Sunil A Patil

List of Publications by Year
in descending order

64 papers	4,592 citations	136885 32 h-index	155592 55 g-index
66 all docs	66 docs citations	66 times ranked	3886 citing authors

#	Article	IF	Citations
1	Recent advances in the use of different substrates in microbial fuel cells toward wastewater treatment and simultaneous energy recovery. Applied Energy, 2016, 168, 706-723.	5.1	599
2	Electrospun and solution blown three-dimensional carbon fiber nonwovens for application as electrodes in microbial fuel cells. Energy and Environmental Science, 2011, 4, 1417.	15.6	289
3	Engineering electrodes for microbial electrocatalysis. Current Opinion in Biotechnology, 2015, 33, 149-156.	3.3	248
4	Selective Enrichment Establishes a Stable Performing Community for Microbial Electrosynthesis of Acetate from CO₂. Environmental Science & Technology, 2015, 49, 8833-8843.	4.6	243
5	Electricity generation using chocolate industry wastewater and its treatment in activated sludge based microbial fuel cell and analysis of developed microbial community in the anode chamber. Bioresource Technology, 2009, 100, 5132-5139.	4.8	242
6	Electroactive mixed culture derived biofilms in microbial bioelectrochemical systems: The role of pH on biofilm formation, performance and composition. Bioresource Technology, 2011, 102, 9683-9690.	4.8	203
7	An overview of cathode materials for microbial electrosynthesis of chemicals from carbon dioxide. Green Chemistry, 2017, 19, 5748-5760.	4.6	179
8	A logical data representation framework for electricity-driven bioproduction processes. Biotechnology Advances, 2015, 33, 736-744.	6.0	174
9	Electron transfer mechanisms between microorganisms and electrodes in bioelectrochemical systems. Bioanalytical Reviews, 2012, 4, 159-192.	0.1	171
10	Electroactive mixed culture biofilms in microbial bioelectrochemical systems: The role of temperature for biofilm formation and performance. Biosensors and Bioelectronics, 2010, 26, 803-808.	5.3	165
11	A critical revisit of the key parameters used to describe microbial electrochemical systems. Electrochimica Acta, 2014, 140, 191-208.	2.6	148
12	Continuous long-term electricity-driven bioproduction of carboxylates and isopropanol from CO 2 with a mixed microbial community. Journal of CO2 Utilization, 2017, 20, 141-149.	3.3	138
13	Flame Oxidation of Stainless Steel Felt Enhances Anodic Biofilm Formation and Current Output in Bioelectrochemical Systems. Environmental Science & Technology, 2014, 48, 7151-7156.	4.6	131
14	Strategies for optimizing the power output of microbial fuel cells: Transitioning from fundamental studies to practical implementation. Applied Energy, 2019, 233-234, 15-28.	5.1	122
15	In Situ Spectroelectrochemical Investigation of Electrocatalytic Microbial Biofilms by Surfaceâ€Enhanced Resonance Raman Spectroscopy. Angewandte Chemie - International Edition, 2011, 50, 2625-2627.	7.2	114
16	A comprehensive review on emerging constructed wetland coupled microbial fuel cell technology: Potential applications and challenges. Bioresource Technology, 2021, 320, 124376.	4.8	102
17	Low-cost stainless-steel wool anodes modified with polyaniline and polypyrrole for high-performance microbial fuel cells. Journal of Power Sources, 2018, 379, 103-114.	4.0	97
18	Toxicity Response of Electroactive Microbial Biofilmsâ€"A Decisive Feature for Potential Biosensor and Power Source Applications. ChemPhysChem, 2010, 11, 2834-2837.	1.0	91

#	Article	IF	Citations
19	Strategies for improving the electroactivity and specific metabolic functionality of microorganisms for various microbial electrochemical technologies. Biotechnology Advances, 2020, 39, 107468.	6.0	84
20	Revealing the electrochemically driven selection in natural community derived microbial biofilms using flow-cytometry. Energy and Environmental Science, 2011, 4, 1265.	15.6	74
21	Anodes Stimulate Anaerobic Toluene Degradation via Sulfur Cycling in Marine Sediments. Applied and Environmental Microbiology, 2016, 82, 297-307.	1.4	74
22	Heat-treated stainless steel felt as scalable anode material for bioelectrochemical systems. Bioresource Technology, 2015, 195, 46-50.	4.8	69
23	A high-performance rotating graphite fiber brush air-cathode for microbial fuel cells. Applied Energy, 2018, 211, 1089-1094.	5.1	62
24	Reviewâ€"Microbial Electrosynthesis: A Way Towards The Production of Electro-Commodities Through Carbon Sequestration with Microbes as Biocatalysts. Journal of the Electrochemical Society, 2020, 167, 155510.	1.3	57
25	Direct utilization of industrial carbon dioxide with low impurities for acetate production via microbial electrosynthesis. Bioresource Technology, 2021, 320, 124289.	4.8	55
26	Metabolomics. Current Drug Metabolism, 2008, 9, 89-98.	0.7	50
27	Electrospun carbon nanofibers from polyacrylonitrile blended with activated or graphitized carbonaceous materials for improving anodic bioelectrocatalysis. Bioresource Technology, 2013, 132, 121-126.	4.8	46
28	Electrochemical communication between heterotrophically grown Rhodobacter capsulatus with electrodes mediated by an osmium redox polymer. Bioelectrochemistry, 2013, 93, 30-36.	2.4	46
29	Surfactant treatment of carbon felt enhances anodic microbial electrocatalysis in bioelectrochemical systems. Electrochemistry Communications, 2014, 39, 1-4.	2.3	46
30	Electrochemical communication between microbial cells and electrodes via osmium redox systems. Biochemical Society Transactions, 2012, 40, 1330-1335.	1.6	44
31	Improved microbial electrocatalysis with osmium polymer modified electrodes. Chemical Communications, 2012, 48, 10183.	2.2	41
32	Current trends in enzymatic electrosynthesis for CO2 reduction. Current Opinion in Green and Sustainable Chemistry, 2019, 16, 65-70.	3.2	37
33	Microbial Fuel Cells: Electrode Materials. , 2018, , 309-318.		30
34	Cisplatin-induced elongation of Shewanella oneidensis MR-1 cells improves microbeâ€"electrode interactions for use in microbial fuel cells. Energy and Environmental Science, 2013, 6, 2626.	15.6	27
35	Integrated drip hydroponics-microbial fuel cell system for wastewater treatment and resource recovery. Bioresource Technology Reports, 2020, 9, 100392.	1.5	26
36	Microbial Electroactive Biofilms. ACS Symposium Series, 2019, , 159-186.	0.5	23

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37	Enhanced Product Recovery from Glycerol Fermentation into 3-Carbon Compounds in a Bioelectrochemical System Combined with In Situ Extraction. Frontiers in Bioengineering and Biotechnology, 2016, 4, 73.	2.0	19
38	Microbial electroactive biofilms dominated by Geoalkalibacter spp. from a highly salineâ€"alkaline environment. Npj Biofilms and Microbiomes, 2020, 6, 38.	2.9	19
39	Scratching the Surfaceâ€"How Decisive Are Microscopic Surface Structures on Growth and Performance of Electrochemically Active Bacteria?. Frontiers in Energy Research, 2019, 7, .	1.2	17
40	Electron transfer mechanisms between microorganisms and electrodes in bioelectrochemical systems. Bioanalytical Reviews, 2012, , 71-129.	0.1	16
41	Extremophilic electroactive microorganisms: Promising biocatalysts for bioprocessing applications. Bioresource Technology, 2022, 347, 126663.	4.8	14
42	Microbial Electrochemical Technologies for CO2 and Its Derived Products Valorization. , 2019, , 777-796.		13
43	Technological progress and readiness level of microbial electrosynthesis and electrofermentation for carbon dioxide and organic wastes valorization. Current Opinion in Green and Sustainable Chemistry, 2022, 35, 100605.	3.2	12
44	Microbial Electrolysis for Biohydrogen Production. , 2019, , 871-898.		10
45	Epipremnum aureum is a promising plant candidate for developing nature-based technologies for nutrients removal from wastewaters. Journal of Environmental Chemical Engineering, 2021, 9, 106134.	3.3	10
46	Auto-feeding microbial fuel cell inspired by transpiration of plants. Applied Energy, 2018, 225, 934-939.	5.1	9
47	Protocol for bioelectrochemical enrichment, cultivation, and characterization of extreme electroactive microorganisms. STAR Protocols, 2022, 3, 101114.	0.5	9
48	Aerobic microbial electrochemical technology based on the coexistence and interactions of aerobes and exoelectrogens for synergistic pollutant removal from wastewater. Environmental Science: Water Research and Technology, 2019, 5, 60-69.	1.2	8
49	Biogas Upgradation Through CO2 Conversion Into Acetic Acid via Microbial Electrosynthesis. Frontiers in Energy Research, 2021, 9, .	1.2	8
50	Substrate Crossover Effect and Performance Regeneration of the Biofouled Rotating Air-Cathode in Microbial Fuel Cell. Frontiers in Energy Research, 2018, 6, .	1.2	7
51	Reactive coating modification of metal material with strong bonding strength and enhanced corrosion resistance for high-performance bioelectrode of microbial electrochemical technologies. Journal of Power Sources, 2021, 491, 229595.	4.0	7
52	Biological Electricity Production from Wastes and Wastewaters. , 2015, , 155-183.		6
53	Bioanode-Assisted Removal of Hg ²⁺ at the Cathode of Microbial Fuel Cells. Journal of Hazardous, Toxic, and Radioactive Waste, 2020, 24, .	1.2	6
54	Electrochemical enrichment of haloalkaliphilic nitrate-reducing microbial biofilm at the cathode of bioelectrochemical systems. IScience, 2021, 24, 102682.	1.9	6

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55	Performance evaluation of the integrated hydroponics-microbial electrochemical technology (iHydroMET) for decentralized domestic wastewater treatment. Chemosphere, 2022, 288, 132514.	4.2	6
56	Microbial fuel cell coupled with microalgae cultivation for wastewater treatment and energy recovery. , 2020, , 213-227.		6
57	Resource Recovery From Wastes and Wastewaters Using Bioelectrochemical Systems. , 2018, , 535-570.		5
58	High-capacitance bioanode circumvents bioelectrochemical reaction transition in the voltage-reversed serially-stacked air-cathode microbial fuel cell. Journal of Power Sources, 2020, 468, 228402.	4.0	5
59	Materials and Their Surface Modification for Use as Anode in Microbial Bioelectrochemical Systems. , 2017, , 403-427.		5
60	Bioelectrocatalytic sulfide oxidation by a haloalkaliphilic electroactive microbial community dominated by Desulfobulbaceae. Electrochimica Acta, 2022, 423, 140576.	2.6	4
61	Electricity-driven bioproduction from CO2 and N2 feedstocks using enriched mixed microbial culture. Journal of CO2 Utilization, 2022, 60, 101997.	3.3	3
62	Removal of heavy metals using bioelectrochemical systems. , 2020, , 49-71.		1
63	DNA Electronics: A Nanotechnology Approach. Current Nanoscience, 2007, 3, 161-165.	0.7	0
64	Electrospun Carbon Nanofibers. , 2018, , 287-307.		0