

Nandor Nemestothy

List of Publications by Year in descending order

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105
papers

3,745
citations

126708

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h-index

138251

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105
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105
docs citations

105
times ranked

3705
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Functional stability of novel homogeneous and heterogeneous cation exchange membranes for abiotic and microbial electrochemical technologies. <i>Journal of Membrane Science</i> , 2022, 658, 120705.	4.1	6
3	Studying microbial fuel cells equipped with heterogeneous ion exchange membranes: Electrochemical performance and microbial community assessment of anodic and membrane-surface biofilms. <i>Bioresource Technology</i> , 2022, 360, 127628.	4.8	5
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	Low-waste fermentation-derived organic acid production by bipolar membrane electrodialysis—an overview. <i>Chemical Papers</i> , 2021, 75, 5223-5234.	1.0	20
9	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
10	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
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	Directions of membrane separator development for microbial fuel cells: A retrospective analysis using frequent itemset mining and descriptive statistical approach. <i>Journal of Power Sources</i> , 2020, 478, 229014.	4.0	12
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	Application of polymer membranes in downstream processes. <i>ChemistrySelect</i> , 2020, 5, .	0.7	0
25	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
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	Biofouling of membranes in microbial electrochemical technologies: Causes, characterization methods and mitigation strategies. <i>Bioresource Technology</i> , 2019, 279, 327-338.	4.8	71
28	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
29	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
30	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
31	A review on chemical mechanism of microalgae flocculation via polymers. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2019, 21, e00302.	2.1	64
32	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
33	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
34	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
35	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
36	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

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37	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
38	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
39	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
40	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
41	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
42	Coupled Systems Based on Microbial Fuel Cells. , 2018, , 423-431.		0
43	Recovery of Itaconic Acid by Electrodialysis. <i>Hungarian Journal of Industrial Chemistry</i> , 2018, 46, 43-46.	0.1	6
44	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
45	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
46	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
47	Bioelectrochemical systems using microalgae – A concise research update. <i>Chemosphere</i> , 2017, 177, 35-43.	4.2	88
48	Performance evaluation of microbial electrochemical systems operated with Nafion and supported ionic liquid membranes. <i>Chemosphere</i> , 2017, 175, 350-355.	4.2	40
49	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
50	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
51	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
52	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
53	A novel miniaturized terrestrial microbial fuel cell reveals rapid electrochemical signals. <i>Energy Procedia</i> , 2017, 142, 1482-1487.	1.8	2
54	The Role of Biocatalysis and Membrane Techniques in Processing High-Pectin Content Food Stuffs and Wastes. , 2017, , 277-292.		1

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55	Corrigendum to "Enhancement of biofuel production via microbial augmentation: The case of dark fermentative hydrogen" [Renew Sustain Energy Rev 57 (2016) 879-891]. Renewable and Sustainable Energy Reviews, 2016, 66, 220.	8.2	0
56	Recovery of biohydrogen in a single-chamber microbial electrohydrogenesis cell using liquid fraction of pressed municipal solid waste (LPW) as substrate. International Journal of Hydrogen Energy, 2016, 41, 17896-17906.	3.8	41
57	Enzymatically-boosted ionic liquid gas separation membranes using carbonic anhydrase of biomass origin. Chemical Engineering Journal, 2016, 303, 621-626.	6.6	34
58	A critical review on issues and overcoming strategies for the enhancement of dark fermentative hydrogen production in continuous systems. International Journal of Hydrogen Energy, 2016, 41, 3820-3836.	3.8	194
59	Enhancement of biofuel production via microbial augmentation: The case of dark fermentative hydrogen. Renewable and Sustainable Energy Reviews, 2016, 57, 879-891.	8.2	108
60	Effects of anti-foaming agents on biohydrogen production. Bioresource Technology, 2016, 213, 121-128.	4.8	11
61	Lipase catalyzed synthesis of glucose palmitate in ionic liquid. Journal of Cleaner Production, 2016, 112, 1106-1111.	4.6	23
62	Bioelectrochemical treatment of municipal waste liquor in microbial fuel cells for energy valorization. Journal of Cleaner Production, 2016, 112, 4406-4412.	4.6	91
63	Biogenic H ₂ production from mixed microalgae biomass: impact of pH control and methanogenic inhibitor (BESA) addition. Biofuel Research Journal, 2016, 3, 470-474.	7.2	27
64	Hydrogen production in a microbial electrolysis cell fed with a dark fermentation effluent. Journal of Applied Electrochemistry, 2015, 45, 1223-1229.	1.5	71
65	Comparison of Anaerobic Degradation Processes for Bioenergy Generation from Liquid Fraction of Pressed Solid Waste. Waste and Biomass Valorization, 2015, 6, 465-473.	1.8	27
66	Degradation of hydrogen sulfide by immobilized Thiobacillus thioautotrophicus in continuous biotrickling reactor fed with synthetic gas mixture. International Biodeterioration and Biodegradation, 2015, 105, 185-191.	1.9	29
67	Lignocellulose biohydrogen: Practical challenges and recent progress. Renewable and Sustainable Energy Reviews, 2015, 44, 728-737.	8.2	244
68	Enhanced biohydrogen production from beverage industrial wastewater using external nitrogen sources and bioaugmentation with facultative anaerobic strains. Journal of Bioscience and Bioengineering, 2015, 120, 155-160.	1.1	61
69	Simultaneous biohydrogen production and purification in a double-membrane bioreactor system. International Journal of Hydrogen Energy, 2015, 40, 1690-1697.	3.8	64
70	Removal of COD by Two-Chamber Microbial Fuel Cells. , 2014, , .		2
71	The Role of Ionic Liquids in Enzyme-Membrane Integrated Systems. , 2014, , 235-259.		1
72	Separation of Gases Using Membranes Containing Ionic Liquids. , 2014, , 261-273.		7

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73	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
74	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
75	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
76	Evaluation of two gas membrane modules for fermentative hydrogen separation. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 14042-14052.	3.8	54
77	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
78	Characterization of pectins from press residues of berries by FT-IR spectroscopy. <i>Acta Alimentaria</i> , 2012, 41, 94-99.	0.3	6
79	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
80	Biotechnological Utilisation of Fusel Oil for Biolubricant Production. , 2012, , .		0
81	<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
82	Study on operation of a microbial fuel cell using mesophilic anaerobic sludge. <i>Desalination and Water Treatment</i> , 2011, 35, 222-226.	1.0	8
83	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
84	Biohydrogen production in integrated system. <i>Desalination and Water Treatment</i> , 2010, 14, 116-118.	1.0	7
85	Gas separation properties of supported liquid membranes prepared with unconventional ionic liquids. <i>Journal of Membrane Science</i> , 2010, 349, 6-11.	4.1	202
86	Utilisation of bipolar electrodialysis for recovery of galacturonic acid. <i>Desalination</i> , 2010, 250, 1128-1131.	4.0	23
87	Application of membranes in biogas production. <i>Desalination and Water Treatment</i> , 2010, 14, 112-115.	1.0	4
88	Application of membranes in biogas production. <i>Desalination and Water Treatment</i> , 2010, , 112-115.	1.0	1
89	Modelling of biohydrogen production and recovery by membrane gas separation. <i>Desalination</i> , 2009, 240, 306-310.	4.0	9
90	Separation of biohydrogen by supported ionic liquid membranes. <i>Desalination</i> , 2009, 240, 311-315.	4.0	76

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91	Vacuum assisted membrane bioreactor for enzymatic hydrolysis of pectin from various agro-wastes. Desalination, 2009, 241, 29-33.	4.0	15
92	Utilization of electrodialysis for galacturonic acid recovery. Desalination, 2009, 241, 81-85.	4.0	18
93	Application of polymeric foams for separation, storage and absorption of hydrogen. Desalination, 2009, 241, 106-110.	4.0	11
94	Pervaporation aided enzymatic production of glycerol monostearate in organic solvents. Desalination, 2009, 241, 212-217.	4.0	17
95	Study on gas separation by supported liquid membranes applying novel ionic liquids. Desalination, 2009, 245, 743-747.	4.0	54
96	Hydrolysis of pectin by <i>Aspergillus niger</i> polygalacturonase in a membrane bioreactor. Journal of Food Engineering, 2007, 78, 438-442.	2.7	53
97	Utilisation of a membrane bioreactor for pectin hydrolysis by <i>Aspergillus niger</i> polygalacturonase. Desalination, 2006, 200, 507-508.	4.0	5
98	Continuous enzymatic cellulose hydrolysis in a tubular membrane bioreactor. Enzyme and Microbial Technology, 2006, 38, 155-161.	1.6	67
99	Enhancement of operation and storage stability of glucoamylase from <i>Aspergillus awamori</i> by a protease inhibitor preparation. Biocatalysis and Biotransformation, 2005, 23, 281-284.	1.1	7
100	A study on applications of membrane techniques in bioconversion of fumaric acid to L-malic acid. Desalination, 2004, 162, 301-306.	4.0	28
101	Influence of pervaporation process parameters on enzymatic catalyst deactivation. Desalination, 2004, 162, 307-313.	4.0	26
102	Enzymatic esterification in ionic liquids integrated with pervaporation for water removal. Green Chemistry, 2003, 5, 236.	4.6	97
103	Membrane bioreactor for utilisation of carbohydrates in waste streams. Desalination, 2002, 149, 329-330.	4.0	8
104	Improved microbial conversion of de-oiled <i>Jatropha</i> waste into biohydrogen via inoculum pretreatment: process optimization by experimental design approach. Biofuel Research Journal, 0, , 209-214.	7.2	46
105	Aerobic stabilization of organic waste effluents from anaerobic treatment for agricultural use. , 0, 192, 424-430.		2