst in microbial fuel cells. <i>RSC Advances</i> , 2016, 6, 90410-90416.	1.7	18
66	Wafer-scale metamaterials for polarization-insensitive and dual-band perfect absorption. <i>Nanoscale</i> , 2015, 7, 18914-18917.	2.8	17
67	Simultaneous current generation and ammonia recovery from real urine using nitrogen-purged bioelectrochemical systems. <i>RSC Advances</i> , 2015, 5, 70371-70378.	1.7	16
68	Microwave (MW)-assisted design of cobalt anchored 2D graphene-like carbon nanosheets (Co@GCNs) as peroxymonosulfate activator for tetracycline degradation and insight into the catalytic mechanism. <i>Separation and Purification Technology</i> , 2022, 295, 121358.	3.9	16
69	Performance of a batch two-chambered microbial fuel cell operated at different anode potentials. <i>Journal of Chemical Technology and Biotechnology</i> , 2011, 86, 590-594.	1.6	15
70	Effects of azide on electron transport of exoelectrogens in air-cathode microbial fuel cells. <i>Bioresource Technology</i> , 2014, 169, 265-270.	4.8	15
71	Enhanced Power Generation of Oxygen-Reducing Biocathode with an Alternating Hydrophobic and Hydrophilic Surface. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 31995-32003.	4.0	15
72	Self-driving CO ₂ -to-formate electro-conversion on Bi film electrode in novel microbial reverse-electrodialysis CO ₂ reduction cell. <i>Chemical Engineering Journal</i> , 2021, 414, 128671.	6.6	15

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73	Effect of long-term operation on stability and electrochemical response under water pressure for activated carbon cathodes in microbial fuel cells. <i>Chemical Engineering Journal</i> , 2016, 299, 314-319.	6.6	14
74	Graphene family for hydrogen peroxide production in electrochemical system. <i>Science of the Total Environment</i> , 2021, 769, 144491.	3.9	14
75	Energy-positive nitrogen removal from reject water using a tide-type biocathode microbial electrochemical system. <i>Bioresource Technology</i> , 2016, 222, 317-325.	4.8	13
76	Fabrication of Nano-Structured Stacked Sphere SnO ₂ -Sb Electrode with Enhanced Performance Using a Situ Solvothermal Synthesis Method. <i>Journal of the Electrochemical Society</i> , 2018, 165, E208-E213.	1.3	13
77	Enhanced antifouling performance for modified carbon nanotubes filtration cathode by the electric field. <i>Journal of Power Sources</i> , 2018, 400, 493-501.	4.0	13
78	Heterotopic formaldehyde biodegradation through UV/H ₂ O ₂ system with biosynthetic H ₂ O ₂ . <i>Water Environment Research</i> , 2019, 91, 598-605.	1.3	13
79	In-situ enrichment and removal of Cu(II) and Cd(II) from low-strength wastewater by a novel microbial metals enrichment and recovery cell (MMERC). <i>Journal of Power Sources</i> , 2020, 451, 227627.	4.0	13
80	Heterogeneous Structure Regulated by Selection Pressure on Bacterial Adhesion Optimized the Viability Stratification Structure of Electroactive Biofilms. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 2754-2767.	4.0	13
81	A new design of activated carbon membrane air-cathode for wastewater treatment and energy recovery. <i>RSC Advances</i> , 2016, 6, 4587-4592.	1.7	12
82	Enhanced Electricity Generation and Pollutant Degradation by Hybrid Photoelectrochemical and Microbial Fuel Cells. <i>Energy Technology</i> , 2017, 5, 402-405.	1.8	12
83	Analysis of Anodes of Microbial Fuel Cells When Carbon Brushes Are Preheated at Different Temperatures. <i>Catalysts</i> , 2017, 7, 312.	1.6	12
84	A novel single chamber vertical baffle flow biocathode microbial electrochemical system with microbial separator. <i>Bioresource Technology</i> , 2019, 294, 122236.	4.8	12
85	Formate production from CO ₂ electroreduction in a salinity-gradient energy intensified microbial electrochemical system. <i>Bioresource Technology</i> , 2021, 320, 124292.	4.8	12
86	Economic affordable carbonized phenolic foam anode with controlled structure for microbial fuel cells. <i>Science of the Total Environment</i> , 2022, 810, 151314.	3.9	12
87	Effects of azide on current generation and microbial community in air-cathode MFCs. <i>RSC Advances</i> , 2015, 5, 14235-14241.	1.7	11
88	Conjugated oligoelectrolyte represses hydrogen oxidation by <i>Geobacter sulfurreducens</i> in microbial electrolysis cells. <i>Bioelectrochemistry</i> , 2015, 106, 379-382.	2.4	11
89	Enhanced photocatalytic CO ₂ reduction and 2,4-dichlorophenol degradation of TiO ₂ nanotubes via bi-directionally controlling electrons and holes. <i>Chemosphere</i> , 2019, 226, 704-714.	4.2	11
90	Surface modification by β -cyclodextrin/polyquaternium-11 composite for enhanced biofilm formation in microbial fuel cells. <i>Journal of Power Sources</i> , 2020, 480, 228789.	4.0	11

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91	Enhanced electrocatalytic activity and antifouling performance by iron phthalocyanine doped filtration membrane cathode. <i>Chemical Engineering Journal</i> , 2021, 413, 127536.	6.6	11
92	Factors affecting microalgae harvesting efficiencies using electrocoagulation-flotation for lipid extraction. <i>RSC Advances</i> , 2015, 5, 5795-5800.	1.7	10
93	Energy efficient bioelectro-concentration and recovery system of nutrients from human urine by integrating forward osmosis. <i>Resources, Conservation and Recycling</i> , 2022, 181, 106253.	5.3	10
94	Repression of hydrogen uptake using conjugated oligoelectrolytes in microbial electrolysis cells. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 19407-19415.	3.8	9
95	Thermal reduced graphene oxide enhanced in-situ H ₂ O ₂ generation and electrochemical advanced oxidation performance of air-breathing cathode. <i>Environmental Research</i> , 2022, 204, 112327.	3.7	9
96	Simultaneous nutrient-energy recovery from source-separated urine based on bioelectrically enhanced bipolar membrane-driven in-situ alkali production coupling with gas-permeable membrane system. <i>Chemical Engineering Journal</i> , 2022, 431, 134161.	6.6	9
97	The influence of the filtration membrane air-cathode biofilm on wastewater treatment. <i>Bioresource Technology</i> , 2018, 256, 17-21.	4.8	8
98	Enhanced Charge Separation of TiO ₂ Nanotubes Photoelectrode for Efficient Conversion of CO ₂ . <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 12953-12960.	3.2	8
99	Carbon-Based Materials in Microbial Fuel Cells. , 2019, , 49-74.		8
100	Improved membrane permeability with cetyltrimethylammonium bromide (CTAB) addition for enhanced bidirectional transport of substrate and electron shuttles. <i>Science of the Total Environment</i> , 2022, 822, 153443.	3.9	7
101	Boosting oxygen reduction and permeability properties of doped iron-porphyrin membrane cathode in microbial fuel cells. <i>Bioresource Technology</i> , 2021, 320, 124343.	4.8	6
102	Enhanced oxygen reduction activity and high-quality effluent of membrane filtration electrodes with Prussian blue in microbial fuel cells. <i>Science of the Total Environment</i> , 2021, 753, 142021.	3.9	6
103	Simultaneous recovery of nutrients and power generation from source-separated urine based on bioelectrical coupling with the hydrophobic gas permeable tube system. <i>Science of the Total Environment</i> , 2022, 824, 153788.	3.9	6
104	Accelerating the extracellular electron transfer of <i>Shewanella oneidensis</i> MR-1 by carbon dots: The role of carbon dots concentration. <i>Electrochimica Acta</i> , 2022, 421, 140490.	2.6	6
105	Preparation of a magnetic and recyclable superparamagnetic silica support with a boronic acid group for immobilizing Pd catalysts and its applications in Suzuki reactions. <i>RSC Advances</i> , 2021, 11, 33692-33702.	1.7	5
106	Preparation of boronic acid and carboxylate-modified molecularly imprinted polymer and application in a novel chromatography mediated hollow fiber membrane to selectively extract glucose from cellulose hydrolysis. <i>Journal of Separation Science</i> , 2022, 45, 2415-2428.	1.3	4
107	High performance cathode membrane by using zinc phthalocyanine for improved oxygen reduction reaction activity and reduced membrane fouling. <i>Journal of Power Sources</i> , 2021, 509, 230365.	4.0	2
108	The Effect of Carbon Particle-Size on N-Doped Carbon Catalyst for Oxygen Reduction Reaction in Microbial Fuel Cells. <i>Applied Mechanics and Materials</i> , 2012, 178-181, 495-498.	0.2	1

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109	Azide as an oxidant in the cathodic reaction of bioelectrochemical systems (BESs). RSC Advances, 2015, 5, 97076-97079.	1.7	1