Weihua He

List of Publications by Year
in descending order

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79 papers	4,220 citations	101543 36 h-index	114465 63 g-index
79 all docs	79 docs citations	79 times ranked	3180 citing authors

#	Article	IF	Citations
1	Assessment of Microbial Fuel Cell Configurations and Power Densities. Environmental Science and Technology Letters, 2015, 2, 206-214.	8.7	423
2	A 90-liter stackable baffled microbial fuel cell for brewery wastewater treatment based on energy self-sufficient mode. Bioresource Technology, 2015, 195, 66-72.	9.6	264
3	A horizontal plug flow and stackable pilot microbial fuel cell for municipal wastewater treatment. Bioresource Technology, 2014, 156, 132-138.	9.6	237
4	COD removal characteristics in air-cathode microbial fuel cells. Bioresource Technology, 2015, 176, 23-31.	9.6	209
5	Simultaneous water desalination and electricity generation in a microbial desalination cell with electrolyte recirculation for pH control. Bioresource Technology, 2012, 106, 89-94.	9.6	159
6	Single-Step Fabrication Using a Phase Inversion Method of Poly(vinylidene fluoride) (PVDF) Activated Carbon Air Cathodes for Microbial Fuel Cells. Environmental Science and Technology Letters, 2014, 1, 416-420.	8.7	145
7	Longâ€Term Performance of Chemically and Physically Modified Activated Carbons in Air Cathodes of Microbial Fuel Cells. ChemElectroChem, 2014, 1, 1859-1866.	3.4	143
8	Continuous electricity generation by a graphite granule baffled airâ€“cathode microbial fuel cell. Bioresource Technology, 2010, 101, 632-638.	9.6	98
9	Enhanced electricity generation and extracellular electron transfer by polydopamineâ€“reduced graphene oxide (PDAâ€“rGO) modification for high-performance anode in microbial fuel cell. Chemical Engineering Journal, 2020, 387, 123408.	12.7	97
10	Enhanced electron transfer and methane production from low-strength wastewater using a new granular activated carbon modified with nano-Fe3O4. Chemical Engineering Journal, 2019, 374, 1344-1352.	12.7	94
11	Bread-derived 3D macroporous carbon foams as high performance free-standing anode in microbial fuel cells. Biosensors and Bioelectronics, 2018, 122, 217-223.	10.1	91
12	Enhanced electricity generation for microbial fuel cell by using electrochemical oxidation to modify carbon cloth anode. Journal of Power Sources, 2014, 265, 391-396.	7.8	87
13	The effect of flow modes and electrode combinations on the performance of a multiple module microbial fuel cell installed at wastewater treatment plant. Water Research, 2016, 105, 351-360.	11.3	86
14	Nanomaterials for facilitating microbial extracellular electron transfer: Recent progress and challenges. Bioelectrochemistry, 2018, 123, 190-200.	4.6	83
15	Field tests of cubic-meter scale microbial electrochemical system in a municipal wastewater treatment plant. Water Research, 2019, 155, 372-380.	11.3	83
16	Remediation of nitrate contamination by membrane hydrogenotrophic denitrifying biofilm integrated in microbial electrolysis cell. Water Research, 2021, 188, 116498.	11.3	82
17	Application of nitrogen-doped carbon powders as low-cost and durable cathodic catalyst to airâ€“cathode microbial fuel cells. Bioresource Technology, 2012, 108, 89-93.	9.6	81
18	Influence of solution concentration and salt types on the performance of reverse electrodialysis cells. Journal of Membrane Science, 2015, 494, 154-160.	8.2	78

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19	Combined carbon mesh and small graphite fiber brush anodes to enhance and stabilize power generation in microbial fuel cells treating domestic wastewater. Journal of Power Sources, 2017, 356, 348-355.	7.8	77
20	Reducing pumping energy by using different flow rates of high and low concentration solutions in reverse electrodialysis cells. Journal of Membrane Science, 2015, 486, 215-221.	8.2	75
21	Bidirectional electron transfer biofilm assisted complete bioelectrochemical denitrification process. Chemical Engineering Journal, 2019, 375, 121960.	12.7	71
22	Salt removal using multiple microbial desalination cells under continuous flow conditions. Desalination, 2013, 317, 17-22.	8.2	67
23	Intermittent contact of fluidized anode particles containing exoelectrogenic biofilms for continuous power generation in microbial fuel cells. Journal of Power Sources, 2014, 261, 278-284.	7.8	62
24	Using ammonium bicarbonate as pore former in activated carbon catalyst layer to enhance performance of air cathode microbial fuel cell. Journal of Power Sources, 2014, 272, 909-914.	7.8	60
25	Degradation of raw corn stover powder (RCSP) by an enriched microbial consortium and its community structure. Bioresource Technology, 2011, 102, 742-747.	9.6	59
26	Energy efficient electrocoagulation using an air-breathing cathode to remove nutrients from wastewater. Chemical Engineering Journal, 2016, 292, 308-314.	12.7	55
27	Effective phosphate removal for advanced water treatment using low energy, migration electricâ€“field assisted electrocoagulation. Water Research, 2018, 138, 129-136.	11.3	53
28	Pilot-scale benthic microbial electrochemical system (BMES) for the bioremediation of polluted river sediment. Journal of Power Sources, 2017, 356, 430-437.	7.8	50
29	Microbial fuel cells with an integrated spacer and separate anode and cathode modules. Environmental Science: Water Research and Technology, 2016, 2, 186-195.	2.4	49
30	Improved Electrocoagulation Reactor for Rapid Removal of Phosphate from Wastewater. ACS Sustainable Chemistry and Engineering, 2017, 5, 67-71.	6.7	46
31	Effects of sulfide on microbial fuel cells with platinum and nitrogen-doped carbon powder cathodes. Biosensors and Bioelectronics, 2012, 35, 413-415.	10.1	45
32	A microbial fluidized electrode electrolysis cell (MFEEC) for enhanced hydrogen production. Journal of Power Sources, 2014, 271, 530-533.	7.8	42
33	Highâ€Performance Carbon Aerogel Air Cathodes for Microbial Fuel Cells. ChemSusChem, 2016, 9, 2788-2795.	6.8	41
34	Efficient hydrogen recovery with CoP-NF as cathode in microbial electrolysis cells. Applied Energy, 2020, 264, 114700.	10.1	40
35	The electrochemical behavior of three air cathodes for microbial electrochemical system (MES) under meter scale water pressure. Journal of Power Sources, 2014, 267, 219-226.	7.8	39
36	Diffusion layer characteristics for increasing the performance of activated carbon air cathodes in microbial fuel cells. Environmental Science: Water Research and Technology, 2016, 2, 266-273.	2.4	38

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37	High current densities enable exoelectrogens to outcompete aerobic heterotrophs for substrate. Biotechnology and Bioengineering, 2014, 111, 2163-2169.	3.3	36
38	Enhanced electricity generation and effective water filtration using graphene-based membrane air-cathodes in microbial fuel cells. Journal of Power Sources, 2018, 395, 221-227.	7.8	36
39	Poly(vinylidene fluoride-co-hexafluoropropylene) phase inversion coating as a diffusion layer to enhance the cathode performance in microbial fuel cells. Journal of Power Sources, 2014, 269, 379-384.	7.8	29
40	Cascade degradation of organic matters in brewery wastewater using a continuous stirred microbial electrochemical reactor and analysis of microbial communities. Scientific Reports, 2016, 6, 27023.	3.3	29
41	Synergistic effect between poly(diallyldimethylammonium chloride) and reduced graphene oxide for high electrochemically active biofilm in microbial fuel cell. Electrochimica Acta, 2020, 359, 136949.	5.2	29
42	Response of exoelectrogens centered consortium to nitrate on collaborative metabolism, microbial community, and spatial structure. Chemical Engineering Journal, 2021, 426, 130975.	12.7	29
43	Tailoring spatial structure of electroactive biofilm for enhanced activity and direct electron transfer on iron phthalocyanine modified anode in microbial fuel cells. Biosensors and Bioelectronics, 2021, 191, 113410.	10.1	26
44	Operation strategy of cubic-meter scale microbial electrochemistry system in a municipal wastewater treatment plant. Journal of Power Sources, 2019, 441, 227124.	7.8	25
45	Tailoring Surface Properties of Electrodes for Synchronous Enhanced Extracellular Electron Transfer and Enriched Exoelectrogens in Microbial Fuel Cells. ACS Applied Materials & Interfaces, 2021, 13, 58508-58521.	8.0	25
46	The anaerobic and starving treatment eliminates filamentous bulking and recovers biocathode biocatalytic activity with residual organic loading in microbial electrochemical system. Chemical Engineering Journal, 2021, 404, 127072.	12.7	24
47	Microbial separator allied biocathode supports simultaneous nitrification and denitrification for nitrogen removal in microbial electrochemical system. Bioresource Technology, 2022, 345, 126537.	9.6	24
48	Pressurized air cathodes for enhanced stability and power generation by microbial fuel cells. Journal of Power Sources, 2016, 332, 447-453.	7.8	22
49	Addition of conductive particles to improve the performance of activated carbon air-cathodes in microbial fuel cells. Environmental Science: Water Research and Technology, 2017, 3, 806-810.	2.4	21
50	Spatial-type skeleton induced Geobacter enrichment and tailored bio-capacitance of electroactive bioanode for efficient electron transfer in microbial fuel cells. Science of the Total Environment, 2022, 821, 153123.	8.0	21
51	Electrochemical regulation on the metabolism of anode biofilms under persistent exogenous bacteria interference. Electrochimica Acta, 2020, 340, 135922.	5.2	20
52	Effects of ammonia on electrochemical active biofilm in microbial electrolysis cells for synthetic swine wastewater treatment. Water Research, 2022, 219, 118570.	11.3	20
53	Effects of high ammonia loading and in-situ short-cut nitrification in low carbonâ€‘nitrogen ratio wastewater treatment by biocathode microbial electrochemical system. Science of the Total Environment, 2021, 755, 142641.	8.0	19
54	A novel boost circuit design and in situ electricity application for elemental sulfur recovery. Journal of Power Sources, 2014, 248, 317-322.	7.8	18

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55	Performance of integrated bioelectrochemical membrane reactor: Energy recovery, pollutant removal and membrane fouling alleviation. Journal of Power Sources, 2018, 384, 178-186.	7.8	18
56	Power density of microbial electrochemical system responds to mass transfer characters of nonâ€“ionâ€“selective microbial separator. Bioresource Technology, 2020, 311, 123478.	9.6	17
57	Simultaneous current generation and ammonia recovery from real urine using nitrogen-purged bioelectrochemical systems. RSC Advances, 2015, 5, 70371-70378.	3.6	16
58	Effects of azide on electron transport of exoelectrogens in air-cathode microbial fuel cells. Bioresource Technology, 2014, 169, 265-270.	9.6	15
59	Enhanced Power Generation of Oxygen-Reducing Biocathode with an Alternating Hydrophobic and Hydrophilic Surface. ACS Applied Materials & Interfaces, 2016, 8, 31995-32003.	8.0	15
60	Graphene family for hydrogen peroxide production in electrochemical system. Science of the Total Environment, 2021, 769, 144491.	8.0	14
61	Energy-positive nitrogen removal from reject water using a tide-type biocathode microbial electrochemical system. Bioresource Technology, 2016, 222, 317-325.	9.6	13
62	Enhanced antifouling performance for modified carbon nanotubes filtration cathode by the electric field. Journal of Power Sources, 2018, 400, 493-501.	7.8	13
63	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). Journal of Power Sources, 2020, 451, 227627.	7.8	13
64	Heterogeneous Structure Regulated by Selection Pressure on Bacterial Adhesion Optimized the Viability Stratification Structure of Electroactive Biofilms. ACS Applied Materials & Interfaces, 2022, 14, 2754-2767.	8.0	13
65	A novel single chamber vertical baffle flow biocathode microbial electrochemical system with microbial separator. Bioresource Technology, 2019, 294, 122236.	9.6	12
66	Economic affordable carbonized phenolic foam anode with controlled structure for microbial fuel cells. Science of the Total Environment, 2022, 810, 151314.	8.0	12
67	Surface modification by Î²-cyclodextrin/polyquaternium-11 composite for enhanced biofilm formation in microbial fuel cells. Journal of Power Sources, 2020, 480, 228789.	7.8	11
68	Enhanced electrocatalytic activity and antifouling performance by iron phthalocyanine doped filtration membrane cathode. Chemical Engineering Journal, 2021, 413, 127536.	12.7	11
69	The operation characters of biocathode microbial electrochemical system with microbial separator for domestic wastewater treatment: Power generation, long-term stability, and organic removal. Journal of Power Sources, 2021, 495, 229785.	7.8	9
70	Electron flow assisted COD removal in wastewater under continuous flow conditions using microbial electrochemical system. Science of the Total Environment, 2021, 776, 145978.	8.0	9
71	Enhanced Microbial Electrochemical Systems Performance by Optimizing the â€œAnode-Collectorâ€• Collection Mode: From Enhancement Mechanism to Construction Strategy. ACS ES&T Engineering, 2022, 2, 263-270.	7.6	9
72	Carbon-Based Materials in Microbial Fuel Cells. , 2019, , 49-74.		8

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73	Improved membrane permeability with cetyltrimethylammonium bromide (CTAB) addition for enhanced bidirectional transport of substrate and electron shuttles. Science of the Total Environment, 2022, 822, 153443.	8.0	7
74	Enhanced oxygen reduction activity and high-quality effluent of membrane filtration electrodes with Prussian blue in microbial fuel cells. Science of the Total Environment, 2021, 753, 142021.	8.0	6
75	Discerning realizable advantages of microbial electrochemical system towards raw municipal wastewater treatment: From the analyses of mass and energy flow. Journal of Power Sources, 2021, 495, 229706.	7.8	6
76	Fungus-sourced filament-array anode facilitates Geobacter enrichment and promotes anodic bio-capacitance improvement for efficient power generation in microbial fuel cells. Science of the Total Environment, 2022, 838, 155926.	8.0	5
77	Energetically self-sustaining treatment of swine wastewater in a microbial electrochemical technology-centered hybrid system. Environmental Science: Water Research and Technology, 2020, 6, 747-756.	2.4	4
78	High performance cathode membrane by using zinc phthalocyanine for improved oxygen reduction reaction activity and reduced membrane fouling. Journal of Power Sources, 2021, 509, 230365.	7.8	2
79	Selection of fungus with high ability of cellulase activity production using UV mutagenesis. , 2011, , .		0