

Peter Bakonyi

List of Publications by Year in descending order

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106
papers

5,024
citations

81743

39
h-index

98622

67
g-index

107
all docs

107
docs citations

107
times ranked

4542
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of dilute acid, alkali and hydrothermal pretreatments on methane improvement from date palm waste – Takaroucht cultivar. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 2067-2077.	2.9	7
2	Regulation and augmentation of anaerobic digestion processes via the use of bioelectrochemical systems. <i>Bioresource Technology</i> , 2022, 346, 126628.	4.8	20
3	Managing the Effluents of Anaerobic Fermentations by Bioprocess Schemes Involving Membrane Bioreactors and Bio-Electrochemical Systems: A Mini-Review. <i>Energies</i> , 2022, 15, 1643.	1.6	1
4	Feasibility study of polyetherimide membrane for enrichment of carbon dioxide from synthetic biohydrogen mixture and subsequent utilization scenario using microalgae. <i>International Journal of Energy Research</i> , 2021, 45, 8327-8334.	2.2	3
5	Evaluation and ranking of polymeric ion exchange membranes used in microbial electrolysis cells for biohydrogen production. <i>Bioresource Technology</i> , 2021, 319, 124182.	4.8	8
6	Comparative Evaluation of CO ₂ Fixation of Microalgae Strains at Various CO ₂ Aeration Conditions. <i>Waste and Biomass Valorization</i> , 2021, 12, 2999-3007.	1.8	10
7	Investigating the Proton and Ion Transfer Properties of Supported Ionic Liquid Membranes Prepared for Bioelectrochemical Applications Using Hydrophobic Imidazolium-Type Ionic Liquids. <i>Membranes</i> , 2021, 11, 359.	1.4	3
8	The influential role of external electrical load in microbial fuel cells and related improvement strategies: A review. <i>Bioelectrochemistry</i> , 2021, 140, 107749.	2.4	27
9	Efficiency, operational stability and biofouling of novel sulfomethylated polystyrene-block-poly(ethylene-ran-butylene)-block-polystyrene cation exchange membrane in microbial fuel cells. <i>Bioresource Technology</i> , 2021, 333, 125153.	4.8	12
10	Relative evaluation of acid, alkali, and hydrothermal pretreatment influence on biochemical methane potential of date biomass. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106031.	3.3	20
11	Demonstration of bipolar membrane electrodialysis technique for itaconic acid recovery from real fermentation effluent of <i>Aspergillus terreus</i> . <i>Chemical Engineering Research and Design</i> , 2021, 175, 348-357.	2.7	9
12	Treatment of dark fermentative H ₂ production effluents by microbial fuel cells: A tutorial review on promising operational strategies and practices. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 5556-5569.	3.8	10
13	Carbohydrate to Itaconic Acid Conversion by <i>Aspergillus terreus</i> and the Evaluation of Process Monitoring Based on the Measurement of CO ₂ . <i>Waste and Biomass Valorization</i> , 2020, 11, 1069-1075.	1.8	6
14	Electrochemical and microbiological insights into the use of 1,4-diazabicyclo[2.2.2]octane-functionalized anion exchange membrane in microbial fuel cell: A benchmarking study with Nafion. <i>Separation and Purification Technology</i> , 2020, 237, 116478.	3.9	15
15	Possibilities for the biologically-assisted utilization of CO ₂ -rich gaseous waste streams generated during membrane technological separation of biohydrogen. <i>Journal of CO₂ Utilization</i> , 2020, 36, 231-243.	3.3	20
16	Separation of Volatile Fatty Acids from Model Anaerobic Effluents Using Various Membrane Technologies. <i>Membranes</i> , 2020, 10, 252.	1.4	21
17	The Impact of Various Natural Gas Contaminant Exposures on CO ₂ /CH ₄ Separation by a Polyimide Membrane. <i>Membranes</i> , 2020, 10, 324.	1.4	19
18	Investigation of Itaconic Acid Separation by Operating a Commercialized Electrodialysis Unit with Bipolar Membranes. <i>Processes</i> , 2020, 8, 1031.	1.3	3

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19	Effect of shear velocity on dark fermentation for biohydrogen production using dynamic membrane. <i>Bioresource Technology</i> , 2020, 308, 123265.	4.8	15
20	Development and Application of Supported Ionic Liquid Membranes in Microbial Fuel Cell Technology: A Concise Overview. <i>Membranes</i> , 2020, 10, 16.	1.4	31
21	Enhancement of dark fermentative H ₂ production by gas separation membranes: A review. <i>Bioresource Technology</i> , 2020, 302, 122828.	4.8	27
22	Feasibility of quaternary ammonium and 1,4-diazabicyclo[2.2.2]octane-functionalized anion-exchange membranes for biohydrogen production in microbial electrolysis cells. <i>Bioelectrochemistry</i> , 2020, 133, 107479.	2.4	9
23	Investigating the specific role of external load on the performance versus stability trade-off in microbial fuel cells. <i>Bioresource Technology</i> , 2020, 309, 123313.	4.8	32
24	Evaluating aeration and stirring effects to improve itaconic acid production from glucose using <i>Aspergillus terreus</i> . <i>Biotechnology Letters</i> , 2019, 41, 1383-1389.	1.1	12
25	Anaerobic membrane bioreactor towards biowaste biorefinery and chemical energy harvest: Recent progress, membrane fouling and future perspectives. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 115, 109392.	8.2	103
26	Behavior of two-chamber microbial electrochemical systems started-up with different ion-exchange membrane separators. <i>Bioresource Technology</i> , 2019, 278, 279-286.	4.8	29
27	Electro-conversion of carbon dioxide (CO ₂) to low-carbon methane by bioelectromethanogenesis process in microbial electrolysis cells: The current status and future perspective. <i>Bioresource Technology</i> , 2019, 279, 339-349.	4.8	88
28	Biofouling of membranes in microbial electrochemical technologies: Causes, characterization methods and mitigation strategies. <i>Bioresource Technology</i> , 2019, 279, 327-338.	4.8	71
29	Optimization of soaking in aqueous ammonia pretreatment for anaerobic digestion of African maize bran. <i>Fuel</i> , 2019, 253, 552-560.	3.4	16
30	Trends and resource recovery in biological wastewater treatment system. <i>Bioresource Technology Reports</i> , 2019, 7, 100235.	1.5	46
31	Carbon dioxide capture and bioenergy production using biological system – A review. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 110, 143-158.	8.2	152
32	Optimized pH and Its Control Strategy Lead to Enhanced Itaconic Acid Fermentation by <i>Aspergillus terreus</i> on Glucose Substrate. <i>Fermentation</i> , 2019, 5, 31.	1.4	14
33	A comprehensive review on thermochemical, biological, biochemical and hybrid conversion methods of bio-derived lignocellulosic molecules into renewable fuels. <i>Fuel</i> , 2019, 251, 352-367.	3.4	111
34	Leachate valorization in anaerobic biosystems: Towards the realization of waste-to-energy concept via biohydrogen, biogas and bioelectrochemical processes. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 17278-17296.	3.8	16
35	A review on chemical mechanism of microalgae flocculation via polymers. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2019, 21, e00302.	2.1	64
36	Supported ionic liquid membrane based on [bmim][PF ₆] can be a promising separator to replace Nafion in microbial fuel cells and improve energy recovery: A comparative process evaluation. <i>Journal of Membrane Science</i> , 2019, 570-571, 215-225.	4.1	39

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37	Effects of light intensity on biomass, carbohydrate and fatty acid compositions of three different mixed consortia from natural ecological water bodies. <i>Journal of Environmental Management</i> , 2019, 230, 293-300.	3.8	16
38	Evaluation of pectin-reinforced supported liquid membranes containing carbonic anhydrase: The role of ionic liquid on enzyme stability and CO ₂ separation performance. <i>Journal of CO₂ Utilization</i> , 2018, 24, 59-63.	3.3	17
39	Microbial electrohydrogenesis linked to dark fermentation as integrated application for enhanced biohydrogen production: A review on process characteristics, experiences and lessons. <i>Bioresource Technology</i> , 2018, 251, 381-389.	4.8	68
40	Development of bioelectrochemical systems using various biogas fermenter effluents as inocula and municipal waste liquor as adapting substrate. <i>Bioresource Technology</i> , 2018, 259, 75-82.	4.8	31
41	Evaluation of a membrane permeation system for biogas upgrading using model and real gaseous mixtures: The effect of operating conditions on separation behaviour, methane recovery and process stability. <i>Journal of Cleaner Production</i> , 2018, 185, 44-51.	4.6	32
42	Continuous biogenic hydrogen production from dilute acid pretreated algal hydrolysate using hybrid immobilized mixed consortia. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 11452-11459.	3.8	21
43	Evaluation of gradual adaptation of mixed microalgae consortia cultivation using textile wastewater via fed batch operation. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2018, 20, e00289.	2.1	26
44	Assessment via the modified gompertz-model reveals new insights concerning the effects of ionic liquids on biohydrogen production. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18918-18924.	3.8	25
45	A review of the innovative gas separation membrane bioreactor with mechanisms for integrated production and purification of biohydrogen. <i>Bioresource Technology</i> , 2018, 270, 643-655.	4.8	33
46	Improvement of waste-fed bioelectrochemical system performance by selected electro-active microbes: Process evaluation and a kinetic study. <i>Biochemical Engineering Journal</i> , 2018, 137, 100-107.	1.8	17
47	Architectural engineering of bioelectrochemical systems from the perspective of polymeric membrane separators: A comprehensive update on recent progress and future prospects. <i>Journal of Membrane Science</i> , 2018, 564, 508-522.	4.1	63
48	Anaerobic membrane bioreactors for biohydrogen production: Recent developments, challenges and perspectives. <i>Bioresource Technology</i> , 2018, 269, 452-464.	4.8	100
49	Temporary feeding shocks increase the productivity in a continuous biohydrogen-producing reactor. <i>Clean Technologies and Environmental Policy</i> , 2018, 20, 1581-1588.	2.1	14
50	Improvement of hydrogen fermentation of galactose by combined inoculation strategy. <i>Journal of Bioscience and Bioengineering</i> , 2017, 123, 353-357.	1.1	17
51	Enzyme kinetics approach to assess biocatalyst inhibition and deactivation caused by [bmim][Cl] ionic liquid during cellulose hydrolysis. <i>Bioresource Technology</i> , 2017, 229, 190-195.	4.8	20
52	Municipal waste liquor treatment via bioelectrochemical and fermentation (H ₂ +CH ₄) processes: Assessment of various technological sequences. <i>Chemosphere</i> , 2017, 171, 692-701.	4.2	50
53	A novel gas separation integrated membrane bioreactor to evaluate the impact of self-generated biogas recycling on continuous hydrogen fermentation. <i>Applied Energy</i> , 2017, 190, 813-823.	5.1	64
54	Evaluation of various cheese whey treatment scenarios in single-chamber microbial electrolysis cells for improved biohydrogen production. <i>Chemosphere</i> , 2017, 174, 253-259.	4.2	43

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55	Microbiome involved in microbial electrochemical systems (MESs): A review. <i>Chemosphere</i> , 2017, 177, 176-188.	4.2	72
56	Bioelectrochemical systems using microalgae – A concise research update. <i>Chemosphere</i> , 2017, 177, 35-43.	4.2	88
57	Performance evaluation of microbial electrochemical systems operated with Nafion and supported ionic liquid membranes. <i>Chemosphere</i> , 2017, 175, 350-355.	4.2	40
58	On the efficiency of dual-chamber biocatalytic electrochemical cells applying membrane separators prepared with imidazolium-type ionic liquids containing [NTf ₂] ⁻ and [PF ₆] ⁻ anions. <i>Chemical Engineering Journal</i> , 2017, 324, 296-302.	6.6	27
59	Research perspectives on constraints, prospects and opportunities in biohydrogen production. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 27471-27481.	3.8	85
60	A review on the biomass pretreatment and inhibitor removal methods as key-steps towards efficient macroalgae-based biohydrogen production. <i>Bioresource Technology</i> , 2017, 244, 1341-1348.	4.8	79
61	Continuous micro-current stimulation to upgrade methanolic wastewater biodegradation and biomethane recovery in an upflow anaerobic sludge blanket (UASB) reactor. <i>Chemosphere</i> , 2017, 180, 229-238.	4.2	33
62	A comprehensive overview on electro-active biofilms, role of exo-electrogens and their microbial niches in microbial fuel cells (MFCs). <i>Chemosphere</i> , 2017, 178, 534-547.	4.2	146
63	H ₂ production in membraneless bioelectrochemical cells with optimized architecture: The effect of cathode surface area and electrode distance. <i>Chemosphere</i> , 2017, 171, 379-385.	4.2	16
64	Microbial electrochemical systems for sustainable biohydrogen production: Surveying the experiences from a start-up viewpoint. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 70, 589-597.	8.2	79
65	Improvement of methane content in a hydrogenotrophic anaerobic digester via the proper operation of membrane module integrated into an external-loop. <i>Bioresource Technology</i> , 2017, 245, 1294-1298.	4.8	17
66	Microbial electrolysis cell platform for simultaneous waste biorefinery and clean electrofuels generation: Current situation, challenges and future perspectives. <i>Progress in Energy and Combustion Science</i> , 2017, 63, 119-145.	15.8	137
67	Mixed-culture H ₂ fermentation performance and the relation between microbial community composition and hydraulic retention times for a fixed bed reactor fed with galactose/glucose mixtures. <i>Journal of Bioscience and Bioengineering</i> , 2017, 124, 339-345.	1.1	5
68	Enhancement of methane production from various microalgae cultures via novel ozonation pretreatment. <i>Chemical Engineering Journal</i> , 2017, 307, 948-954.	6.6	51
69	Anaerobic co-digestion on improving methane production from mixed microalgae (<i>Scenedesmus</i> sp.,) Tj ETQq1 1 0.784314 rgBT /Over <i>Engineering Journal</i> , 2016, 299, 332-341.	6.6	172
70	Corrigendum to “Enhancement of biofuel production via microbial augmentation: The case of dark fermentative hydrogen” [Renew Sustain Energy Rev 57 (2016) 879–891]. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 66, 220.	8.2	0
71	Recovery of biohydrogen in a single-chamber microbial electrohydrogenesis cell using liquid fraction of pressed municipal solid waste (LPW) as substrate. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 17896-17906.	3.8	41
72	Enzymatically-boosted ionic liquid gas separation membranes using carbonic anhydrase of biomass origin. <i>Chemical Engineering Journal</i> , 2016, 303, 621-626.	6.6	34

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73	Investigating the effect of hydrogen sulfide impurities on the separation of fermentatively produced hydrogen by PDMS membrane. <i>Separation and Purification Technology</i> , 2016, 157, 222-228.	3.9	18
74	A critical review on issues and overcoming strategies for the enhancement of dark fermentative hydrogen production in continuous systems. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 3820-3836.	3.8	194
75	Enhancement of biofuel production via microbial augmentation: The case of dark fermentative hydrogen. <i>Renewable and Sustainable Energy Reviews</i> , 2016, 57, 879-891.	8.2	108
76	Biomethane recovery from <i>Egeria densa</i> in a microbial electrolysis cell-assisted anaerobic system: Performance and stability assessment. <i>Chemosphere</i> , 2016, 149, 121-129.	4.2	36
77	Effects of anti-foaming agents on biohydrogen production. <i>Bioresource Technology</i> , 2016, 213, 121-128.	4.8	11
78	Promoted electromethanogenesis in a two-chamber microbial electrolysis cells (MECs) containing a hybrid biocathode covered with graphite felt (GF). <i>Chemical Engineering Journal</i> , 2016, 284, 1146-1155.	6.6	119
79	Bioelectrochemical treatment of municipal waste liquor in microbial fuel cells for energy valorization. <i>Journal of Cleaner Production</i> , 2016, 112, 4406-4412.	4.6	91
80	Biogenic H ₂ production from mixed microalgae biomass: impact of pH control and methanogenic inhibitor (BESA) addition. <i>Biofuel Research Journal</i> , 2016, 3, 470-474.	7.2	27
81	Hydrogen production in a microbial electrolysis cell fed with a dark fermentation effluent. <i>Journal of Applied Electrochemistry</i> , 2015, 45, 1223-1229.	1.5	71
82	Comparison of Anaerobic Degradation Processes for Bioenergy Generation from Liquid Fraction of Pressed Solid Waste. <i>Waste and Biomass Valorization</i> , 2015, 6, 465-473.	1.8	27
83	Degradation of hydrogen sulfide by immobilized <i>Thiobacillus thioparus</i> in continuous biotrickling reactor fed with synthetic gas mixture. <i>International Biodeterioration and Biodegradation</i> , 2015, 105, 185-191.	1.9	29
84	Lignocellulose biohydrogen: Practical challenges and recent progress. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 44, 728-737.	8.2	244
85	Solvent-free enzymatic process for biolubricant production in continuous microfluidic reactor. <i>Journal of Cleaner Production</i> , 2015, 93, 140-144.	4.6	33
86	Enhanced biohydrogen production from beverage industrial wastewater using external nitrogen sources and bioaugmentation with facultative anaerobic strains. <i>Journal of Bioscience and Bioengineering</i> , 2015, 120, 155-160.	1.1	61
87	Simultaneous biohydrogen production and purification in a double-membrane bioreactor system. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 1690-1697.	3.8	64
88	Modeling and Optimization of Biohydrogen Production from De-oiled <i>Jatropha</i> Using the Response Surface Method. <i>Arabian Journal for Science and Engineering</i> , 2015, 40, 15-22.	1.1	28
89	The Effect of Different Pretreatment Methods and Operational Conditions on the Biohydrogen Production Potential of Aged Anaerobic Culture. <i>Current Biochemical Engineering</i> , 2014, 1, 84-91.	1.3	0
90	Separation of Gases Using Membranes Containing Ionic Liquids. , 2014, , 261-273.		7

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91	Fermentative hydrogen production by conventionally and unconventionally heat pretreated seed cultures: A comparative assessment. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 5589-5596.	3.8	36
92	Review on the start-up experiences of continuous fermentative hydrogen producing bioreactors. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 40, 806-813.	8.2	108
93	Hydrogen and ethanol fermentation of various carbon sources by immobilized <i>Escherichia coli</i> (XL1-Blue). <i>International Journal of Hydrogen Energy</i> , 2014, 39, 6881-6888.	3.8	35
94	Fermentative hydrogen production in anaerobic membrane bioreactors: A review. <i>Bioresource Technology</i> , 2014, 156, 357-363.	4.8	81
95	Hydrogen and methane production via a two-stage processes (H ₂ -SBR+ACH 4-UASB) using tequila vinasses. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 19249-19255.	3.8	93
96	Biohydrogen purification by membranes: An overview on the operational conditions affecting the performance of non-porous, polymeric and ionic liquid based gas separation membranes. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 9673-9687.	3.8	136
97	Evaluation of two gas membrane modules for fermentative hydrogen separation. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 14042-14052.	3.8	54
98	Biohydrogen purification using a commercial polyimide membrane module: Studying the effects of some process variables. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 15092-15099.	3.8	55
99	Feasibility Study of Gas Separation Membranes for Biohydrogen Separation. <i>Procedia Engineering</i> , 2012, 44, 976-979.	1.2	1
100	Fermentative hydrogen production from wastewaters: A review and prognosis. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 15632-15642.	3.8	259
101	Comparative Study of Various <i>E. coli</i> Strains for Biohydrogen Production Applying Response Surface Methodology. <i>Scientific World Journal</i> , The, 2012, 2012, 1-7.	0.8	7
102	<i>Escherichia coli</i> (XL1-BLUE) for continuous fermentation of bioH ₂ and its separation by polyimide membrane. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 5623-5630.	3.8	28
103	Application of Plackett-Burman experimental design to optimize biohydrogen fermentation by <i>E. coli</i> (XL1-BLUE). <i>International Journal of Hydrogen Energy</i> , 2011, 36, 13949-13954.	3.8	40
104	Biohydrogen production in integrated system. <i>Desalination and Water Treatment</i> , 2010, 14, 116-118.	1.0	7
105	Integration of Membranes and Bioreactors. , 0, , .		1
106	Improved microbial conversion of de-oiled <i>Jatropha</i> waste into biohydrogen via inoculum pretreatment: process optimization by experimental design approach. <i>Biofuel Research Journal</i> , 0, , 209-214.	7.2	46