Xiaoyuan Zhang

List of Publications by Year
in descending order

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96 papers	6,032 citations	61945 43 h-index	74108 75 g-index
100 all docs	100 docs citations	100 times ranked	4825 citing authors

#	Article	IF	Citations
1	Challenges, solutions and prospects of mainstream anammox-based process for municipal wastewater treatment. Science of the Total Environment, 2022, 820, 153351.	3.9	59
2	Novel catalytic ceramic membranes anchored with MnMe oxide and their catalytic ozonation performance towards atrazine degradation. Journal of Membrane Science, 2022, 648, 120362.	4.1	32
3	Control the greenhouse gas emission via mediating the dissimilatory iron reduction: Fulvic acid inhibit secondary mineralization of ferrihydrite. Water Research, 2022, 218, 118501.	5.3	16
4	Hydrogen peroxide and peroxymonosulfate intensifying Feâ^'doped Câ^'Al2O3â^'frameworkâ^'based catalytic ozonation for advanced treatment of landfill leachate: Performance and mechanisms. Science of the Total Environment, 2022, 843, 156904.	3.9	15
5	Facile and low-cost ceramic fiber-based carbon-carbon composite for solar evaporation. Science of the Total Environment, 2021, 759, 143546.	3.9	29
6	A freestanding carbon submicro fiber sponge as high-efficient bioelectrochemical anode for wastewater energy recovery and treatment. Applied Energy, 2021, 281, 115913.	5.1	14
7	Impact of electrical stimulation modes on the degradation of refractory phenolics and the analysis of microbial communities in an anaerobic-aerobic-coupled upflow bioelectrochemical reactor. Bioresource Technology, 2021, 320, 124371.	4.8	19
8	Electricity Enhances Biological Fe(III) Reduction and Phosphorus Recovery from FeP Complex: Proof of Concept and Kinetic Analysis. ACS ES&T Engineering, 2021, 1, 523-532.	3.7	10
9	Enhanced recalcitrant pollutant degradation using hydroxyl radicals generated using ozone and bioelectricity-driven cathodic hydrogen peroxide production: Bio-E-Peroxone process. Science of the Total Environment, 2021, 776, 144819.	3.9	6
10	Bifunctional Fe for Induced Graphitization and Catalytic Ozonation Based on a Fe/N-Doped Carbonâ€"Al₂O₃ Framework: Theoretical Calculations Guided Catalyst Design and Optimization. Environmental Science & Technology, 2021, 55, 11236-11244.	4.6	41
11	Understanding the mechanism of membrane fouling suppression in electro-anaerobic membrane bioreactor. Chemical Engineering Journal, 2021, 418, 129384.	6.6	21
12	Onset Investigation on Dynamic Change of Biohythane Generation and Microbial Structure in Dual-chamber versus Single-chamber Microbial Electrolysis Cells. Water Research, 2021, 201, 117326.	5.3	9
13	Electrical stimulation on biodegradation of phenolics in a novel anaerobicâ€"aerobic-coupled upflow bioelectrochemical reactor. Chemical Engineering Journal, 2021, 421, 127840.	6.6	18
14	Membrane cleaning and performance insight of osmotic microbial fuel cell. Chemosphere, 2021, 285, 131549.	4.2	23
15	Cobalt Nanoparticles and Atomic Sites in Nitrogenâ€Doped Carbon Frameworks for Highly Sensitive Sensing of Hydrogen Peroxide. Small, 2020, 16, e1902860.	5.2	38
16	Enhanced H2O2 activation and sulfamethoxazole degradation by Fe-impregnated biochar. Chemical Engineering Journal, 2020, 385, 123921.	6.6	71
17	Membrane autopsy deciphering keystone microorganisms stubborn against online NaOCl cleaning in a full-scale MBR. Water Research, 2020, 171, 115390.	5.3	24
18	Versatile zero valent iron applied in anaerobic membrane reactor for treating municipal wastewater: Performances and mechanisms. Chemical Engineering Journal, 2020, 382, 123000.	6.6	21

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19	Comparison of emerging contaminant abatement by conventional ozonation, catalytic ozonation, O3/H2O2 and electro-peroxone processes. Journal of Hazardous Materials, 2020, 389, 121829.	6.5	52
20	Highâ€Power Microbial Fuel Cells Based on a Carbonâ€“Carbon Composite Air Cathode. Small, 2020, 16, e1905240.	5.2	15
21	Iron-based clusters embedded in nitrogen doped activated carbon catalysts with superior cathodic activity in microbial fuel cells. Journal of Materials Chemistry A, 2020, 8, 10772-10778.	5.2	27
22	A hybrid fluidized-bed reactor (HFBR) based on arrayed ceramic membranes (ACMs) coupled with powdered activated carbon (PAC) for efficient catalytic ozonation: A comprehensive study on a pilot scale. Water Research, 2020, 173, 115536.	5.3	29
23	Anammox bacteria enrichment and denitrification in moving bed biofilm reactors packed with different buoyant carriers: Performances and mechanisms. Science of the Total Environment, 2020, 719, 137277.	3.9	53
24	Construction of innovative 3D-weaved carbon mesh anode network to boost electron transfer and microbial activity in bioelectrochemical system. Water Research, 2020, 172, 115493.	5.3	28
25	One-step ball milling-prepared nano Fe2O3 and nitrogen-doped graphene with high oxygen reduction activity and its application in microbial fuel cells. Frontiers of Environmental Science and Engineering, 2020, 14, 1.	3.3	11
26	Evaluating the performance of inorganic draw solution concentrations in an anaerobic forward osmosis membrane bioreactor for real municipal sewage treatment. Bioresource Technology, 2020, 307, 123254.	4.8	25
27	Enhancing extracellular electron transfer efficiency and bioelectricity production by vapor polymerization Poly (3,4-ethylenedioxythiophene)/MnO2 hybrid anode. Bioelectrochemistry, 2019, 126, 72-78.	2.4	11
28	Enhancing direct interspecies electron transfer in syntrophic-methanogenic associations with (semi)conductive iron oxides: Effects and mechanisms. Science of the Total Environment, 2019, 695, 133876.	3.9	87
29	â^'60â€‰Â°C solution synthesis of atomically dispersed cobalt electrocatalyst with superior performance. Nature Communications, 2019, 10, 606.	5.8	121
30	Hydrothermal synthesis of Fe Mn bimetallic nanocatalysts as high-efficiency cathode catalysts for microbial fuel cells. Journal of Power Sources, 2019, 414, 444-452.	4.0	39
31	Improving wastewater treatment capacity by optimizing hydraulic retention time of dual-anode assembled microbial desalination cell system. Separation and Purification Technology, 2019, 226, 39-47.	3.9	16
32	Remediation of simulated malodorous surface water by columnar air-cathode microbial fuel cells. Science of the Total Environment, 2019, 687, 287-296.	3.9	31
33	Optimization and simulation of a carbon-based flow-through composite anode configuration to enhance power generation and improve effluent quality simultaneously for microbial fuel cells. Journal of Cleaner Production, 2019, 229, 542-551.	4.6	17
34	Ni-Induced C-Al₂O₃-Framework (_{Ni}CAF) Supported Coreâ€“Multishell Catalysts for Efficient Catalytic Ozonation: A Structure-to-Performance Study. Environmental Science & Technology, 2019, 53, 6917-6926.	4.6	96
35	A novel operational strategy to enhance wastewater treatment with dual-anode assembled microbial desalination cell. Bioelectrochemistry, 2019, 126, 99-104.	2.4	22
36	Anaerobic digestion performance of concentrated municipal sewage by forward osmosis membrane: Focus on the impact of salt and ammonia nitrogen. Bioresource Technology, 2019, 276, 204-210.	4.8	34

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37	A novel filtration composite anode configuration of microbial fuel cell for efficient wastewater treatment and enhanced power generation. Journal of Cleaner Production, 2018, 178, 305-313.	4.6	20
38	Significant enhancement in catalytic ozonation efficacy: From granular to super-fine powdered activated carbon. Frontiers of Environmental Science and Engineering, 2018, 12, 1.	3.3	27
39	One-year operation of 1000-L modularized microbial fuel cell for municipal wastewater treatment. Water Research, 2018, 141, 1-8.	5.3	261
40	Energy-neutral sustainable nutrient recovery incorporated with the wastewater purification process in an enlarged microbial nutrient recovery cell. Journal of Power Sources, 2018, 384, 160-164.	4.0	29
41	Coupling microfiltration membrane with biocathode microbial desalination cell enhances advanced purification and long-term stability for treatment of domestic wastewater. Journal of Membrane Science, 2018, 547, 34-42.	4.1	54
42	Hydrogen peroxide generation in microbial fuel cells using graphene-based air-cathodes. Bioresource Technology, 2018, 247, 684-689.	4.8	52
43	Urine-powered synergy of nutrient recovery and urine purification in a microbial electrochemical system. Environmental Science: Water Research and Technology, 2018, 4, 1427-1438.	1.2	25
44	A novel bioaugmentation strategy to accelerate methanogenesis via adding Geobacter sulfurreducens PCA in anaerobic digestion system. Science of the Total Environment, 2018, 642, 322-326.	3.9	37
45	The Microbial Electrochemical Current Accelerates Urea Hydrolysis for Recovery of Nutrients from Source-Separated Urine. Environmental Science and Technology Letters, 2017, 4, 305-310.	3.9	50
46	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.	1.2	21
47	Enhanced organics removal and partial desalination of high strength industrial wastewater with a multi-stage microbial desalination cell. Desalination, 2017, 423, 104-110.	4.0	38
48	Addition of acetate improves stability of power generation using microbial fuel cells treating domestic wastewater. Bioelectrochemistry, 2017, 118, 154-160.	2.4	30
49	Enhancement of methanogenesis via direct interspecies electron transfer between Geobacteraceae and Methanosaetaceae conducted by granular activated carbon. Bioresource Technology, 2017, 245, 132-137.	4.8	88
50	Self-sustaining advanced wastewater purification and simultaneous in situ nutrient recovery in a novel bioelectrochemical system. Chemical Engineering Journal, 2017, 330, 692-697.	6.6	56
51	A novel electrochemical reactor for nitrogen and phosphorus recovery from domestic wastewater. Frontiers of Environmental Science and Engineering, 2017, 11, 1.	3.3	33
52	Performance enhancement of microbial fuel cell by applying transient-state regulation. Applied Energy, 2017, 185, 582-588.	5.1	34
53	Optimization of membrane stack configuration in enlarged microbial desalination cells for efficient water desalination. Journal of Power Sources, 2016, 324, 79-85.	4.0	38
54	A novel pilot-scale stacked microbial fuel cell for efficient electricity generation and wastewater treatment. Water Research, 2016, 98, 396-403.	5.3	197

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55	High-Performance Carbon Aerogel Air Cathodes for Microbial Fuel Cells. ChemSusChem, 2016, 9, 2718-2718.	3.6	0
56	Highâ€Performance Carbon Aerogel Air Cathodes for Microbial Fuel Cells. ChemSusChem, 2016, 9, 2788-2795.	3.6	41
57	A novel multi-stage microbial desalination cell for simultaneous desalination and enhanced organics and nitrogen removal from domestic wastewater. Environmental Science: Water Research and Technology, 2016, 2, 832-837.	1.2	26
58	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.	5.3	86
59	Phenol Degradation by Suspended Biomass in Aerobic/Anaerobic Electrochemical Reactor. Water, Air, and Soil Pollution, 2016, 227, 1.	1.1	8
60	Binder-free nitrogen-doped graphene catalyst air-cathodes for microbial fuel cells. Journal of Materials Chemistry A, 2016, 4, 12387-12391.	5.2	45
61	Self-Driven Desalination and Advanced Treatment of Wastewater in a Modularized Filtration Air Cathode Microbial Desalination Cell. Environmental Science & Technology, 2016, 50, 7254-7262.	4.6	37
62	Oxygen Reduction Reaction on Graphene in an Electroâ€Fenton System: Inâ€…Situ Generation of H₂O₂ for the Oxidation of Organic Compounds. ChemSusChem, 2016, 9, 1194-1199.	3.6	93
63	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.	1.2	38
64	Electrical stimulation enhanced denitrification of nitrite-dependent anaerobic methane-oxidizing bacteria. Biochemical Engineering Journal, 2016, 106, 125-128.	1.8	24
65	Binder-free graphene and manganese oxide coated carbon felt anode for high-performance microbial fuel cell. Biosensors and Bioelectronics, 2016, 81, 32-38.	5.3	148
66	Bioelectrochemical systems-driven directional ion transport enables low-energy water desalination, pollutant removal, and resource recovery. Bioresource Technology, 2016, 215, 274-284.	4.8	50
67	Microbial fuel cells with an integrated spacer and separate anode and cathode modules. Environmental Science: Water Research and Technology, 2016, 2, 186-195.	1.2	49
68	Electrical stimulation on biodegradation of phenol and responses of microbial communities in conductive carriers supported biofilms of the bioelectrochemical reactor. Bioresource Technology, 2016, 201, 1-7.	4.8	108
69	Hydrodynamic optimization of membrane bioreactor by horizontal geometry modification using computational fluid dynamics. Bioresource Technology, 2016, 200, 328-334.	4.8	34
70	Novel Self-driven Microbial Nutrient Recovery Cell with Simultaneous Wastewater Purification. Scientific Reports, 2015, 5, 15744.	1.6	47
71	Pretreatment of coal gasification wastewater by adsorption using activated carbons and activated coke. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 482, 177-183.	2.3	44
72	In-situ combined dual-layer CNT/PVDF membrane for electrically-enhanced fouling resistance. Journal of Membrane Science, 2015, 491, 37-44.	4.1	97

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73	Carbon filtration cathode in microbial fuel cell to enhance wastewater treatment. Bioresource Technology, 2015, 185, 426-430.	4.8	29
74	Low-voltage electric field applied into MBR for fouling suppression: Performance and mechanisms. Chemical Engineering Journal, 2015, 273, 223-230.	6.6	71
75	COD removal characteristics in air-cathode microbial fuel cells. Bioresource Technology, 2015, 176, 23-31.	4.8	209
76	High current densities enable exoelectrogens to outcompete aerobic heterotrophs for substrate. Biotechnology and Bioengineering, 2014, 111, 2163-2169.	1.7	36
77	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.	4.0	62
78	Longâ€Term Performance of Chemically and Physically Modified Activated Carbons in Air Cathodes of Microbial Fuel Cells. ChemElectroChem, 2014, 1, 1859-1866.	1.7	143
79	Enhanced Activated Carbon Cathode Performance for Microbial Fuel Cell by Blending Carbon Black. Environmental Science & Technology, 2014, 48, 2075-2081.	4.6	185
80	Methane Production in Microbial Reverse-Electrodialysis Methanogenesis Cells (MRMCs) Using Thermolytic Solutions. Environmental Science & Technology, 2014, 48, 8911-8918.	4.6	76
81	Spray-on polyvinyl alcohol separators and impact on power production in air-cathode microbial fuel cells with different solution conductivities. Bioresource Technology, 2014, 172, 156-161.	4.8	17
82	Power generation by packed-bed air-cathode microbial fuel cells. Bioresource Technology, 2013, 142, 109-114.	4.8	50
83	Using a glass fiber separator in a single-chamber air-cathode microbial fuel cell shortens start-up time and improves anode performance at ambient and mesophilic temperatures. Bioresource Technology, 2013, 130, 529-535.	4.8	40
84	Optimization of membrane stack configuration for efficient hydrogen production in microbial reverse-electrodialysis electrolysis cells coupled with thermolytic solutions. Bioresource Technology, 2013, 140, 399-405.	4.8	50
85	Use of Pyrolyzed Iron Ethylenediaminetetraacetic Acid Modified Activated Carbon as Airâ€“Cathode Catalyst in Microbial Fuel Cells. ACS Applied Materials & Interfaces, 2013, 5, 7862-7866.	4.0	93
86	Sustainable water desalination and electricity generation in a separator coupled stacked microbial desalination cell with buffer free electrolyte circulation. Bioresource Technology, 2012, 119, 88-93.	4.8	74
87	Power generation by coupling reverse electrodialysis and ammonium bicarbonate: Implication for recovery of waste heat. Electrochemistry Communications, 2012, 19, 25-28.	2.3	112
88	Impact of salinity on cathode catalyst performance in microbial fuel cells (MFCs). International Journal of Hydrogen Energy, 2011, 36, 13900-13906.	3.8	44
89	Air-cathode structure optimization in separator-coupled microbial fuel cells. Biosensors and Bioelectronics, 2011, 30, 267-271.	5.3	46
90	Scalable air cathode microbial fuel cells using glass fiber separators, plastic mesh supporters, and graphite fiber brush anodes. Bioresource Technology, 2011, 102, 372-375.	4.8	90

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91	Improved performance of single-chamber microbial fuel cells through control of membrane deformation. Biosensors and Bioelectronics, 2010, 25, 1825-1828.	5.3	76
92	The use of nylon and glass fiber filter separators with different pore sizes in air-cathode single-chamber microbial fuel cells. Energy and Environmental Science, 2010, 3, 659.	15.6	134
93	A mini-microbial fuel cell for voltage testing of exoelectrogenic bacteria. Frontiers of Environmental Science and Engineering in China, 2009, 3, 307-312.	0.8	21
94	A New Method for Water Desalination Using Microbial Desalination Cells. Environmental Science & Technology, 2009, 43, 7148-7152.	4.6	678
95	A completely anoxic microbial fuel cell using a photo-biocathode for cathodic carbon dioxide reduction. Energy and Environmental Science, 2009, 2, 498.	15.6	155
96	Separator Characteristics for Increasing Performance of Microbial Fuel Cells. Environmental Science & Technology, 2009, 43, 8456-8461.	4.6	291