

Shaoan Cheng

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6580941/publications.pdf>

Version: 2024-02-01

88
papers

14,489
citations

53660

45
h-index

49773

87
g-index

88
all docs

88
docs citations

88
times ranked

6580
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphite Fiber Brush Anodes for Increased Power Production in Air-Cathode Microbial Fuel Cells. Environmental Science & Technology, 2007, 41, 3341-3346.	4.6	1,100
2	Microbial Electrolysis Cells for High Yield Hydrogen Gas Production from Organic Matter. Environmental Science & Technology, 2008, 42, 8630-8640.	4.6	1,091
3	Direct Biological Conversion of Electrical Current into Methane by Electromethanogenesis. Environmental Science & Technology, 2009, 43, 3953-3958.	4.6	1,033
4	Increased performance of single-chamber microbial fuel cells using an improved cathode structure. Electrochemistry Communications, 2006, 8, 489-494.	2.3	978
5	Production of Electricity from Acetate or Butyrate Using a Single-Chamber Microbial Fuel Cell. Environmental Science & Technology, 2005, 39, 658-662.	4.6	892
6	Power Generation in Fed-Batch Microbial Fuel Cells as a Function of Ionic Strength, Temperature, and Reactor Configuration. Environmental Science & Technology, 2005, 39, 5488-5493.	4.6	830
7	Power Densities Using Different Cathode Catalysts (Pt and CoTMPP) and Polymer Binders (Nafion and) Tj ETQq1 1 0.784314 rgBT /Over 364-369.	4.6	769
8	Increased Power Generation in a Continuous Flow MFC with Advective Flow through the Porous Anode and Reduced Electrode Spacing. Environmental Science & Technology, 2006, 40, 2426-2432.	4.6	646
9	Ammonia treatment of carbon cloth anodes to enhance power generation of microbial fuel cells. Electrochemistry Communications, 2007, 9, 492-496.	2.3	634
10	Sustainable and efficient biohydrogen production via electrohydrogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18871-18873.	3.3	576
11	Use of Carbon Mesh Anodes and the Effect of Different Pretreatment Methods on Power Production in Microbial Fuel Cells. Environmental Science & Technology, 2009, 43, 6870-6874.	4.6	486
12	Power generation using an activated carbon and metal mesh cathode in a microbial fuel cell. Electrochemistry Communications, 2009, 11, 2177-2179.	2.3	358
13	Separator Characteristics for Increasing Performance of Microbial Fuel Cells. Environmental Science & Technology, 2009, 43, 8456-8461.	4.6	291
14	Microbial fuel cell performance with non-Pt cathode catalysts. Journal of Power Sources, 2007, 171, 275-281.	4.0	281
15	Increasing power generation for scaling up single-chamber air cathode microbial fuel cells. Bioresource Technology, 2011, 102, 4468-4473.	4.8	281
16	Scale-up of membrane-free single-chamber microbial fuel cells. Journal of Power Sources, 2008, 179, 274-279.	4.0	255
17	Source of methane and methods to control its formation in single chamber microbial electrolysis cells. International Journal of Hydrogen Energy, 2009, 34, 3653-3658.	3.8	187
18	Isolation of the exoelectrogenic denitrifying bacterium Comamonas denitrificans based on dilution to extinction. Applied Microbiology and Biotechnology, 2010, 85, 1575-1587.	1.7	179

#	ARTICLE	IF	CITATIONS
19	Temporal-Spatial Changes in Viabilities and Electrochemical Properties of Anode Biofilms. <i>Environmental Science & Technology</i> , 2015, 49, 5227-5235.	4.6	175
20	High hydrogen production rate of microbial electrolysis cell (MEC) with reduced electrode spacing. <i>Bioresource Technology</i> , 2011, 102, 3571-3574.	4.8	164
21	Tubular Membrane Cathodes for Scalable Power Generation in Microbial Fuel Cells. <i>Environmental Science & Technology</i> , 2007, 41, 3347-3353.	4.6	156
22	Microbial Fuel Cell Cathodes With Poly(dimethylsiloxane) Diffusion Layers Constructed around Stainless Steel Mesh Current Collectors. <i>Environmental Science & Technology</i> , 2010, 44, 1490-1495.	4.6	155
23	The use of nylon and glass fiber filter separators with different pore sizes in air-cathode single-chamber microbial fuel cells. <i>Energy and Environmental Science</i> , 2010, 3, 659.	15.6	134
24	Air-cathode preparation with activated carbon as catalyst, PTFE as binder and nickel foam as current collector for microbial fuel cells. <i>Bioelectrochemistry</i> , 2013, 92, 22-26.	2.4	129
25	Evaluation of carbon-based materials in tubular biocathode microbial fuel cells in terms of hexavalent chromium reduction and electricity generation. <i>Chemical Engineering Journal</i> , 2011, 166, 652-661.	6.6	121
26	Bioelectrochemical systems for efficient recalcitrant wastes treatment. <i>Journal of Chemical Technology and Biotechnology</i> , 2011, 86, 481-491.	1.6	121
27	The effect of biofilm thickness on electrochemical activity of <i>Geobacter sulfurreducens</i> . <i>International Journal of Hydrogen Energy</i> , 2016, 41, 16523-16528.	3.8	120
28	Change in microbial communities in acetate- and glucose-fed microbial fuel cells in the presence of light. <i>Biosensors and Bioelectronics</i> , 2009, 25, 105-111.	5.3	116
29	Electricity generation of single-chamber microbial fuel cells at low temperatures. <i>Biosensors and Bioelectronics</i> , 2011, 26, 1913-1917.	5.3	115
30	Electricity Generation from Synthetic Acid-Mine Drainage (AMD) Water using Fuel Cell Technologies. <i>Environmental Science & Technology</i> , 2007, 41, 8149-8153.	4.6	108
31	<i>Geobacter anodireducens</i> sp. nov., an exoelectrogenic microbe in bioelectrochemical systems. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2014, 64, 3485-3491.	0.8	103
32	Enhanced Interfacial Solar Evaporation through Formation of Micro- Θ Menisci and Microdroplets to Reduce Evaporation Enthalpy. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	99
33	Scalable air cathode microbial fuel cells using glass fiber separators, plastic mesh supporters, and graphite fiber brush anodes. <i>Bioresource Technology</i> , 2011, 102, 372-375.	4.8	90
34	Mesh optimization for microbial fuel cell cathodes constructed around stainless steel mesh current collectors. <i>Journal of Power Sources</i> , 2011, 196, 1097-1102.	4.0	89
35	Electrochemical reduction of oxygen with iron phthalocyanine in neutral media. <i>Journal of Applied Electrochemistry</i> , 2009, 39, 705-711.	1.5	82
36	Inhibition of microbial growth on air cathodes of single chamber microbial fuel cells by incorporating enrofloxacin into the catalyst layer. <i>Biosensors and Bioelectronics</i> , 2015, 72, 44-50.	5.3	76

#	ARTICLE	IF	CITATIONS
37	Effective swine wastewater treatment by combining microbial fuel cells with flocculation. <i>Chemosphere</i> , 2017, 182, 567-573.	4.2	75
38	A lotus leaf like vertical hierarchical solar vapor generator for stable and efficient evaporation of high-salinity brine. <i>Chemical Engineering Journal</i> , 2020, 401, 126108.	6.6	68
39	Efficient recovery of nano-sized iron oxide particles from synthetic acid-mine drainage (AMD) water using fuel cell technologies. <i>Water Research</i> , 2011, 45, 303-307.	5.3	65
40	Effect of nitrate on electricity generation in single-chamber air cathode microbial fuel cells. <i>Chemical Engineering Journal</i> , 2018, 337, 661-670.	6.6	57
41	Enhancing efficiency of carbonized wood based solar steam generator for wastewater treatment by optimizing the thickness. <i>Solar Energy</i> , 2019, 193, 434-441.	2.9	55
42	High-flux flowing interfacial water evaporation under multiple heating sources enabled by a biohybrid hydrogel. <i>Nano Energy</i> , 2022, 98, 107287.	8.2	55
43	High electrochemical activity of a Ti/SnO ₂ @Sb electrode electrodeposited using deep eutectic solvent. <i>Chemosphere</i> , 2020, 239, 124715.	4.2	51
44	<i>Geobacter</i> sp. SD-1 with enhanced electrochemical activity in high-salt concentration solutions. <i>Environmental Microbiology Reports</i> , 2014, 6, 723-729.	1.0	49
45	Highly Efficient Solar Vapor Generator Enabled by a 3D Hierarchical Structure Constructed with Hydrophilic Carbon Felt for Desalination and Wastewater Treatment. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 32038-32045.	4.0	49
46	Enhancing hydrogen production with Ni@P coated nickel foam as cathode catalyst in single chamber microbial electrolysis cells. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 3641-3646.	3.8	45
47	Impact of salinity on cathode catalyst performance in microbial fuel cells (MFCs). <i>International Journal of Hydrogen Energy</i> , 2011, 36, 13900-13906.	3.8	44
48	Microbial community in microbial fuel cell (MFC) medium and effluent enriched with purple photosynthetic bacterium (<i>Rhodospseudomonas</i> sp.). <i>AMB Express</i> , 2014, 4, 22.	1.4	43
49	Enhancing power generation of scale-up microbial fuel cells by optimizing the leading-out terminal of anode. <i>Journal of Power Sources</i> , 2014, 248, 931-938.	4.0	43
50	Evaluation of catalysts and membranes for high yield biohydrogen production via electrohydrogenesis in microbial electrolysis cells (MECs). <i>Water Science and Technology</i> , 2008, 58, 853-857.	1.2	42
51	Current density reversibly alters metabolic spatial structure of exoelectrogenic anode biofilms. <i>Journal of Power Sources</i> , 2017, 356, 566-571.	4.0	40
52	Combination of plasma oxidation process with microbial fuel cell for mineralizing methylene blue with high energy efficiency. <i>Journal of Hazardous Materials</i> , 2020, 384, 121307.	6.5	39
53	Functional group surface modifications for enhancing the formation and performance of exoelectrogenic biofilms on the anode of a bioelectrochemical system. <i>Critical Reviews in Biotechnology</i> , 2019, 39, 1015-1030.	5.1	37
54	Enhancement of the denitrification activity by exoelectrogens in single-chamber air cathode microbial fuel cells. <i>Chemosphere</i> , 2019, 225, 548-556.	4.2	37

#	ARTICLE	IF	CITATIONS
55	Sensitivity to Oxygen in Microbial Electrochemical Systems Biofilms. IScience, 2019, 13, 163-172.	1.9	36
56	Anode modification with formic acid: A simple and effective method to improve the power generation of microbial fuel cells. Applied Surface Science, 2014, 320, 281-286.	3.1	34
57	Modeling and Upscaling Analysis of Gas Diffusion Electrode-Based Electrochemical Carbon Dioxide Reduction Systems. ACS Sustainable Chemistry and Engineering, 2021, 9, 351-361.	3.2	34
58	Interfacial solar evaporator for clean water production and beyond: From design to application. Applied Energy, 2021, 299, 117317.	5.1	33
59	Power densities using different cathode catalysts (Pt and CoTMP) and polymer binders (nafion and) Tj ETQq1 1 0.784314 rgBT /Overlo 4.6 29	4.6	29
60	Elucidating deactivation mechanisms of Pd-doped and un-doped Ti/SnO ₂ -Sb electrodes. Journal of Alloys and Compounds, 2020, 834, 155184.	2.8	27
61	Influence of soluble microbial products on the long-term stability of air cathodes in microbial fuel cells. Electrochimica Acta, 2018, 261, 557-564.	2.6	26
62	Enhanced adsorption performance of UiO-66 via modification with functional groups and integration into hydrogels. Environmental Research, 2022, 212, 113354.	3.7	26
63	Effects of hydraulic pressure on the performance of single chamber air-cathode microbial fuel cells. Biosensors and Bioelectronics, 2014, 56, 264-270.	5.3	25
64	Improving the power generation of microbial fuel cells by modifying the anode with single-wall carbon nanohorns. Biotechnology Letters, 2017, 39, 1515-1520.	1.1	25
65	Promoting Extracellular Electron Transfer of Shewanella oneidensis MR-1 by Optimizing the Periplasmic Cytochrome c Network. Frontiers in Microbiology, 2021, 12, 727709.	1.5	25
66	Efficient degradation of polyacrylamide using a 3-dimensional ultra-thin SnO ₂ -Sb coated electrode. Journal of Hazardous Materials, 2021, 416, 125907.	6.5	20
67	Modifying Ti ₃ C ₂ MXene with NH ₄ ⁺ as an excellent anode material for improving the performance of microbial fuel cells. Chemosphere, 2022, 288, 132502.	4.2	19
68	Enhancing stability of interfacial solar evaporator in high-salinity solutions by managing salt precipitation with Janus-based directional salt transfer structure. Desalination, 2022, 524, 115470.	4.0	19
69	Shear Stress Affects Biofilm Structure and Consequently Current Generation of Bioanode in Microbial Electrochemical Systems (MESs). Frontiers in Microbiology, 2019, 10, 398.	1.5	17
70	Enhancing stability and resilience of electromethanogenesis system by acclimating biocathode with intermittent step-up voltage. Bioresource Technology, 2021, 337, 125376.	4.8	15
71	Fast and simultaneous detection of dissolved BOD and nitrite in wastewater by using bioelectrode with bidirectional extracellular electron transport. Water Research, 2022, 213, 118186.	5.3	15
72	Janus 3D solar crystallizer enabling an eco-friendly zero liquid discharge of high-salinity concentrated seawater with antiscalant. Desalination, 2022, 537, 115862.	4.0	15

#	ARTICLE	IF	CITATIONS
73	Effect of start-up process using different electrochemical methods on the performance of CO ₂ -reducing methanogenic biocathodes. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 3045-3055.	3.8	14
74	Facile sealing treatment with stannous citrate complex to enhance performance of electrodeposited Ti/SnO ₂ @Sb electrode. <i>Chemosphere</i> , 2020, 255, 126973.	4.2	13
75	Enhanced power production of microbial fuel cells by reducing the oxygen and nitrogen functional groups of carbon cloth anode. <i>Surface and Interface Analysis</i> , 2017, 49, 410-418.	0.8	12
76	Cobalt-nitrogen-carbon nanotube co-implanted activated carbon as efficient cathodic oxygen reduction catalyst in microbial fuel cells. <i>Journal of Electroanalytical Chemistry</i> , 2020, 876, 114498.	1.9	12
77	Enhancing bio-cathodic nitrate removal through anode-cathode polarity inversion together with regulating the anode electroactivity. <i>Science of the Total Environment</i> , 2021, 764, 142809.	3.9	12
78	Defective S/N co-doped carbon cloth via a one-step process for effective electroreduction of nitrogen to ammonia. <i>RSC Advances</i> , 2020, 10, 9814-9823.	1.7	11
79	A novel, rapidly preparable and easily maintainable biocathode electrochemical biosensor for the continuous and stable detection of nitrite in water. <i>Science of the Total Environment</i> , 2022, 806, 150945.	3.9	10
80	Realizing BOD detection of real wastewater by considering the bioelectrochemical degradability of organic pollutants in a bioelectrochemical system. <i>Chemical Engineering Journal</i> , 2022, 444, 136520.	6.6	10
81	A novel electrochemical oxidation-methanogenesis system for simultaneously degrading antibiotics and reducing CO ₂ to CH ₄ with low energy costs. <i>Science of the Total Environment</i> , 2021, 750, 141732.	3.9	9
82	In Situ Thermal and Electricity Utilization of Photovoltaic Devices by Membrane Distillation and Electrochemical Advanced Oxidation for Desalination and Degradation of Wastewater. <i>Advanced Sustainable Systems</i> , 2021, 5, 2000278.	2.7	9
83	Complete Genome Sequence of <i>Geobacter anodireducens</i> SD-1, a Salt-Tolerant Exoelectrogenic Microbe in Bioelectrochemical Systems. <i>Genome Announcements</i> , 2016, 4, .	0.8	5
84	Deciphering Single-Bacterium Adhesion Behavior Modulated by Extracellular Electron Transfer. <i>Nano Letters</i> , 2021, 21, 5105-5115.	4.5	5
85	Highly selective and sensitive nitrite biocathode biosensor prepared by polarity inversion method coupled with selective removal of interfering electroactive bacteria. <i>Biosensors and Bioelectronics</i> , 2022, 214, 114507.	5.3	5
86	External resistance acclimation regulates bio-anode: new perspective from biofilm structure and its correlation with anode performance. <i>Bioprocess and Biosystems Engineering</i> , 2021, 45, 269.	1.7	4
87	Wastewater Treatment with Concomitant Bioenergy Production Using Microbial Fuel Cells. , 2012, , 405-452.		2
88	Efficient treatment of high-concentration sulfurous wastewater by using electrochemical oxidation process with Ti/SnO ₂ @Sb anode and air cathode. <i>SN Applied Sciences</i> , 2020, 2, 1.	1.5	2