Annemiek Ter Heijne

List of Publications by Year
in descending order

87 papers	5,430 citations	76294 40 h-index	82499 72 g-index
90 all docs	90 docs citations	90 times ranked	3718 citing authors

#	Article	IF	Citations
1	Copper Recovery Combined with Electricity Production in a Microbial Fuel Cell. Environmental Science & Technology, 2010, 44, 4376-4381.	4.6	322
2	A Bipolar Membrane Combined with Ferric Iron Reduction as an Efficient Cathode System in Microbial Fuel Cellsâ€. Environmental Science & Technology, 2006, 40, 5200-5205.	4.6	280
3	Carbon dioxide reduction by mixed and pure cultures in microbial electrosynthesis using an assembly of graphite felt and stainless steel as a cathode. Bioresource Technology, 2015, 195, 14-24.	4.8	276
4	New applications and performance of bioelectrochemical systems. Applied Microbiology and Biotechnology, 2010, 85, 1673-1685.	1.7	237
5	Bioelectrochemical Systems: An Outlook for Practical Applications. ChemSusChem, 2012, 5, 1012-1019.	3.6	220
6	Performance of non-porous graphite and titanium-based anodes in microbial fuel cells. Electrochimica Acta, 2008, 53, 5697-5703.	2.6	192
7	Analysis and Improvement of a Scaled-Up and Stacked Microbial Fuel Cell. Environmental Science & Technology, 2009, 43, 9038-9042.	4.6	182
8	Bioelectrochemical Power-to-Gas: State of the Art and Future Perspectives. Trends in Biotechnology, 2016, 34, 879-894.	4.9	174
9	Microbial electrolysis cells for production of methane from CO2: long-term performance and perspectives. International Journal of Energy Research, 2012, 36, 809-819.	2.2	172
10	Bioelectrochemical Production of Caproate and Caprylate from Acetate by Mixed Cultures. ACS Sustainable Chemistry and Engineering, 2013, 1, 513-518.	3.2	155
11	Microbial Fuel Cell Operation with Continuous Biological Ferrous Iron Oxidation of the Catholyte. Environmental Science & Technology, 2007, 41, 4130-4134.	4.6	149
12	Ammonia recovery from urine in a scaled-up Microbial Electrolysis Cell. Journal of Power Sources, 2017, 356, 491-499.	4.0	132
13	(Bio)electrochemical ammonia recovery: progress and perspectives. Applied Microbiology and Biotechnology, 2018, 102, 3865-3878.	1.7	130
14	Cathode Potential and Mass Transfer Determine Performance of Oxygen Reducing Biocathodes in Microbial Fuel Cells. Environmental Science & Technology, 2010, 44, 7151-7156.	4.6	125
15	Butlerâ€“Volmerâ€“Monod model for describing bio-anode polarization curves. Bioresource Technology, 2011, 102, 381-387.	4.8	123
16	Bioelectrochemical systems for nitrogen removal and recovery from wastewater. Environmental Science: Water Research and Technology, 2015, 1, 22-33.	1.2	117
17	Metal recovery by microbial electro-metallurgy. Progress in Materials Science, 2018, 94, 435-461.	16.0	110
18	Identifying charge and mass transfer resistances of an oxygen reducing biocathode. Energy and Environmental Science, 2011, 4, 5035.	15.6	107

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19	Analysis of the mechanisms of bioelectrochemical methane production by mixed cultures. Journal of Chemical Technology and Biotechnology, 2015, 90, 963-970.	1.6	107
20	Bioelectrochemical enhancement of methane production in low temperature anaerobic digestion at 10ÂÂ°C. Water Research, 2016, 99, 281-287.	5.3	103
21	Microbial Community Analysis of a Methane-Producing Biocathode in a Bioelectrochemical System. Archaea, 2013, 2013, 1-12.	2.3	98
22	Load ratio determines the ammonia recovery and energy input of an electrochemical system. Water Research, 2017, 111, 330-337.	5.3	89
23	Fluidized Capacitive Bioanode As a Novel Reactor Concept for the Microbial Fuel Cell. Environmental Science & Technology, 2015, 49, 1929-1935.	4.6	86
24	Hydrogen Gas Recycling for Energy Efficient Ammonia Recovery in Electrochemical Systems. Environmental Science & Technology, 2017, 51, 3110-3116.	4.6	82
25	Increasing the Selectivity for Sulfur Formation in Biological Gas Desulfurization. Environmental Science & Technology, 2019, 53, 4519-4527.	4.6	69
26	Microbial Communities and Electrochemical Performance of Titanium-Based Anodic Electrodes in a Microbial Fuel Cell. Applied and Environmental Microbiology, 2011, 77, 1069-1075.	1.4	66
27	Performance of single carbon granules as perspective for larger scale capacitive bioanodes. Journal of Power Sources, 2016, 325, 690-696.	4.0	66
28	Low Substrate Loading Limits Methanogenesis and Leads to High Coulombic Efficiency in Bioelectrochemical Systems. Microorganisms, 2016, 4, 7.	1.6	63
29	Influence of the thickness of the capacitive layer on the performance of bioanodes in Microbial Fuel Cells. Journal of Power Sources, 2013, 243, 611-616.	4.0	59
30	Heat-Treated Stainless Steel Felt as a New Cathode Material in a Methane-Producing Bioelectrochemical System. ACS Sustainable Chemistry and Engineering, 2017, 5, 11346-11353.	3.2	59
31	Electron Storage in Electroactive Biofilms. Trends in Biotechnology, 2021, 39, 34-42.	4.9	56
32	Performance of a scaled-up Microbial Fuel Cell with iron reduction as the cathode reaction. Journal of Power Sources, 2011, 196, 7572-7577.	4.0	55
33	High rate copper and energy recovery in microbial fuel cells. Frontiers in Microbiology, 2015, 6, 527.	1.5	55
34	Combination of bioelectrochemical systems and electrochemical capacitors: Principles, analysis and opportunities. Biotechnology Advances, 2020, 39, 107456.	6.0	55
35	Theory of ion transport with fast acid-base equilibrations in bioelectrochemical systems. Physical Review E, 2014, 90, 013302.	0.8	51
36	Quantification of bio-anode capacitance in bioelectrochemical systems using Electrochemical Impedance Spectroscopy. Journal of Power Sources, 2018, 400, 533-538.	4.0	50

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37	Granular Carbon-Based Electrodes as Cathodes in Methane-Producing Bioelectrochemical Systems. Frontiers in Bioengineering and Biotechnology, 2018, 6, 78.	2.0	48
38	Steady-state performance and chemical efficiency of Microbial Electrolysis Cells. International Journal of Hydrogen Energy, 2013, 38, 7201-7208.	3.8	46
39	Analysis of bio-anode performance through electrochemical impedance spectroscopy. Bioelectrochemistry, 2015, 106, 64-72.	2.4	45
40	Competition between Methanogens and Acetogens in Biocathodes: A Comparison between Potentiostatic and Galvanostatic Control. International Journal of Molecular Sciences, 2017, 18, 204.	1.8	42
41	Membrane Selectivity Determines Energetic Losses for Ion Transport in Bioelectrochemical Systems. ChemistrySelect, 2017, 2, 3462-3470.	0.7	38
42	Bacteria as an Electron Shuttle for Sulfide Oxidation. Environmental Science and Technology Letters, 2018, 5, 495-499.	3.9	37
43	Hydrogen as electron donor for copper removal in bioelectrochemical systems. International Journal of Hydrogen Energy, 2016, 41, 5758-5764.	3.8	35
44	Investigating bacterial community changes and organic substrate degradation in microbial fuel cells operating on real human urine. Environmental Science: Water Research and Technology, 2017, 3, 897-904.	1.2	34
45	Heat potential, generation, recovery and utilization from composting: A review. Resources, Conservation and Recycling, 2021, 175, 105850.	5.3	34
46	Inâ€…situ Biofilm Quantification in Bioelectrochemical Systems by using Optical Coherence Tomography. ChemSusChem, 2018, 11, 2171-2178.	3.6	30
47	Anaerobic biological fermentation of urine as a strategy to enhance the performance of a microbial electrolysis cell (MEC). Renewable Energy, 2019, 139, 936-943.	4.3	29
48	Haloalkaliphilic microorganisms assist sulfide removal in a microbial electrolysis cell. Journal of Hazardous Materials, 2019, 363, 197-204.	6.5	29
49	Considerations for application of granular activated carbon as capacitive bioanode in bioelectrochemical systems. Renewable Energy, 2020, 157, 782-792.	4.3	29
50	Biologically enhanced hydrogen sulfide absorption from sour gas under haloalkaline conditions. Journal of Hazardous Materials, 2020, 383, 121104.	6.5	28
51	Microbial Rechargeable Battery: Energy Storage and Recovery through Acetate. Environmental Science and Technology Letters, 2016, 3, 144-149.	3.9	27
52	Minimal Bipolar Membrane Cell Configuration for Scaling Up Ammonium Recovery. ACS Sustainable Chemistry and Engineering, 2020, 8, 17359-17367.	3.2	26
53	Electrochemical and microbiological characterization of single carbon granules in a multi-anode microbial fuel cell. Journal of Power Sources, 2019, 435, 126514.	4.0	25
54	Redox-flow battery design for a methane-producing bioelectrochemical system. International Journal of Hydrogen Energy, 2019, 44, 21464-21469.	3.8	23

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55	Donnan Dialysis for scaling mitigation during electrochemical ammonium recovery from complex wastewater. Water Research, 2021, 201, 117260.	5.3	21
56	Prototype of a scaledâ€up microbial fuel cell for copper recovery. Journal of Chemical Technology and Biotechnology, 2017, 92, 2817-2824.	1.6	20
57	Influence of carbon anode properties on performance and microbiome of Microbial Electrolysis Cells operated on urine. Electrochimica Acta, 2018, 267, 122-132.	2.6	20
58	Competition of electrogens with methanogens for hydrogen in bioanodes. Water Research, 2020, 170, 115292.	5.3	20
59	The concept of load ratio applied to bioelectrochemical systems for ammonia recovery. Journal of Chemical Technology and Biotechnology, 2019, 94, 2055-2061.	1.6	19
60	Theory of Ion and Electron Transport Coupled with Biochemical Conversions in an Electroactive Biofilm. Physical Review Applied, 2019, 12, .	1.5	18
61	Exploiting Donnan Dialysis to enhance ammonia recovery in an electrochemical system. Chemical Engineering Journal, 2020, 395, 125143.	6.6	18
62	3D biofilm visualization and quantification on granular bioanodes with magnetic resonance imaging. Water Research, 2019, 167, 115059.	5.3	17
63	Feasibility Study on Electrochemical Impedance Spectroscopy for Microbial Fuel Cells: Measurement Modes & Data Validation. ECS Transactions, 2008, 13, 27-41.	0.3	16
64	The granular capacitive moving bed reactor for the scale up of bioanodes. Journal of Chemical Technology and Biotechnology, 2019, 94, 2738-2748.	1.6	16
65	Gas-permeable hydrophobic membranes enable transport of CO₂ and NH₃ to improve performance of bioelectrochemical systems. Environmental Science: Water Research and Technology, 2016, 2, 743-748.	1.2	13
66	Mixed Culture Biocathodes for Production of Hydrogen, Methane, and Carboxylates. Advances in Biochemical Engineering/Biotechnology, 2017, 167, 203-229.	0.6	12
67	Microbial reduction of organosulfur compounds at cathodes in bioelectrochemical systems. Environmental Science and Ecotechnology, 2020, 1, 100009.	6.7	12
68	Screening for electrical conductivity in anaerobic granular sludge from full-scale wastewater treatment reactors. Biochemical Engineering Journal, 2020, 159, 107575.	1.8	10
69	The effect of intermittent anode potential regimes on the morphology and extracellular matrix composition of electro-active bacteria. Biofilm, 2022, 4, 100064.	1.5	10
70	Application of ammonium fertilizers recovered by an Electrochemical System. Resources, Conservation and Recycling, 2022, 181, 106225.	5.3	10
71	Methane-Dependent Extracellular Electron Transfer at the Bioanode by the Anaerobic Archaeal Methanotroph â€œCandidatus Methanoperedensâ€. Frontiers in Microbiology, 2022, 13, 820989.	1.5	10
72	Gas diffusion electrodes improve hydrogen gas mass transfer for a hydrogen oxidizing bioanode. Journal of Chemical Technology and Biotechnology, 2017, 92, 2963-2968.	1.6	9

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73	Theory of transport and recovery in microbial electrosynthesis of acetate from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si10.svg"><mml:msub><mml:mrow><mml:mi mathvariant="normal">CO</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>. Electrochimica Acta, 2021, 379, 138029.	2.6	9
74	Effect of process conditions on the performance of a dual-reactor biodesulfurization process. Journal of Environmental Chemical Engineering, 2021, 9, 106450.	3.3	9
75	Continuous electron shuttling by sulfide oxidizing bacteria as a novel strategy to produce electric current. Journal of Hazardous Materials, 2022, 424, 127358.	6.5	8
76	Comparison of Two Sustainable Counter Electrodes for Energy Storage in the Microbial Rechargeable Battery. ChemElectroChem, 2019, 6, 2464-2473.	1.7	6
77	Bioelectrochemistry for flexible control of biological processes. Environmental Science and Ecotechnology, 2020, 1, 100011.	6.7	6
78	Real-time monitoring of biofilm thickness allows for determination of acetate limitations in bio-anodes. Bioresource Technology Reports, 2022, 18, 101028.	1.5	6
79	Resource Recovery From Wastes and Wastewaters Using Bioelectrochemical Systems. , 2018, , 535-570.		5
80	Wood Degradation by Thermotolerant and Thermophilic Fungi for Sustainable Heat Production. ACS Sustainable Chemistry and Engineering, 2016, 4, 6355-6361.	3.2	4
81	Making the best use of capacitive current: Comparison between fixed and moving granular bioanodes. Journal of Power Sources, 2021, 489, 229453.	4.0	4
82	Opportunities for visual techniques to determine characteristics and limitations of electro-active biofilms. Biotechnology Advances, 2022, 60, 108011.	6.0	4
83	Improving the discharge of capacitive granules in a moving bed reactor. Journal of Environmental Chemical Engineering, 2021, 9, 105556.	3.3	3
84	Reduced overpotential of methane-producing biocathodes: Effect of current and electrode storage capacity. Bioresource Technology, 2022, 347, 126650.	4.8	3
85	An acidâ€doped ice membrane for selective proton transport. International Journal of Energy Research, 2021, 45, 8041-8048.	2.2	2
86	Urine Addition as a Nutrient Source for Biological Wood Oxidation at 40 Â°C. ACS Sustainable Chemistry and Engineering, 2020, 8, 17079-17087.	3.2	2
87	Bio-electrochemical degradability of prospective wastewaters to determine their ammonium recovery potential. Sustainable Energy Technologies and Assessments, 2021, 47, 101423.	1.7	0